

*A STUDY OF*  
CLASSIC MAYA  
SCULPTURE *By*  
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## Preface

Two important studies in Maya archaeology form the foundation of this book: *A Study of Maya Art: Its Subject Matter and Development*, by Herbert J. Spinden (1913); and Sylvanus G. Morley's *The Inscriptions of Peten* (1937-38). The first established, with notable success, a series of stylistic changes in sculpture at a number of the larger Maya sites; the second provided epigraphic decipherments which permitted the dating of many more monuments in the Peten than was formerly possible. With this much more substantial body of dated material than was available at the time of Spinden's study, we are now able to confirm many of his findings and to elaborate the basis of stylistic appraisal, extending it to all Classic Maya sites. It is because so much reliance has been placed on Morley's epigraphic work that disagreements between his stylistic appraisals and mine have been stressed in this book. This, however, should not be construed as a derogation of his conclusions, which rest primarily on epigraphic sources. Our differences serve only to indicate the need to establish definite and significant style characteristics on which future discussion can be based. This is the principal aim of this study; it would have been futile to pursue it without the collection of epigraphic data and interpretation which Morley's work makes available.

As the reader can see from the list of monuments examined (p. 185), many other published sources have been consulted. Some of the material, on the other hand, has not until now appeared in print. The section on the northern Maya sites is very largely based on information collected by Dr. H. E. D. Pollock in the course of his survey of the archaeology of western Yucatan, on which a report is in preparation. I am indebted to him for the use of his material and for many of the photographs of Yucatan sculpture presented in my illustrations. Mr. Hasso von Winning has very kindly provided a photograph of a splendid piece from Jonuta, of which I had no former knowledge. Dr. E. Wyllys Andrews has put at my disposal his photographs from Yaxcopoil and Mayapan; those from Cansacbe and Kayal are published with the permission of Dr. R. Pavon Abreu. For other photographs I owe my thanks to Mr. Frans

Blom, Mr. Giles G. Healey, the University of Pennsylvania Museum, the American Museum of Natural History, and the Peabody Museum of American Archaeology and Ethnology of Harvard University. Without all these generous contributions it would not have been possible to illustrate many of the observations made.

For the opportunity to undertake and to pursue this study I am primarily grateful to Dr. A. V. Kidder, whose interest in the work has given me constant encouragement. Dr. Kidder also read the first draft of the manuscript, corrected numerous errors, and gave many helpful suggestions. It was also a great privilege to receive criticism from Dr. Alfred M. Tozzer, whose many valuable comments have influenced the final presentation of the text. The section on Classic monuments was submitted also to Mr. J. Eric S. Thompson, who gave me help not only with the epigraphic evidence but also with the arrangement of the discussion. Dr. Pollock, who furnished most of the data incorporated in the chapter on northern Maya sites, also read the first draft of this section; from his remarks I received the benefit of his intimate knowledge of the Puuc region and its archaeological problems. Mr. Karl Ruppert and Mr. A. Ledyard Smith very kindly volunteered to test my method of stylistic appraisal by constructing the style graphs for Stela 12 at Naranjo which appear in figure 5, *e, f*. It is not possible to estimate the value of the discussions I have had with these and other colleagues or to trace my indebtedness for many of the ideas which have their source in such discussions. I can only express my sincere thanks to all who have given my efforts their generous interest.

In one other respect, however, my debt is very clear. Miss Kisa Noguchi has made all the line and rendered drawings that are the basis of the analysis forming the core of this book. Her infinite patience and truly remarkable accuracy in rendering Maya designs command my unreserved gratitude and admiration.

TATIANA PROSKOURIAKOFF

December 1949

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## Introduction

### THE MAYA AND THE TOLTEC

The word "Maya" has widely different connotations in various contexts. The dialect of the Huastec is usually classed as "Maya," but their culture is not. Commonly, all groups of people speaking one or another of the Mayance languages with the exception of the Huastec are referred to as "Maya"; this implies a tacit agreement that these groups are culturally related and can be distinguished by the content or the quality of their cultures from other adjacent groups. It is not always clear, however, what is meant by the word "Maya" in reference to culture in pre-Columbian times. Individual cultural traits of the Maya can sometimes be traced back to considerable antiquity, but they cannot be used to draw the cultural frontiers in the past, because they do not correspond to the distinguishing features of archaeological remains. There is infinitely more contrast between the ancient archaeological remains we call "Maya" and those left by modern Maya Indians than between the latter and, for example, modern remains of the Totonac. The same is true if we consider all the elements of culture inferred from remains, particularly if we emphasize intellectual aspects. Certainly the educated Maya Indian of ancient times differed more from the modern Indian than the various Indian groups differ from each other today. Is it possible, then, to define the word "Maya" so that it would distinguish a coherent or continuous cultural process from other cultural processes as we follow them into the past? What sort of connection is implied when we link together by a classificatory term the culture of the builders of Tikal and Copan with the culture of the present-day Lacandon Indians, excluding on the one hand the culture of the Maya-speaking Huastec and on the other, that of the ancient inhabitants of Tajin or Teotihuacan? Rather than abandon the term "Maya," archaeologists have preferred to redefine it when using it in reference to earlier horizons, but there is no accepted practice in its use, and an investigator would do well to state as clearly as he can what he means by the word in relation to his material.

Since there is no monumental sculpture that can

be attributed to the Maya culture of colonial times, it is obvious that in using the word "Maya" to designate a style of the past we are relying on an association of this style with some surviving cultural trait. In this case, we link the style to hieroglyphic writing. Since the Maya calendrical signs recorded by Bishop Landa have been the key to the decipherment of inscriptions on monuments, not only in Yucatan but also in British Honduras, in western Honduras, and in a large part of Guatemala and Chiapas, we feel justified in calling these monuments "Maya" and selecting them as a group for the study of their style. On many of these monuments there are types of calendrical notation known as Initial Series and Period Ending dates, and I shall refer to the group of people who used such notations as the "Classic Maya," to distinguish them both from the Maya who did not erect monuments and from those who, like some groups in Yucatan, used a different calendrical device to fix dates in time. It is up to the reader to choose whether he wishes to regard the Classic Maya as a group comprising all the people living in the area where Classic monuments were erected, or as a group which includes only those who actually participated in the cult that produced them. We do not know how well integrated and how comprehensive Classic Maya culture was, and it is still a question whether any complex civilization can be thought of as a cultural entity, or if it is better conceived as a hierarchy of distinct but related cultures.

The later sculpture at Chichen Itza I have designated as "Toltec" on the basis of its close correspondence to that of Tula, Hidalgo, in motifs, in sculptural forms, and in the articles of clothing and accoutrement depicted. With two exceptions, glyphs of this period at Chichen Itza resemble Mexican rather than Maya signs, and the introduction of new motifs such as the Chacmool, the Eagles and Jaguars motif, and others, justifies a major cultural distinction between the Maya and the people of late Chichen Itza. Maya elements also occur, but I have avoided the use of the term "Maya-Toltec," since I can trace few of these to the Classic monuments with Initial Series inscriptions. They probably stem from peripheral styles in Yucatan, which themselves may

have borrowed traits from outside the Maya area only shortly before the Toltec period.

#### MATERIAL COVERED

This study deals most particularly with Maya stelae—independent upright monuments, often approximately rectangular, and bearing Maya inscriptions. Monuments that do not have inscriptions are designated as Maya only when they occur in the same region with those that do and are stylistically related to them. A number of altars, lintels, jambs, wall panels, and columns, which express motifs very similar to those of the stelae, have also been included, and for the purposes of this study, the Leyden Plate, a small jade ornament, has been considered with the monuments because it depicts a figure typical of stela design and because it is peculiarly important since it has the earliest known Maya inscription.

This selection excludes many artistic manifestations and representations, as for example those on mural paintings, on architectural ornament, on small carvings, and on pottery and figurines. Many changes observed on sculpture are probably also reflected in the styles of other media, and a much more valid appraisal of the entire artistic complex of the Maya culture would result from a simultaneous study of all artistic modes. Each medium, however, each motif and each form has also its own influence on style. The consideration of only the dominant monumental motif permits a more detailed examination of artistic trends than is otherwise practicable.

Even a cursory glance shows a preponderance of motif in which a single human figure is dominant. One can also perceive a salient physical type, naturalistically expressed, and a recurrence, in various combinations, of certain articles of dress and accoutrement and certain symbolic forms. Moreover, if one separates from this mass of material those monuments whose compositions present scenes or group arrangements without emphasis on a central or clearly principal figure, and those which show other strong peculiarities or rare articles of dress, one sees that their occurrence is concentrated on the periphery of the area, most strongly in northern Yucatan, where Initial Series and Period Ending dates are rare. This is the basis of the designation of a nuclear Classic style or culture, as distinct from peripheral variants. The Classic style may also have a focus or foci in time, for most of the sharply differentiated monuments appear at the beginning of the series (Stela 5, Uaxactun) or near its end (Stela 1, Comitan).

In this report, I am not prepared to give a more precise definition of the Classic Maya style. To do so adequately, one would have to make a comprehensive study of the objects it portrays, of its ideal subjects—scenes, symbols, abstractions—of its techniques and its aesthetic qualities, and to relate them all to the totality of Maya culture. For the present, we must rely on the general observation that the Classic Maya style, as I have defined it, has sufficient coherence to be regarded, if not as a clearly delimited entity, at least as a focus around which material can be tentatively arranged.

#### AIM OF STUDY

The primary purpose of this study is to examine variations in the Classic monumental style, which would furnish clues to the relative dates of the execution of individual monuments, and to discover, if possible, progressive changes which characterize the development of typical Classic Maya forms depicted on stelae.

Originally, the work was undertaken with the specific aim of resolving disagreements that had arisen in regard to the dates of erection of certain monuments. Judgments based on stylistic considerations differed sharply, and it was thought that systematic examination of the known distribution in time of articles of dress, motifs, and designs of exact date might show types which were in fashion at a given time, and furnish more precise criteria for judgment of chronology. At the outset, it was my deliberate intention to avoid all consideration of aesthetic values, and even of artistic qualities or mannerisms, which are intrinsically difficult to define; but this approach proved inadequate. The elaborate costumes depicted on Maya stelae provided a rich selection of motifs for study, but as the work progressed, it became obvious that most of the motifs were of ancient origin. Their chronological distribution, with very few exceptions, could not be used to place monuments in time, except perhaps in very restricted areas, and in themselves these areas did not furnish enough material for distribution charts on which one could rely. Criteria based on the occurrence of certain designs or motifs could be used only to define the Classic Maya style as a whole or, at best, its two major periods. The more comprehensive and more sensitive changes were found to lie not in the selection of definable forms or motifs, but in the artist's approach to his subject, in the direction of his attention, and in the stress he imparted to that

which interested him in the design. In other words, the significant change was in the artist, not in the subject of his art. The Maya priest or potentate, whose power and prestige no doubt rested in large measure on the antiquity of the religious ritual, had reason to preserve intact the costume and insignia associated from ancient times with his office and his gods. The artist, on the other hand, had to rely in his work on the affective qualities of novelty, and to achieve a proper balance between the traditional and the new to win appreciation of his work. Constantly subject to the competition of his contemporaries, and to the influences of his immediate predecessors who trained him, he incorporated in his work the gradually accumulated experiences of his profession, enhancing the result by newly discovered techniques, new methods of producing effects by lines and arrangement, new mannerisms, and new habits of draftsmanship. With the growth of centers of culture, the status of his profession probably changed, and with it also the intellectual tenor of his life, the degree of his specialization, and the intensity of his absorption in the purely artistic aspects of his work. As we follow consecutively the variations of a single motif, we can detect fairly consistent changes in the manner in which it is depicted, and we can perceive that other motifs undergo roughly parallel changes. It is in this subtle consistency in the development of dissimilar motifs that we begin to recognize the actuality of an aesthetic development in the Maya style, and the problem of finding the directing principles which control this development cannot be altogether avoided.

#### SOURCES AND DISTRIBUTION OF MATERIAL

There are in all about 400 major pieces of monumental sculpture in the Classic style available for study and sufficiently well preserved to give some idea of their carving. It is difficult to give an accurate figure, since many pieces are so eroded as to be of little value, and the inclusion of others in the Classic Maya group is doubtful. Of these sculptures 160 can be dated with some assurance. They cover a period of over five and a half centuries, from 8.14.10.13.15 (Stela 9, Uaxactun) to 10.3.0.0.0 (Stela 10, Xultun), A.D. 328-889 in Thompson's correlation. It is assumed that the reader is familiar with the basic structure of the Maya calendar. All dates are given in the Long Count notation; their Christian equivalents can be calculated simply from Morley (1937-38, 4:420-22).

The distribution of this material is not uniform either in time or in geographical extent. Figure 3,<sup>a</sup> shows periods when the incidence of dated monuments is very low, and several lacunae of considerable duration. This graph, however, does not include monuments carved only with hieroglyphs and minor figures or very eroded carvings; it does include a number of pieces which are not stelae. It is chiefly intended to show the known range of the material studied, and particularly its concentration in the period 9.14.0.0.0-9.18.10.0.0, which is about the extent of the "Great Period" of Maya art, placed by Morley as 9.15.0.0.0-10.0.0.0.0. The gaps and irregularities in the sequence are in some measure due to the destruction of monuments, particularly of early ones, by erosion and in some cases perhaps by human means. Others may be explained by a preference in some periods for unsculptured stelae, which now are called plain stelae, but which originally were probably painted with hieroglyphs and human figures. It has been suggested also that some stelae may have been carved in wood, and even that wooden monuments were in use earlier than stone (Morley, 1937-38, 1:237, 4:269, 296). Nevertheless, the gap in the graph after 9.4.10.0.0, its irregular rise to the Great Period and its abrupt fall after 9.18.10.0.0 may be historically significant.

The geographic distribution of the material is also uneven (fig. 111). This is very largely due to the fact that the Maya area is not yet thoroughly explored. Parts of northwestern Peten, southern Campeche, Chiapas, and Quintana Roo have scarcely been visited by archaeologists. It may be significant that very little monumental sculpture has been reported from the region of the Chenes and of Rio Bec, where there has been some exploration. Other gaps can be attributed, as in the case of the time distribution, to large-scale destruction of monuments and perhaps in some cases to local preference for painting or for sculpture in wood.

Figures 1 and 2 present a series of maps showing the distribution of sculptured monuments of known date at different periods of Maya history. Important sites such as Palenque and Yaxchilan, and whole regions such as the Puuc are very poorly represented on these maps, since decipherable dates are rare in proportion to the amount of well-preserved sculptural material. Except at Palenque, where sculpture is mostly in the form of architectural ornament, this is probably because other than Initial Series and Period Ending notations were in vogue. The styles

also tend to diverge from the Classic monumental style, and for this reason chronological sequences that we attempt to construct for these sites are not reliable.

The small distribution of known monuments before 9.0.0.0 (fig. 1,*a*), centered in the Peten, has led to theories of the origin of Classic Maya culture in this region. This is perhaps a legitimate conclusion if we define Classic culture by the use of Initial Series notations on monuments. It must not be construed to mean, however, that the custom of carving stone monuments originated in the Peten, for some of the styles outside the Maya area, which have not yet been dated successfully, may well prove to be of comparable antiquity. This has, in fact, been claimed by some investigators, and the present study can offer no refutation to the claim.

The next map (fig. 1,*b*), covering the period 9.0.0.0–9.5.0.0, shows the spread at almost its greatest extent. It is still centered in the Peten, however, and there are only hints of it at Copan and in northern Yucatan. The Chiapas highlands and eastern Yucatan are still blank, but in view of the thin distribution we may expect that these gaps will be filled after more intensive exploration.

The third map (fig. 1,*c*) covers a shorter time (9.5.0.0–9.8.0.0), which marks a transition between two major periods. Only two monuments are surely dated as falling in this period. One is far from the center of Maya culture, at Tulum on the east coast of Yucatan; the other, at Lacanja, is dated 9.8.0.0 and is considered with sculpture of the next period. In this period (9.8.0.0–9.13.0.0, fig. 2,*a*) the material comes for the most part from large widely separated cities. It may be just chance that few monuments of this period survived in the central region, but there is also a possibility that at this time the frontier towns assumed greater importance and developed into strong independent centers. Between 9.13.0.0 and 9.16.0.0 (fig. 2,*b*) the Peten is again well represented; after that (fig. 2,*c*) comes a tendency toward a more scattered arrangement, indicating, perhaps, a prospering of smaller centers or their growing independence of the larger sites in matters of religion. The sharp shrinkage of distribution after 9.19.0.0 (fig. 2,*d*) probably denotes a radical change and a decline in the Classic tradition. It must not be interpreted, however, as a cessation of sculptural activity in all regions. There is reason to think that many monuments were being erected in Yucatan at this time, and our failure to place them is

caused by a change in the manner of recording dates. This may also be true at Yaxchilan, although there is no clear stylistic indication of a very late period of sculpture.

These maps have many possible interpretations and should be correlated with other historical data to make their meaning clear. They show, however, that at no period of Maya history do we get an adequate sample of sculpture from all regions of the Maya area. Dated material tends to come from concentrated groups of stelae, and in view of the differences between such sites as Yaxchilan and Piedras Negras, which are not very distant from each other, it is unwise to use such groups to typify a whole region. Only when we consider motifs and qualities common to all or most Maya sculpture can we hope to have sufficient material to follow their variations in time.

#### THE CLASSIC MOTIF

Although the available material leaves much to be desired, the Maya area offers a uniquely favorable opportunity for observation of the progress of an ancient art. The existence of a basic chronological series of sculptures is in itself a rare condition in archaeology. Moreover, during at least a part of its history, the Classic monumental style was remarkably self-contained and evidences an intrinsic development which seems independent of influences from outside its orbit. The area seems to have enjoyed a relatively uniform culture and was apparently secure for long periods from violent contact with comparable centers of civilization. The tenor of its art remained formal, serene, and engrossed in its religious subject. A single human figure is always the center of the composition on major monuments. Without a better understanding of Maya symbolism than we now have, it is difficult to classify, much more to interpret, the motifs portrayed, and there is no general agreement as to whether the figure represents a deity, a priest or ruler, or an abstract conception symbolically portrayed. Often this figure stands on a panel carved with a mask, bound captives, hieroglyphs, or some other motif, though sometimes it is shown sitting on a throne or in a niche ascended by a ladder. In one of the most common motifs, the figure holds a ceremonial bar, which has on each end a serpent's head with an anthropomorphic head or figure in the mouth. Another type of figure holds a shield and a spear or sceptre, and a third a staff, which may be variously designed. Action is seldom

depicted and is always restrained in character. There are figures making a gesture of scattering grains, but this gesture appears to be a symbol of function or office rather than a portrayal of a particular event. Scenes showing blood sacrifice and the capture of prisoners are almost entirely limited to Yaxchilan and adjacent regions, and are more often depicted on lintels and other minor monuments than on stelae. Stela 19 at Naranjo, which shows a blood sacrifice, is a notable exception and differs also in style and in the costume of the main figure from other monuments at the site. Group compositions are rare, but motifs accompanying the main figure include minor figures, some of whom appear to be servants or acolytes, and others captives or sacrificial victims. Portrayals of human sacrifice do not occur except at Piedras Negras, where a small figure is shown lying on its back over an altar and with what may be the heart protruding from its breast (fig. 52,c). There are also mythological and zoomorphic motifs as, for example, the sky-and-earth monster, whose body, made up of signs interpreted as those of the sun, the moon, and the planets, terminates in two grotesque zoomorphic creatures. This concept may be related to that of the serpent bar, for in a late representation at Seibal (Stela 10, fig. 77) the serpent's tail ends in a second head, very similar to the corresponding head on Piedras Negras monsters (fig. 52). Occasionally

the jaguar is represented, but usually in a more naturalistic way than the serpent. More common is the mask, a large grotesque anthropomorphic face with huge squarish eyes. All these motifs, however, are secondary to the one human figure which invariably holds the center of interest on stelae of the nuclear Classic style.

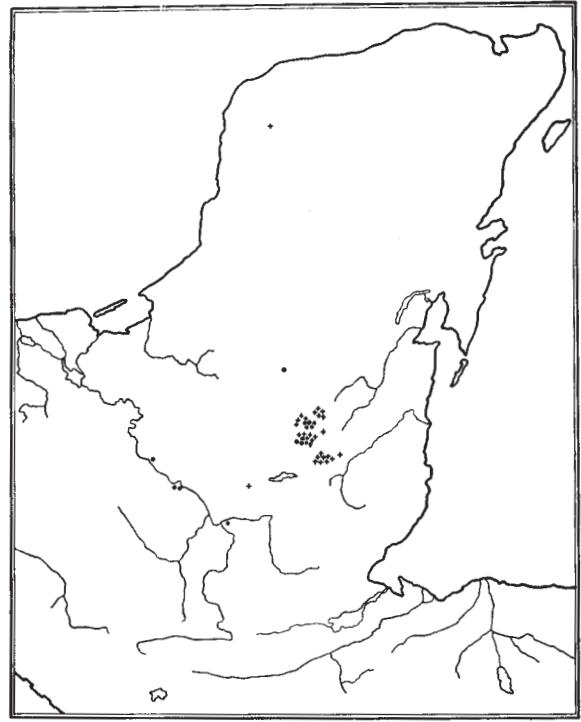
The rigid restriction imposed on the artist to repeat through the centuries the same motif and the same symbols stringently limited the scope of his inventiveness. It permits us now to observe artistic variations in a single motif with greater clarity than if conceptions were expressed in a large range of subjects. Self-expression and originality were probably not encouraged so much as they are in modern times. It is quite possible that the carving of a great monument was not the work of a single artist but of a group working under the direction of a master sculptor. Such training would tend to perpetuate the style of masters of the preceding generations and to level out individual idiosyncrasies. In any case, it is seldom that we observe on Maya stelae conspicuous mannerisms that have no precedent and no sequel. While a certain variability is an impediment to following the course of changing tradition, it seldom assumes proportions that completely obscure the general current trends of artistic change.

CLASSIC MAYA SCULPTURE



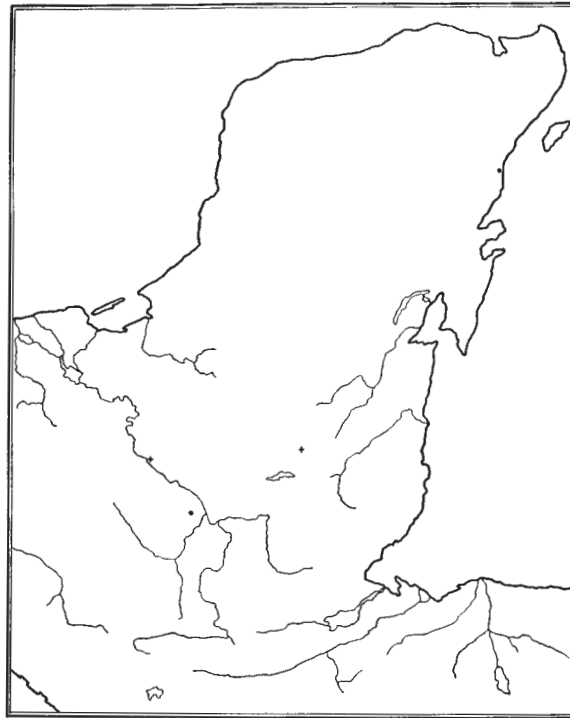
8.14.0.0.0 - 9.0.0.0.0

*a*



9.0.0.0.0 - 9.5.0.0.0

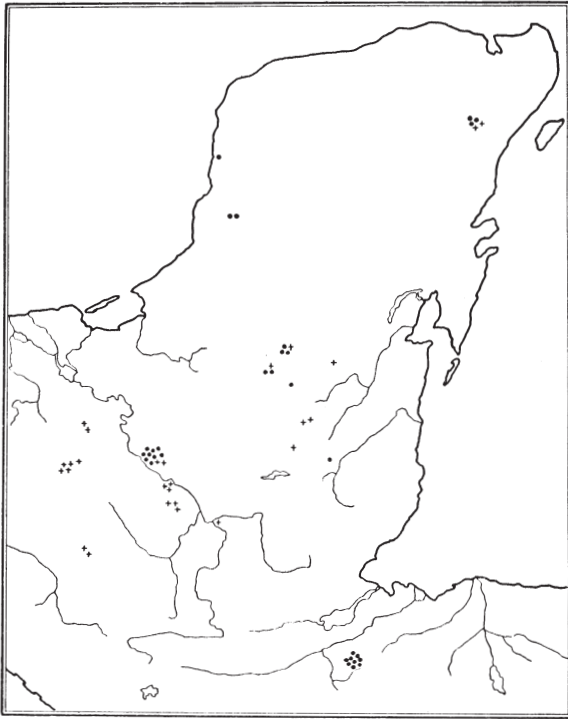
*b*



9.5.0.0.0 - 9.8.0.0.0

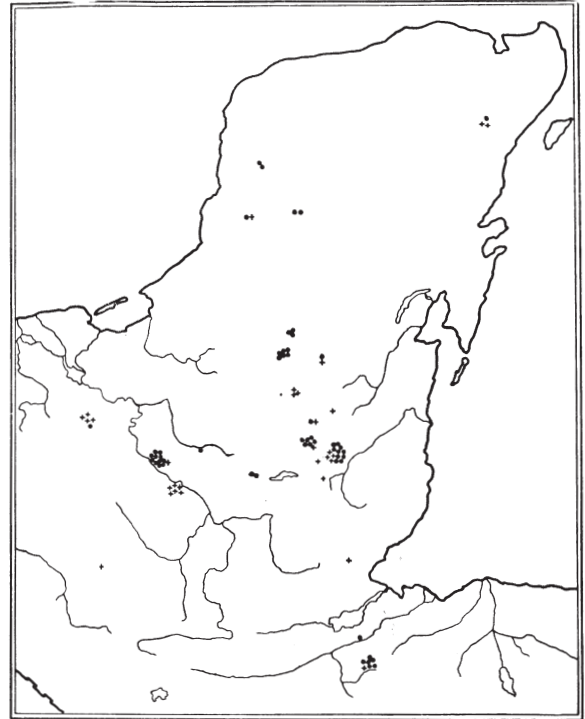
*c*

FIG. 1—DISTRIBUTION OF CLASSIC MONUMENTS  
Crosses indicate undated or doubtfully dated monuments placed by style.



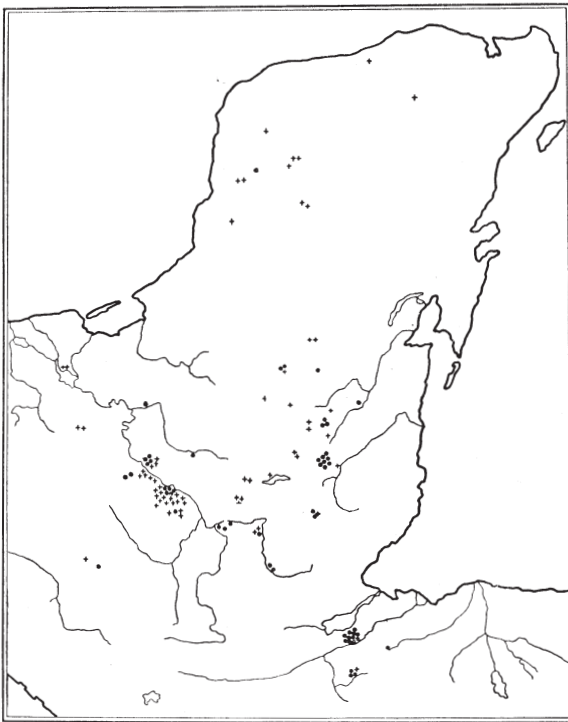
9.80.0.0-9.13.0.0

a



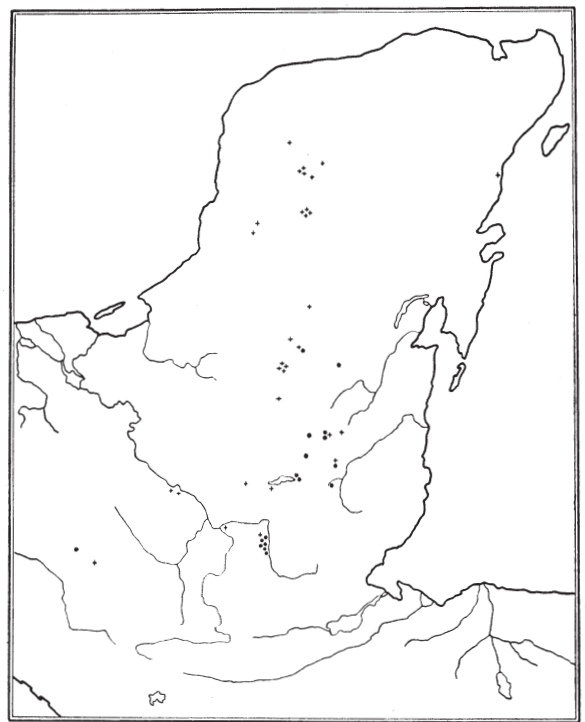
9.13.0.0-9.16.0.0

b



9.16.0.0-9.19.0.0

c



9.19.0.0-10.3.0.0

d

FIG. 2—DISTRIBUTION OF CLASSIC MONUMENTS—continued



## A Method for Estimating the Date of Classic Maya Monuments

### BASIC ASSUMPTIONS

The method pursued in this study postulates that the selected series of dates recorded on monuments, in so far as it is free of mistakes in decipherment, represents the chronological order of the monuments, and that no preconception of a "necessary" or "natural" stylistic progression should be permitted to contradict it. Some investigators have assumed a constant evolution of style along lines determined by the artist's aim to attain an ever greater degree of excellence and complexity. In its crudest form this thesis maintains that the "better" a monument is the later it is, until the development reaches a peak of perfection and a period of decadence sets in. Typical of arguments based on such considerations is the following: "It is obvious at a glance, however, that Stelae 4 and 5 [at Xultun] are both later than Stela 8, and presumably later than Stela 7 as well. The former are more elaborate and technically better executed than the latter. Compare any single detail of Stelae 4 and 5 with the same detail on Stela 8, and their superiority is apparent: the ornamented fold of the breechclout, the sandal knots and strappings, even the figure of the captive. . . . Even the heights of Stelae 4 and 5 are greater than those of Stelae 7 and 8. Stylistically indeed there can be no doubt that Stelae 4 and 5 are later than Stela 8, and probably than Stela 7 as well" (Morley, 1937-38, 1:396). The weakness of this argument is that it assumes without demonstration that each successive sculpture must be better than its predecessor, and, moreover, that there is agreement as to what constitutes "superiority."

The method which Spinden uses in the evaluation of the stylistic sequence at Copan has the merit of being based largely on observed and specifically defined tendencies, such as the achievement of full-round sculpture. It presupposes, however, a regular, continuous evolution, without considering the possible effect of an impact of some radically new idea or technique, which might at once be rapidly developed by some artists and rejected by others.

Charlot, who again relies strongly on the criterion of excellence in his discussion of the Coba stelae, nevertheless distinguishes between archaism and mere lack of merit and takes cognizance of the erratic path of evolution: "Although the different manifestations of style—archaic, classic, flamboyant—appear historically in logical cycles, the personal capacity and individual taste of each artist were as dominant and variable then as today, and were sufficiently strong at times to disturb the natural order of aesthetic evolution" (Thompson, Pollock, and Charlot, 1932, p. 190). This implies a predetermined course of development, which in so far as it has been defined at all is stated in very broad terms. However, it rightly emphasizes the fact that individual variation alone should discourage the expectation that any devised method, or even the judgment of the most discerning expert, could result in a stylistic sequence of monuments exactly corresponding to the order of their execution. It would be quite unreasonable to hope that we can date monuments precisely by an examination of their style. Even if it were possible to construct an ideal stylistic sequence, it would give us at the most a certain period within which a given work of art could have been produced. Any stylistic progression, whether postulated or derived, must be checked against sequences constructed on other evidence before we can estimate the range of error which can be expected.

The epigraphic series, considered as a chronological arrangement of monuments, rests on more cogent evidence than can be adduced for any stylistic sequence independent of it. The evidence is not perhaps sufficient as incontrovertible proof of the correctness of the series, but at least until now, it has not been contradicted by archaeological stratigraphy and has had no serious challenge. In developing his hypothesis that Maya stelae were "time markers," Morley (1917) reviews the evidence in detail. I will not here repeat the argument, but only restate briefly the two most important considerations on which it rests.

The first is a statement by Landa that Indians in

Yucatan told him of an ancient custom of setting up stones every 20 years. Landa himself disbelieved this statement, for he saw only the minor monuments of Mayapan and Zilan (Dzilam), and concluded that there were not enough of them to account for such a custom. Had he visited the southern cities of the Maya, he doubtless would have changed his opinion, but the very fact that he repeats the information even while he discounts its truth, suggests that it must have been definite and emphatic, and that therefore it was not without some historical foundation. This tradition of monuments having been erected periodically at definite intervals of time, combined with the fact that the latest dates appearing in inscriptions at Quirigua and at Piedras Negras tend to fall into a more or less consistent series of consecutive hotuns (periods of 1800 days), leads to the conclusion that these hotuns correspond to the dates of the erection of the monuments, even though the interval is a fraction of that mentioned by Landa. Hotun series are not so consistent in other Maya sites, but this may be largely owing to the obliteration of many inscriptions or the use of perishable media. I believe that we are justified in extending the argument to the whole of the Maya area, and in concluding that most of the dates inscribed on stelae refer to events in the past and that the latest date on a given stela, particularly if it records the completion of a period, cannot be far removed from the time of its inscription. In regard to dates which are not hotun or larger period endings and those inscribed on monuments other than stelae, the argument is certainly much weaker. Because of the scarcity of surely deciphered material, a limited number of such dates nevertheless has been included in the scheme of accepted chronology.

We cannot entirely ignore the possibility that the inscriptions represent prophecies for the given period of time, and that the monuments were set up at the beginning of hotuns and katuns rather than at their end. Even if the period of prophecy varied, however, it seems unlikely that it often exceeded one katun or that it would disturb the sequence by more than 15 tuns. To minimize the effect of this possible error, the intermediate hotun endings are consistently grouped with the even katun ending which immediately follows, and all periods designated include the terminal date. This seems consistent with Maya practice, for in late times the Maya referred to the katun by the name of the day on which it ended and, in the inscriptions, an intermediate hotun

ending is often mentioned together with the katun ending which follows. Unfortunately, it is now usual to name the period in which a date occurs not by its terminal date but by the number which appears in its Initial Series; that is, by the *end* of the preceding period, or the *beginning* of the current. This custom is so firmly fixed that a different nomenclature, especially of the cycles, might result in serious misunderstanding. In the text, therefore, when Cycle 8, for example, is mentioned, what is meant is the ninth cycle counted from 4 Ahau 8 Cumhu, beginning with 8.0.0.0.1 and ending with 9.0.0.0.0. I trust that this unavoidable discrepancy between the nomenclature used in the text and the organization of the material will not mislead the reader, and that the context of a statement will make sufficiently clear what is meant.

#### SERIES BASED ON EPIGRAPHY

Having postulated that the latest Period Ending date of a monument is its contemporaneous or "dedicatory" date, we yet encounter the difficulty of ascertaining which of the deciphered dates were the latest mentioned in their context, for very few of the Maya inscriptions are intact, and most are subject to uncertainties in decipherment and in interpretation. Morley, in *The Inscriptions of Peten*, has graded the reliability of his readings by affixing one, two, or three question marks after doubtful dates. These evaluations cannot be accepted without review, however, for in many cases stylistic evidence has been used in consideration of this grading, and it must be eliminated if we are to use the series to reveal stylistic trends. The first stage of my investigation, therefore, consisted in a review of all stela inscriptions and the selection of dates which can be accepted on the basis of epigraphic evidence alone. In order that selection should be uniform, criteria used in judgment of reliability were explicitly set down. The dates selected can belong to one or another of the following types:

1. The latest date of an inscription when it is a tun ending. Odd tuns are listed under the immediately following hotun ending. Exception: when the latest date is a katun ending and is preceded without Secondary Series by the notation of a hotun or a lahuntun in that katun. In such a case, the katun notation is disregarded as a redundant statement which merely places the fractional date in a larger period of time.

2. Period Ending dates which are not followed by

either Initial or Secondary Series. When the Period Ending date stands near the end of an inscription, we may assume that no other calendrical notations follow, though the final glyphs may be eroded. These dates we accept because the last date inscribed on a monument is usually also the latest, and almost invariably so when it is a Period Ending date. Exception: Temple of the Sun, Palenque.

3. Dates of Type 2 which are not designated as Period Endings but which can end a hotun. The Period Ending is often not clearly decipherable, but we may assume that in most cases it followed the Calendar Round notation.

4. Initial Series which fall on the end of a tun, only when the inscription is brief, or when it is clear that there are no other Initial Series on the monument and no long Secondary Series following the tun ending. The count is frequently back from an Initial Series ending a period and then forward with the Period Ending expressed at the end. If the inscription is not long and begins with the end of a tun, we may assume that it is of this type, even though the end of the inscription may be illegible.

5. Latest dates which are not ends of periods have not been included except when the count is continued less than a year beyond an expressed hotun ending. In such cases, the date is listed under the hotun end expressed. In the case of Early Period dates only, odd date Initial Series with no hotun ending expressed were accepted. These dates are listed under the hotun in which they occur. Evidence on the Early Period is so scant that the elimination of such dates would seriously deplete our material. Since stylistic estimates in this period cannot be made accurately in any case, the error in including these odd dates is probably not significant, especially since it is unlikely that very early inscriptions covered long periods of time.

Dates of monuments whose inscriptions fulfill these requirements and have been accepted without further check are shown without question marks in the list on page 185. A number of inscriptions which fail to meet the test of reliability are nevertheless in part decipherable and offer a clear optimum date for their designation. These were placed in a doubtful group to supplement the original list and are indicated by a question mark. The basic stylistic sequence was worked out from the first list of certain dates, and monuments having doubtful dates were not included until their dates were shown to be consistent with the determined trends of development.

The dates in parenthesis are taken from Morley (1937-38) or Ruppert (1943) unless otherwise noted. They are rejected because either the decipherment or the contemporaneity is uncertain.

#### PRELIMINARY PROCEDURE

After the monuments of known date had been selected, various details of dress and design were roughly sketched from each monument. These were classified according to type, and their chronological distribution was plotted on a time scale. Although the number of traits rose above 400, it was soon obvious that, as defined, only very few were useful in determining chronology. The difference in the type of motif used showed stronger regional than chronological distinctions and was definitive only of the larger periods. Even comparatively rare traits were found to have a wide distribution in time, and this called attention to the fact that the apparent chronological concentration of a trait which is characteristic of a group of stelae at one particular site may be misleading, since it is dependent on the fortuitous preservation of the group, and has little bearing on the popularity of the trait elsewhere. Moreover, this preliminary study suggested that the traits which showed limited chronological distribution were not those which are defined by the essential structure of the design, but those which are based on variations in proportions and linear qualities.

With these considerations in mind, a new list was prepared, making finer distinctions in traits of large frequency with particular regard to form and size of elements. This second list included 28 categories of traits, such as the sandal, the earplug, the serpent head, the position of the figure, etc. These categories were subdivided into types and the types into varieties. In this process, a definite selection of traits was made, including only those which either showed a limited time distribution in themselves, or occurred frequently enough to be subdivided into varieties that might reveal stylistic progression. The total number of varieties listed was 391.

It was then necessary to devise a method by which the chronological distribution of the traits occurring on a given monument could be made to show the span of time in which it was probably carved. Theoretically, the date of the monument must fall within the span defined by the overlapping of the time distributions of all its traits. Actually, if we abstract the evidence of the monument itself, we find that some of the distributions fail to overlap, showing that our

data are probably incomplete. We can assume, nevertheless, that the date of the monument probably falls within the period when most of the traits it exhibits were in habitual use. This period can be shown by the summation of the trait distribution graphs.

In the first method tried, only the time span of the occurrence of each trait was taken into account. After the traits occurring on a monument had been listed, one unit was marked on a time scale wherever each trait occurred. In some cases, a graph of this sort would rise to a peak at one point; more often there was a general rise with minor peaks along its crest.

The second method attempted to take into consideration the concentrations of frequency of traits. For this purpose, the dated monuments were divided into consecutive groups of approximately even number, 20-22 monuments in each group. When an entire group fell within a period of three katuns, a central point of time was selected to which all trait occurrences in the group were referred. In periods in which the distribution of monuments was very thin, groups of 10 were used, and one occurrence of a trait was made equivalent to two in a group of 20. Trait distribution graphs thus formed showed the relative frequencies of traits at given points of time. Their summation for a given monument usually results in a graph with one or two sharply rising peaks.

Using both methods, we constructed graphs for every monument of known date, abstracting, of course, from the distribution charts the occurrence of the trait on the monument to be tested. On the basis of the resulting graphs, a most probable date was chosen for each monument, this being checked against the date of the inscriptions. Mathematical and statistical methods were deliberately avoided in determining the most probable date; a simple graphic method was preferred, since it was considered sufficiently accurate for the purpose. In the first method, the graph was cut by a horizontal line four units down from its peak, and the midpoint of the intersection was noted as the best date for the monument. In the second method, which produced graphs with a sharper rise, the line was placed eight units down from the peak. The error in the first method did not exceed two and a half katuns in about 84 per cent of the estimates, and did not exceed three katuns in 91 per cent. For the second method these percentages were 84 and 94. In view of the erosion of some of the monuments examined and their scat-

tered distribution in the Early Period, a lesser degree of error is perhaps not to be expected.

#### FINAL TRAIT LIST

At this point in the investigation, it seemed wise to bring into consideration the monuments of less certain dating. The trait distribution charts were supplemented with evidence from those sculptures whose style estimates did not diverge from the suggested dates by more than three katuns, and thus 62 monuments were added to the dated series. At the same time, the entire trait list was for a second time revised and condensed, with the omission of traits of too wide distribution and of too rare occurrence. It was becoming increasingly evident that the most significant criteria of time are those of abstract form, line, arrangement, and composition. These purely artistic qualities are difficult to define accurately; they are qualities of the whole design and affect simultaneously all elements in it. It is only by presenting the variations of a single element, however, that they can be described with any clarity, and as far as possible the trait list has been confined to variations which can be stated in explicit terms. The perception of the harmony of the changes which take place in different motifs is largely aesthetic and is subject to personal judgment. Nevertheless, it has played some part in the selection of traits used, for some traits of relatively low frequency have been included because their logical position in the sequence seemed to confirm the limits of their distribution.

In the reorganized list of effective traits, we reduced the total number by more than half, omitting traits of doubtful significance and combining others similar in type and distribution. The final list includes 147 traits which show a significant distribution. The method of graphing was also simplified. The distribution charts were made to show only low frequency occurrence (on less than  $\frac{1}{2}$  of the monuments) and high frequency (on  $\frac{1}{2}$  or more). These frequencies were calculated not, as before, on the basis of groups of monuments of comparable number, but for each period of two katuns. For the majority of traits, the distribution charts showed a period of low incidence followed by a period of high incidence again declining toward the end. It was assumed that this is the normal configuration, and in those cases where a graph rose or fell abruptly, it was extended with low frequency notation into

the adjacent period. Also where the frequency fell and rose again, the gaps were filled so that the high frequency period was made continuous. The resulting charts are those which accompany the illustrations in figures 7-35.

#### FINAL GRAPHIC PROCEDURE

The graphic method for date estimate proposed here is somewhat different from that used in previous tests. It is hoped that the very fact that it is simple and frankly arbitrary will discourage an expectation of accuracy and infallibility, which sometimes is attached to mathematical procedures. Theoretically, one may be justified in considering the probability of a trait's occurrence as proportional to its known frequency, but when the frequencies are all low, the exact determination of probability only complicates the method and adds little to the accuracy of its results. The rough grading for frequency is necessary chiefly to discount in significance traits occurring sporadically either because of a deliberate copying of archaic forms or because of chance similarities that have no historic connection. In any case, with the distribution charts are shown all known occurrences of the traits, in order to leave the reader free to correct the charts as new material is discovered, or to devise other charts from the data.

The graphs in figures 3,c-6 illustrate the method of finding the best chronological position for a monument on the basis of the distribution charts. Each monument is first compared with the illustrations shown in figures 7-35, and all traits that can be recognized on it are listed by their group number. Then on a time scale, the distributions of all of the traits on one monument are added together, and a smooth curve is drawn around the resulting graph. The best date is designated as the peak of this curve plus or minus two katuns. The ease with which a single curve can be drawn and the sharpness of its peak serve as a measure of the reliability of the result.

#### RESULTS

In the construction of graphs for stelae of known date the evidence furnished by the monument being tested was abstracted from the distribution charts, in order to test the results. The discrepancies between the estimated and the inscribed dates are plotted in figure 3,b. This graph of error reveals the fallibility of the method. Most of the large errors, however, occur when style estimates are based on

five traits or less, as indicated by the open blocks. Ninety-one per cent of the errors are not more than two katuns when more than five traits can be used in the graph. Only one error is greater than three katuns. This error results when we test the Leyden Plate, and it is considerably greater than any other. It shows the Leyden Plate to be more closely related to monuments of the first half of Cycle 9 than to the known stelae of Cycle 8 (fig. 4,e). I hesitate to conclude, however, that the Leyden Plate was carved later than its date indicates. Our knowledge of Cycle 8 is based on only three dated monuments, all of which are badly eroded. The pose of the Leyden Plate figure is consistent with Cycle 8, and most of the differences lie in its costuming. Apparently the school of carving to which it belongs is yet to be discovered in the monumental sequence. It serves, therefore, to draw attention to our ignorance of the earliest period of Maya art, and to demonstrate the fallibility of stylistic appraisal when it is based on insufficient data.

It might be well to emphasize that most of the stylistic data we have come from groups of very closely related monuments, and that the degree of error we are led to expect from this chart will probably hold only for individual monuments belonging to well-documented schools. It is a precarious measure for schools for which we have been unable to construct any chronological series. As a method of chronological estimate, the stylistic appraisal is at best only one line of evidence which should be supplemented by others.

The character of the graph itself often reveals the degree of its reliability better than a mere estimate of average error. If the graph is irregular, it may be possible to draw more than one smooth curve around it, and so get different results (see fig. 5,b). If it is flat at the top, the location of its peak will not be apparent. Stelae of the Early Period and stelae of Cycle 10 often produce graphs which show only half the normal curve (fig. 5,a), so that the upper or lower limits, as the case may be, cannot be determined. Monuments which fall outside the known range of dates, therefore, cannot be correctly dated. Style determinations based on five traits or less tend to be unreliable. The correctness of the estimate in such cases should be judged by the character of the traits and of their known distribution.

Sometimes the graphs reveal other points of interest, particularly about groups of monuments. For

example, it is very clear that the stelae of the Formative Phase at Copan base their style on the Early Period in the Peten (fig. 3,*e*), while contemporary monuments on the Usumacinta and at Coba are already in the Late Classic style (fig. 4,*a*). The early Copan school can perhaps with justice be considered as a late variant of the Early Period, and this is what Morley (1920, p. 129) does when he extends the Early Period to 9.10.0.0.0. The graphs of the later Copan stelae, on the other hand, tend to rise to a peak suddenly in a skewed curve (fig. 4,*b*). This may indicate an unusually early and rapid development, which amounts almost to a revolution in art, or it may mean that we are still lacking antecedent material. In any case, we might infer that at the beginning of the Late Classic Period, Copan was relatively

isolated from other Maya cities, and that the Period of Uniformity rapidly brought it into closer contact with other regions of the Maya civilization. At a later period, we can discover a similar conservative lag in the sculpture of Piedras Negras, where some of the "warrior" stelae retain qualities of the Formative Phase (see p. 135).

Unfortunately, most of the configurations show the deficiencies of our data more clearly than they reflect the histories of particular schools. We may hope, however, that when more dated material is available, the graphic method can be refined by giving consideration to the historic factors affecting different schools and by correcting estimates on the basis of known regional developments and intercommunications of sites.

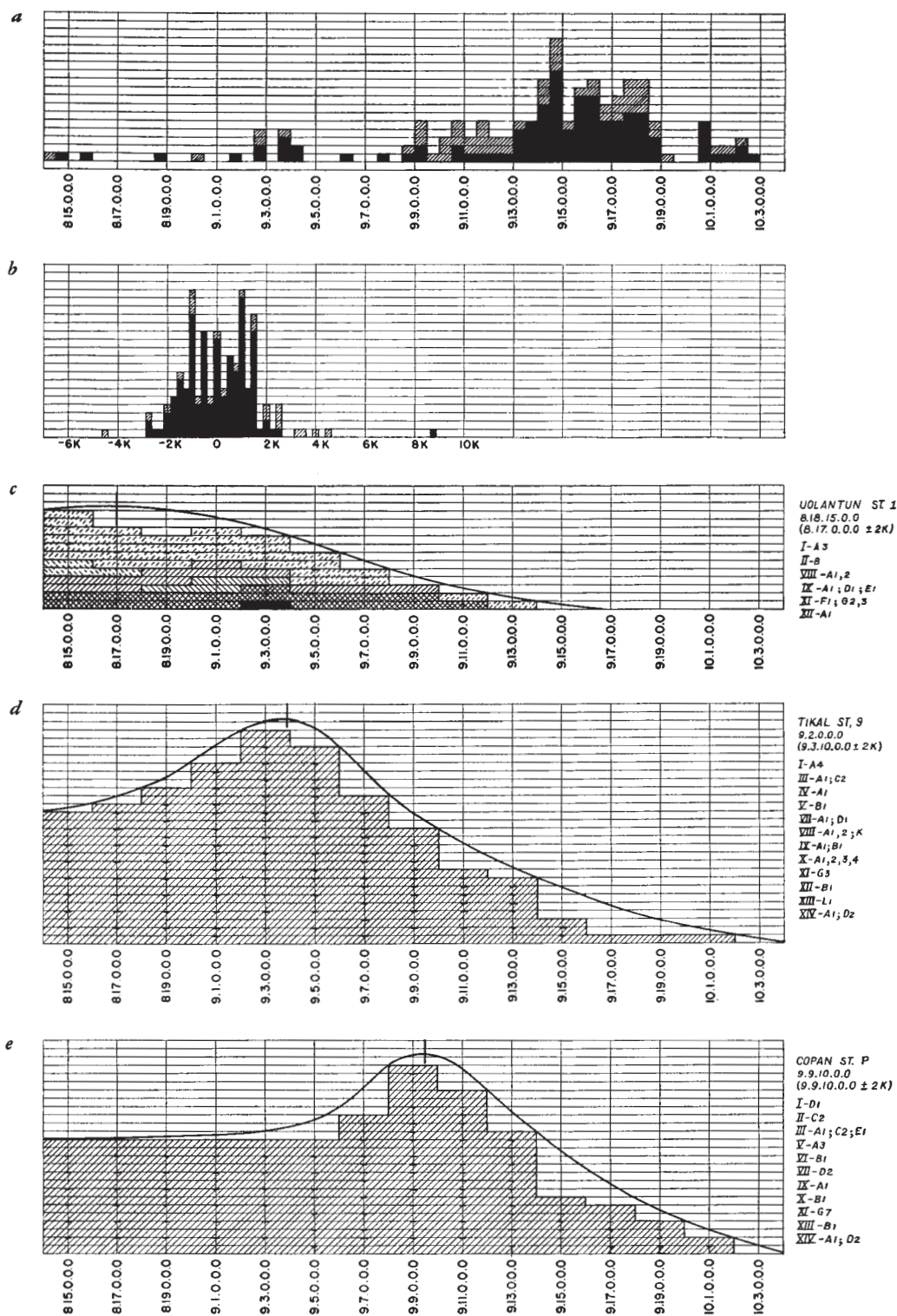


FIG. 3

a: Distribution in time of dated Classic monuments. Hatched areas indicate doubtful dates. b: Errors of style tests (expressed as estimated date minus date of inscription). Hatched areas show estimates based on five traits or less. c: Typical style-graph of Cycle 8, showing method of adding trait distributions. d: Typical style-graph of early Cycle 9. e: Typical style-graph of the Formative Phase of the Late Classic Period.

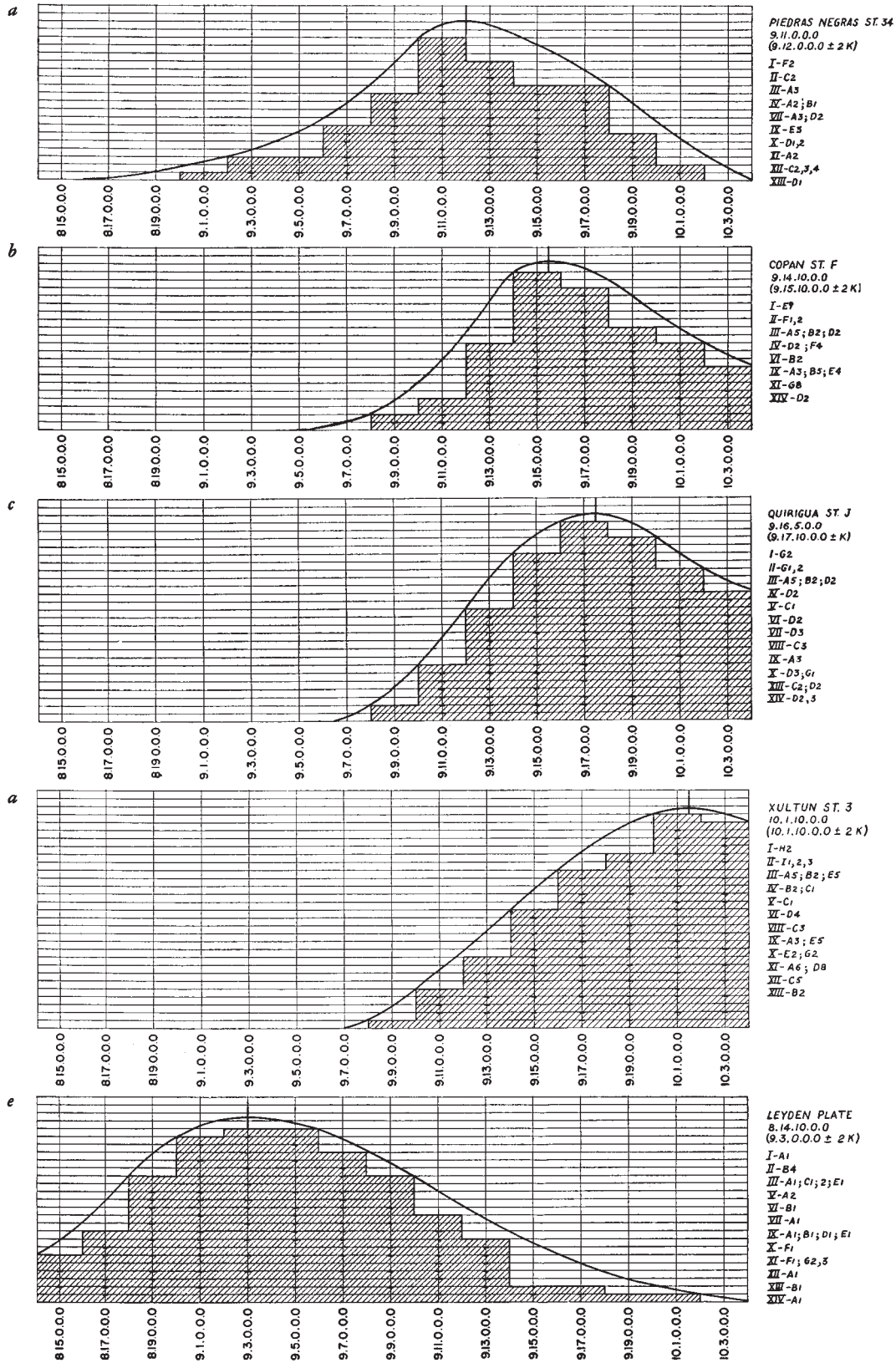


FIG. 4

a: Another style-graph of the Formative Phase with advanced traits. b: Typical style-graph of the Ornate Phase. c: Typical style-graph of the Dynamic Phase. d: Typical style-graph of the Decadent Phase. e: Style-graph of the Leyden Plate.



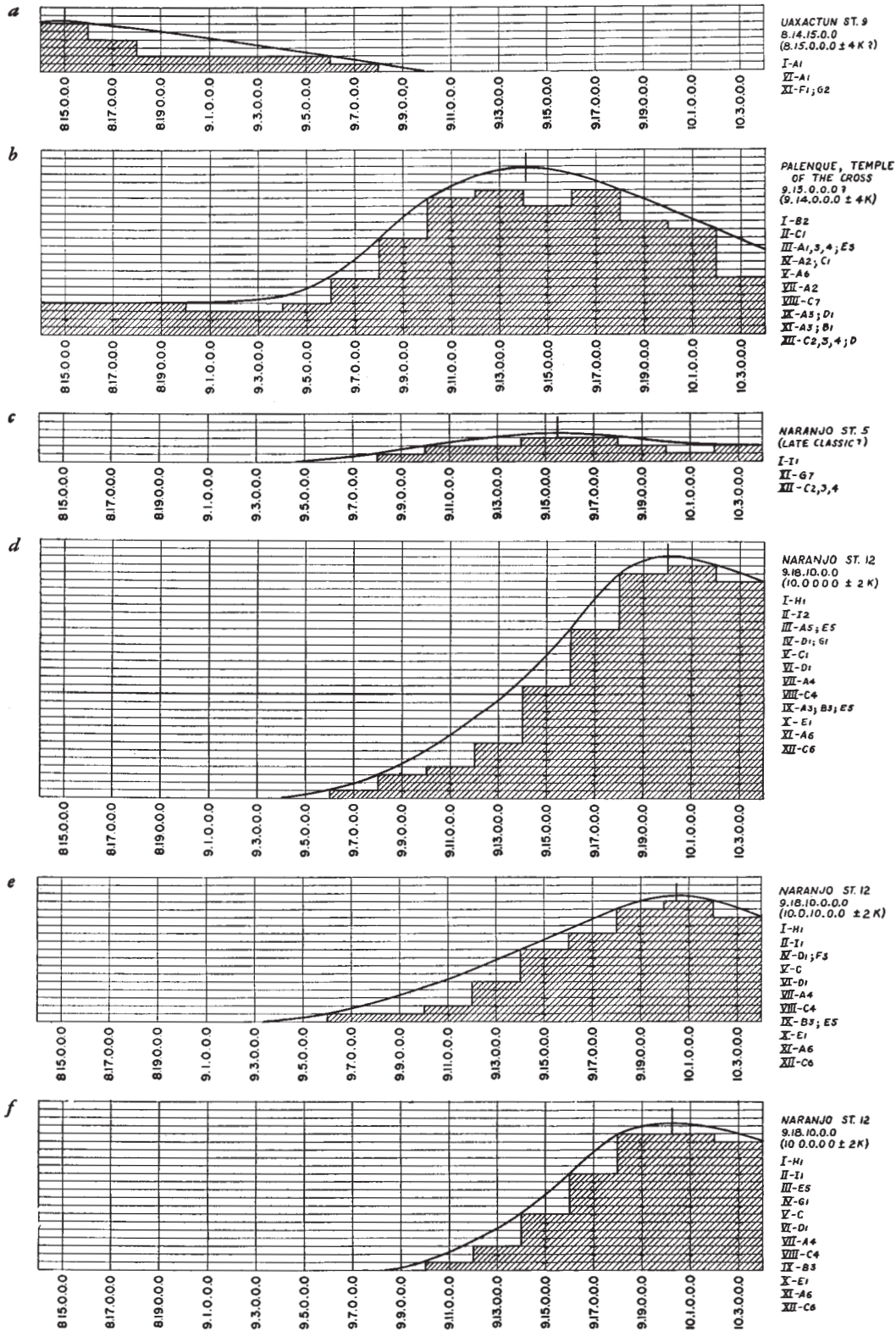


FIG. 5

a-c: Low and irregular style-graphs, giving uncertain estimates. d-f: Style-graphs for Stela 12 at Naranjo, constructed by different investigators.

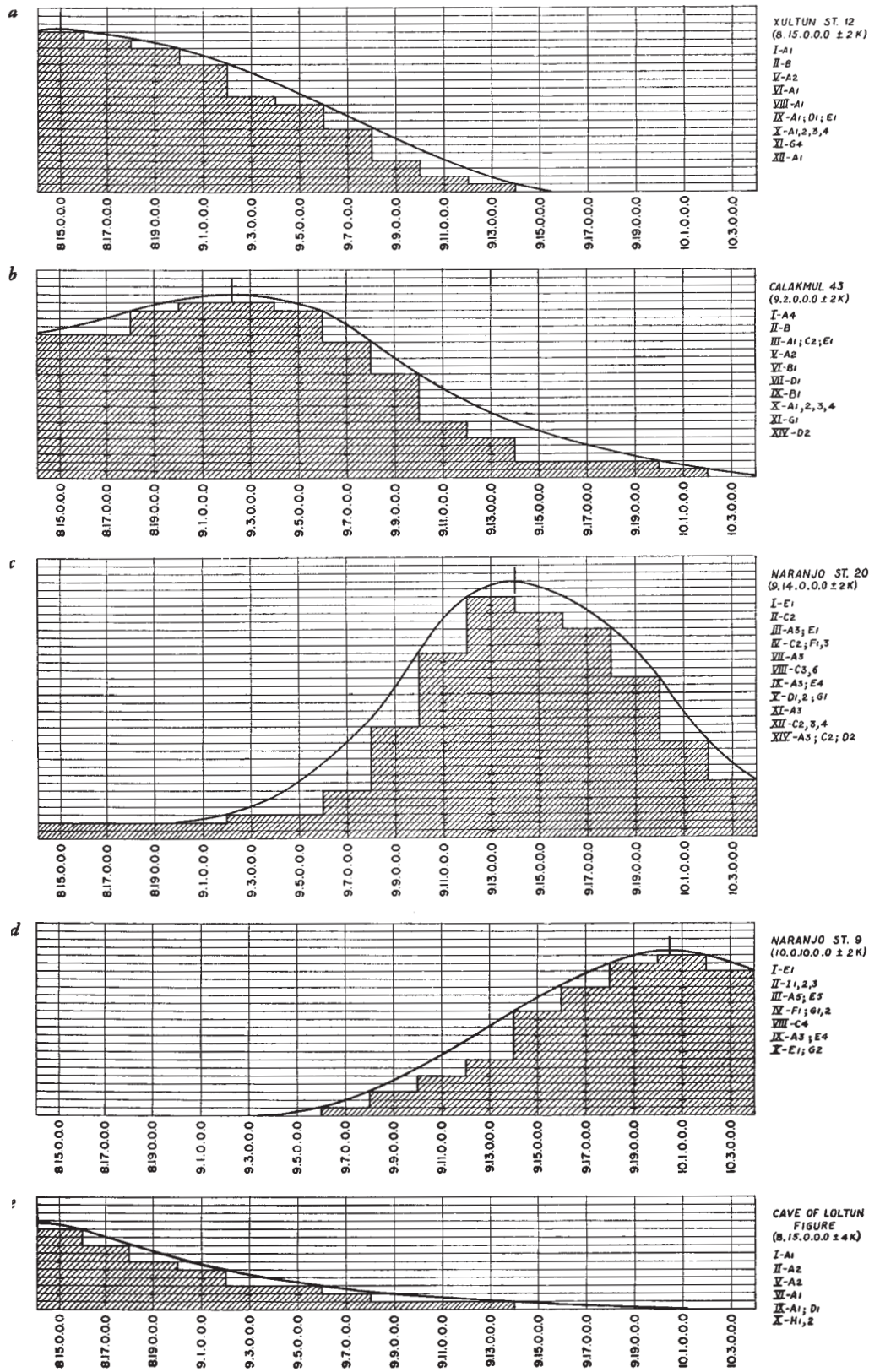


FIG. 6—STYLE-GRAPHS OF MONUMENTS OF DISPUTED DATE

## The Stylistic Development

Figures 7-35 are designed to show the stylistic development of Classic Maya sculpture as it is reflected in the pose of the principal figure and in the forms of various elements of design. A subsequent chapter will deal with specific monuments and describe in greater detail the general pattern of stylistic change which emerges from their study, but in order to relate individual traits to this pattern we must anticipate the results by a brief summary.

The Classic Period, defined by the use of Initial Series and Period Ending dates on stelae, begins in the last quarter of Cycle 8 and lasts until 10.3.0.0 in the Peten. There are a few monuments showing extreme decadence, which may be later. In some regions, however, particularly in Yucatan, we find a number of monuments bearing Maya inscriptions (in one case what appears to be an Initial Series), but sufficiently divergent in style from the main body of material to be considered as non-Classic. We do not know the dates of these monuments. There is some evidence to suggest that some of them fall fairly late within the Classic sequence. Perhaps some as yet unidentified foreign influences were transforming the Classic tradition in this area before the close of the Classic Period. Other sculptures in Yucatan evidence a connection with the Toltec Period of Chichen Itza, which apparently begins between 10.3.0.0 and 10.8.0.0.

Within the Classic Period, we recognize the Early Classic (about 8.14.0.0-9.5.0.0) and the Late Classic (about 9.8.0.0-10.3.0.0), with a brief intervening transition, from which there is very little sculptural material. Probably the optimum date to draw the division would vary for different regions and sites. Stylistically, the periods may be defined by a change in the pose of the principal figure and by the introduction of specific forms in costume, such as the sandal with a fringed ankle-guard. The Late Classic Period we subdivide further into phases characterized by the dominance of certain general artistic tendencies. The phases are not to be conceived as periods, but as a series of overlapping trends, with the suggested dates roughly centered on the time when a particular trend is ascending. Thus, the Formative Phase (9.8.0.0-9.13.0.0) is

characterized by the survival locally of many early traits no longer characteristic of the style as a whole, and by the simultaneous emergence of the typical Late Classic style in a fairly simple form. The Ornate Phase (9.13.0.0-9.16.0.0) sees a great elaboration of ornament, but tends to preserve a static composition of the figure. In the Dynamic Phase (9.16.0.0-9.19.0.0), the ornate development continues, but the expressive qualities of lines and forms are stressed, there is greater adaptation of forms to one another, and the axial or symmetrical composition is often abandoned in favor of one based on curved lines. The Decadent Phase (9.19.0.0-10.3.0.0) retains these qualities, but puts less stress on detail, regularity of line, and modeling of relief. It introduces gross distortions and exaggerations, and in some regions non-Classic elements and modes of design are frequent.

As we follow the variations in traits, we can often relate them to this outline of development, but for the sake of sharper definition, the variations are, as far as possible, based on more specific qualities. In this way, subjective judgment is minimized. It can never be entirely eliminated from the identification of specific traits, if these traits are to be significant. Since stylistic appraisal is based on a variety of traits, occasional differences in identifying a trait should not prevent sufficient agreement for practical purposes between the results of different investigators. As a rough and admittedly inadequate test of the differences that might occur, two members of the Institution's staff were asked to test Stela 12 at Naranjo by the method suggested here. Their graphs and a similar test made by the author are shown in figure 5, *d, e, f*. The difference in the trait lists represents the omission of certain categories of traits when the observer failed to recognize a conventional motif, for example the serpent head. The resulting estimates are nevertheless close.

### I—TYPICAL POSES AND POSTURES OF THE MAYA FIGURE

The first category comprises qualities and conventions of pose which are of value in estimating chronology. Most of the conventions defined refer

to the composition of the principal figure on Maya stelae and do not have equal value when applied to smaller subsidiary figures, which are more freely designed and show greater variability. Group compositions are included, but the requirements of group arrangement should be taken into consideration in judging the significance of a convention. A given figure can be expected to exhibit more than one of the characteristics illustrated, and can be classed simultaneously in several groups.

FIGURE 7

In figure 7 are shown standing figures with both feet pointing in the same direction. Type A includes positions typical of the Early Classic Period. It is distinguished from similar positions of later periods by the placing of the legs, which *never overlap at the level of the knee*. One leg is thrust forward and the other is straight, so that the angle of the foot and the leg is a right angle, a convenient clue in distinguishing this pose from similar positions of C. The hips appear in a quasi-three-quarters view, but they are often obscured by clothing and ornaments.

A<sub>1</sub> is typical of the earliest monuments. The feet are placed one behind the other without overlapping, and the shoulders are in front view. A<sub>2</sub>, a similar pose, in which the shoulders are in profile, occurs only on Stela 5 at Uaxactun, and its chronological distribution is unknown. The pose is unusual in other respects: the weight of the figure rests on the forward foot; the other is slightly bent as if the figure is in motion. In this it resembles the late Pose C. It may be that the full chronological distribution of the pose represented on this monument begins even earlier than that of A<sub>1</sub>, and that it is a widespread undifferentiated type from which both A and C developed as later regional variations.

In A<sub>3</sub> the feet of the figure overlap each other slightly and the shoulders are in front view. A<sub>4</sub> is the same pose with the torso in profile. The position of the arms and hands varies, but there is a recurring tendency, particularly in the earlier groups, to bend the arms at an acute angle, and to place the object the figure is holding in the crook of one elbow. The fingers of the hand are usually curved around the thumb and do not grasp the object held. There are, however, exceptions, such as A<sub>2</sub> and A<sub>4</sub>. Whether or not this convention is used apparently depends on the nature of the object held.

A<sub>5</sub> is an exceptional example of the early type of pose occurring very late in the history of Maya

sculpture. It is indistinguishable from the early type, except by the placing of the right elbow very close to the body, which produces the effect of a three-quarters view of the shoulders, a convention which was not uncommon in Cycle 10 (cf. I:12, fig. 9). This is probably not a mere aberration. Some qualities which were transformed in the course of the stylistic development in the Maya area were unaffected in regions outside. Thus, the placing of the feet to point in one direction, and slightly apart, remained the dominant mode of presentation in other Mesoamerican arts when the Maya had largely abandoned it. If, at the close of the Classic Period, contact with adjacent areas was re-established, or if the migratory proclivities of the Nahua people were beginning to produce disturbances and shifts of population on the periphery of the Maya civilization, the older traits, or something very much like them, may have been returning as foreign influences. This undoubtedly happened in northern Yucatan, and possibly it is true in the case of this figure.

A pose of A type is not particularly well adapted to the composition of a monument which is centered on some important architectural feature, for it stresses the direction in which the figure is facing and breaks a symmetrical arrangement. When the torso is shown in front view, the central axis has emphasis, and at the same time, attention is focused on the significant dimensions of the body and the object the figure is holding. It creates, however, a conflict between the abruptly diverging directions suggested by the several parts of the body, and perhaps it is this conflict which has led some observers to characterize early Maya sculpture with such unflattering terms as "crude," "awkward," and "unnatural," all the more unjust because they are too vague to admit refutation. The Maya have been reproached for their ignorance of foreshortening and perspective. Such devices, however, are not the only solution to the difficulty of figure composition, and have their own intrinsic shortcomings. Subsequent developments show that the Maya recognized and corrected deficiencies in composition in their own way, which had little to do with the study of visual distortion of objects in space, but which was more immediately relevant to their own artistic objectives.

During the Late Classic Period, the principal stela figure usually stands either with its feet pointing outward (I:D1-I2, figs. 8, 9), or in full profile with the far leg almost hidden behind the other (I:B2). There are, however, occasional poses which resemble

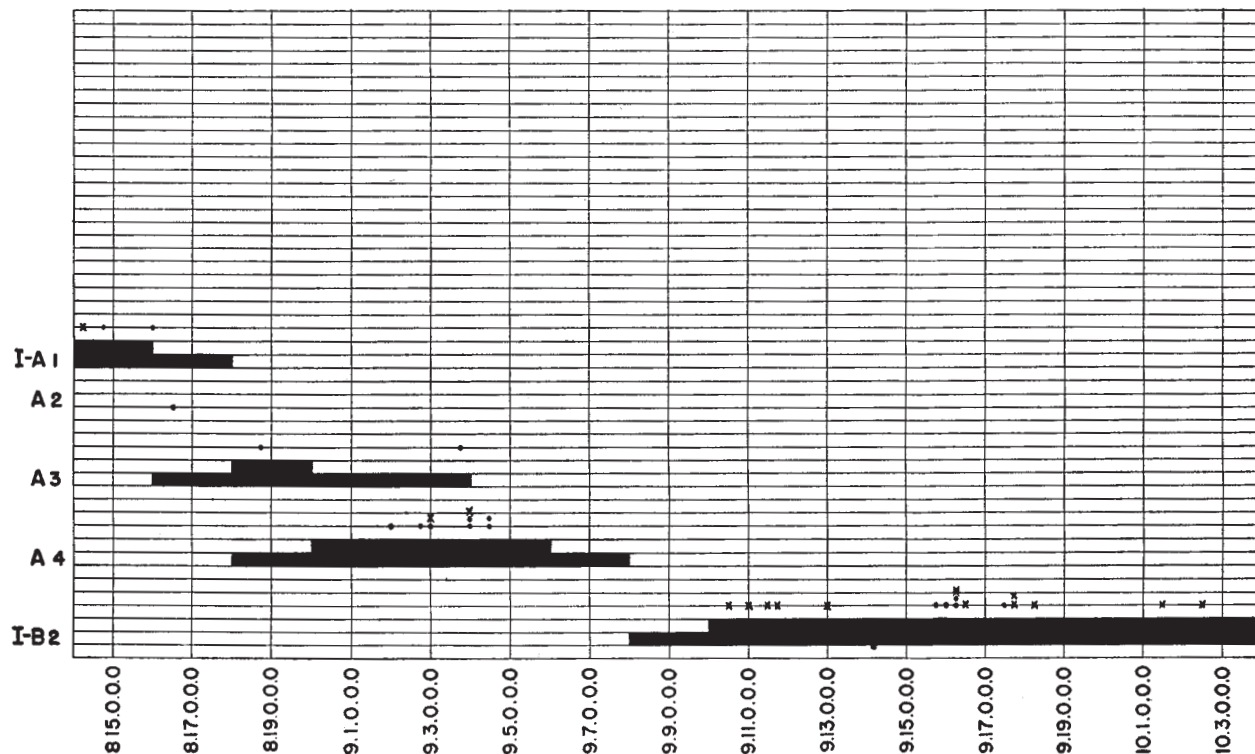


FIG. 7—POSITIONS OF FIGURE (I)

- I: A1. Feet pointing in one direction and placed apart. Legs placed apart at level of knee. Shoulders in front view.  
 A2. Feet pointing in one direction and placed apart. Legs placed apart at level of knee. Shoulders in side view. Rare.  
 A3. Feet pointing in one direction and slightly overlapping. Legs apart at level of knee. Shoulders in front or quasi-three-quarters view.  
 A4. Feet pointing in one direction and slightly overlapping. Legs apart at level of knee. Shoulders in side view.  
 A5. Late aberrant pose resembling early types. Stela 1 at Seibal.
- I: B1. Feet pointing in one direction and slightly overlapping. Knees overlap. Knee of nearer leg is straight.  
 B2. Feet pointing in one direction and almost or entirely in line of sight.
- I: C1. Feet pointing in one direction and apart. Nearer knee slightly bent, forming acute angle at heel.  
 C2. Feet pointing in one direction, one foot lifted from the ground.

## SOURCE OF ILLUSTRATIONS

*a*: Leyden Plate. *b*: Uaxactun St. 9. *c*: Uaxactun St. 5. *d*: Uaxactun St. 3. *e*: Uolantun St. 1. *f*: Xultun St. 12. *g*: Calakmul St. 43. *h*: Tikal St. 3. *i*: Seibal St. 1. *j*: Piedras Negras L. 12. *k*: Xultun St. 18. *l*: Piedras Negras St. 12. *m*: Yaxchilan St. 15. *n*: Palenque House D. *o*: La Mar St. 2. *p*: Tikal St. 5. *q*: Yaxchilan St. 11. *r*: Ixlu St. 1. *s*: Chichen Itza, Lower Temple of the Jaguars. *t*: Chichen Itza, Great Ball Court. *u*: Chichen Itza, Temple of the Warriors. *v*: Oxkintok St. 21. *w*: Moral St. 1. *x*: Yaxchilan L. 8. *y*: Kabah, the Codz Poop.

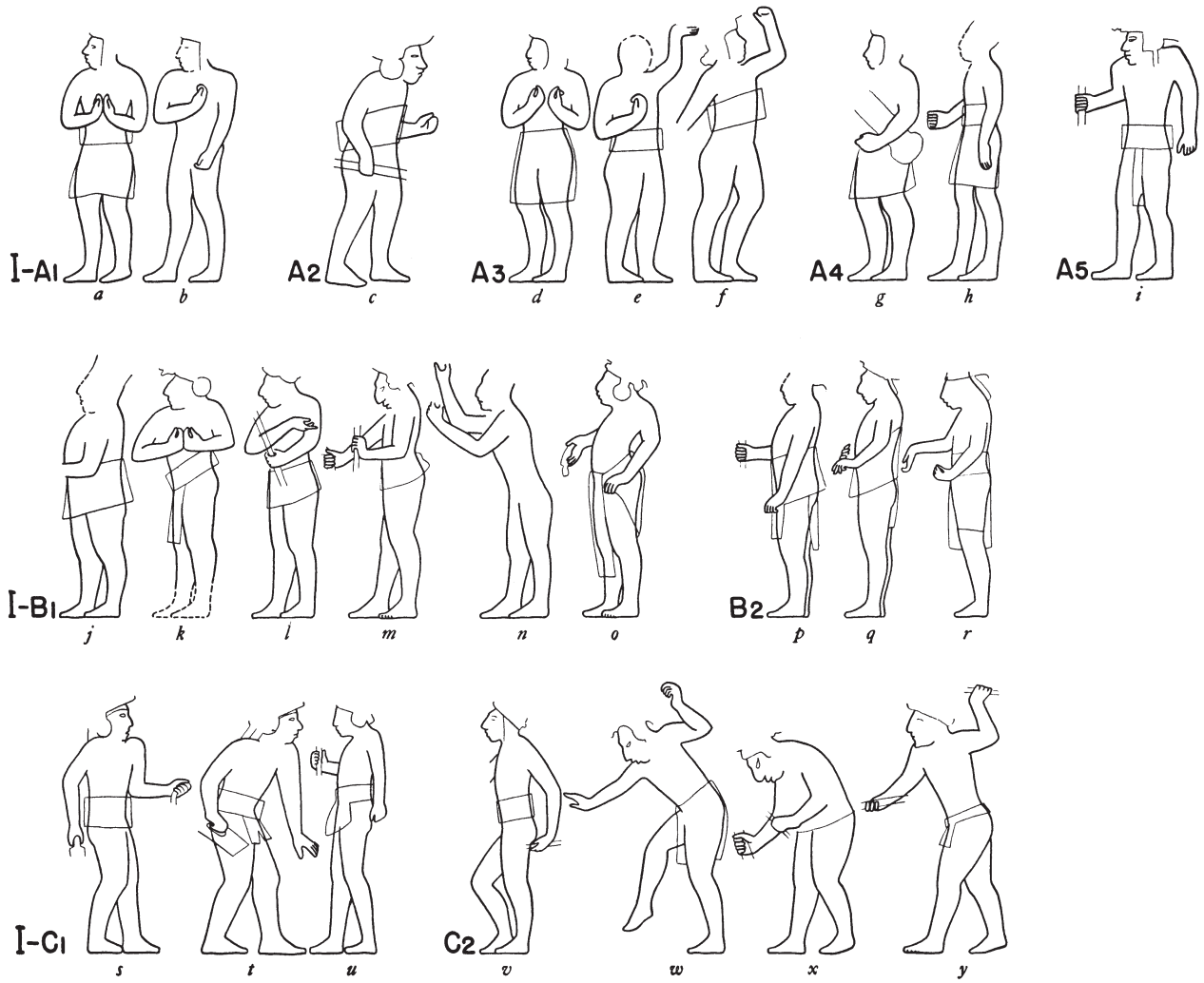


FIG. 7

the early types, especially in two-figure and group compositions. Group B<sub>1</sub> is not typical of any one phase of the Late Classic, but is included to distinguish the earlier tradition from such later exceptions, in which the far knee of the figure is partly obscured by the knee nearest the observer. To be thoroughly consistent, I have placed the figure of Lintel 12 at Piedras Negras (the first example, fig. 7*j*) in this group, although this lintel is probably early. The knees overlap only slightly, and the pose is more rigid than most of the others included. It should be noted that the legs of these figures are rigid, and not slightly bent or relaxed as in C, and that the feet are slightly overlapping.

B<sub>2</sub> is the more usual way of presenting a figure in side view during the Late Classic Period. It is less common than the front view, and we probably do not have its full chronological distribution. It illustrates beautifully the preoccupation of the Late Classic artists, particularly those of what we call the Ornate Phase, with graphic form and exquisitely controlled delineation, by the way in which the outline of the back of the leg is echoed and accented in the almost parallel line of the one behind. Unfortunately, on many monuments this line is marred by erosion. I have been unable to determine whether the complete elimination from view of the far leg was a later development. It apparently appears in the Formative Phase in Yucatan, but in the central area it may be connected with other simplifications in rendering which are characteristic of some schools of the period of decadence.

In the Toltec style of Chichen Itza, which, it is generally agreed, postdates the Classic development, side views and partially side positions again predominate (C<sub>1</sub>). The position of the feet is usually the same as that of the earliest group of the Early Classic Period but, when the figure is at rest, the knees overlap, and the knee nearest the observer is slightly bent, so that the hips can be presented in side view. This forms a more acute angle at the heel than on the earlier positions. When the figure is striding, and the knees do not overlap each other, this angle is further emphasized. The figures often show qualities of pose derived from the conventions of the Late Classic Period, but there are no definable trends within the group itself, and it is probable that the style was not of long duration. The poses vary greatly and often express violent motion, even when the feet are not lifted from the ground as in the following group, C<sub>2</sub>.

C<sub>2</sub> shows various action poses, in which one heel or an entire foot is lifted from the ground. It includes examples from the late Classic Period as well as from the Toltec and other Yucatecan styles. There are not enough dated examples, however, to define its chronological scope. The portrayal of action, however, is in itself a departure from the Classic mode, which placed emphasis on the single motif imposed by the stela cult, and probably all examples of action depicted on major monuments are fairly late.

#### FIGURE 8

The adoption of the pose in which the figure stands with its feet pointing outward, and of the full side view in which one leg is almost out of sight is virtually an unfailing criterion of the Late Classic Period. Stelae 20 and 26 at Uaxactun offer a hint that the full-front position may have been used occasionally in the Early Period, but both are so eroded that one cannot be sure. The full-front position is best suited to the composition of a stela, since it stresses the symmetry of the central axis, but, without complicated devices to produce the illusion of depth, it is not altogether satisfying unless carved in deep round relief, for those proportions and dimensions which best reveal the essential structure of the human face and the human foot are foreshortened in presentation on a single plane. For low and flat relief sculpture, the common pose was one in which the head is turned in profile, while the body faces front and the feet are turned outward. This pose, though it minimizes, does not solve the problem of conflicting directions and it is in the solution of this problem that the Maya made real and significant advances during the course of the Late Classic Period. Although the problem is not relevant to full-face positions, the discoveries of the potentiality of forms to suggest motion and direction, and their manipulation to produce desired effects, can be applied to any composition, and it is unnecessary to classify the figures on the basis of the position of the head.

The earliest examples of stelae from the Late Classic Period are widely scattered and very different in style, but they all depart from the ancient tradition by placing the feet of the principal figure to point outward. The archaic position of the hands and arms is often retained during the first, Formative, phase of the Late Classic. In D<sub>1</sub> it is identical with that of A<sub>1</sub> (see fig. 7), and this is typical of early monuments at Copan. Spinden has pointed this

out in his *Study of Maya Art* (1913, pp. 155-65), in which he uses the criterion of the position of the arms in arranging the sequence of Copan monuments, and brings out the fact that in the later group the forearm is horizontal. I believe, however, that he overstates the progressive nature of this change. The precise angle of the elbow may be influenced by various considerations such as the proportions of the monument, and cannot itself serve accurately as a criterion of time. In D<sub>2</sub> the fingers of the hands are no longer bent around the thumb, but the arms are placed as on Stela 9 at Uaxactun (fig. 7,*b*) and the serpent bar is more nearly vertical than on later stelae. This pose is characteristic of the stelae at Coba. D<sub>3</sub> is an example from Tonina, unfortunately of unknown date.

E is based on later ways of placing the ceremonial bar in the arms of the figure. Poses in E<sub>1</sub> show no detectable archaism nor any of the specific conventions developed during the Late Classic Period to direct the eye to one side. The central axis is particularly conspicuous in these figures; the pose is static, though often more relaxed than in D. When the bar is held horizontally, the forearms of the figure are also horizontal, and occasionally even foreshortened. When the bar is held diagonally, both elbows tend to be sharply bent; sometimes there is a slight lifting of one shoulder. The bar is held less vertically than in D<sub>2</sub>. Poses such as E<sub>2</sub> differ significantly from those of E<sub>1</sub>, for, in both examples shown, the axial symmetry is deliberately modified. In figure 8,*m* this is done by tilting the belt of the figure; in figure 8,*n*, by suppressing the right shoulder. These should be considered in connection with the specific conventions they illustrate, H<sub>1</sub> and I<sub>1</sub>, figure 9. E<sub>3</sub> shows a manner of holding the ceremonial bar which seems to be invariably late.

F<sub>1</sub> corresponds to E<sub>1</sub> in marked axial treatment. These figures hold other objects than the ceremonial bar, and among them it has been more difficult to distinguish archaic survivals, so that their distribution is coeval with that of D and E<sub>1</sub> combined.

F<sub>2</sub> illustrates the convention of lifting the left elbow and throwing the left arm clear of the body. This device is not effectively used in the first example (*t*), which is an early one, but in later times, as in the third example (*v*) and especially in connection with poses in which the vertical axis is broken, it becomes an effective means of suggesting an arc which leads the eye to the direction the figure faces and to the object held in the right hand. It is used

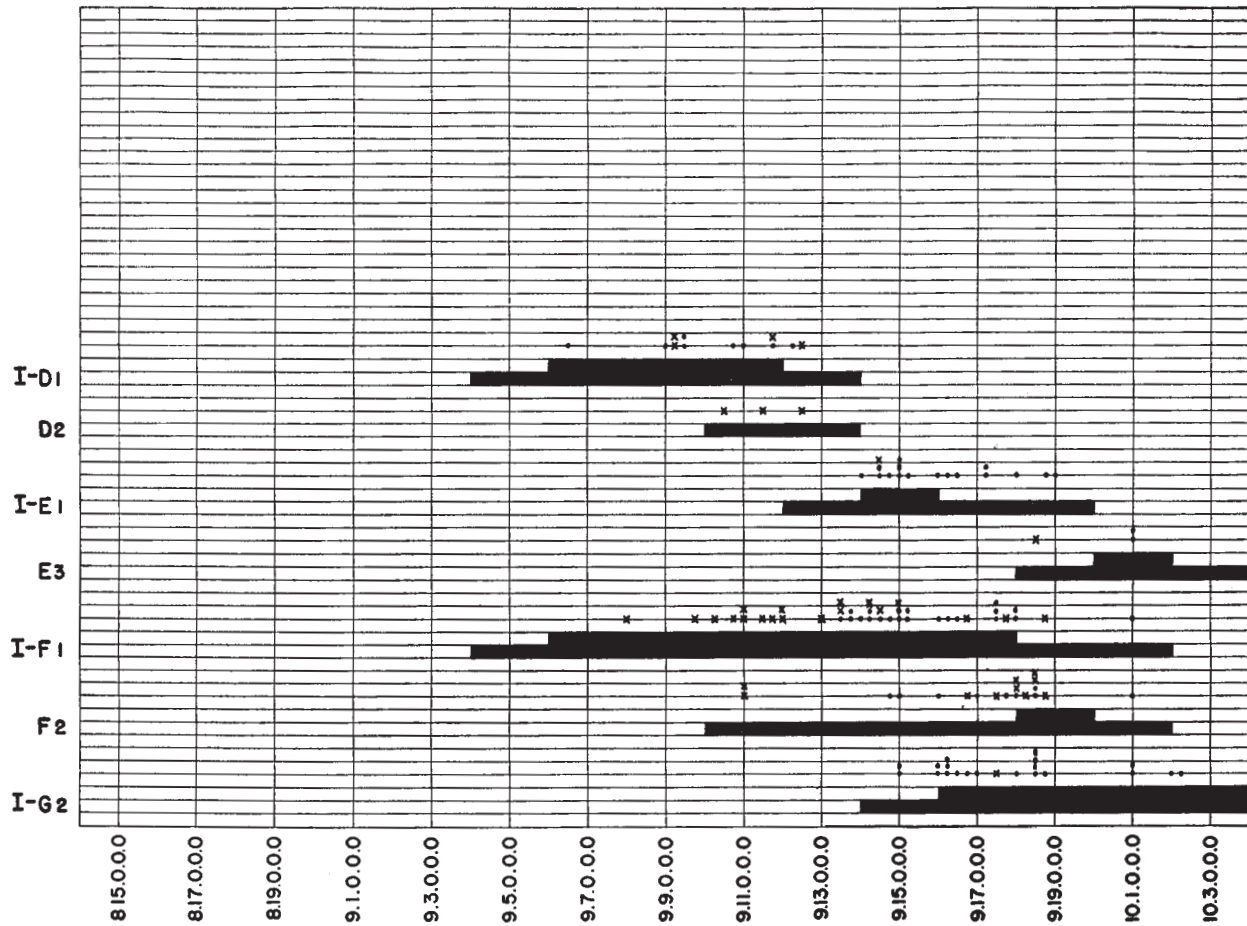
with increasing frequency in the Late Classic Period.

G<sub>1</sub> is of the same type as E<sub>1</sub>, showing how a small staff is held to emphasize the medial axis. In G<sub>2</sub>, which has a later distribution, the staff or some other object is held diagonally and is deliberately placed to distract attention from the symmetry of the pose or to point to a particular area in the design. Although the ceremonial bar was also held diagonally in earlier times, it was balanced on the axis of the figure, and its foci of interest, the serpent heads, were outside the figure and had no perceptible value in pointing direction. In G<sub>2</sub> a small object is held in front of the body; the artist, by changing its position, can lead the observer's eye in any direction he wills. It is not always apparent how deliberately this device is used, but its popularity in the late period, when abstract composition was an important feature in design, shows that its effect was appreciated.

#### FIGURE 9

There is a significant shift of emphasis during the Late Classic Period from static forms to unbalanced forms which tend to suggest motion. As it concerns the figure itself, this tendency is expressed by focusing attention on the gesture or action of the personage portrayed, rather than, as formerly, on his costume and accoutrements. Many late figures either lean slightly in one direction or bend at the waist. In some cases this is done very deliberately; in others it seems to be a mere inattention to exact alignment, but its effect is to produce a composition based on curved lines rather than on a strictly vertical axis of symmetry. In H<sub>1</sub> the head and shoulders are moved from the central axis, as we can test by dropping a vertical line from the center of the earplug. This line will fall on the heel of one foot, not between the feet, as in a more rigidly balanced pose. Also included in this group are poses in which the deviation from symmetry is more subtly expressed as, for example, by the manipulation of articles of dress. In the last example shown (fig. 9,*d*) the belt of the figure is slightly tilted, the hands are arranged to stress the same direction, and the outline of the thighs is not symmetrical. Any of these devices, if they appear to be more than mere irregularities, may be included in this group. H<sub>2</sub> is a particular case in which the bending or turning of the torso is compensated by the displacement of the hips, producing a figure, such as the figure 9,*e*, which is dynamically balanced though not symmetrical. The last two examples are less successful in this respect; they use



FIG. 8—POSITIONS OF FIGURE (I)—*continued*

- I: D1. Feet pointing outward. Axial pose. Fingers curled, elbows sharply bent. Serpent bar held horizontally or at acute angle to vertical.
- D2. Feet pointing outward. Axial pose. One elbow at acute angle, the other almost straight. Serpent bar held at acute angle to vertical.
- D3. Elbows sharply bent, fingers uncurled. Rare. Tonina.
- I: E1. Feet pointing outward. Forearms horizontal, when bar is held horizontally. Both elbows bent when bar is held diagonally. Angle of bar 45 degrees or more from vertical. Pose axial.
- E2. Similar pose with axis of symmetry broken. To be classed with dynamic poses of H1 and H2 (fig. 9).
- E3. Serpent bar held with left arm thrust back and forearm vertical. See also sitting pose N3 (fig. 10). Axial and dynamic poses.
- I: F1. Feet pointing outward. Axial pose. No directional devices to point to object held in hands.
- F2. Feet pointing outward. One elbow bent and arm thrust backward clear of body, with forearm vertical. Axial and dynamic poses.
- I: G1. Same as F1, holding small staff in front of body. Axial pose.
- G2. Feet pointing outward. Object held in front of body diagonally. Axial and dynamic poses.

## SOURCE OF ILLUSTRATIONS

*a*: Copan St. P. *b*: Copan St. 6. *c*: Calakmul St. 28. *d*: Naranjo St. 25. *e*: Coba St. 6. *f*: Coba St. 1. *g*: Tonina T12. *h*: Copan St. N. *i*: Tikal St. 16. *j*: Naranjo St. 31. *k*: Coba St. 20. *l*: Naranjo St. 20. *m*: Naranjo St. 14. *n*: Naranjo St. 7. *o*: Seibal St. 10. *p*: Piedras Negras St. 8. *q*: Etzna St. 18. *r*: Naranjo St. 24. *s*: Calakmul St. 51. *t*: Piedras Negras St. 34. *u*: Cancuen St. 1. *v*: Rio Bec V St. 5. *w*: Lacanja St. 7. *x*: Quirigua St. F. *y*: Naranjo St. 8. *z*: Yaxchilan St. 11. *a'*: Naranjo St. 35. *b'*: Calakmul St. 52. *c'*: Xcalumkin, Initial Series Bldg.

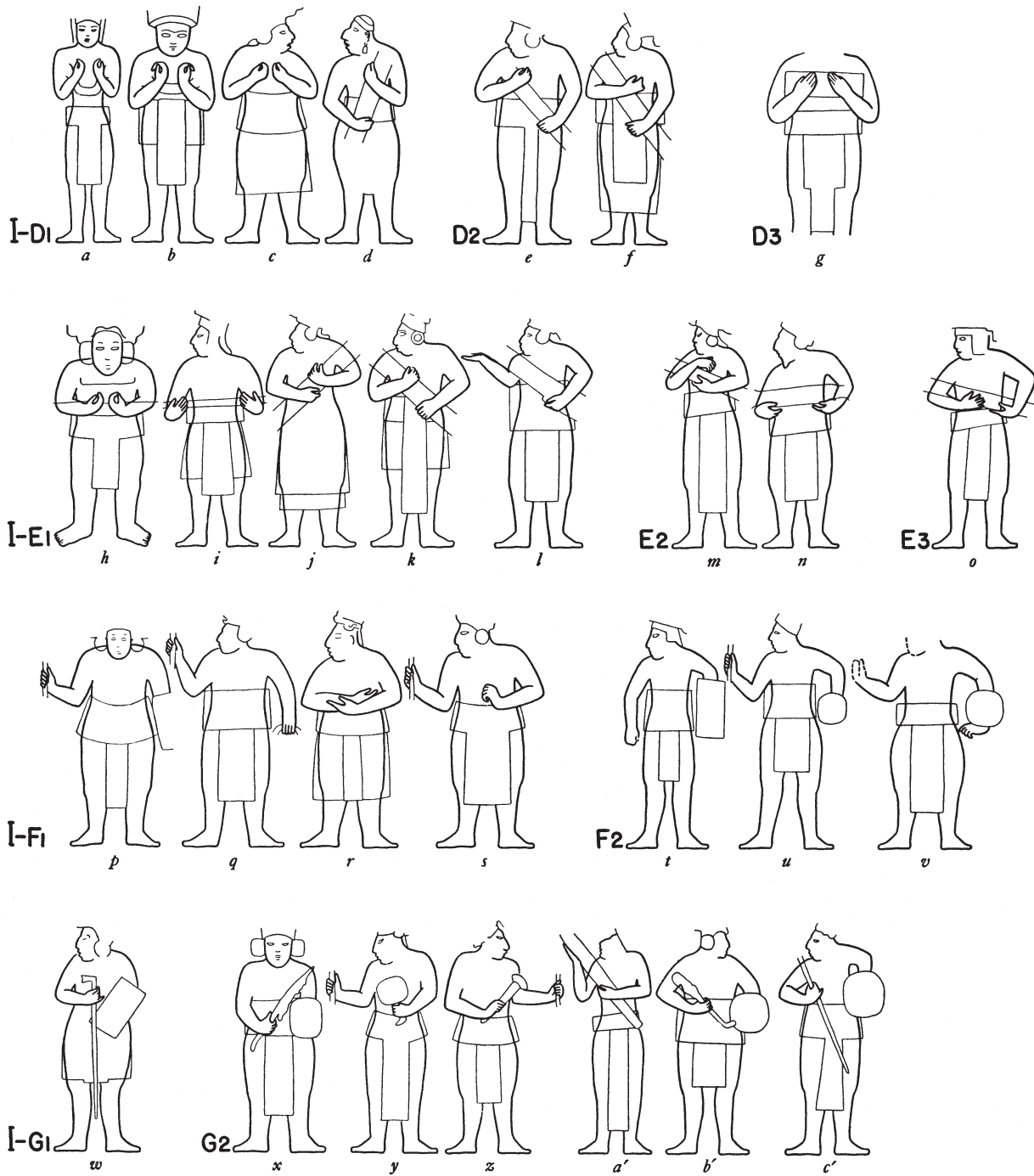
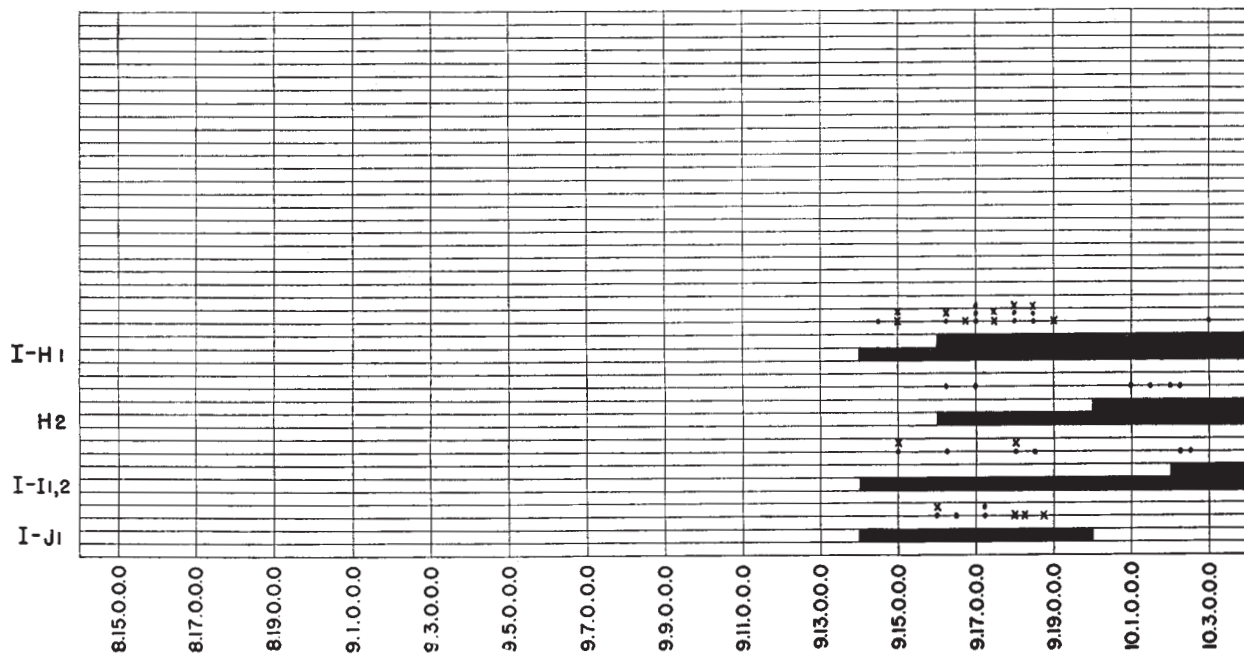


FIG. 8

FIG. 9—POSITIONS OF FIGURE (I)—*continued*

- I: H1. Feet pointing outward. Torso leaning forward, so that earplug is over forward foot, or symmetry is broken by tilting forward of belt, apron, or other elements of dress.
- H2. Feet pointing outward. Hips displaced from vertical axis or apron of breechclout slopes away from direction figure is facing.
- I: I1. Feet pointing outward. One shoulder suppressed.  
I2. Feet pointing outward. Elbow placed very close to the body or slightly behind it to suggest three-quarters view of torso.
- I: J1. Feet pointing outward. One or both heels lifted from the ground.  
J2. Dancing pose with strongly suggested motion. Non-Classic.  
J3. Poses suggesting motion in scenes of battle.
- I: K1. Feet pointing outward. Apron of breechclout short, leaving clear outline of legs to level of knee. Axial and dynamic poses.  
K2. Feet pointing outward. Tassel of breechclout adapted to space between legs. Axial and dynamic poses.  
K3. Feet pointing outward and placed far apart. Knees slightly bent. Non-Classic.

## SOURCE OF ILLUSTRATIONS

*a*: Xultun St. 10. *b*: Aguas Calientes St. 1. *c*: Yaxchilan L. 3.  
*d*: Naranjo St. 12. *e*: Piedras Negras St. 13. *f*: Xultun St. 3.  
*g*: Calakmul St. 17. *h*: Yaxchilan L. 13. *i*: Ixkun St. 1.  
*j*: Xmakabatun St. 4. *k*: Xcalumkin, Glyphic Group, S. Bldg.  
*l*: Quirigua St. C. *m*: Motul de San Jose St. 2. *n*, *o*: Oxkintok St. 9. *p*: Yaxchilan L. 8. *q*: Kabah, the Codz Poop. *r*: Etzna St. 19. *s*: Yaxchilan St. 20. *t*: Santa Rosa Xtampak St. 3.  
*u*: Halal, lintel. *v*: Seibal St. 3. *w*: Etzna St. 15.

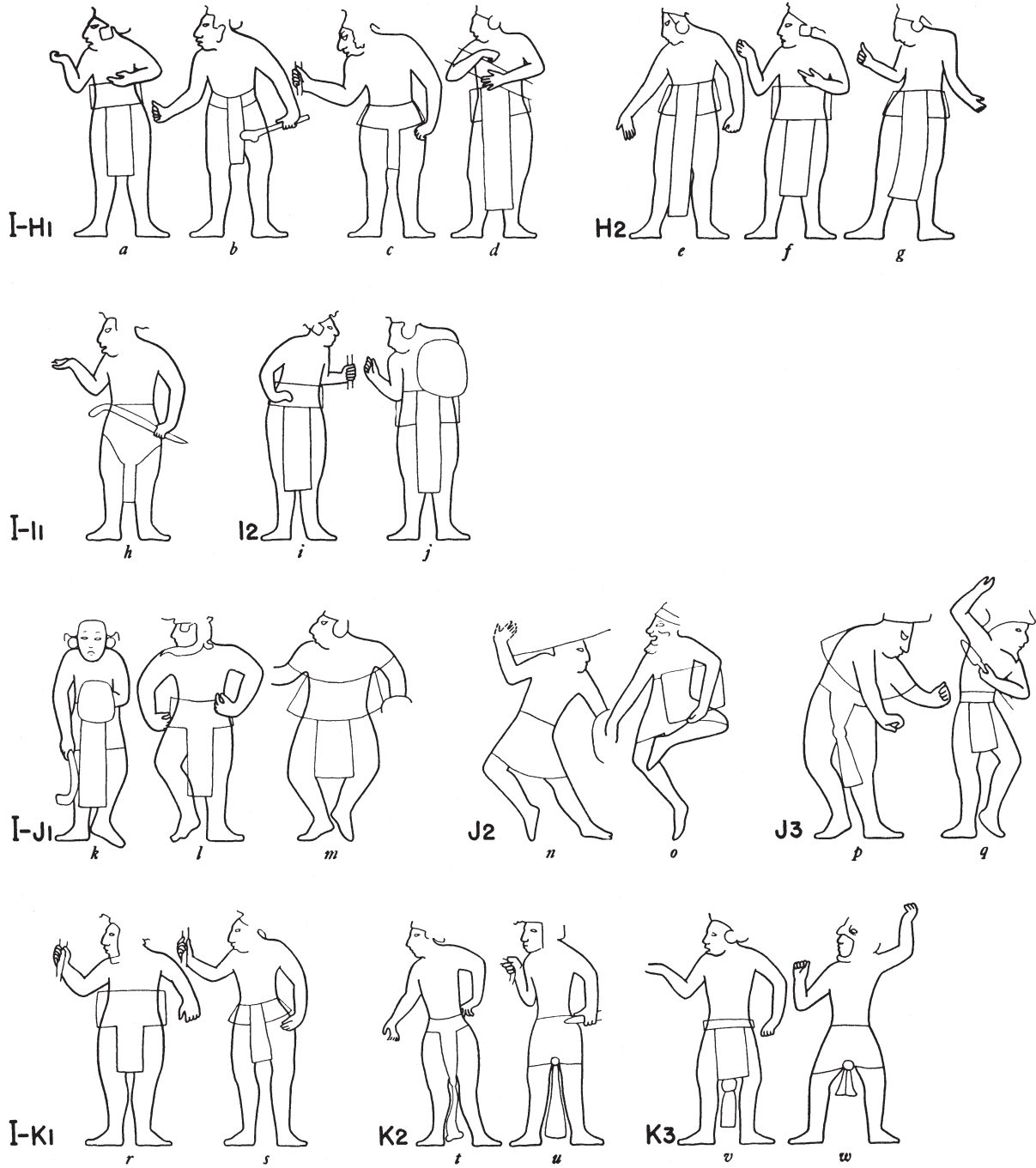


FIG. 9

the device with less deliberation, probably adopting it as a mannerism without specific intent. This convention, too, may be expressed merely in the slant of the apron of the loincloth, while the figure preserves its symmetry.

Sometimes, often at the same time as the figure is made to bend at the waist, there is also an attempt to express the turning of the torso away from the observer and toward the object the figure is holding. In I<sub>1</sub> this is achieved by the suppression of the right shoulder; in I<sub>2</sub>, by the placing of the elbow very close, or even actually behind the body. Such very strongly directed poses as figure 9,*i* are usually very late.

Actual motion is seldom expressed on Classic stelae, except in a manner suggesting a formal dance. A pose in which one heel (rarely both) is lifted from the ground, is illustrated in J<sub>1</sub>. The motion of Classic figures is always restrained, not violent as in J<sub>2</sub>, which shows figures from a paneled stela at Oxkintok (Stela 9) of unknown date, and which represents a digression from the Classic manner. J<sub>3</sub> shows motion expressed in connection with scenes of battle. Such poses resemble the dancing pose and in Yucatan are often associated with traits not purely Maya. In Classic art they are rare, occurring almost exclusively in the region near Yaxchilan. Few of them are dated. It is still a question whether they are in themselves evidence of a late turbulent period, or if the position of Yaxchilan on the Chiapas bank of the Usumacinta brought it throughout its history into conflict with adjacent peoples and popularized the battle motif.

Another peculiarity of pose, common to Yucatan and the Usumacinta region, but occurring only sporadically in other regions, is illustrated in the figures of K. It is in fact not so much a peculiarity of pose as of manner of depicting the apron of the loincloth and the legs of the figure. In K<sub>1</sub>, which comprises Classic examples, the apron is very short, exposing the inner outline of the leg to the height of the knee. In Puuc sculpture, K<sub>2</sub>, this line is deliberately kept intact by arranging the tassel of the apron to follow the outline of the legs; in K<sub>3</sub> the knees are slightly bent and the feet placed far apart so that the tassel may hang between them. The significance of these poses is regional rather than chronological, but K<sub>2</sub> and K<sub>3</sub> are probably later developments from K<sub>1</sub> and, although not dated, may be valid criteria of late times. The adaptation of forms to the field in poses of K<sub>2</sub> type is certainly suggestive of the Dynamic Phase in Classic art.

FIGURE 10

The principal figure is sometimes seated, but this position is relatively rare on stelae, and it is not possible to graph its variations. Nevertheless one can observe a development very similar to that of the standing pose.

L<sub>1</sub> (*a*) is from the early Stela 18 at Tikal; a grotesque variation of it (*b*) occurs on the undated Stela 14 at Oxkintok. L<sub>2</sub> occur sporadically but are not typical.

More often, the figure sits with legs crossed, and may be depicted in side view (M) or *en face* (N). A pose of M type occurs in the Early Classic Period on the fragment of an altar from Uaxactun, but its arrangement is not entirely clear, partly because of the break in the stone and partly because the figure is obscured by ornament (see fig. 39,*e*). M<sub>1</sub>, from Palenque, showing the torso in front view and the legs from the side, probably illustrates a convention surviving from the Early Period, though of this we have no proof. The figures of M<sub>2</sub> are all from monuments of the Late Classic Period. These examples cannot be clearly typed, but in the last two (fig. 10,*j,k*), both late (9.17.0.0.0 and 9.18.5.0.0), one can clearly perceive dynamic qualities of pose.

Poses of N type can also be arranged in a sequence which parallels that of the standing pose and illustrates progressively dynamic arrangements. Epigraphic chronology is consistent with the series but insufficient to show the distribution of each variety. N<sub>1</sub> is the axial pose, only slightly modified in the second example. The figures in N<sub>2</sub> are generally used in group arrangements. The body leans from the waist and the pose is unbalanced. These seem to occur earlier than the unbalanced pose of the standing figure, but the last and extreme example (fig. 10,*p*) illustrates the late tendency to exaggerate motion. In N<sub>3</sub> the torso is bent rather than leaning, and balance is restored without symmetry by the careful placing of the arms of the figure. Here one feels a realistic distribution of weight and motion, again expressed in O, in which the arm acts as a support. The first and earliest example is a minor figure which does not play an important part in the composition, but the last two are the center of interest in their context, and their arrangement determines the principal lines on which the design is composed.

In P are two figures from Oxkintok (Stela 19), which are clearly non-Classic in their mode of presentation, but it is impossible to say whether this mode

is merely a local peculiarity or the result of foreign or decadent influences.

No distribution graphs are presented with these figures, but some of them employ the same conventions as do the standing figures; where it is necessary for chronological appraisal, it may be safe to class them with the categories of the standing pose. Thus, N<sub>1</sub> may be considered as coeval with F<sub>1</sub> (fig. 8). The first example in N<sub>3</sub> may be correlated with E<sub>3</sub>, H<sub>1</sub>, and I<sub>1</sub>; the second with F<sub>2</sub>, H<sub>1</sub>, and I<sub>1</sub>. In classifying N<sub>2</sub> with H<sub>1</sub>, however, one should take into consideration the fact that when used in group compositions such poses probably occur earlier than they do as principal figures on stelae. Their distribution, in fact, is so uncertain that as a criterion the pose is of little value.

## II—SCROLLS

It is difficult to say what constitutes artistic style, and what considerations compel the attention of a discriminating eye, but there are certain qualities in art which seem to come close to the root of the matter. These are qualities of pure configuration: the preferences for certain shapes, proportions, types of curvature, and rhythmic changes of their arrangement. These can be defined to some extent if the motif chosen for comparison is more or less independent of direct observation and imitation of natural form. If we choose motifs, moreover, which are alike in essential structure, we can detect differences in their delineation which can only be the result of graphic habits. The forms included in Category II are not necessarily purely decorative inventions. Some are apparently derived from plant motifs, others from the ubiquitous serpent head. What degree of meaning or suggestion they are intended to convey is immaterial. They have been chosen entirely on the basis of their similarity in form structure and grouped according to differences in arrangement and configuration. The majority are based on some combination of curved elements and undulating forms, and, for lack of a more appropriate term which would suggest a general similarity of shape and structure without connoting origin or meaning, all are designated "scrolls."

As in the case of the position of the figure, the earliest examples tend to be similar to the latest, when the Classic tradition of the Maya was weakening and apparently being diluted by foreign styles. We shall find this true also of other motifs. It is as if the whole

Classic development were a wave, which, having spent its energy, merged into a more general flow of progress. If one were to characterize this wave in a brief phrase, one could describe it as a growing preoccupation with the study of abstract form, expressing itself by intricate regularity of configuration. Such a statement, however, is at once too vague and too general to admit a clear distinction of phases. Actually, the groups are based on minor distinctions, which are the by-products of this development but which can be stated with greater clarity.

### FIGURE 11

Scrolls of A group are from very early monuments, all too badly weathered to permit definition of a type. We may note, however, that the undulating element does not appear, and that two curving elements may be juxtaposed back to back. A<sub>1</sub> is from Structure E-VII-sub at Uaxactun. It is a three-part scroll, made up of separate elements of simple outline and equal width, with blunt ends. A secondary, winglike element is added to these primary forms. A<sub>2</sub> is from early stelae at Uaxactun. The forms are again simple, blunt, and curving in opposite directions.

B is typical of the Early Classic Period in the Peten. The scroll is composed of discrete elements of simple outline and of approximately equal value. The composition tends to be axial. B<sub>1</sub> and B<sub>2</sub> show a simple combination of a curving and an undulating form. There is some tapering, which, however, tends to be abrupt and unrelated to the undulations. The first undulation is usually *very short and deep*. There is *no interior decoration*. B<sub>3</sub> shows two small scrolls often used independently or attached to other forms in early designs. Such scrolls are combined in B<sub>4</sub> with an undulating element placed between them; this element, as in the previous group, tends to *fold sharply upon itself on the first undulation*. In B<sub>5</sub> the central element is specialized and has a *winglike appendage*, sometimes decorated with dots. In the last example (*s*) the body of the scroll is a formalized serpent head. The *blunt termination* and the *axial arrangement* of these forms are characteristic. Examples in B<sub>6</sub> seem to be symbolic of plant forms and are structurally similar, having the same axial arrangement, the same blunt elements, and the two base scrolls from which the main element issues. The nonadaptive quality of their structure is clear when these forms are compared with similar forms in F<sub>2</sub> (fig. 12,j-n).

FIG. 10—POSITIONS OF FIGURE (I)—*continued*

- I: L1. Sitting pose, legs in profile bent at right angle. Torso in front view.  
 L2. Sitting poses in side and front view, with legs down over edge of seat.
- I: M1. Sitting pose, legs crossed. Side view of legs, front view of torso.  
 M2. Sitting pose, legs crossed, side view. Includes static and dynamic poses, which may be classed under conventions described on standing figures.
- I: N1. Sitting pose, front view. Axial arrangements.  
 N2. Sitting pose, front view, body leaning forward from the waist.  
 N3. Sitting pose, front view. Body bent, but balanced by compensating arrangement of arms.
- I: O. Sitting poses. Arm used as support.
- I: P. Aberrant sitting poses. Oxkintok. Non-Classic.

## SOURCE OF ILLUSTRATIONS

*a*: Tikal St. 18. *b*: Oxkintok St. 14. *c*: Piedras Negras St. 5. *d*: Yaxchilan L. 17. *e*: Cancuen St. 2. *f*: Oxkintok St. 3. *g*: Palenque House E. *h*: Bonampak Altar of St. 2. *i*: Piedras Negras St. 10. *j*: Piedras Negras L. 3. *k*: Piedras Negras St. 12. *l*: Piedras Negras St. 3. *m*: Piedras Negras St. 33. *n*: Bonampak Altar of St. 2. *o*: Piedras Negras L. 7. *p*: Flores St. 1. *q*: Cancuen St. 1. *r*: La Mar St. 1. *s*: Piedras Negras St. 3. *t*: Piedras Negras L. 3. *u*: Piedras Negras St. 12. *v,w*: Oxkintok St. 19.



FIG. 10



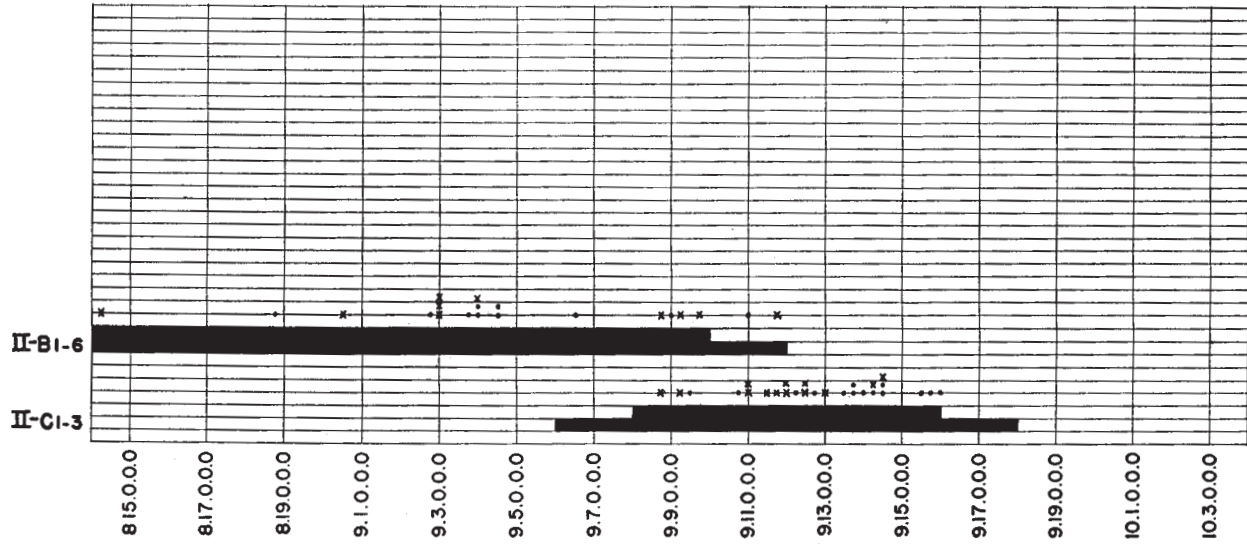


FIG. 11—SCROLLS (II)

- II: A1. Three-part scroll. Elements of equal value. Blunt ends. Curves in opposite directions. Wing element. Uaxactun, Structure E-VII-sub.
- A2. Early scrolls curving in opposite directions. Blunt elements of equal value.
- II: B. *Scrolls of the Early Classic Period.*
- B1. Curve and undulating element. Simple configuration, tapering at tip. Axial arrangement with elements preserving full width at source. First undulation short and deep. No interior decoration.
- B2. Same. Less regular curvature and undulations.
- B3. Two small scrolls used as decorative element.
- B4. Two small scrolls with undulating element between them. Elements of equal value, simple configuration, and constant width except for tapering at tip.
- B5. Scrolls and winged element. Axial arrangements. Blunt termination of central element.
- B6. Plant symbols? Base scrolls. Axial arrangements preferred. Simple interior decoration.
- II: C. *Scrolls of intermediate type.*
- C1. Scroll and undulating element. Simple configuration. More pronounced tapering and narrowing of elements at source. More extended first undulation. Interior decoration.
- C2. Same, with large element and minor scroll, arrangement not axial.
- C3. Same as B6. Base scrolls with interior decoration.
- C4. Plant form from Palenque. Modified axial arrangement. Fluid lines.
- II: D. Two-part scrolls with extended undulations, fine tapering, interior decoration. Simple configuration of elements.
- II: E. *Late scrolls resembling early forms. Simple configuration. Cursive qualities usually more pronounced.*
- E1. Scrolls curving in opposite directions.
- E2. Scroll and undulating elements. Late types resembling the archaic.
- E3. Scrolls from Chichen Itza.

## SOURCE OF ILLUSTRATIONS

a: Uaxactun, Str. E-VII-sub. b: Uaxactun St. 10. c: Uaxactun St. 20. d: Tikal St. 18. e: Uolantun St. 1. f: Tikal St. 18. g: Uaxactun Altar in Str. A-V. h: Yaxha St. 4. i, j: Tulum St. 1. k: Tikal St. 1. l: Leyden Plate. m: Uaxactun St. 3. n: Yaxha St. 5. o: Tikal St. 2. p: Uaxactun St. 20. q: Uaxactun St. 3. r, s: Tikal St. 1. t, u: Yaxha St. 2. v: Copan St. P. w: Naranjo St. 30. x: Palenque, Temple of the Cross. y: Palenque, Temple of the Sun. z: Palenque, Temple of the Cross. a': Xultun St. 18. b': Piedras Negras St. 25. c': Yaxchilan St. 6. d': Copan St. 3. e': Palenque, Palace. f', g': Palenque House A. h': Bonampak, Lintel of Str. 6. i': Sayil, Str. 4B1. j': Santa Rosa Xtampak St. 3. k': Sayil, Str. 4B1. l': Sayil Str. 3B1. m': Copan Altar Q. n': Santa Rosa Xtampak St. 3. o': Santa Rosa Xtampak St. 8. p': Pich Corralche St. 1. q': Chichen Itza, Great Ball Court. r': Chichen Itza, Temple of the Jaguars.

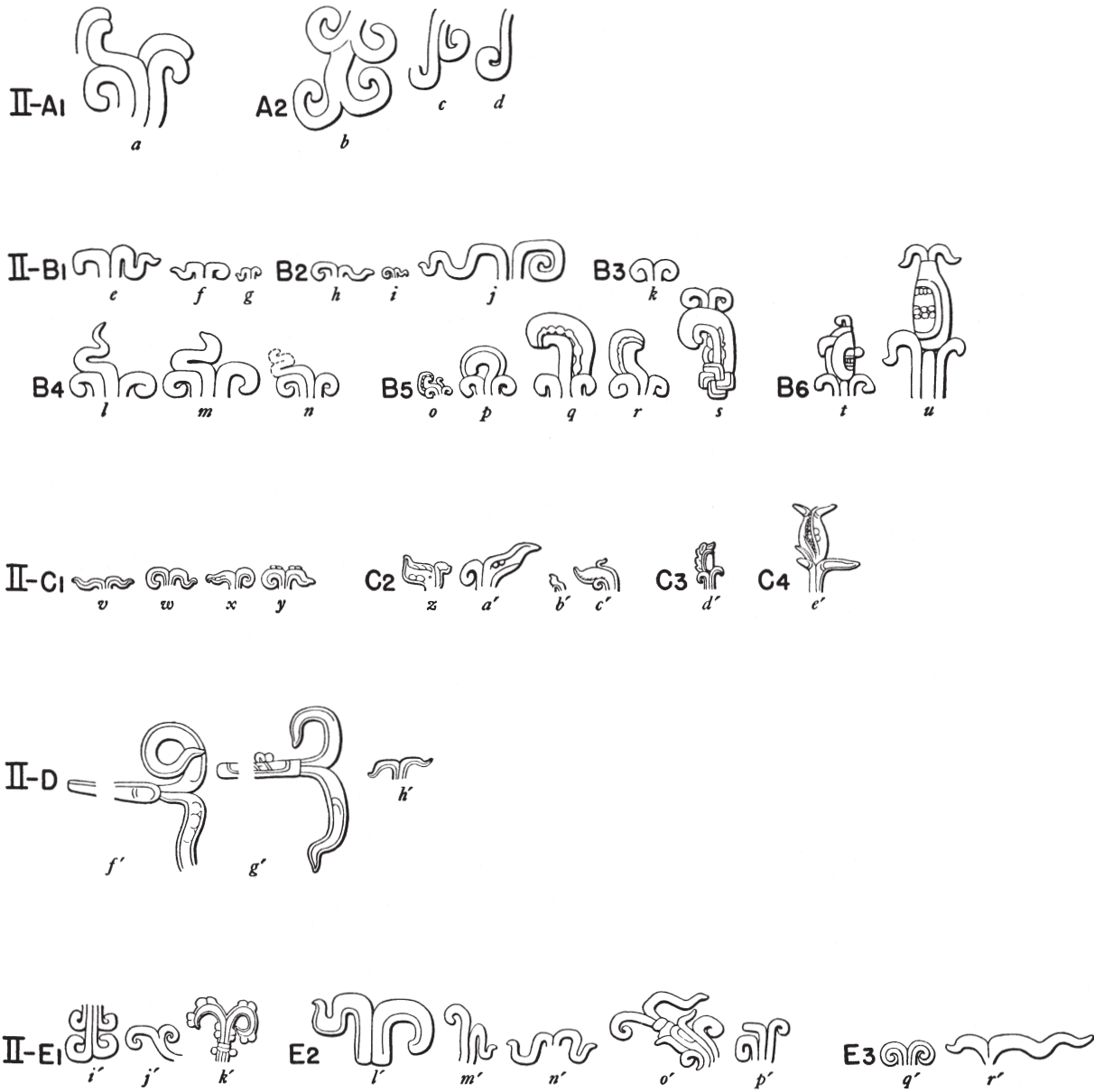


FIG. 11

We lack data on the Formative Phase which precedes the style that has been designated as "Ornate," for the earliest monuments of the Late Classic Period make very little use of purely decorative forms. Possibly the ornate forms were developed primarily in some other art than that of monumental sculpture. Painting and stucco are media which allow the artist greater freedom of invention than does the carving of stone. Even professional sculptors doubtless did most of their learning, practicing, and designing with brush or in some plastic medium. Surviving examples of stucco and painting, however, are rare, and we must rely largely on inferences from the result to reconstruct the sequence of development from the meager data available. C<sub>1</sub> includes only minor scrolls, which are composed of elements of simple configuration but which incline to tapered form and some interior decoration. There is a propensity to extend the first undulation, to relate the tapering to diminishing waves, and to narrow the forms as they converge. C<sub>2</sub> modifies the axial arrangement by omitting one of the base scrolls; C<sub>3</sub> preserves the axial feeling, only adding interior lines to the base scrolls; and C<sub>4</sub>, from Palenque, shows a more fluid line and a higher development of interior design. These transitional forms probably vary according to regional styles, and the group may include minor forms from later styles which do not share in the late developments.

Forms in D are from Palenque and Bonampak. Essentially they are the same as those in C but are somewhat more extended and have highly sensitive tapering, rhythmic arrangement, and regular but fluid line. Stylistically, they are intermediate between C and the highly developed forms of the Ornate Phase, but the date of the given examples is unknown. It seems probable, however, that their chronological distribution would overlap both C and F.

In E are different types of scrolls, mostly from the late sculpture of Yucatan, which, in one or another respect, resemble very early forms and may be easily confused with them. E<sub>1</sub> are scrolls curving in opposite directions; E<sub>2</sub> are simple, two- or three-part scrolls. The first example (*l'*), from Sayil, is identical with forms of the Early Classic Period, except for the added decorative line. Usually, however, the late can be distinguished from the early forms, not only by their context, but also by their quality of adaptation to their role in the design. Thus, the lack of balance of *m'* and *o'*, and the cursive slant of *n'* distinguish them from the axial forms of B. Such forms

occur most often with non-Classic influences. They are possibly peripheral survivals, or their appearance in late Maya sculpture may be due to a renewal of influences from contiguous regions. E<sub>3</sub> are from the Toltec Period of Chichen Itza. The first (*q'*) is similar in structure to the early forms B<sub>3</sub> and B<sub>5</sub>.

FIGURE 12

Group F is characteristic of the Ornate Phase of the Classic development. The main concern of the artist here is the balance and the beauty of the form, and its integrated composition. In only a few later examples (*e*, *f*, *b*) a slanting of elements gives the form a slight tendency to direction. The structure of these forms is more complex than that of earlier types. Each element is drawn with express relation to others, and its form undergoes adaptive modification. For example, in the early type of the two-part scroll, the elements maintain their full width as they converge at the stem. They are merely juxtaposed. In the Late Classic Period, including also C and D, the elements narrow as they come together and often merge at the source. Such integration of forms is even more complete as the Ornate Phase progresses. There is a logical consistency in all the changes of direction that take place, as if these forms, like living organisms, are subject to universal laws, unanalyzed but aesthetically conceived. There are no arbitrary changes of direction. The minor branches and projections diverge from the major stems as if carried by the momentum of their previous motion. The diminution in the width of a form is invariably accompanied by its finer undulation. The interior detail does not merely ornament the form but is placed to emphasize the main current of its direction. With erosion, this fine sensitivity of line is often lost, and only a study of well-preserved originals can reach its full appreciation.

Spinden has attributed the tapering forms and rhythmic variations of curvature so conspicuous in this style to the influences of the serpent motif. There is probably much truth in this suggestion, for the undulations have a serpentine quality. On the other hand, the body of the serpent was not often portrayed until fairly late times. An alternative explanation of the Maya's avoidance both of purely rounded and purely angular forms, and their preference for a rhythmic variation of straight line and curve, may lie in the relation of the monumental art to the art of stucco sculpture. Stucco, when applied to rectangular architectural features or supported

on a backing of masonry, automatically tends to produce forms essentially rectangular but strongly rounded at the corners. It may be significant that the earliest example of Maya sculpture yet known (the masks of Structure E-VII-sub, Uaxactun) was executed in stucco.

These general artistic features give the Classic Ornate style its essential quality, but without mathematical analysis of the curvatures and proportions of the forms, which would be probably too complex to be practicable, their appreciation remains largely subjective. The elaboration of elements by notches and projections is a more definite quality, which can be used conveniently as a *diagnostic* of the ornate scroll, although this distinction is somewhat arbitrary and may exclude forms which, because of their minor importance, receive simpler treatment. The first, and earliest, example of the ornate scroll (fig. 12,*a*) is elaborated only by the addition of a minor sinuous element to the principal form. There is not enough material to show if this is consistently earlier than the type in which the principal form itself is notched. F<sub>3</sub>, from the Temple of the Foliated Cross at Palenque, seems to be intermediate. At this site simple forms predominate, but it is likely that they, too, are in part contemporaneous with the notched types on the Usumacinta, at Copan, and in the Peten, although typologically they belong with the earlier group.

G is distinguished from F by its strong outlines, often executed by a raised fillet. These outlines emphasize the general configuration of the form, rather than its structure, and produce a bolder, less delicate design. At Copan this manner is associated with architectural sculpture, and it may have been developed first in connection with ornament designed to be viewed at a distance.

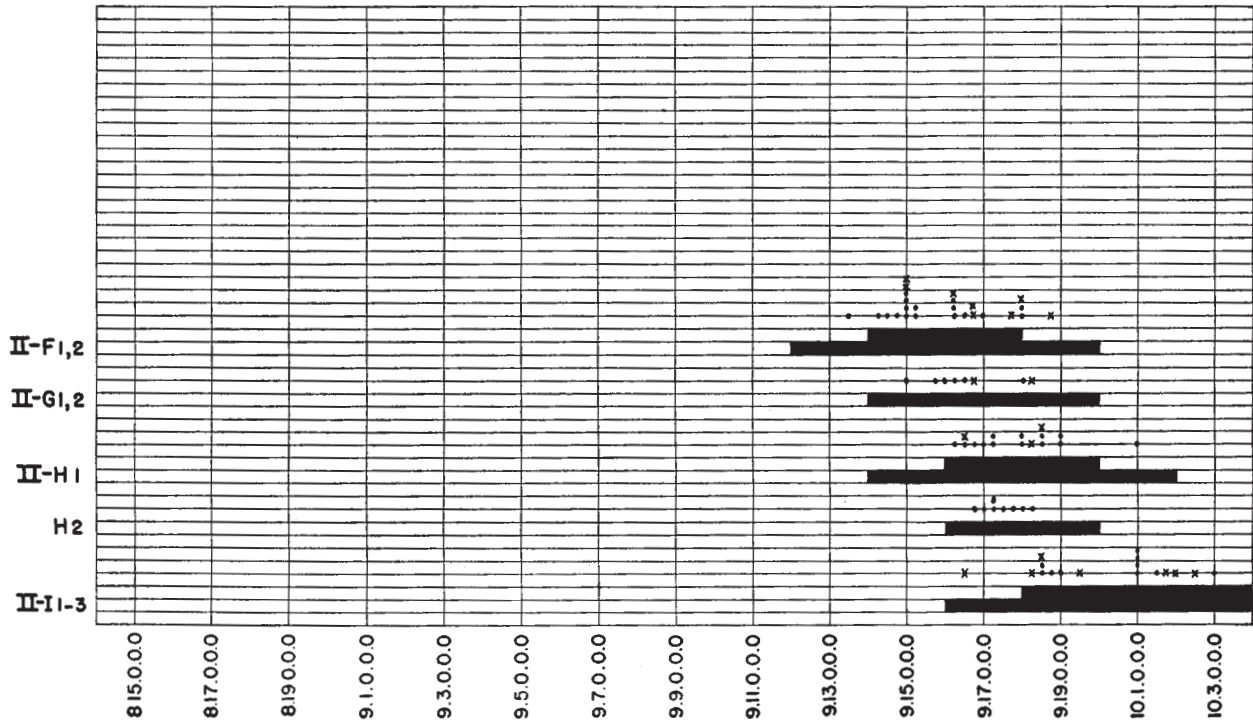
Both these groups, F and G, are distinguished from the later H and I by their manner of terminating an undulating form: in F and G the tapered tip is relatively short and continues the undulating rhythm, turning away from the nearest notch or projection; in H and I the tip swings back in an arc toward or around the notch, and is often long and attenuated in width.

H<sub>1</sub> illustrates the latter type of curve, occurring as early as 9.16.5.0.0. This group still shares with F its quality of formal structure, regular line, and fine detail. H<sub>2</sub> also tends to terminate elements with an arc or curve turning toward a projection, but differs from the previous group in the manner of its in-

terior decoration, which is only loosely related to structure, and in the fact that this structure, in itself, tends to be arbitrary, with lines taking abrupt changes in direction. The use of fillets which start at the margin and return to it, forming a partial outline, is characteristic of this type of decoration (see fig. 12,*b',d'*). Another frequently recurring feature is a notch indicating a diversion of part of the scroll which ends bluntly and abruptly, and is suggestive of the element in plumbate pottery design which Shepard (1948, p. 56) describes as "spatulate" (fig. 12,*z*). Lines or fillets in the form of a hook, projecting inward from the edge of a form, compositions in which motifs merge and a single element is made to serve two functions, and sudden directional changes are qualities which may be observed also on the decoration of the yokes and palmas usually attributed to the Totonac culture. In the Maya area these qualities occur almost exclusively in the late sculpture of Quirigua, and seem to indicate contact of this site with some highly developed foreign style. They seldom appear consistently throughout the design and are usually simultaneously used with forms that can be related to H<sub>1</sub> and I. They are approximately contemporaneous with forms of G type at Copan, and represent a special manifestation of the same trend, divorcing decoration from form.

In I the late curve is subjected to a more cursive delineation, which is associated with the late Dynamic and the Decadent phases of the Classic mode. These scrolls abandon the strict rhythmic regularity that typifies F and H<sub>1</sub>, and tend to produce the effect of more violent and restless motion. The line is sweeping and often cursive, with the tip of the form swinging around in a large, attenuated arc. There are often tendril-like appendages, which diverge abruptly from the form. Designs in I<sub>3</sub>, although they lack the typical termination of the undulating form, are included in this group because of their cursive delineation (*n'*, *o'*), the recurving tip (*o'*), the long, tendril-like form (*p'*), or a combination of these qualities (*g'*). The practice of superimposing two designs carved on different planes is often a feature of this type of scrollwork, and one may also note that two scrolls curving in the same direction may be juxtaposed, as in *g'*.

The decadent quality of some of the forms included in this group is apparent in the omission of detail and in the gross irregularity of line which succeeds the cursive tendency. There is also, in this period, an increasingly frequent return to qualities

FIG. 12—SCROLLS (II)—*continued*II: *F. Scrolls of the Ornate Phase.*

F1. Two-part scrolls. Notched forms, with interior decoration of lines and circles. Tip of undulating element in line of undulation, and turning away from nearest projection.

F2. Same. Three-part scrolls.

F3. Notched form from Palenque. Simple, extended elements predominate.

II: G1. Essentially the same as F1, with strongly marked outlines.

G2. Same corresponding to F2.

II: H1. Forms with tip of undulating element curving back toward projection. Regular lines and decoration same as in form F.

H2. Forms with tip of undulating element curving back toward projection. Interior decoration unrelated to form. Partial outlines. Hook element. Arbitrary changes of direction. Late Quirigua.

II: *I. Forms of the Dynamic and Decadent Phases.*

I1. Forms with tip of undulating element curving back toward projection. Irregular or cursive line. Sweeping, attenuated arcs. Tendril-like appendages.

I2. Same as I1. Minor forms.

I3. Forms showing qualities of type I1 and I2, but with aberrant termination of undulating form. Cursive line. Extended, tendril-like form.

II: J1. Decadent three-part scroll, resembling early form of E-VII-sub, but with overlapping elements.

J2. Scroll with recurving tip.

J3. Scrolls from Chichen Itza.

## SOURCE OF ILLUSTRATIONS

*a*: Naranjo St. 22. *b*: Naranjo St. 14. *c*: Tikal lintel (Temple IV?). *d*: Copan St. B. *e*: Piedras Negras St. 5. *f*: Copan St. H. *g*: Yaxchilan L. 15. *h*: Piedras Negras St. 13. *i*: Copan, Temple 11. *j*: Copan, St. B. *k, l, m*: Tikal lintels (Temple IV?). *n*: Naranjo St. 22. *o*: Palenque, Temple of the Foliated Cross. *p*: Copan, slab in West Court. *q*: Copan St. N. *r*: Yaxchilan L. 39. *s*: Copan Altar G2. *t*: Copan Altar G1. *u*: Copan, Temple 22. *v*: Yaxchilan St. 1. *w*: Quirigua St. D. *x*: Quirigua St. F. *y*: Jonuta relief. *z*: Quirigua St. F. *a'*: Quirigua St. A. *b'*: Quirigua St. E. *c'*: Naranjo St. 19. *d'*: Quirigua Zoo. *e'*: Quirigua St. K. *f'*: Seibal St. 8. *g'*: Naranjo St. 12. *h'*: Calakmul St. 17. *i'*: Quirigua St. D. *j'*: Seibal St. 1. *k'*: Yaxchilan L. 14. *l'*: Seibal St. 8. *m'*: Bonampak St. 3. *n'*: Yaxchilan L. 13. *o'*: Seibal St. 9. *p'*: Itsimte Altar 1. *q'*: Sayil St. 5. *r'*: La Muneca St. 5. *s'*: Kabah, the Codz Poop. *t'*: Santa Rosa Xtampak St. 3. *u'*: Chichen Itza, Temple of the Jaguars. *v'*, *w'*, *x'*, *y'*: Chichen Itza, Lower Temple of the Jaguars.

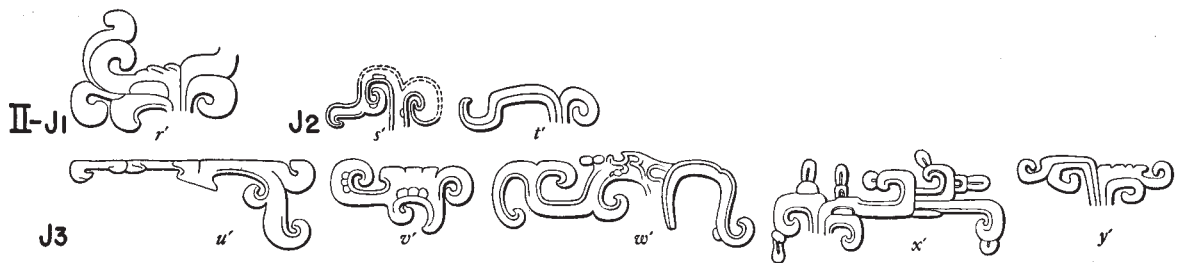
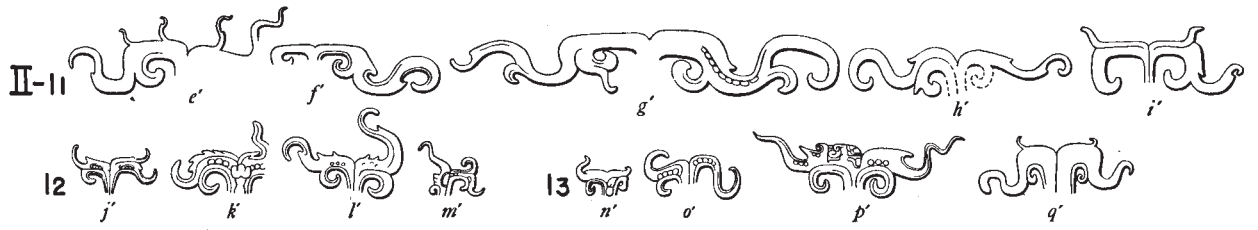
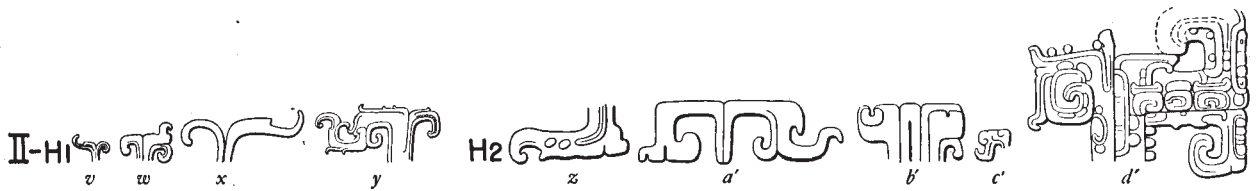
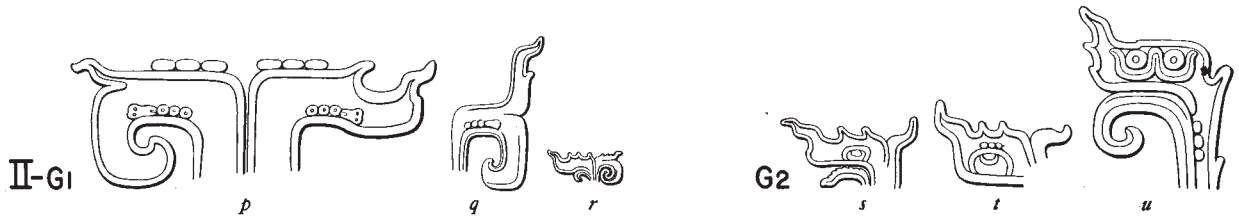
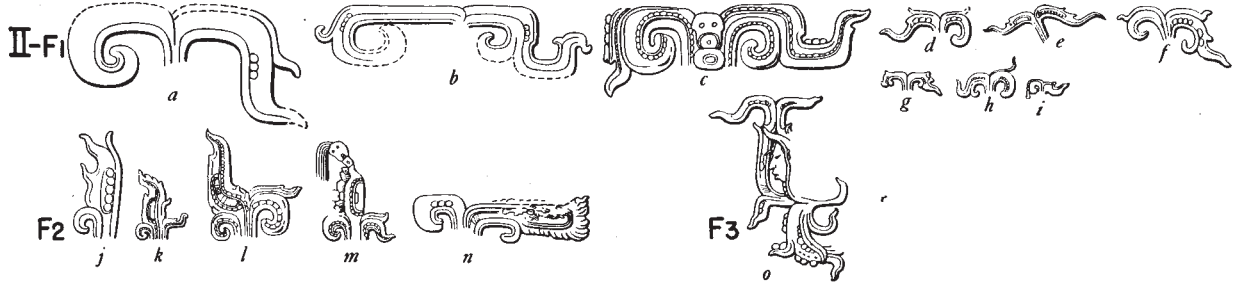


FIG. 12

of form which resemble those of the earliest types. J<sub>1</sub> illustrates this archaic tendency of the Decadent Phase. Its three-part arrangement of approximately equal elements recalls the design of the scrolls on Structure E-VII-sub at Uaxactun, but the overlapping of these elements as they come together is a later feature, and the line with which they are drawn is less deliberate and more cursive. The general structure of the design, and particularly the element decorated at its base with an oval motif, finds a very close parallel in the next to last example of J<sub>3</sub> (*x'*), which is from the lower Temple of the Jaguars of the ball court at Chichen Itza. J<sub>2</sub> are scrolls from the Puuc region, showing the recurve of the tip of the undulating element characteristic of late times.

J<sub>3</sub> shows examples of the Toltec style of Chichen Itza. One can recognize both late and very early qualities of the Classic mode. The three-part scroll returns to common use (*u'*). The second example (*v'*) is comparable to *w* in H<sub>1</sub> and to *z* in H<sub>2</sub>. The end of the central element is turned toward a projection, but the motif has almost lost its structure and identity, being integrated as a single unit. There is no longer a clear distinction between the curving and the undulating forms; and arbitrary arrangement, such as may be noted also in H<sub>2</sub>, succeeds the more fluid and logical structure which distinguishes the Classic style.

FIGURE 13

The sequence observed in scrolls represents types of delineation that can be followed also to some extent in more representative motifs. In figure 13 are illustrated several elements that closely parallel and may be readily included in the scroll sequence. Their designations are made equivalent to those of the corresponding scroll forms in figures 11 and 12. The first series (*a-o*) illustrates a very common design element, consisting of a band interrupted by three leaflike forms, which occurs in a variety of contexts. Group B has the blunt termination of elements which denotes the Early Classic Period, and no interior decoration. In C the leaf forms are slightly tapered and undulating, and a decorative line is added. The leaves remain simple in outline. In these examples of the Formative Phase, the outer leaves usually turn upward. In D the leaves remain simple but turn downward and are extended. F shows the central element elaborated and the outer leaves notched. There are no examples corresponding to G, but H<sub>1</sub> and H<sub>2</sub> are both represented and have the unmistakable

curved termination of the late dynamic scroll. Forms of I are cursive and unsymmetrical, or, as in the middle example (*n*), employ the tendril-like appendages noted as common to this phase.

The next series (*p-s*) is less complete but in general follows the same pattern. There is again an early tendency to turn up the ends of the form, and a later tendency to extend them and to turn them downward. The ornate, notched, form is not represented, but D is contemporary, though essentially simpler.

The third series (*t-x*) shows the forked tongue of the serpent reflecting the same progressive series of changes. In B the tongue has a conventional form which, in general outline, sometimes simulates the curve of the late dynamic scroll. The resemblance is superficial, and in their context the types are clearly distinguishable. Although there is a notch or projection at the base of the scroll (B), the termination of the elements is blunt, with little or no tapering. The second example (*u*) shows also the characteristic "wing" added to the principal form. There follow in order: the tapered forms of simple outline (D), the notched form (F), and the form with the recurving termination (H<sub>1</sub>).

The fourth series (*y-c'*) is again imperfect but reflects some of the other qualities characteristic of scrolls. There is no clear example of the ornate type, and some, such as *b'* from Stela H at Quirigua, seem to be intermediate, in this case, between the outlined forms of G and H<sub>2</sub>. There is some question to which group this form properly belongs, and it has been given the designation G because it does not seem to be associated here with the later type of scroll termination.

There are, in addition, some specific qualities of scrolls and specialized types, which seem to have a limited distribution and may be useful in judging chronology, although few occur often enough to be used in constructing chronological graphs. The use of the grotesque head illustrated in K<sub>1</sub>, both on scrolls and on serpent heads, seems to be consistently a very late feature. The more naturalistic and aberrant forms of K<sub>2</sub> are more uncertain in chronological distribution. The two small scrolls surrounded by dots, used on the headdresses of Naranjo figures (L) appear only on the later group of monuments at this site, and although there is nothing to show that they are also late elsewhere, their distribution may be tentatively accepted as a minor criterion.

The S-curve makes its first appearance in fairly

late times. M<sub>1</sub>, from Yaxchilan, is undated and the date of the S-scroll above the inner doorway of Structure 22 at Copan is also uncertain, but both are probably fairly advanced in the Ornate Phase or in the Dynamic. The very specialized type of S-scroll outlined by dots and used in connection with minor figures floating in air around the principal figure, M<sub>2</sub>, occurs on Cycle 10 monuments at Tikal, Ucanal, and Ixlu. Since both at Ucanal and Ixlu the costume and accoutrement of the minor figures show unusual traits, it is possible that the motif was suggested by foreign concepts.

### III—SERPENT HEADS

FIGURE 14

The serpent is more than a common motif in Maya art. It is virtually an all-pervading theme which recurs in a great variety of contexts and assumes many different forms. During the Classic Period the serpent is treated as a transcendental genus, whose resemblance to living snakes, if not coincidental, is at least extremely casual. Sometimes one can recognize the rattles of the rattlesnake, or the up-turned nose of *Bothrops nasutus*, but these legitimate features are freely combined with purely imaginative improvisations or with anatomical details peculiar to other forms of animal life. In many cases the identity of the serpent is lost in that of a fantastic monster.

In order to familiarize the reader with the different aspects of the serpent in Maya art, a number of typical representations are shown in figure 14. In *a-d*, we see the complete serpent. The first example, from Chichen Itza, unmistakably shows a rattlesnake, but such naturalistic forms rarely, if ever, occur in the Classic Period. The second example, from Copan, shows a feathered serpent, a conception which is usually associated with the late cult of Kukulcan (the Toltec Quetzalcoatl) in Yucatan but which apparently was not unknown to the Classic Maya. The next two examples, *c* and *d*, are from Yaxchilan, *d* showing the transformation of the serpent into a mythological monster with its tail ending in a grotesque head. The structure of the main serpent head still has many elements in common with those of the first example. The addition of the nose-plug (10), the beard (8), and the molar tooth (7), however incongruous these features may appear to us, is in keeping with the usual Maya convention.

In most cases, the body of the serpent is omitted, and the head is attached to some other form or used as an ornamental element. The heads *e-j* (with the exception of *i*) are placed on both ends of a ceremonial bar held by the principal figure on stelae. There are two distinct types: *e, f*, and *g*, in which the upper jaw ends in a long curved fang; *h, i*, and *j*, in which the snout is elongated and turned upward and back. In such examples as *j* it is difficult to apprehend the motif unless one is familiar with the elements of its structure, for the subject is subordinate to its decorative treatment.

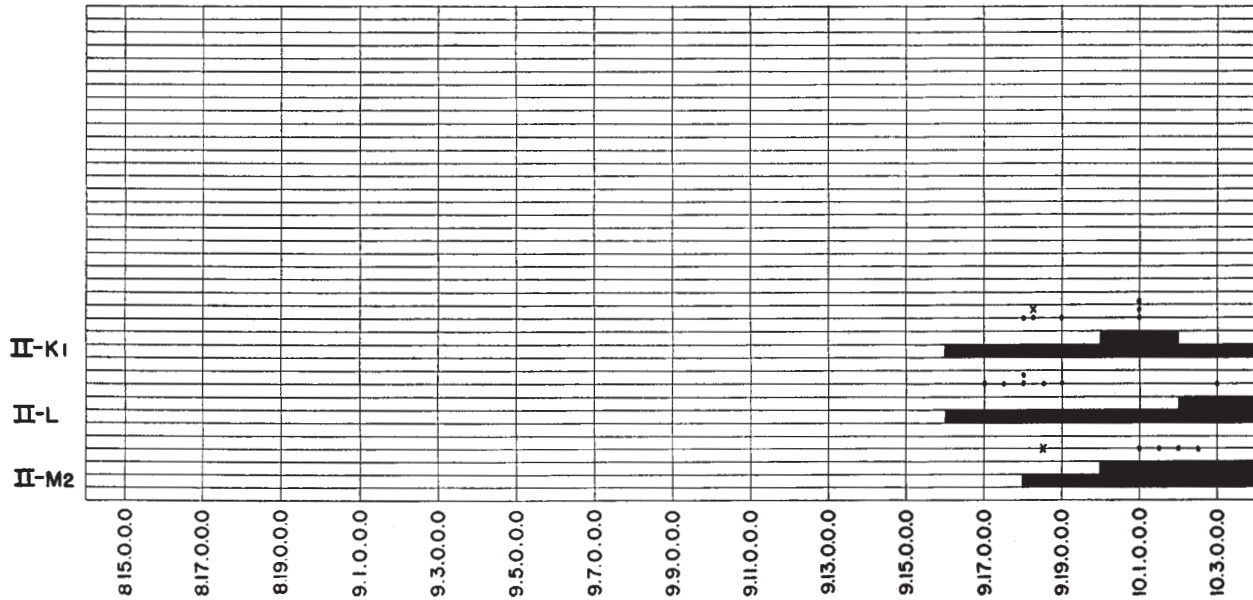
Examples *k-r* represent a simplified form used to decorate various details; *o-r* are of the type used on the headdress in connection with a wing element to which large feathers are attached. It also occurs on the wing of a bird represented at Palenque and Piedras Negras. In these forms the lower jaw of the serpent is omitted; sometimes even the eye is missing, leaving only the upper jaw and the supraorbital plate. In another form, *s-u*, most frequently used on the apron of the loincloth but also sometimes on the headdress, the nose of the serpent is bent back to form a large fret. Sometimes a mere indication of essential elements remains to identify the serpent.

Most of these adaptations are fully developed in the Early Period and their distribution is probably correlative with the whole history of Classic sculpture. In the period covered by the inscriptions, the variations, like those of scrolls, have to do with the changes in graphic style, not with the conventional structure of the forms. These variations are best studied if one considers separately elements of the serpent head, comprised in Category III.

FIGURE 15

Group A in figure 15 deals with the supraorbital plate and the eye of the serpent. In A<sub>1</sub> the plate is simple in outline. This usually denotes an early serpent head, but occasionally the plate is depicted in simple outline even in later times, particularly in the more naturalistic representations. Also in the Early Period we find a small serpent head, whose supraorbital plate turns at one end in a scroll (A<sub>2</sub>). These are transitional and imperfect forms. In the fully developed A<sub>3</sub> there is usually a scroll front and back, and a slight bulging or projection of the form under the forward scroll. Unfortunately, the details are so often eroded that it is impracticable to separate the two types. Moreover, this distinction



FIG. 13—SCROLLS (II)—*continued*

- II: K1. Decoration of grotesque head on scrolls and serpents.  
 K2. Same, but of more naturalistic or aberrant form.
- II: L. Small scrolls surrounded by dots, on headdress.
- II: M1. S-scroll as independent motif, no dots.  
 M2. Dotted S-scroll, usually with minor figure.

## SOURCE OF ILLUSTRATIONS

*a*: Tikal St. 2. *b*: Tikal St. 3. *c*: Yaxchilan St. 14. *d*: Copan St. 1. *e*: Etzna St. 18. *f*: Tikal St. 16. *g*: Yaxchilan L. 2. *h*: Naranjo St. 14. *i*: Quirigua St. E. *j*: Quirigua St. K. *k*: Ucanal St. 4. *l*: Quirigua St. F. *m*: Xultun St. 3. *n*: Quirigua St. K. *o*: Seibal St. 10. *p*: Copan St. 6. *q*: Piedras Negras St. 7. *r*: Yaxchilan L. 3. *s*: Cancuen St. 2. *t*: Calakmul St. 43. *u*: Tikal St. 2. *v*: Copan St. 1. *w*: Naranjo St. 14. *x*: Yaxchilan St. 1. *y*: Yaxchilan St. 6. *z*: Palenque, Temple of the Cross. *a'*: Yaxchilan St. 1. *b'*: Quirigua St. H. *c'*: Quirigua St. C. *d'*: Bonampak St. 1. *e'*: Seibal St. 8. *f'*: Copan Altar O. *g'*: Palenque, Temple of the Foliated Cross. *h'*: Copan St. C. *i'*: Chichen Itza, Great Ball Court. *j'*: Naranjo St. 7. *k'*: Naranjo St. 13. *l'*: Xultun St. 10. *m'*: Yaxchilan L. 25. *n'*: Ucanal St. 4. *o'*: Ixlu St. 2.

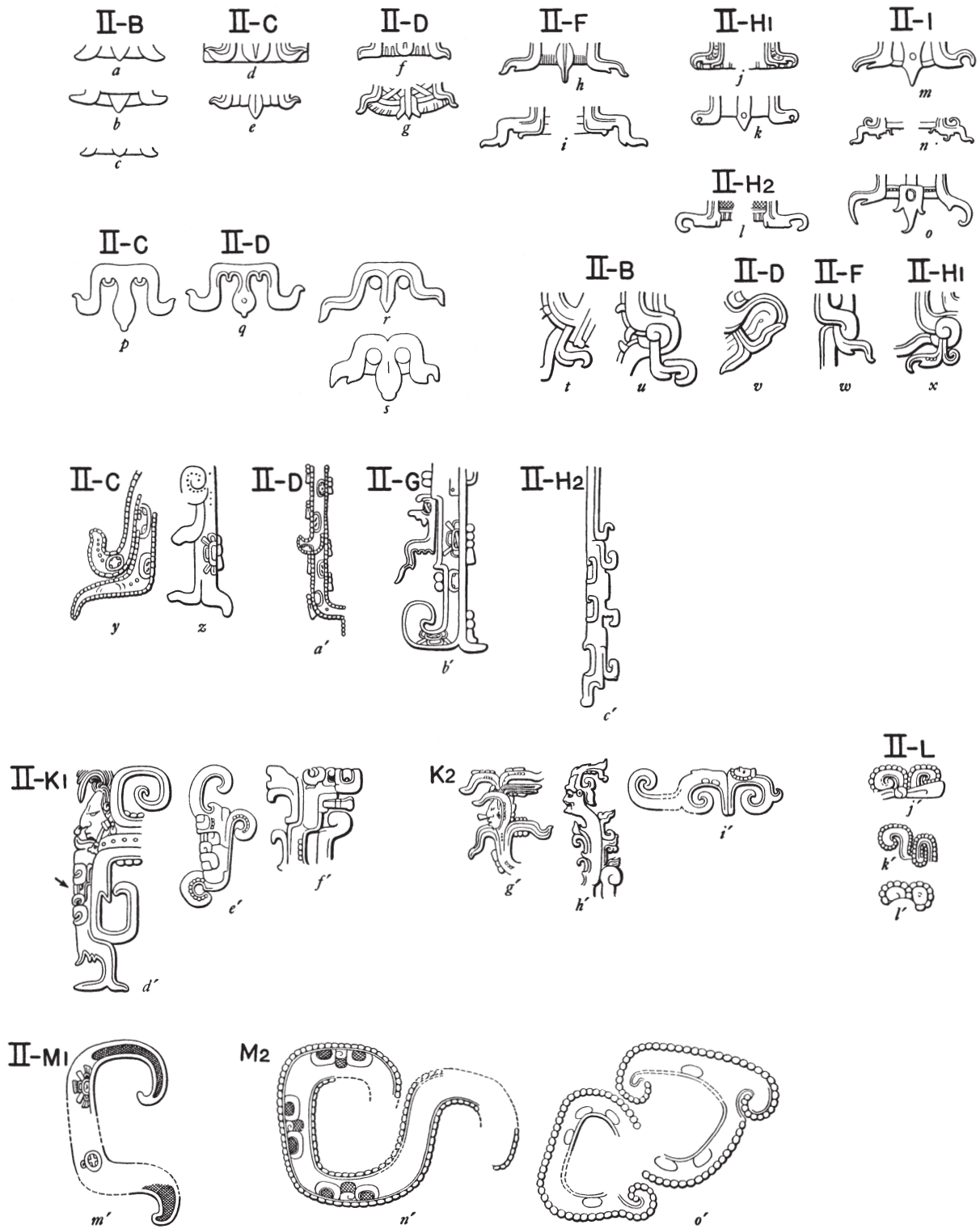


FIG. 13

## CLASSIC MAYA SCULPTURE

### FIG. 14—SERPENTS

Showing Characteristic Types and Parts of the Serpent Head

- 1: Supraorbital plate.
- 2: Eye.
- 3: Nose or snout.
- 4: Fang.
- 5: Tongue.
- 6: Teeth.
- 7: Molar.
- 8: Beard.
- 9: Nose scroll.
- 10: Noseplug.
- a-d*: Complete serpents.
- e-g*: Serpent heads with large fangs.
- h-j*: Serpent heads with upturned snout.
- k-n*: Heads used in ornament.
- o-r*: Heads used on headdress wing element.
- s-u*: Serpent frets.

#### SOURCE OF ILLUSTRATIONS

*a*: Chichen Itza, the Tzompantli. *b*: Copan Altar O. *c*: Yaxchilan L. 15 (Str. 21). *d*: Yaxchilan L. 13 (Str. 20). *e*: Copan St. I. *f*: Copan St. A. *g*: Quirigua St. J. *h*: Copan St. P. *i*: Uaxactun St. 7. *j*: Seibal St. 10. *k*: Leyden Plate. *l*: Naranjo St. 22. *m*: Yaxchilan St. 9. *n*: Quirigua St. I. *o*: Naranjo St. 7. *p*: Naranjo St. 14. *q*: Piedras Negras St. 4. *r*: Ucanal St. 4. *s*: Quirigua St. F. *t*: Quirigua St. I. *u*: Xultun St. 10.

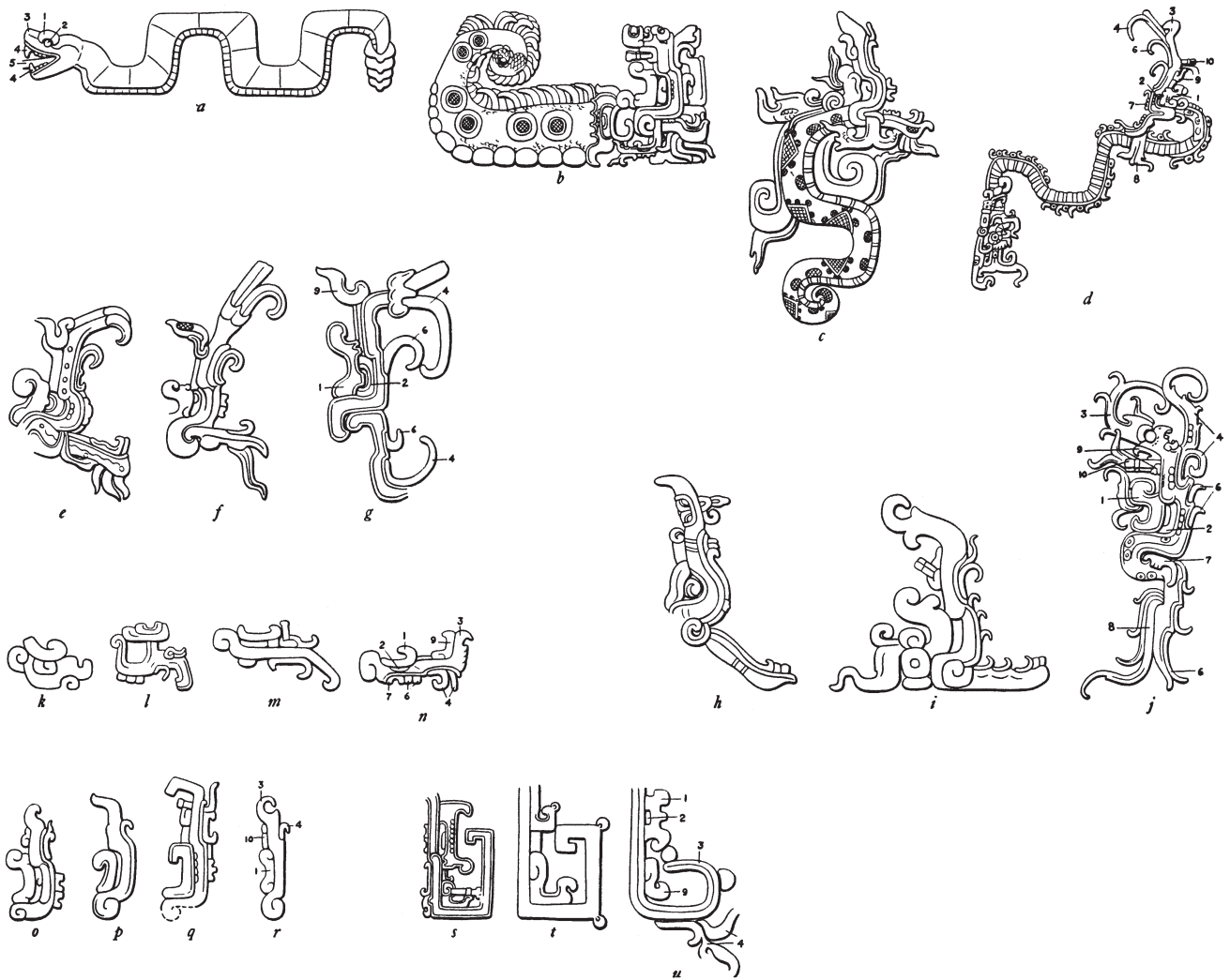


FIG. 14

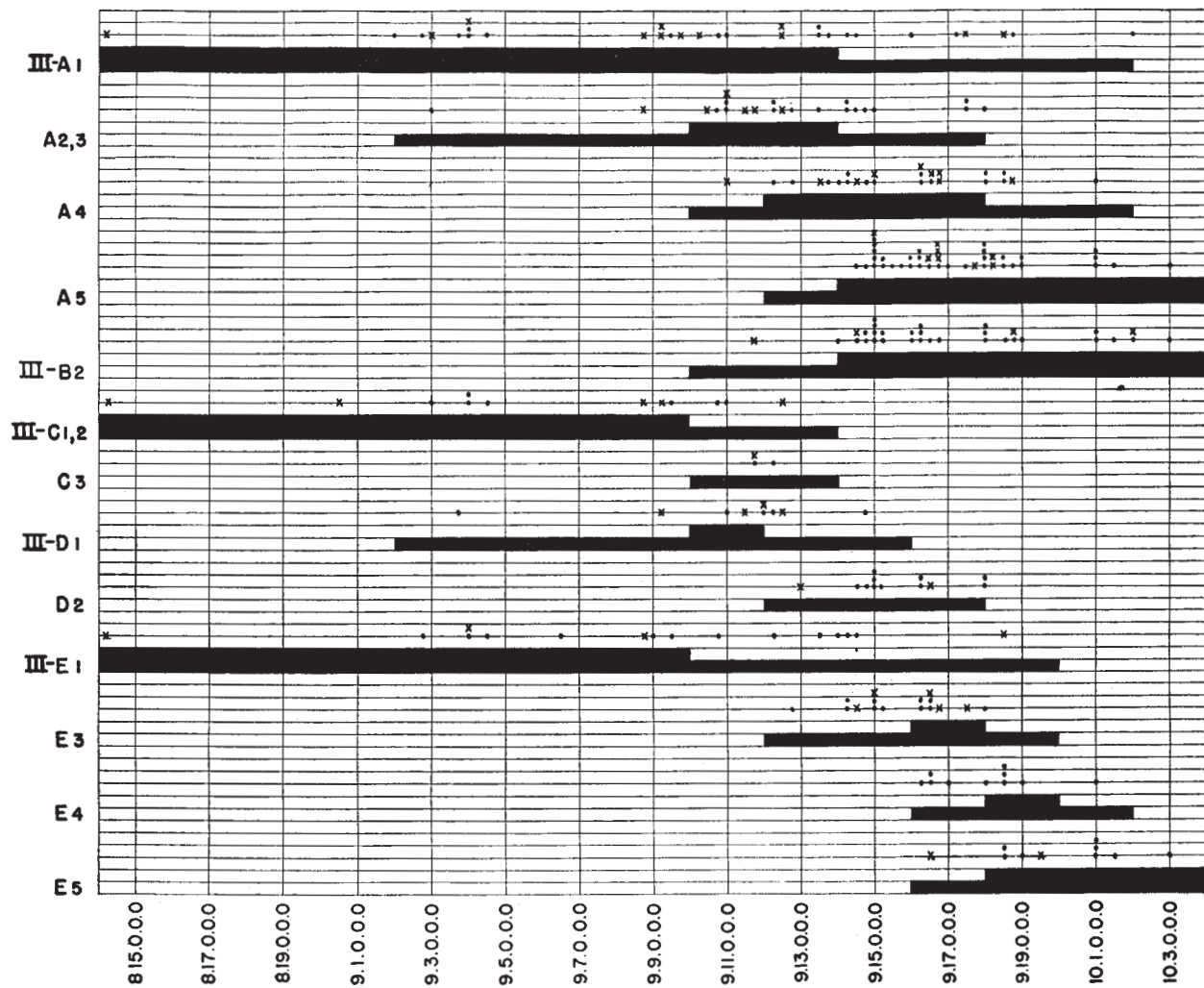


FIG. 15—SERPENT HEADS (III)

- III: *A. The supraorbital plate* (see 1, fig. 14).  
 A1. Simple outline. Eye not strongly elongated.  
 A2. Plate turned in scroll. Transitional type. Eye not elongated.  
 A3. Scroll of plate turning backward, with projection at base. Eye not elongated.  
 A4. Backward turning plate or fillet. Eye elongated or omitted.  
 A5. Scroll of supraorbital plate turning forward. Note analogies to scroll forms.
- III: *B1. Scroll from mouth of serpent, turning upward.*  
 B2. Upper jaw of serpent curving downward around end of lower jaw.
- III: *C. Dentition.*  
 C1. Serpent with short, sharp teeth (probably early).  
 C2. Continuous fang, interrupted by round element representing molar (see 7, fig. 14).  
 C3. Transitional forms with notched molar partly or wholly disassociated from fang.  
 C4. Molar separate from teeth, usually in two parts or notched. Curved upper teeth.  
 C5. Late variant of C4, with strong notches in jaw and fang shown as a scroll.
- III: *D. Terminal fangs* (see 4, fig. 14).  
 D1. Terminal fangs short.  
 D2. Terminal fangs exaggerated, one curved, one straight.
- III: *E. Snout* (see 3, fig. 14).  
 E1. Snout blunt and turning back. Oval on back of snout.  
 E2. Snout elongated and bent back.  
 E3. Snout undulates forward. Oval on under side.  
 E4. Snout ends in late scrolls.  
 E5. Snout ends in arc or late scroll turning forward. Sweeping or cursive line.

## SOURCE OF ILLUSTRATIONS

*a*: Tikal St. 1. *b,c*: Copan St. P. *d*: Piedras Negras St. 25. *e*: Copan St. P. *f*: Tikal St. 2. *g*: Copan St. 6. *h*: Copan St. 5. *i*: Copan, Temple 26. *j*: Piedras Negras St. 34. *k*: Copan St. C. *l*: Copan St. I. *m*: Piedras Negras St. 4. *n*: Quirigua St. F. *o*: Piedras Negras St. 4. *p*: Calakmul St. 51. *q*: Naranjo St. 7. *r*: Quirigua St. J. *s*: Quirigua St. K. *t*: Xultun St. 10. *u*: Xultun St. 3. *v*: Copan St. P. *w*: Copan St. A. *x*: Quirigua St. J. *y*: Ucanal St. 4. *z*: Tikal St. 1. *a'*: Copan St. P. *b'*: Piedras Negras St. 25. *c'*: Tikal St. 7. *d'*: Uaxactun Altar in Str. A-V. *e'*: Copan St. I. *f'*: Copan St. 1. *g'*: Copan St. H. *h'*: Yaxchilan L. 39 (str. 16). *i'*: Seibal St. 10. *j'*: Copan St. I. *k'*: Copan St. A. *l'*: Yaxchilan L. 13 (Str. 20). *m'*: Quirigua St. J. *n'*: Yaxha St. 2. *o'*: Copan St. P. *p'*: Naranjo St. 30. *q'*: Copan St. 5. *r'*: Etzna St. 9. *s'*: Copan St. D. *t'*: Calakmul St. 51. *u'*: Yaxchilan St. 4. *v'*: Piedras Negras St. 5. *w'*: Itsimte St. 4. *x'*: Ucanal St. 4. *y'*: Naranjo St. 12. *z'*: Yaxchilan L. 14 (Str. 20). *a''*: Xultun St. 10. *b''*: Seibal St. 10.

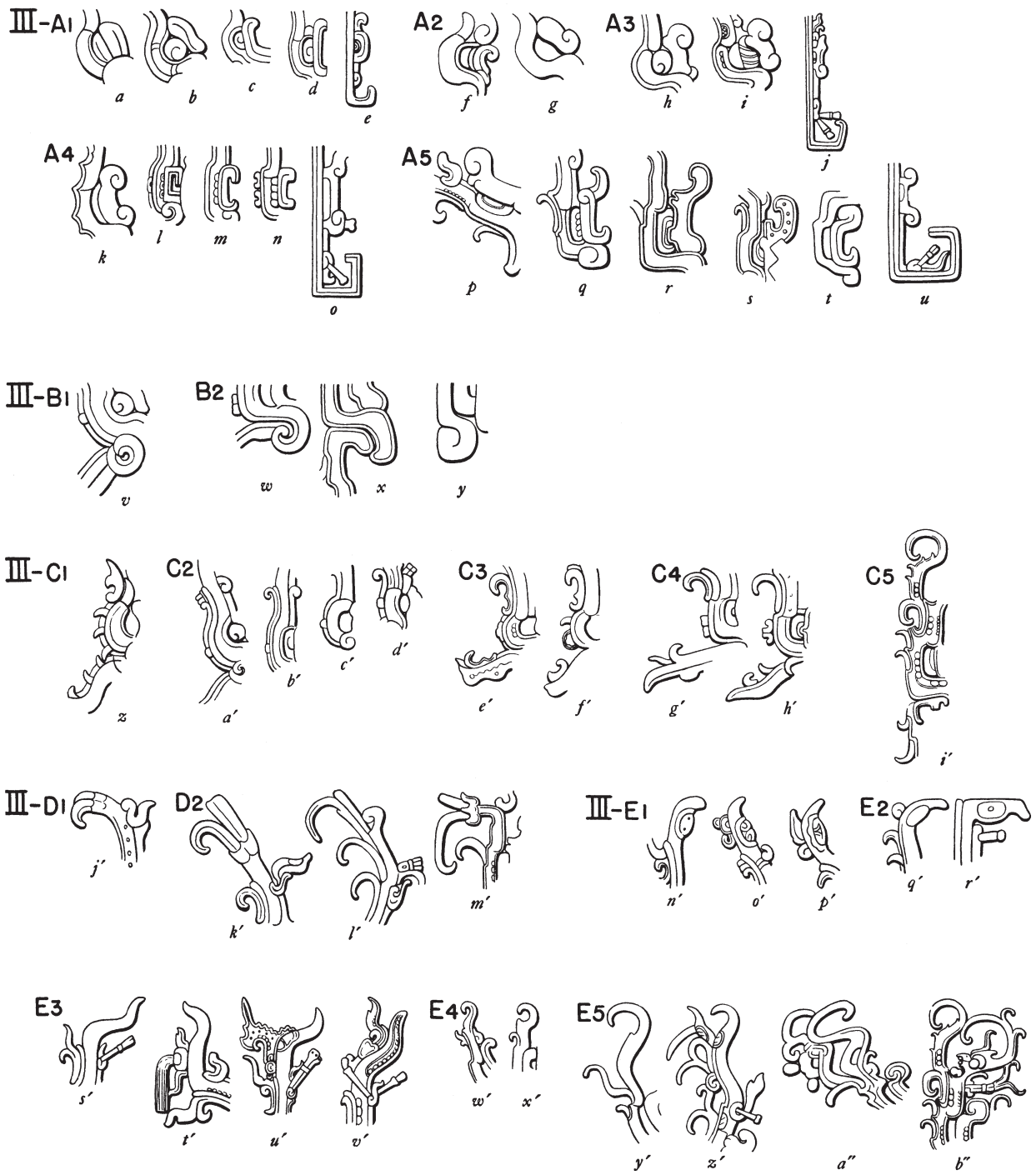


FIG. 15

seldom holds for minor forms, such as the last example (*j*). The lengthening and the narrowing of the eye in A<sub>4</sub> distinguish a variant which has a slightly later center of distribution. In minor snake heads, the eye often disappears entirely and only the supraorbital plate remains. A<sub>5</sub> is introduced with the Ornate Phase and is distinguished by the change in the direction of the forward scroll, which now turns forward instead of back.

These and other parts of the serpent are so closely allied to the forms of the scrolls, that they often can be referred to one or another of the scroll types, and when no scrolls are present, the scroll type may be inferred from the design of serpent heads and its distribution included in the trait graph for the monument. Thus *r* corresponds to II:G, with the heavy outline; *s* to II:H, with the arc curving toward a projection; and *t* to the cursive II:I.

III:B<sub>1</sub> shows a scroll issuing from the corner of the serpent's mouth. In B<sub>2</sub>, this is usually omitted, but the upper jaw curves in a scroll around the end of the lower jaw. This seems to be a later mannerism.

C deals with the dentition of the serpent. C<sub>1</sub>, from Stela 1 at Tikal, is of unknown date. Its sharp, pointed teeth are like those of the serpents on the Leyden Plate, and it is probably an early type, though it occurs only rarely. Note that the teeth interrupt a line passing behind them. In the same way, in C<sub>2</sub>, a round element, probably representing a molar tooth, interrupts a fillet which curves at the end to become the fang of the serpent. This is the usual way of drawing a serpent's mouth in the Early Period, and in the Formative Phase of the Late. In C<sub>3</sub> are transitional forms. Here the molar tooth is notched and partly or altogether disassociated from the fang. C<sub>4</sub> represents the manner of the Late Classic Period, in which the molar is often shown in two parts or as a notched form, and is not connected with the curved teeth, which are placed in indentations of the jaw. C<sub>5</sub> is a late exaggerated variant of this form, with very deep notches for the teeth and with the molar placed below the serpent's eye, in the position in which the head is shown. Distributions for these last two types are not shown. Combined, they are coeval with the Late Classic Period.

Two common types of Maya serpents have been distinguished: one in which the jaw terminates in a curving fang; the other, which has a long snout projecting beyond the jaw (see fig. 14,*e, b*). The fangs of the first type are shown in D. In D<sub>1</sub> these fangs are

relatively modest in proportions, but in D<sub>2</sub> one fang curves around in a large arc, while the other is shorter and straight. This form is characteristic of the late Ornate and still later phases.

E shows variations in the other type of serpent. These follow closely the sequence of scroll forms. At first, E<sub>1</sub>, the termination of the snout is blunt and bending backward, with an oval element just beneath the tip and on the back or top of the snout. E<sub>2</sub> shows the tip elongated, and the whole snout bent back from the jaw. In E<sub>3</sub> the snout re-curves forward and ends in a tapered undulation. The oval element, when it occurs, has been moved to the underside or the front of the snout. In E<sub>4</sub> the snout curves in a forward arc, often toward a projection; in E<sub>5</sub> it acquires the sweeping curves of the Dynamic Phase, and sometimes the cursive, irregular line of the Decadent Phase. In many cases of this latter type, the subject of the design becomes difficult to identify, and the whole resembles an arrangement of purely abstract scrolls.

#### IV—FEATHERS

##### FIGURE 16

For the design of the elaborate costumes of princes and priests, the plumage of the birds of Mesoamerica provided a colorful and rich-textured material. From a few surviving mural paintings and from designs on pottery, one gets the impression that color was an outstanding feature of Maya costume. On sculpture so few traces of color now remain that one is of necessity limited to a discussion of form, but the graceful lines of feathers in many intricate arrangements show that the Maya artist did not subordinate spacial considerations to color.

In the Early Period, featherwork is used sparingly. The enigmatic Stela 5 at Uaxactun is an outstanding exception. Most early headdresses are designed without feathers or, at most, with only a small panache of plumes loosely attached. The feathers are usually thin and pointed, with no indication of a shaft. They are depicted as overlapping, with one edge slightly raised (A<sub>1</sub>). This type of rendering is carried over into the Formative Phase of the Late Classic Period but is soon abandoned. For a time, however, there remains a tendency to stress one side of the feather by an incised line (A<sub>2</sub>). It is not clear to me whether or not this line is meant to represent the shaft. In the second example, from the Formative Phase (*e*),

the shaft is indicated by a central line, but a lower feather projects from the side. The indication of overlapping featherwork, as in A<sub>1</sub>, seems to persist in Yucatan and Campeche throughout the Late Classic Period (A<sub>3</sub>).

Other modes of representing feathers without indication of the shaft are shown in B. B<sub>1</sub> is a fairly common manner of rendering, in which the feathers are outlined with little or no modeling. B<sub>2</sub> uses very deep grooves and irregular lines indicative of the Decadent Phase. B<sub>3</sub> is an exceptional and unfortunately weathered example from the Early Period at Uaxactun. The feathers are drawn as a mass divided by parallel light incisions, recalling the treatment of feathers on Teotihuacan III painting. It is not typical of Maya sculpture.

C<sub>1</sub> shows the most usual way of presenting feathers, with the shaft indicated by a single incised line. In C<sub>2</sub> the feathers are strongly modeled, a characteristic of the Ornate Phase, when the technique of modeling received particular attention. D<sub>1</sub>, which shows the shaft with a double line, is known to occur even in the Early Period but is more often late, when it may be a simplification of D<sub>2</sub>. In this type, the shaft is raised and modeled; sometimes, particularly in late examples, the body of the feather slopes in toward the shaft. Although this type is generally characteristic of the Ornate Phase, its marked beveling is indicative of advanced date. D<sub>3</sub>, from Stela 1 at Benque Viejo, shows not only modeling of the shaft but also a fine indication of the barbs, an extravagance unusual in Maya sculpture. It combines these late qualities with the very early mode of showing one edge of the feather raised (see A<sub>1</sub>), perhaps an indication of its late date, and a certain foreign influence, which can be detected also in the arrangement of the design. In D<sub>4</sub> the shaft is omitted, but the feather is beveled, with two surfaces meeting in a central ridge. This manner is exclusively late and finds a parallel in many other motifs, in which beveled surfaces are used to produce shadows stressing important lines.

The design and arrangement of plumes of headdresses is even more instructive than the technique of their rendering. There are several typical modes of arrangement, but the most common consists of a fanlike group of feathers attached to a winglike element on each side of the headdress, and a long sweeping tuft or panache above. Precisely this arrangement has not been observed in the Early Period, but E<sub>1</sub> shows a tuft loosely attached to the wing ele-

ment, which may be its prototype. E<sub>2</sub> is undated; essentially it is the usual Late Classic type, but the wing element is placed high on the mask. The full complex of the elements is shown in F<sub>1</sub>, which is introduced at the inception of the Late Classic Period and is used, with only minor changes in its structure, for its duration. As illustrative of style, the arrangement of the panache should be noted particularly. In F<sub>1</sub> it swings in a natural arc and often passes behind the border of the monument or overlaps it, which distinguishes this arrangement from those of G.

F<sub>2</sub>, F<sub>3</sub>, and F<sub>4</sub> are interpolated to show variations in the treatment of the beaded tassel of plumes. F<sub>2</sub>, in which the plume ends in two diverging tips, is especially interesting because it appears to have a limited and fairly early distribution at Piedras Negras, but reappears again, together with the rectangular shield, at Chichen Itza in the Toltec Period (cf. G<sub>3</sub>). F<sub>3</sub> is typical of the Ornate Phase; F<sub>4</sub>, which shows tassels of an exaggerated size, artificially yet not rigidly arranged, represents the peak of the Ornate development, foreshadowing the Dynamic Phase, when elements were freely adapted to the composition. In the Ornate Phase, however, the arrangement is still naturalistic and serves as a decorative feature in itself, with little relation to the composition as a whole.

As in the case of the positions of the figure and the design of abstract motifs, the Dynamic Phase is characterized by a deliberate manipulation of elements to produce significant lines of motion in the design. The panache of the headdress is extended and its sweep becomes one of the major directions in the composition. In arrangements of G<sub>1</sub> the parallel lines of the feathers are usually stressed and related to the direction of other important elements. The panache is made to follow the border of the monument or adapted to some other feature of design, which tends to modify its normal fall, and produce a rectangular turn. The tips of the feathers, when beads are used in this type of arrangement, are usually very long and square at the ends (z).

Plumes of G<sub>2</sub> also have very long tips, usually pointed at the end. In this type, the plumes are scattered, with deliberate intent to lead the eye to significant areas or to emphasize or suppress certain lines. The single feather detached from the groups, and making an independent turn, harmonizes the diverging directions of the others in the first example. In the second, the two upper feathers are deliberately



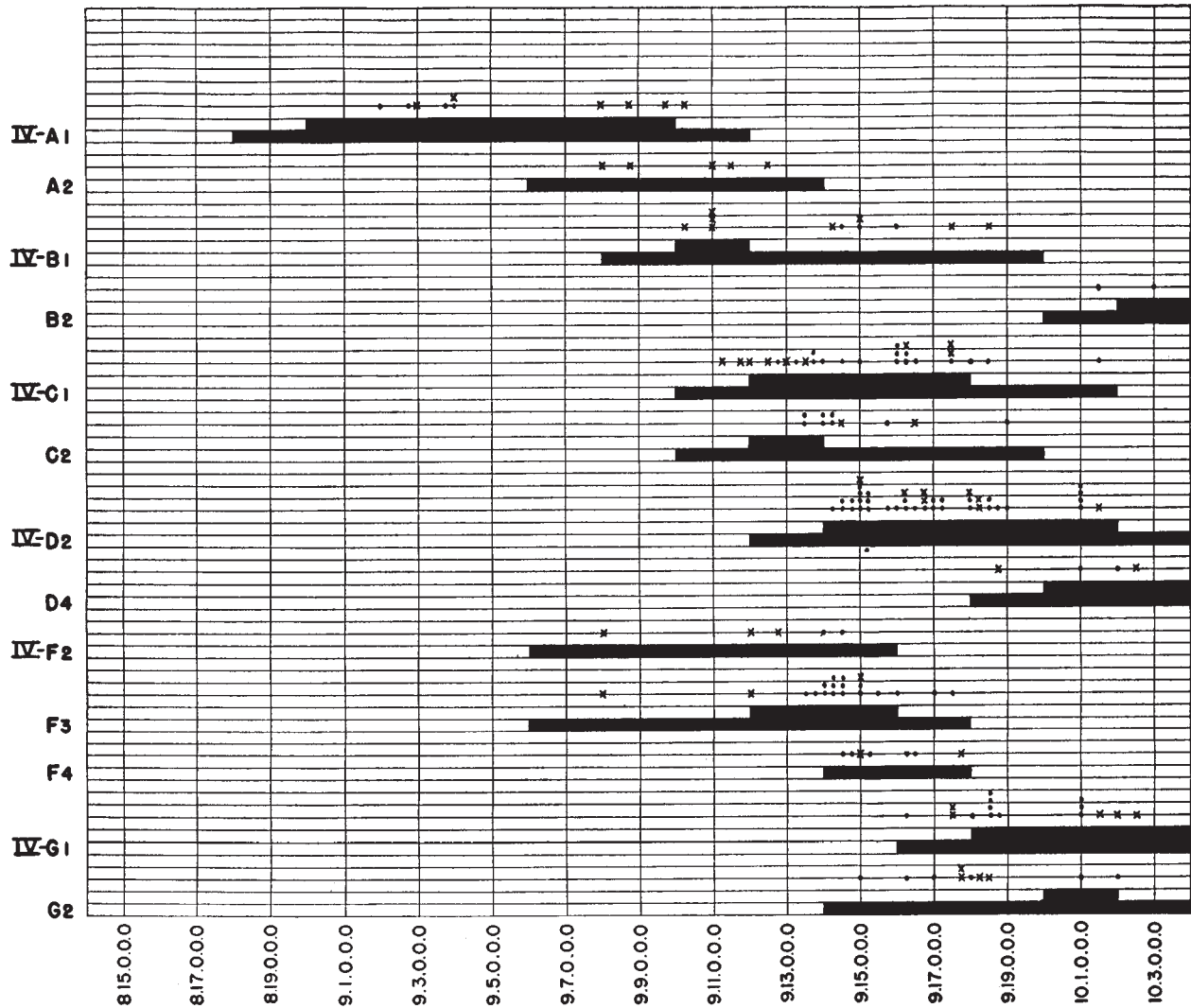


FIG. 16—FEATHERS (IV)

- IV: A1. One edge of feather raised. No indication of shaft.  
 A2. Incised line off center, or indication of double, overlapping feathers.  
 A3. Same as A1, overlapping reversed. Late Yucatan.
- IV: B1. Little or no modeling. No indication of shaft.  
 B2. Feathers presented as mass with indication by deep grooves and irregular line. No indication of shaft.  
 B3. Feathers presented as mass and delimited by very fine parallel incised lines.
- IV: C1. Shaft indicated by single incised line. Little or no modeling.  
 C2. Shaft indicated by incised line. Strong modeling.
- IV: D1. Shaft indicated by double incised line. Little or no modeling.  
 D2. Shaft raised and modeled. Body of feather sometimes beveled toward shaft.  
 D3. Shaft raised, fine indication of barbs.  
 D4. Shaft indicated by intersection of two beveled surfaces.
- IV: E1. Tuft of feathers loosely attached to wing element.  
 E2. Feathers attached to wing element placed higher than mask.
- IV: F1. Feathers attached to wing element on mask. Upper panache shows natural curve of feathers. Sometimes overlaps border of monument.  
 F2. Beaded tassel of plume with two small diverging ends.  
 F3. Small beaded tassel of plumes.  
 F4. Large tassels, overlapping and arranged in deliberate but naturalistic fashion.
- IV: G1. Long parallel plumes with abrupt turns, often following lines of border. Tassels long and square at ends.  
 G2. Long pointed tassels, very long plumes, scattered and deliberately arranged.  
 G3. Very long tassels, very large mass of feathers with parallel lines.
- IV: H1. Artificially regular arrangement. Parallel lines stressed. Angular termination of plumes.  
 H2. Same and more so. Example from the Puuc.  
 H3. Artificially regular arrangement from Chichen Itza.

SOURCE OF ILLUSTRATIONS

a: Tikal St. 9. b: Tikal Altar of St. A7. c,d: Piedras Negras St. 25. e: Piedras Negras St. 34. f: Copan St. 1. g: Santa Rosa Xtampak, panel of Palace wall. h: Piedras Negras St. 34. i: Oxpeñul St. 15. j: Uaxactun St. 22. k: Etzna St. 18. l: Naranjo St. 22. m: Piedras Negras St. 33. n: Seibal St. 9. o: Benque Viejo St. 1. p: Yaxchilan L. 14 (Str. 20). q: Tikal St. 2. r: Tikal St. 4. s: Etzna St. 18. t: Naranjo St. 13. u: Piedras Negras St. 6. v: Naranjo St. 6. w: Copan St. H. x: Ixlu St. 2. y: Seibal St. 7. z: Yaxchilan L. 3 (Str. 33). d': Piedras Negras St. 12. b': Ucanal St. 4. c': Chichen Itza, the Great Ball Court. d': Naranjo St. 19. e': Halal, lintel. f': Chichen Itza, Temple of the Warriors.

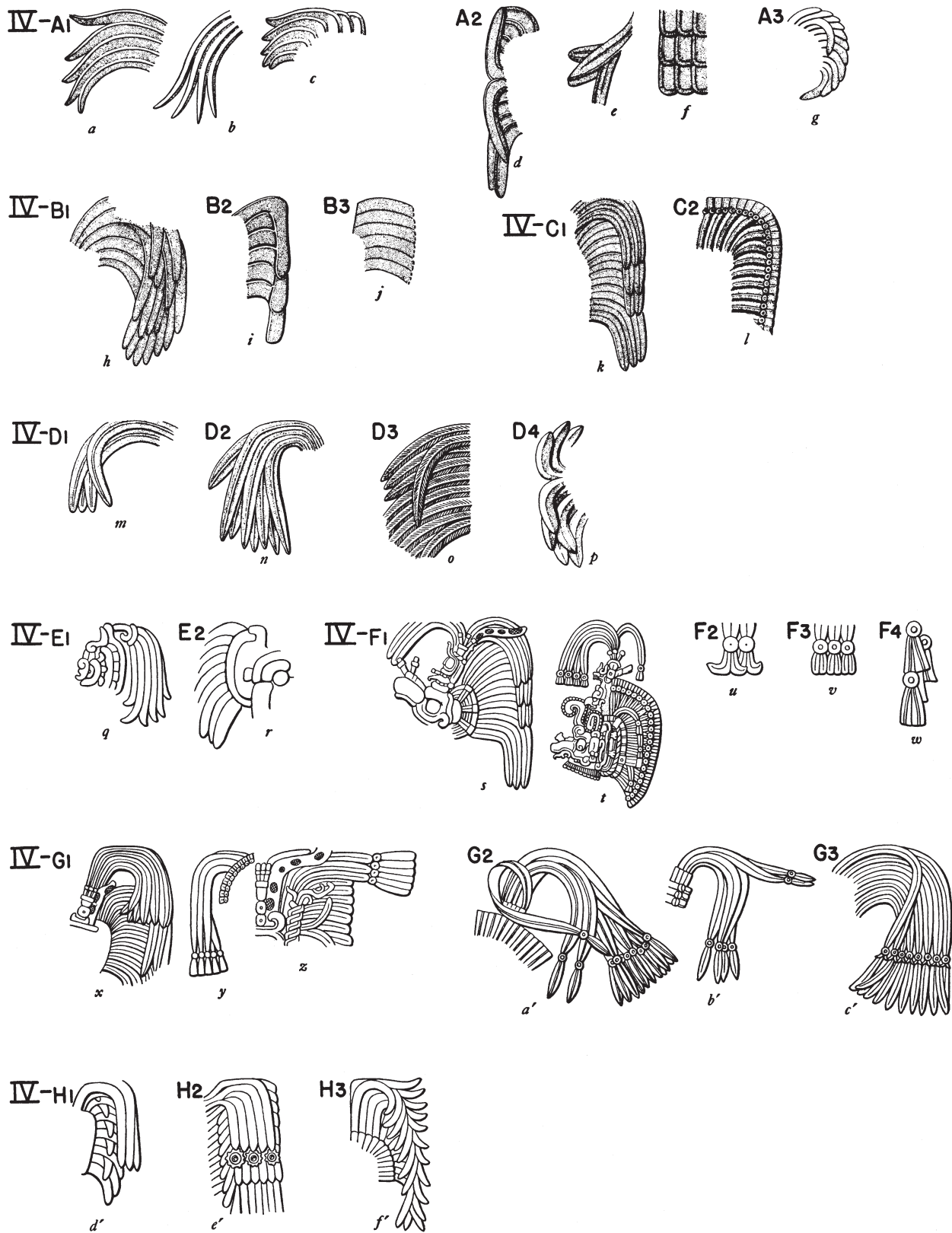


FIG. 16

placed to follow the border of the monument. G<sub>3</sub>, from Chichen Itza (Toltec Period), although it exaggerates the more obvious features of these groups, at the same time completely loses the potency of their effect. Because of the mass of the plumage, its parallel lines become merely a feature of texture, and in spite of extremely long tassels, the effect of length and direction is lost in the unwieldy form of the whole. The decadence of an artistic device into a mere convention is in itself, however, an excellent indication of the late character of the design.

This tendency to convert expressive forms into conventional patterns is also illustrated in H, which shows one late example from the Classic Period (H<sub>1</sub>) and others from the Puuc region (H<sub>2</sub>) and from Chichen Itza (H<sub>3</sub>). Such very rigid and regular arrangements are usually late, and the pointed, rectilinear ends of the feathers in H<sub>1</sub> and H<sub>2</sub> indicate a trend of decadent simplification.

#### V—HEADDRESSES

FIGURE 17

The design of the headdress most commonly worn by the principal figure on Maya stelae consists of a central mask with attached plumes and other ornaments. It is possible that originally the head of the figure was enclosed in the gaping jaws of the mask, for what looks like a lower jaw beneath the face is seen on one of the Cycle 8 monuments at Uaxactun (A<sub>1</sub>) and recurs later as a decorative element (fig. 19, *m*). In most designs only the upper jaw of the mask is shown—the lower is entirely omitted. In the Early Period of Classic sculpture, and at Copan in the Formative Phase of the Late Classic Period, the headdress encircled the face and was usually fastened under the chin with another *masklike ornament* which characterizes designs of A type. Large elaborate earplugs were an integral part of the headdress, and were probably attached to it rather than to the ears. Behind the earplug, an element of specialized form covered (or perhaps merely obscured in side view) the back of the head and neck. A<sub>2</sub> shows this type of headdress in its earliest form. The earplugs seem to be attached by a fillet or by a twisted rope element to the headdress. There is no wing element on the headdress, but a small ornamental serpent head is placed upside down behind and above the earplug.

In A<sub>3</sub> the winglike element is attached to the small serpent head which is now turned with its jaw outward or back from the mask. It still remains inde-

pendent of the mask, however, and more closely associated with the earplug.

A<sub>4</sub> again omits the wing element but is more formally developed than A<sub>3</sub>. In A<sub>4</sub> there are two sets of earplugs, one which goes with the face and another with the mask. The whole is designed on strictly rectangular lines, leaving no ambiguity as to the relation of the several elements. These last examples of the headdress with the mask-fastening are from Copan, where such archaic features continued to be used for at least half a century after they had become obsolete in other centers.

On most figures of the Late Classic Period the headdress is fastened around the head, but for a while the mask that appeared under the chin in earlier headdresses was sometimes retained as an ornament. The first example of A<sub>5</sub> (*j*) is from Piedras Negras. It has not only the mask-fastening but also the large and unsymmetrical earplugs, though it is quite clear that the headdress is worn around the head and the archaic elements are purely ornamental. The wing elements in this design are squarely attached to the central mask. In the other examples of A<sub>5</sub>, the ornamental earplugs of the type associated with masks are replaced by simpler ones usually worn by human beings. They are no longer connected with the headdress in any way. The lower mask, however, appears as an ornament on the collar, or, as in the last example (*m*), there is a biblike element, probably a vestige of the element above the mask fastening on earlier Copan designs. A<sub>6</sub> is a miscellaneous group of aberrant examples in which the mask-fastening is used. The first example, from Xultun, cannot be clearly classed because all the upper part of the headdress is missing. The second is from Palenque. The serpent mask in this case is of advanced design; it is not quite clear whether the mask-fastening is functional or merely ornamental. There are other marked archaisms in this figure and its date is very doubtful.

B<sub>1</sub> represents another type of early headdress, which does not have the ornamental fastening under the chin, but which nevertheless turns down around the face and seems to be connected with the earplugs. In this type we also see the element obscuring the back of the neck; the serpent-and-wing motif is attached to this element rather than to the central mask. B<sub>2</sub> is of unknown date. It is not clear in this example whether or not the large earplugs are part of the headdress design. The placement of the wings is similar to that of B<sub>3</sub>. These (B<sub>3</sub>) are transitional

forms typical of the Formative Phase of the Late Classic Period. They are essentially Late Classic but in one or another feature resemble early headdresses. The headdress may still turn down and be connected with the earplugs. The element which hangs back of the neck is usually omitted, however, and the wing elements are attached to the central mask. The formal relation between the wing elements and the mask is often imperfect, that is, the vertical axis of the mask is not strictly parallel to the longest dimension of the wing element, which, moreover, tends to be irregular in outline. In the last example, this formal relationship is almost fully achieved, but the headdress still turns down to the earplugs, and above them may be seen the vestigial survivals of the elements formerly worn on the back of the head. Some headdresses, not of the mask type, continue to have a tendency to turn down toward the earplug (see Stela 8, Piedras Negras) even in later times. These have not been included in this group, which comprises only the development of the mask design.

FIGURE 18

C is the typical mask headdress of the Late Classic Period. It is worn around the head and is unconnected with the earplugs except possibly in the first example, which is somewhat ambiguous. At times the hair, framing the face or falling on the back of the neck, as in the last example (*f*), may be mistaken for part of the headdress, but unless the design is obscured by erosion, the difference between C and B<sub>3</sub>, in which the headdress turns down around the face, is usually fairly distinct. Ornamental earplugs, decorated with small serpent heads, continue to be used on masks but are never worn by the figure itself. The wing element, when used, is centered on the mask, with its long axis squarely parallel to the vertical axis of the headdress. D is a headdress worn by "warrior" figures at Piedras Negras. It represents a serpent head complete with lower jaw and tongue. This design is somewhat reminiscent of headdresses on figurines from Oaxaca and is virtually duplicated on a large stone female figure from Miacatlan (Seler, 1902-23, vol. 2, no. 2, fig. 64).

There is great variation in headdress design in the Classic style, but the mask is by far the most common central element used. This mask itself has many forms. On early designs it often has the features of a jaguar (*b*, and fig. 17,*g*). Later it resembles the head of a serpent or of one of the grotesque-faced gods (God B or God K) portrayed in the Maya codices.

E<sub>1</sub> are early forms of the mask; E<sub>2</sub> are more highly developed; E<sub>3</sub> are very late forms. A design almost identical to *m* also occurs at Chichen Itza. After the Formative Phase at Copan, jaguar features disappear from the mask designs, but a more realistic portrayal of the jaguar head is sometimes used. In F we see such a jaguar head, and another design in which the jaguar skin and paw are shown with its skull. This change in the manner of portraying the jaguar may be indicative of its deposition from the rank of a major deity during Late Classic times.

Other types of headdress design are too numerous for full illustration. Some outstanding designs only are shown in G to S. In G are types that resemble a turban and were apparently made of woven fabrics, skins, or feather textiles. They are particularly common at Piedras Negras and at Copan, although one is used on the very early Stela 5 at Uaxactun. H are types that resemble a helmet in form. Designs similar to *s* are common at Piedras Negras, whereas *t* apparently originates in the Peten. I also occurs in the Peten and at Copan. J, however, is used exclusively at Yaxchilan.

Among forms that occur more rarely or uniquely are some that resemble headdresses worn in Yucatan. K is from Piedras Negras. It was carved in 9.11.15.0.0, but, like other traits of the Formative Phase in this city, it resembles headdresses worn at Chichen Itza in the Toltec Period. L is from Tikal; it also finds its counterpart in Yucatan.

FIGURE 19

M shows two very similar designs: the first from Chinkultic in the Chiapas highlands, the second from a stela at Uxmal which has some Toltec traits. Horizontal designs with rows of plumes also occur at Yaxchilan and may be another version of this motif. The caplike form of N occurs in 9.17.10.0.0 at El Caribe (*d*), but it is also apparently a Yucatecan form, for we see it at Oxkintok and again at Chichen Itza (*c*). O is a design from a Cycle 10 stela at Seibal; P occurs on a number of minor figures and on Stela 40 at Piedras Negras. Q is from a minor sculpture at Copan. Outside of the Classic area it is used at Santa Lucia Cotzumalhuapa and at Chichen Itza. R is again from Chinkultic. In its use of the circle it resembles the Toltec headdress in the first example of S. The second example (*j*) is the typical Toltec headdress, pointed in front and often with a bird attached.

In T to X are illustrated various masks and facial ornaments. Features that appear in T, especially

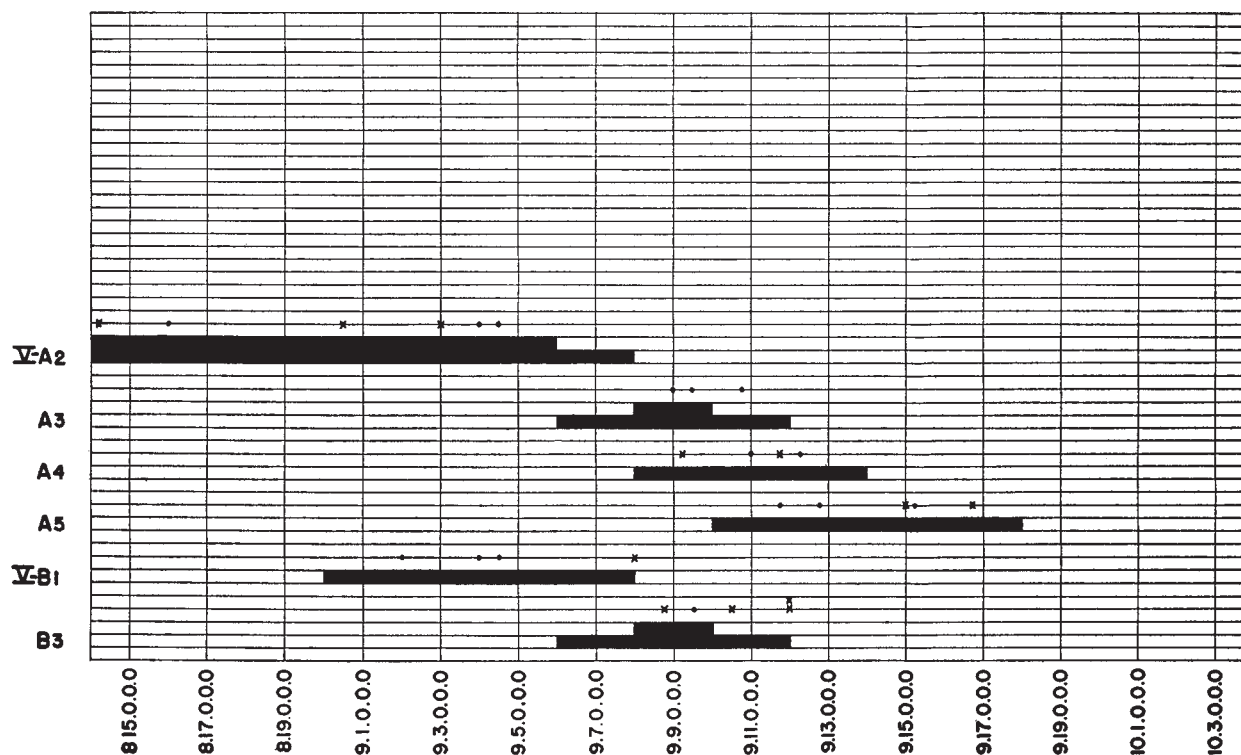


FIG. 17—HEADRESSES (V)

- V: A1. Cycle 8 figure, apparently with lower jaw of serpent under face. Not clear.  
 A2. Headdress fastened under chin with mask. Earplugs attached with fillet or rope motif. Element covering back of neck. No wing element.  
 A3. Mask-fastening under chin. Attached earplugs. Wing element not formally related to central mask.  
 A4. Mask-fastening under chin. Earplug attachment (usually) omitted. Central mask has independent earplugs or wing elements centered on it.  
 A5. Headdress fastened around the head. Archaic features retained: mask-fastening, ornamental earplugs, biblike element under chin.  
 A6. Aberrant examples with mask-fastening.
- V: B1. No mask-fastening. Earplugs connected with headdress, but of simple type. Wing element attached to flap behind earplug.  
 B2. Aberrant example with wing element placed high on mask. Large earplugs.  
 B3. Late Classic types with archaic features: headdress turns down toward earplug, wing element loosely related to mask, etc.

## SOURCE OF ILLUSTRATIONS

*a*: Uaxactun St. 19. *b*: Leyden Plate. *c*: Uaxactun St. 20. *d*: Yaxha St. 6. *e*: Tikal St. 2. *f*: Copan St. P. *g*: Copan St. 2. *h*: Copan St. 5. *i*: Copan St. I. *j*: Piedras Negras St. 6. *k*: Copan St. C. *l*: Piedras Negras St. 11. *m*: Copan St. 1. *n*: Xultun St. 18. *o*: Palenque, Temple of the Cross. *p*: Tikal St. 9. *q*: Yaxchilan St. 27. *r*: Tikal St. 4. *s*: Calakmul St. 28. *t*: Etzna St. 18. *u*: Piedras Negras St. 33. *v*: Bonampak Altar of St. 3. *w*: Piedras Negras St. 25.

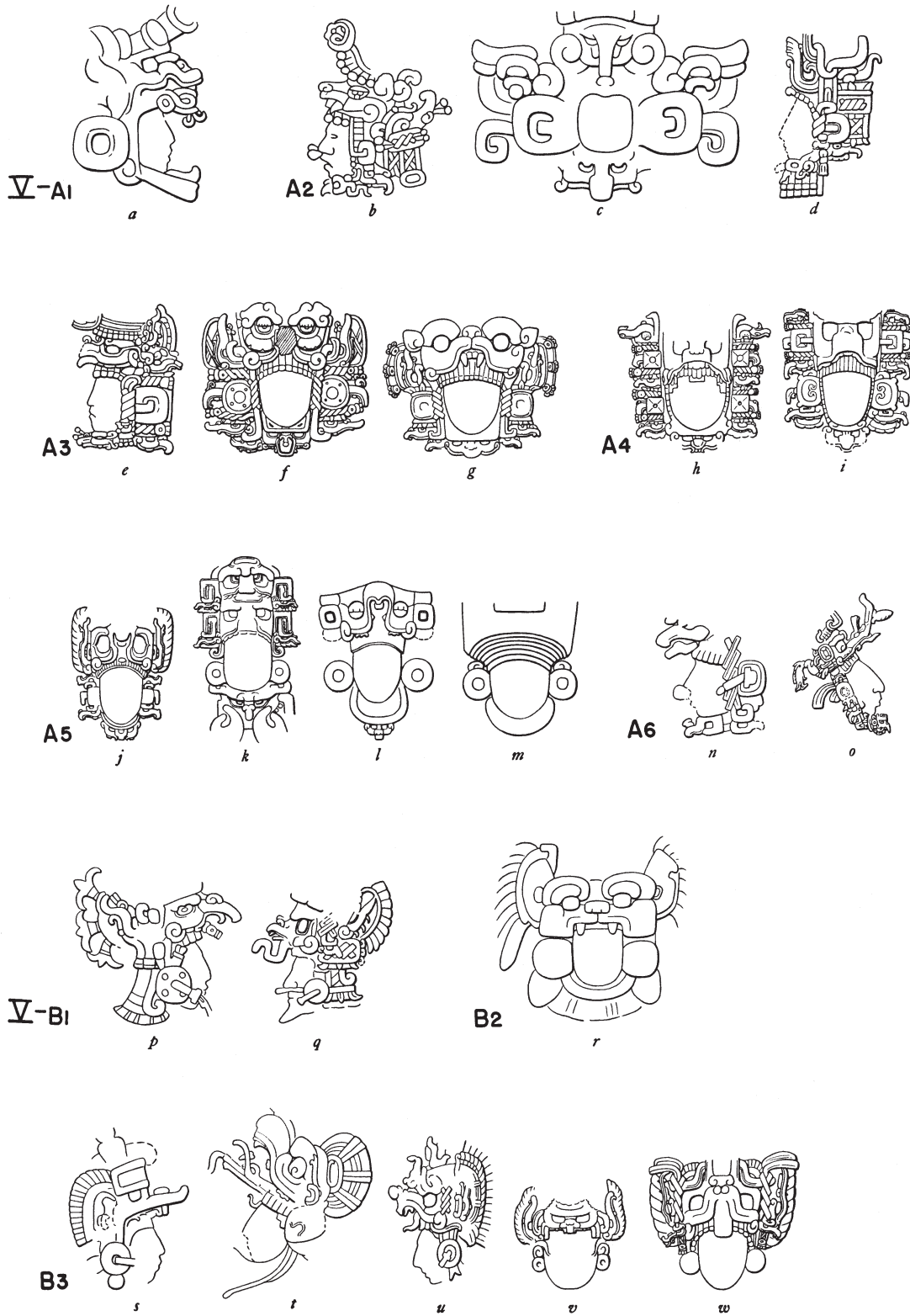
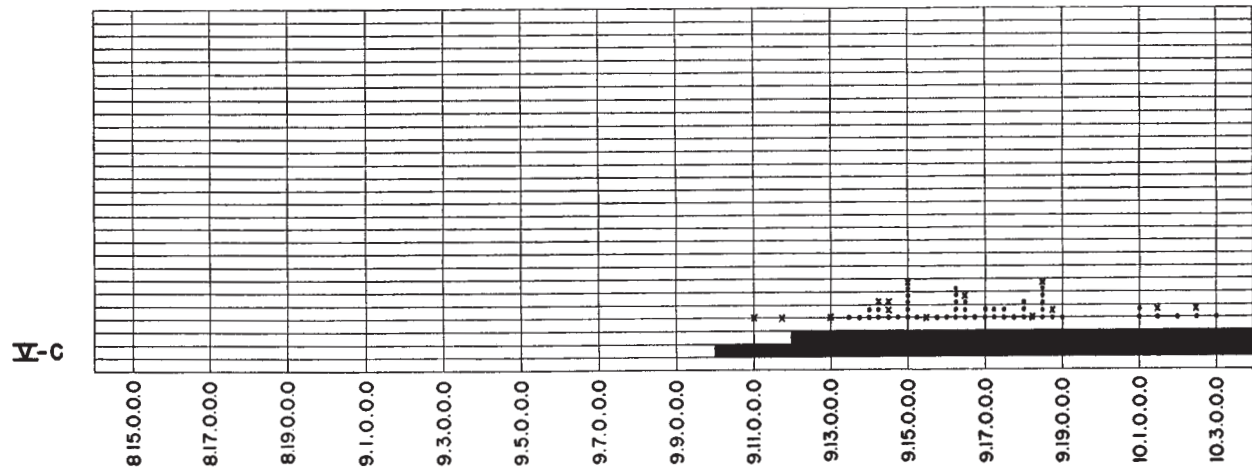


FIG. 17

FIG. 18—HEADRESSES (V)—*continued*

- V: C. Typical Late Classic headdress worn around the head. Wing element (when present) integrated with design of mask.
- V: D. Headdress with lower jaw of mask.
- V: E1. Central mask (Early Classic).  
E2. Central mask (Late Classic).  
E3. Central mask (very late forms).
- V: F. Late Classic jaguar headdress.
- V: G. Turbanlike forms.
- V: H. Helmetlike forms.
- V: I. High, rectangular form, laced strands.
- V: J. High, feathered form. Yaxchilan.
- V: K. High, conelike form (non-Classic?).
- V: L. "Coolie hat" form (rare).

## SOURCE OF ILLUSTRATIONS

*a*: Piedras Negras St. 1. *b*: Piedras Negras St. 14. *c*: Quirigua St. D. *d*: Ucanal St. 4. *e*: Naranjo St. 6. *f*: Tikal St. 16. *g*: Piedras Negras St. 7. *h*: Leyden Plate. *i*: Tulum St. 1. *j*: Piedras Negras St. 11. *k*: Yaxchilan L. 3. *l*: Xultun St. 10. *m*: Seibal St. 9. *n*: Yaxchilan St. 20. *o*: Seibal St. 7. *p*: Piedras Negras St. 9. *q*: Piedras Negras St. 3. *r*: Copan Altar T. *s*: Piedras Negras L. 2. *t*: Piedras Negras St. 13. *u*: Copan St. A. *v*: Yaxchilan L. 1 (Str. 33). *w*: Piedras Negras L. 2. *x*: Tikal Altar V.

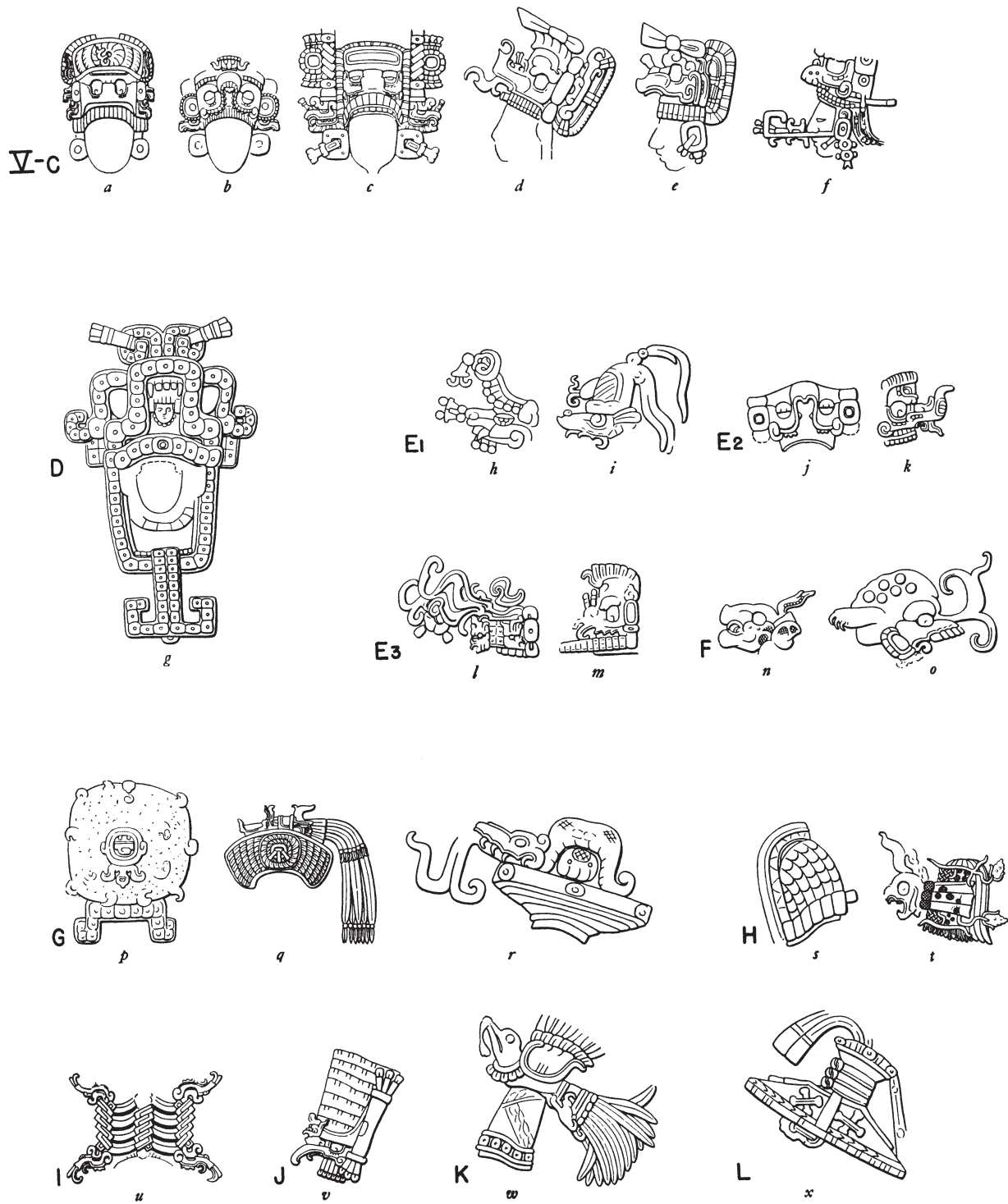


FIG. 18



FIG. 19—HEADRESSES (V)—*continued*—AND FACE ORNAMENTS

- V: M. Headdress with heavy horizontal element.  
Chiapas highlands and Yucatan.
- V: N. Caplike forms with feathers. Mostly Yucatan.
- V: O, P, Q. Other rare forms.
- V: R. Headdress with prominent round element.  
Chinkultic.
- V: S. Most common Toltec form.
- V: T. Abbreviated masks and vestigial forms of jaw.
- V: U. Masks worn by principal figures.
- V: V. Beards.
- V: W. Chin ornaments.
- V: X. Facial tattooing.

## SOURCE OF ILLUSTRATIONS

*a*: Chinkultic St. 9. *b*: Uxmal St. 14. *c*: Chichen Itza, Temple of the Warriors. *d*: El Caribe St. 2. *e*: Seibal St. 8. *f*: Calakmul St. 89. *g*: Copan, Temple 11. *h*: Chinkultic St. 7. *i*: Chichen Itza, Temple of the Chacmool. *j*: Chichen Itza, Temple of the Warriors. *k*: Piedras Negras St. 4. *l*: Calakmul St. 52. *m*: Bonampak St. 2. *n*: Xcalumkin, Initial Series Bldg. *o*: Yaxchilan St. 11. *p*: Copan St. I. *q*: Copan St. D. *r*: Yaxchilan St. 27. *s*: Quirigua St. D. *t*: Copan St. B. *u*: Naranjo St. 21. *v*: Yaxchilan L. 24 (Str. 23).

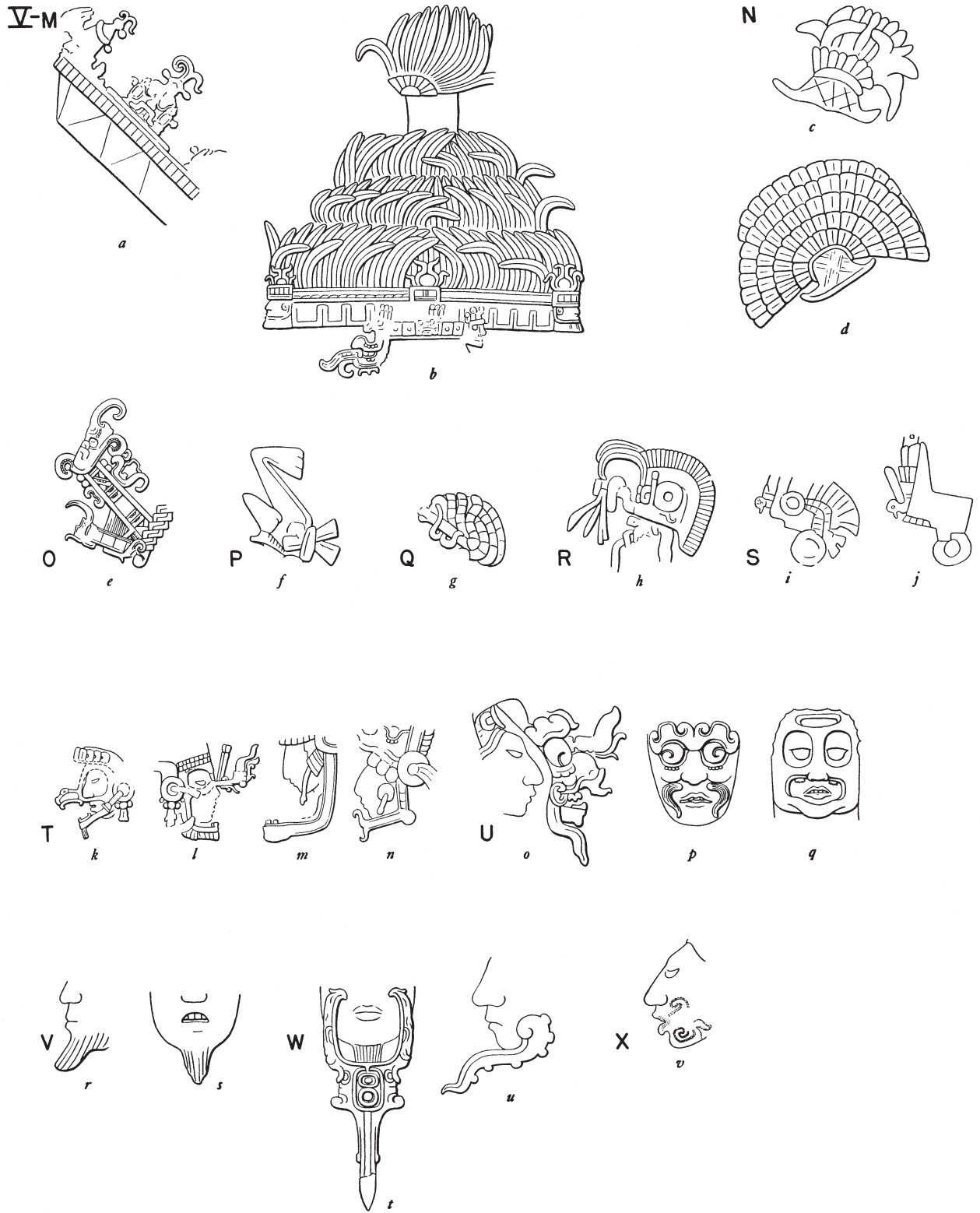


FIG. 19

when eroded, are easily confused with the fastenings of early headdresses. The first two examples (*k* and *l*), however, are abbreviated masks; the second two (*m* and *n*) are probably vestigial forms of the lower jaw of the serpent. It should be noted that the earplug in these cases is not part of the headdress design. In *U* the principal figure is masked, shown clearly in the first example. It is surprising to find among these masked figures what appears to be a representation of a flayed victim's skin worn over the face, as in representations of the god Xipe in Mexico (*q*). Stela *D* at Copan, from which this face is taken, is otherwise a typically Classic figure.

Beards were worn by the Maya at all periods, though they are not common. The two examples shown in *V* are from the Early Period at Yaxchilan (*r*) and from the Dynamic Phase at Quirigua (*s*). At times an artificial beardlike ornament is worn, as in *W*. Face tattooing, shown by tiny raised dots, is represented usually only on minor figures (*X*).

#### VI—EARPLUGS AND NOSE BEADS

FIGURE 20

On Cycle 8 monuments at Uaxactun, even though their sculpture is badly eroded, one can usually distinguish a conspicuous earplug, deeply indented at the center. This earplug occurs also on stelae at Yaxha. It is usually very large and tends to be round or slightly squarish but never oblong (*A*<sub>1</sub>). The same type reappears sporadically in the Late Classic Period but is never of comparable size (*A*<sub>2</sub>). On the Leyden Plate and on Copan designs of the Formative Phase, the earplug is fastened to a fillet or a twisted-rope motif. It is usually combined with a serpent-head design and is often unsymmetrical or partially obscured (*B*<sub>1</sub>). This lack of symmetry persists in some later Copan designs, in which a strand of hair falls in front of the earplug (*B*<sub>2</sub>).

When the earplug is disassociated from the headdress, it is usually simpler in design and may be presented in front or side view. Such earplugs, made of jade, shell, mosaic, or other materials, have often been recovered from Maya tombs. Kidder (1946, fig. 143) shows an assemblage of specimens from Kaminaljuyu which parallels Classic designs. In the Formative Phase occurs a form which presents the main part of the earplug in front view, and within it an element which is tau-shaped in side view and from which hangs a tubular bead (*C*). It seems to be a combination of *D* and *E*. There are very few dated

examples, but in a number of instances this form occurs in combination with both Early and Late Period traits on monuments which appear to be transitional; it probably belongs to the Formative Phase. The usual Late Classic type is *D*<sub>1</sub>. The first example, from the Early Period, is rounder than most of the later forms, which tend to be oblong or oval, but a complete gradation of shapes makes classification difficult. The forms in this group are relatively simple. During the Ornate Phase one or another element is elaborated by the addition of beads, projections, etc. (*D*<sub>2</sub>). In both the foregoing types the tubular bead falls downward, or diagonally toward the mouth. In a number of late examples, which ignore realistic effects, the direction is reversed and the bead points away from the face (*D*<sub>3</sub>). Really square earplugs are rare and have been observed only on Cycle 10 monuments (*D*<sub>4</sub>), though an angular form also occurs late at Quirigua (*D*<sub>5</sub>). There are also rectangular forms on mask earplugs at Copan. Among the jade forms at Kaminaljuyu, they have been found in the Esperanza Phase.

The type of earplug which is shown in side view (*E*) is observed during the Formative Phase of the Late Classic Period only in the Usumacinta area (possibly also at Palenque). Later, however, it occurs also in the Peten and on minor figures at Copan. On main stela figures it remains rare, and its dated distribution does not truly express its frequency. Specific types cannot be distinguished, but late forms may sometimes be recognized by their elaboration or by such features as the addition (as in the second example) of beads to the sides of the tau-shaped element, probably an attempt to show in side view an earplug of the *D*<sub>2</sub> type, a manner also expressed in the beads projecting from the sides of wristlets on such monuments as Stela 8 at Santa Rosa Xtampak, and the lintels of Structure 4B1 at Sayil.

*F* are aberrant examples. *F*<sub>1</sub> is from Stela 25 at Naranjo, in which the main figure wears no earplug but only a small pendant. *F*<sub>2</sub> (Stela 34, Piedras Negras) is similar, and also of the Formative Phase, but a deep hole just above the pendant and the absence of the ear in this case suggests that an earplug of some other material was inserted. *F*<sub>3</sub>, which is a form intermediate between an earplug and a pendant, and in which a round form is placed low on the ear, occurs very rarely in Maya art and is probably intrusive from one of the regions on the Pacific side of the highlands, where such representations are common. *F*<sub>4</sub> occurs frequently on minor figures but

is rarely worn by the main personage. It is probably a poor man's earplug, though it may also have particular association with some ethnic group other than the Maya, and hence is represented as worn by captives or slaves.

At Yaxchilan many figures are shown wearing under the nose a tubular bead through which is passed a feather (G<sub>1</sub>). This ornament is somewhat different from the tubular bead which characteristically appears in the sculpture of Chichen Itza. In the Classic area, the simple tubular nose bead appears, to my knowledge, only once—on a very late monument at Seibal (G<sub>2</sub>). The presence of other Mexican traits at this site suggests that the nose bead is also exotic.

Nevertheless, although the tubular nose bead is not represented as worn by the Maya during the Classic Period, it occurs repeatedly in Classic designs of serpent heads and masks (see figs. 24, 25). Very often it has a peculiar termination perhaps representing a bone. In most mask designs the two ends are aligned horizontally, but in some (see fig. 24, *u*) the beads emerging from the septum of the nose point downward. On mask designs of the apron, this occurs usually on late designs, and it is seen also on masks in the Temple of the Jaguars at Chichen Itza.

G<sub>3</sub>, a very ornate form, may be an unusually elaborate nose bead of the same type as that worn at Yaxchilan, or may be an abbreviated mask. The typical Classic form is a tassel hanging from the septum of the nose (G<sub>4</sub>). In G<sub>5</sub> are shown unusually elaborate forms: the first (*k'*) from Tikal, the second two (*l'* and *m'*) from Santa Rosa Xtampak. The latter somewhat resemble speech scrolls. This is true also of G<sub>6</sub>, which is from the last known sculptured stela in the Classic area. G<sub>7</sub> are the typical Toltec forms distinguished by the buttons at the side of the nose and the simple form of the tassel, but the first example is from a lintel at Yaxchilan. G<sub>8</sub> is also Toltec. H is a nose ornament or guard worn by a prisoner on Stela 12 at Piedras Negras. I know of no other example of its type. In I are shown two types of eye fillets. The first, a simple circle, is worn by a minor figure in the Formative Phase at Piedras Negras. It is not elsewhere seen on Classic figures but occurs fairly commonly in Yucatan. I<sub>2</sub> is the Classic form used with particular frequency in the Peten. It is also used on face numerals to denote number 7 and is frequently seen on mask-shields of D<sub>4</sub> (fig. 32).

## VII—COLLARS

FIGURE 21

Almost all Maya figures wear some sort of necklace. Sometimes it is no more than a single strand of beads; more often, if the figure is in ceremonial dress, the collar is composed of several rows of beads or of rectangular elements that are probably flat segments of shell sewn to a lining. Tubular and round beads are often combined in the design, and small heads are attached for ornament. The early collar is fairly narrow, usually of three or four rows of beads, and hangs loosely around the neck (A<sub>1</sub>). On the Leyden Plate this collar is plain (*a*) but its narrow form is that of the beaded necklaces of early Cycle 9 (*b* and *c*). Later the collar is shaped to fit the shoulders and encircles the neck more closely (A<sub>2</sub>). At this time it still shows no specialized borders. As the Ornate Phase develops, more attention is paid to detail and structure. Often a specialized row of small beads forms a border, or there is a narrow outline, usually on a lower plane than the beads, which probably represents the lining to which they are attached (A<sub>3</sub>). During the Dynamic Phase the structural details are largely ignored, but the outline is stressed by conspicuous raised fillets (A<sub>4</sub>). As the Dynamic Phase lapses into the Decadent, more and more often, the elements composing the collar are conventionally indicated by simple incised lines (A<sub>5</sub>). In the second example, there is gross simplification, and the line is cursive and irregular. There is also a growing tendency to make the outline of the collar, as it encircles the neck, unsymmetrical. We can note this also in the last example of A<sub>3</sub>, which, though it illustrates the Ornate structure, is actually taken from a Cycle 10 monument. A<sub>6</sub> is an example from the Temple of the Warriors at Chichen Itza. It is very cursive, amorphous in structure, and stresses the fillet elements.

This series, of course, illustrates the same graphic qualities as does the series of scrolls, and indeed almost any series of elements which we choose to study. Since these tendencies are in themselves difficult to define, only specific elements, such as the border of the collar, are used to make the distinctions.

There are also, however, some decorative details which have a limited distribution and can be used as criteria of time. B<sub>1</sub>, showing large pendants on the circumference of the collar, is a form often found on monuments of the Formative and Ornate Phases at Piedras Negras. B<sub>2</sub>, in which the pendants are

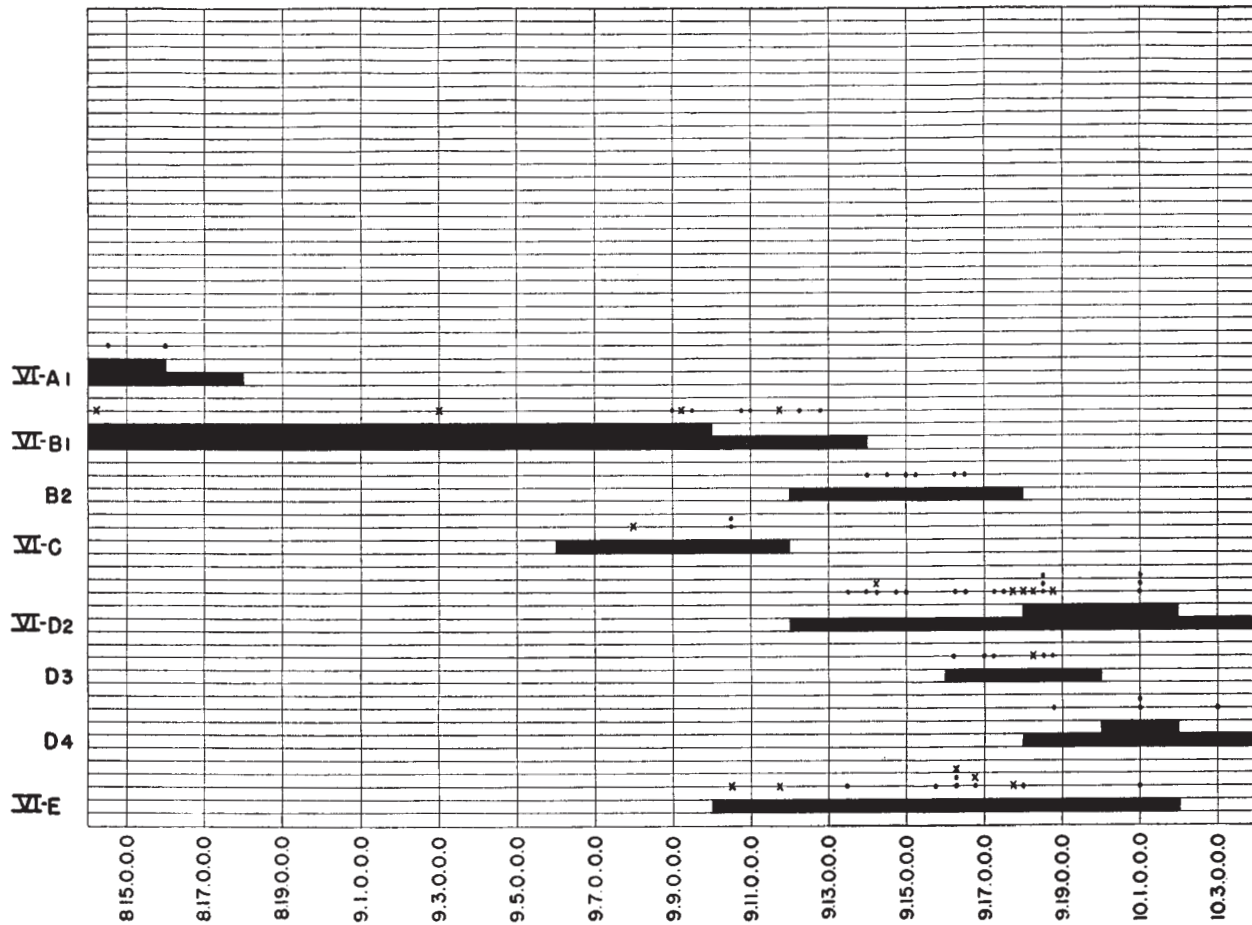


FIG. 20—EARPLUGS, NOSE BEADS, ETC. (VI)

- VI: A1. Large earplug with deep indentation.  
A2. Same, smaller. Rare.
- VI: B1. Earplug fastened with rope or fillet.  
B2. Strands of hair falling in front of earplug. Not to be confused with B1.
- VI: C. Flare or tau-element within earplug shown *en face*.
- VI: D1. Late Classic earplug, simple.  
D2. Late Classic earplug, ornate.  
D3. Earplug with bead directed away from face.  
D4. Square earplug. Rare.  
D5. Angular form. Rare.
- VI: E. Earplug in side view.
- VI: F1, 2, 3, 4. Aberrant types.
- VI: G1. Nose bead below nose. Feather inserted.  
G2. Tubular noseplug. Non-Classic.  
G3. Ornate noseplug or abbreviated mask?  
G4. Typical Late Classic tassel.  
G5. Aberrant prominent forms.  
G6. Late aberrant form.  
G7. Toltec nose beads.  
G8. Toltec ornament worn under nose.

- VI: H. Aberrant nose ornament.
- VI: I1. Circle around eye. Non-Classic.  
I2. Classic fillet around eye.

## SOURCE OF ILLUSTRATIONS

a: Uaxactun St. 19. b: Xultun St. 12. c: Calakmul St. 62. d: Piedras Negras St. 8. e: Leyden Plate. f: Copan St. P. g: Copan St. H. h: Copan St. N. i: Bonampak, Lintel of Str. 6. j: Xultun St. 21. k: Tikal St. 9. l: Quirigua St. F. m: Calakmul St. 89. n: Yaxchilan L. 9 (Str. 2). o: Naranjo St. 30. p: Tikal St. 16. q: Tikal Altar V. r: Quirigua St. D. s: Santa Rosa Xtampak St. 2. t: La Mar St. 2. u: Itsimte St. 4. v: Xultun St. 10. w: Quirigua St. I. x: Piedras Negras L. 12. y: Yaxchilan L. 3 (Str. 33). z: Naranjo St. 25. a': Piedras Negras St. 34. b': Piedras Negras L. 4. c': Yaxchilan St. 15. d': Yaxchilan St. 27. e': Yaxchilan L. 6 (Str. 1). f': Seibal St. 10. g': Tikal St. 16. h': Naranjo St. 11. i': Ixkun St. 1. j': Naranjo St. 13. k': Tikal Altar V. l': Santa Rosa Xtampak St. 8. m': Santa Rosa Xtampak St. 2. n': Xultun St. 10. o': Yaxchilan L. 3 (Str. 33). p': Chichen Itza, Temple of the Jaguars. q': Chichen Itza, the Tzompantli. r': Piedras Negras St. 12. s': Piedras Negras L. 2. t': Naranjo St. 21.

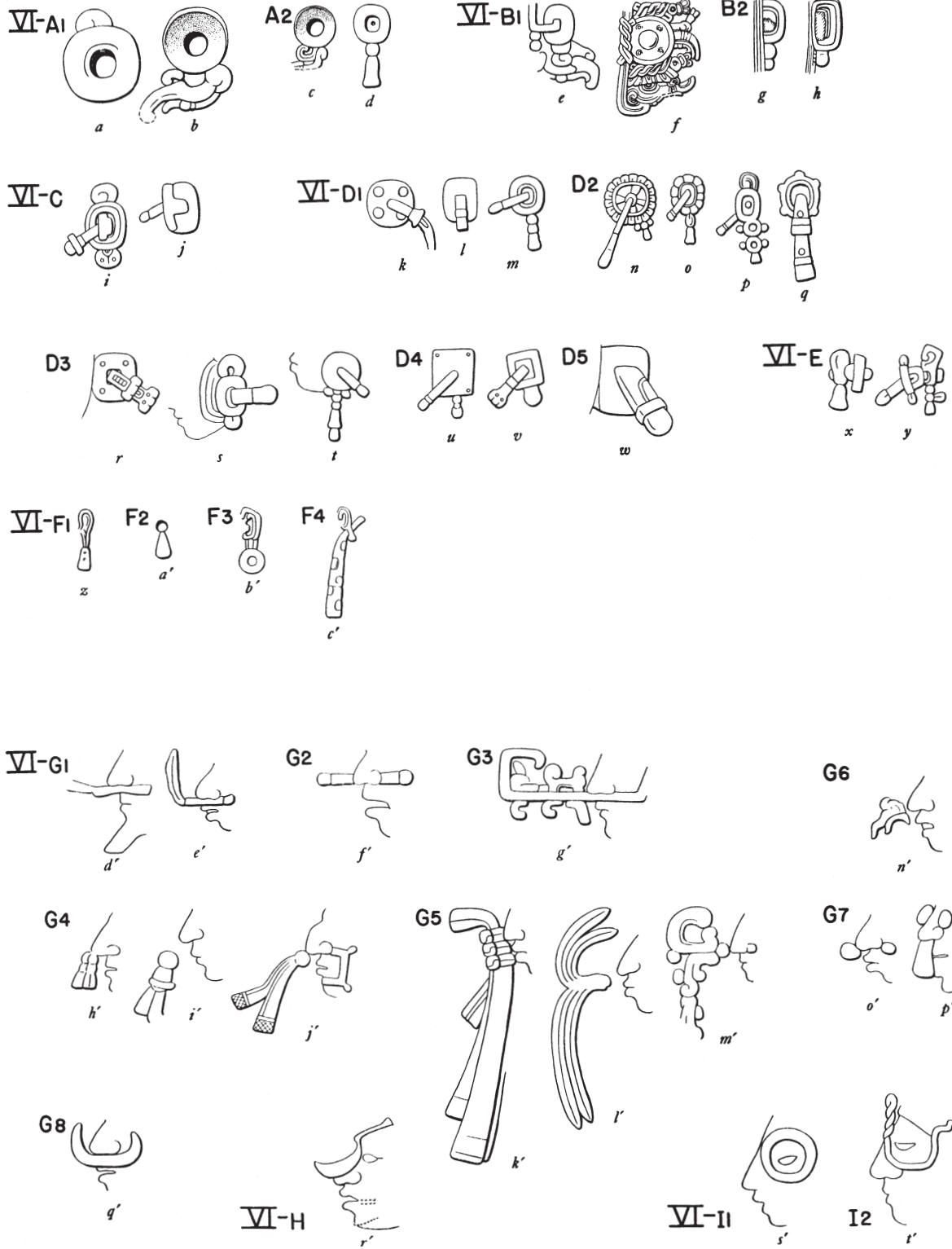


FIG. 20

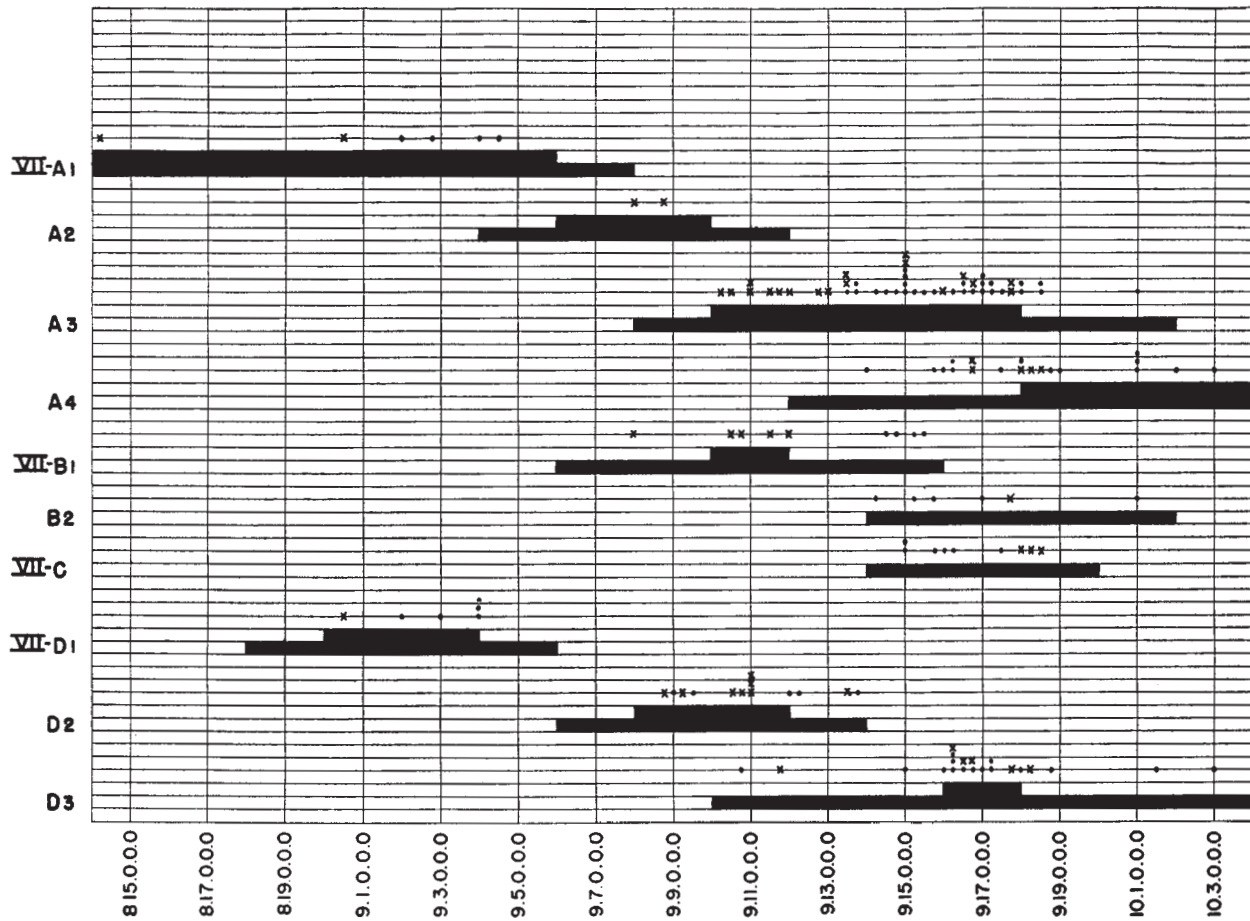


FIG. 21—COLLARS (VII)

- VII: A1. Narrow collar worn loosely on neck.  
 A2. Shaped collar, with no borders.  
 A3. Collar with light border.  
 A4. Collar with prominent border.  
 A5. Same, with indication of beads simplified.  
 A6. Chichen Itza, decadent form.
- VII: B1. Large ornaments around collar.  
 B2. Smaller spaced beads on border.
- VII: C. Shoulder ornaments with tassel or tie.
- VII: D1. Early ornamental head on collar. No surrounding beads, beads below face sharply flaring.  
 D2. No surrounding beads, headdress, or indication of hair.  
 D3. Head in circle of beads.

## SOURCE OF ILLUSTRATIONS

*a*: Leyden Plate. *b*: Yaxchilan St. 27. *c*: Tikal St. 9. *d*: Piedras Negras St. 25. *e*: Piedras Negras St. 35. *f*: Seibal St. 11. *g*: Itzimte St. 4. *h*: Naranjo St. 12. *i*: Seibal St. 9. *j*: Xmakabatun St. 4. *k*: Chichen Itza, Temple of the Warriors. *l*: Piedras Negras St. 35. *m*: Calakmul St. 51. *n*: Piedras Negras St. 12. *o*: Tikal St. 5. *p*: Naranjo St. 13. *q*: Yaxchilan St. 27. *r*: Uaxactun, fragment from Str. A-V. *s*: Copan St. P. *t*: Copan St. 1. *u*: Piedras Negras St. 25. *v*: Piedras Negras St. 34. *w*: Etzna St. 18. *x*: Yaxchilan L. 3 (Str. 33). *y*: Yaxchilan L. 14 (Str. 20). *z*: Xultun St. 10.

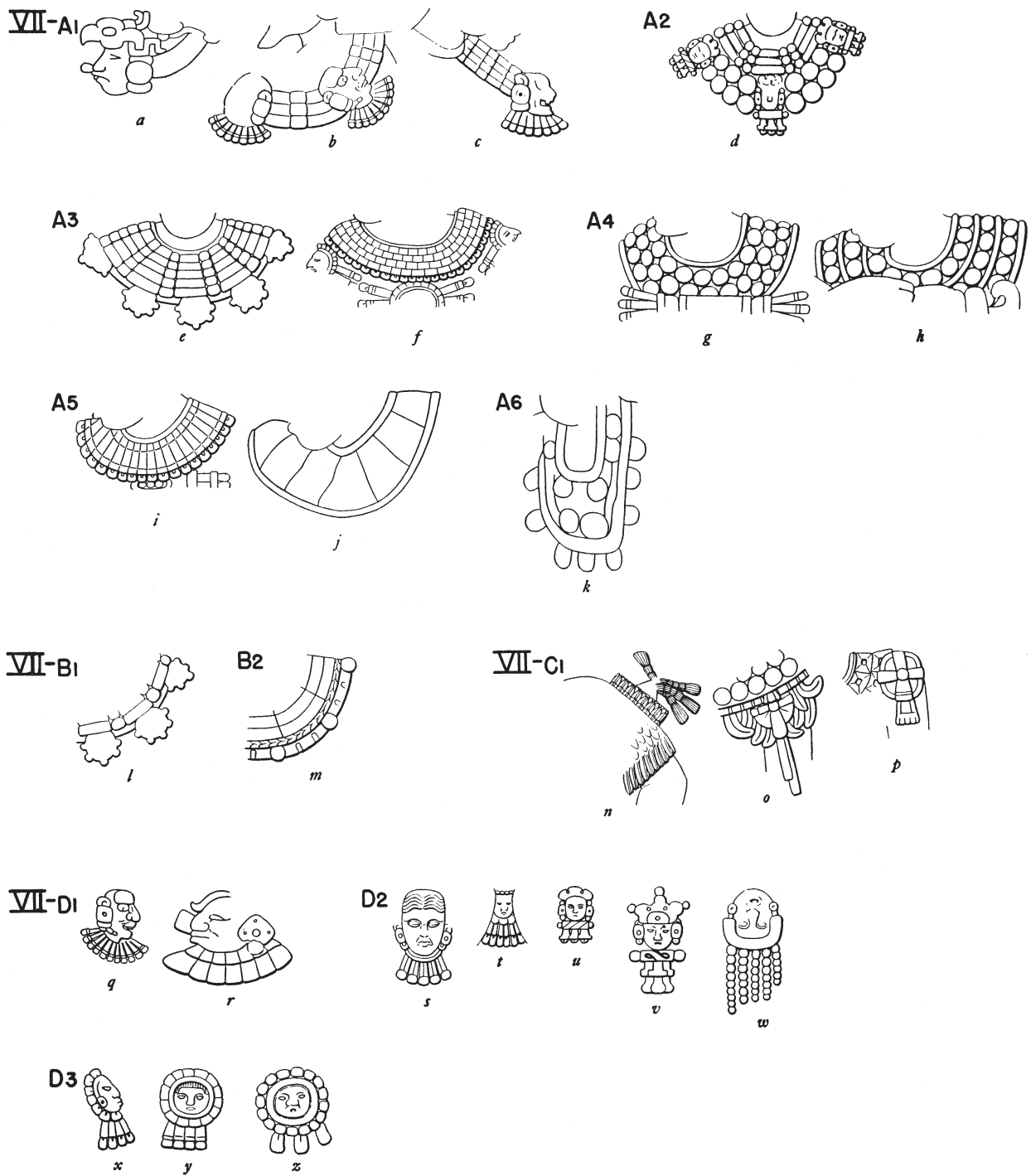


FIG. 21



much smaller, seems to be a later form. C, an ornament placed on the shoulder, is usually late, but as a criterion it is of doubtful value, for there are no dated examples of antecedent forms which may have existed. We have found that motifs usually have a wide distribution, and the concentration of this motif in the Ornate and Dynamic Phases may be merely due to the fact that we have a larger number of sculptures dating from this time than from any other.

Head ornaments on the collar are common at all times. D<sub>1</sub> is the early type that may be recognized by its large, simple earplug, more specifically by the group of beads below the face, and their flaring arrangement. D<sub>2</sub> shows various forms from the Formative Phase. These vary in design but are readily distinguished from D<sub>3</sub>, in which the face is adapted to a circular field and is surrounded by a row of round beads. Such forms are typical of the Late Classic Period and follow the same course of graphic development as do the collars, so that the collar distribution may be noted when only the details of the ornament are clear. The first example corresponds to A<sub>2</sub>, the second to A<sub>3</sub>, and the third, showing cursive tendencies, to A<sub>5</sub>.

#### VIII—NECKLACES AND COLLAR ORNAMENTS

FIGURE 22

There are three principal types of ornament worn by the Maya either on a necklace or fastened to the collar. The *mat ornament* (A<sub>1</sub>[*b*], B<sub>1</sub>, C<sub>1</sub>) is composed of plaited strands. It goes back to the Early Period and remains unchanged in Late Classic times, although it is no longer often used. The *bar ornament* (C<sub>2</sub>) also derives from very early times, but it continues to be popular throughout the Classic Period, and is particularly common in the Usumacinta area in Late Classic times. An ornament of this type, in which the central element is a huge tubular bead with an incised design, has been assembled by Dr. Tozzer from jade beads recovered from the Sacred Cenote at Chichen Itza and closely resembles the Classic designs. The *medallion ornament* (C<sub>3</sub>) has not been observed in the Early Classic Period. It is a form particularly often shown in the Peten and at Quirigua in Late Classic times.

In the Early Period, ornaments usually hang at waist level, and although the body may be shown in side view, they are always turned into the plane of

the carving, so that they often project far beyond the figure (see fig. 37,*b,c*). The mat ornament and the bar ornament appear in the early manner in A<sub>1</sub> and A<sub>2</sub>, on figures seen in side view. During the Formative Phase of the Late Classic Period, early mannerisms still survive on individual monuments. Thus B<sub>1</sub> is an example of the mat ornament from Palenque. It is also shown in front view although the figure faces to the side. It is worn, however, not at waist level but on the chest. B<sub>2</sub>, on the other hand, an example from Piedras Negras dated 9.11.0.0.0, hangs at waist level. Since the figure faces front, the problem of presenting the side view of the ornament does not arise. Later, the ornaments are worn either on the chest or hanging very low about the level of the knees, and the side view is shown by presenting half the ornament. C<sub>1</sub> are examples of the mat ornament shown in the Late Classic manner, worn on the chest. They are from Palenque and their date is uncertain. C<sub>2</sub> is the bar ornament, worn near the level of the knee in Yucatan, and on the chest in the Classic area. C<sub>3</sub> is the medallion ornament, also shown in side view (*m*).

During the Ornate and Dynamic Phases, forms appear which are intermediate between the bar and the medallion ornaments, and the central element, whether bar or medallion, is often decorated with a grotesque face or skull (C<sub>4</sub>). Sometimes the pectoral is combined with other elements (C<sub>5</sub>); often C<sub>2</sub> and C<sub>3</sub> or C<sub>4</sub> are used together (C<sub>6</sub>). This happens most frequently during the Ornate Phase, when the costume of the figure receives maximum attention. Later there is a growing tendency to simplify detail. A mannerism characteristic of this is the parallel placing of tubular beads, so that they can be indicated by simple lines on a single mass (C<sub>7</sub>).

The remaining examples are variant and miscellaneous forms. D is a particularly ornate design from Piedras Negras. E is a type commonly used at Naranjo and not infrequently also at Piedras Negras and at Copan. F is a unique example from Naranjo, which resembles ornaments of the Toltec Period. G occurs twice at Yaxchilan. The upside-down heads ornamenting this necklace recall similar heads worn on the collar at Etzna, but the concept is probably an influence from the Chiapas highlands, where such heads seem to be characteristic of a non-Classic sculptural style (see Selser, 1902, figs. 218, 219). The sporadic occurrence of similar forms over long periods of time is well illustrated by the two examples in H. The first is from a Cycle 8 monument at

Uolantun; the second, from much later sculpture at Copan. I and J are probably shells, the first from Copan, the second from Yaxchilan. K is the ancient mat ornament coming again into use in the Toltec Period at Chichen Itza. Probably it was worn throughout the Late Classic Period, but being less grand than the jade and shell forms was not often represented on stelae. The conquering Toltec usually wear a pectoral of L type, which is believed to represent a bird or butterfly.

### IX—BELTS

FIGURE 23

One of the more conspicuous features of Maya dress is a wide belt, often decorated with three human heads and a twist or shell motif with three pendants. The heads appear to have been carved in half-round relief, and one may suppose that they were made of some perishable material, for no similar ornaments have ever turned up in Maya graves. There is, however, a carved jade head from the Sacred Cenote of Chichen Itza which resembles such belt-heads in design. It is about 8 cm. high, is carved in the style of the Usumacinta region, and bears an inscribed date connected with the chronological records at Piedras Negras (Proskouriakoff, 1944). Similar but larger heads or, more often, grotesque masks, were sometimes attached to the back of the belt together with long plumes and other intricate ornaments. A belt thus treated becomes one of the principal features of the composition and in the more ornate sculpture it is elaborated for its own sake and often bears little relation to the body of the figure. Sometimes it projects far beyond the waist or is placed high above it.

Early belts are usually either plain or decorated with a cross motif alternating with prominent circles or ellipsoids (A<sub>1</sub>). These circular elements are a fairly reliable indication of the Early Period, though at Copan they survive into the Formative Phase, and once occur on a monument of the Ornate Phase at Tikal (Stela 16). The form shown in A<sub>2</sub> is very unusual. It is from Stela 18 at Xultun, which seems to combine early traits with some later mannerisms. During the Late Classic Period, the decoration of the belt is designed in panels separated by vertical bands. The cross remains the principal motif of decoration, though sometimes a twist motif is substituted, and later star or planet symbols may be used (A<sub>3</sub>). The circle is rarely seen after the Formative Phase. An-

other detail which distinguishes designs of the Formative Phase is the decorated border of the belt (A<sub>4</sub>), which later is usually left plain. Although there are no early examples of this feature which can be dated, the form apparently goes back to early times, for it can be clearly made out on Stela 1 at Tikal. Probably there are other early examples, now too eroded to be recognized.

A third early feature is the low position of the decorative head on the belt. This is particularly conspicuous when the pendants below the head hang in front of the loincloth apron and partly obscure its design. In the Early Period and during the Formative Phase of the Late, the formal relations of the separate elements received less attention than during the Ornate Phase, when each element was placed in a carefully studied scheme, so that its decorative features were shown to best advantage. The rounding of the top of the belt (B<sub>2</sub>) may also be a feature of the Formative Phase, for it occurs on several stelae of this period at Copan. The more usual formal design of the Late Classic Period is shown in B<sub>3</sub>. Usually, though not always, one sees a border of shells or tassels below the belt. B<sub>4</sub> shows the grouping of the three belt-heads together on the front of the belt. This occurs at Calakmul and at Itsimte about 9.15.0.0.0, but there are not enough examples to indicate its distribution clearly.

When a belt is apparently made of soft material, closely fitting the body, it often curves slightly as it passes around the waist (see B<sub>1,k</sub>). The deliberate curving of an ornamented belt (B<sub>5</sub>) or one composed of tubular beads (C) is usually a fairly late feature. Belts composed of tubular beads (C<sub>1</sub>) have approximately the same distribution as the more common belt of panels. They are more often, however, associated with figures which wear a skirt, particularly the beaded skirt so commonly occurring at Naranjo. The belt composed of square elements seem to be invariably late (C<sub>2</sub>).

A number of very early monuments show an ornament hanging behind the figure, suspended by a chain from its belt. Although this feature sporadically occurs in later periods, one can distinguish the early designs by the characteristic form of the chain (D<sub>1</sub>). D<sub>2</sub> modifies only slightly the design of the chain. The principal difference is that the links are smaller. The examples are from Palenque and Etzna and date from about 9.13.0.0.0. D<sub>3</sub> shows a different design composed of a twist or rope motif interrupted by groups of knots. The date of the first

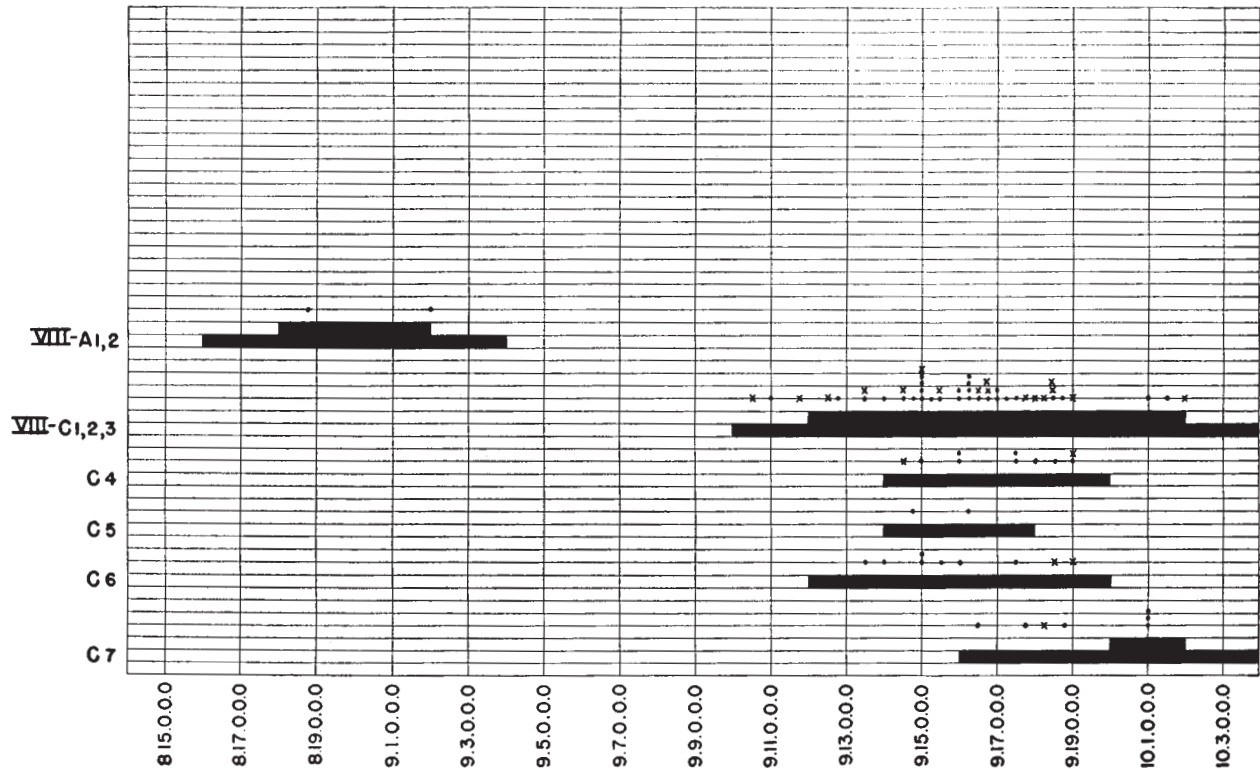


FIG. 22—NECKLACE AND COLLAR ORNAMENTS (VIII)

- VIII: A1. Mat ornament hanging at waist level. Front view when figure is in profile.  
 A2. Bar ornament at waist level. Front view when figure is in profile.
- VIII: B1. Mat ornament at chest level. Front view, figure in profile.  
 B2. Ornament at waist level.
- VIII: C1. Late Classic mat ornament, worn on chest. Also side view.  
 C2. Late Classic bar ornament, worn on chest or about level of knees. Also side view.  
 C3. Late Classic medallion ornament, worn on chest. Also side view.  
 C4. Medallion or bar ornament, decorated with grotesque face or skull.  
 C5. Medallion or bar ornament combined with other elements.  
 C6. Medallion and bar ornaments worn together on chest.  
 C7. Ornaments with beads grouped together and shown by parallel lines.
- VIII: D. Ornament from Stela 12, Piedras Negras (9.18.5.0.0).
- VIII: E. Bar with skull, particularly common at Naranjo and Piedras Negras in the Ornate and Dynamic Phases of Late Classic.
- VIII: F. Oval ornament. Rare.
- VIII: G. Necklace from Yaxchilan. Rare.
- VIII: H. Similar ornaments from Cycle 8 stela at Uolantun and from late Copan sculpture.
- VIII: I, J. Shell ornaments.
- VIII: K. Mat ornament from Chichen Itza. Probably Toltec Period.  
 L. "Bird" or "butterfly" pectoral from Chichen Itza. Toltec.

## SOURCE OF ILLUSTRATIONS

*a:* Yaxha St. 4. *b:* Tikal St. 9. *c:* Uolantun St. 1. *d:* Palenque, Temple of the Cross. *e:* Piedras Negras St. 34. *f:* Palenque, Temple of the Cross. *g:* Palenque, Temple of the Sun. *h:* Coba St. 1. *i:* Piedras Negras St. 6. *j:* Piedras Negras St. 10. *k:* Calakmul St. 53. *l:* Piedras Negras St. 13. *m:* Yaxchilan St. 6. *n:* Coba St. 20. *o:* Naranjo St. 7. *p:* Piedras Negras St. 8. *q:* Yaxchilan St. 5. *r:* Tikal St. 16. *s:* Seibal St. 3. *t:* Quirigua St. K. *u:* Ucanal St. 4. *v:* Piedras Negras St. 12. *w:* Naranjo St. 2. *x:* Naranjo St. 21. *y:* Yaxchilan L. 9 (Str. 2). *z:* Uolantun St. 1. *a', b':* Copan, sculpture in East Court. *c':* Yaxchilan St. 1. *d':* Chichen Itza, Temple of the Atlantean Columns. *e':* Chichen Itza, Lower Temple of the Jaguars.

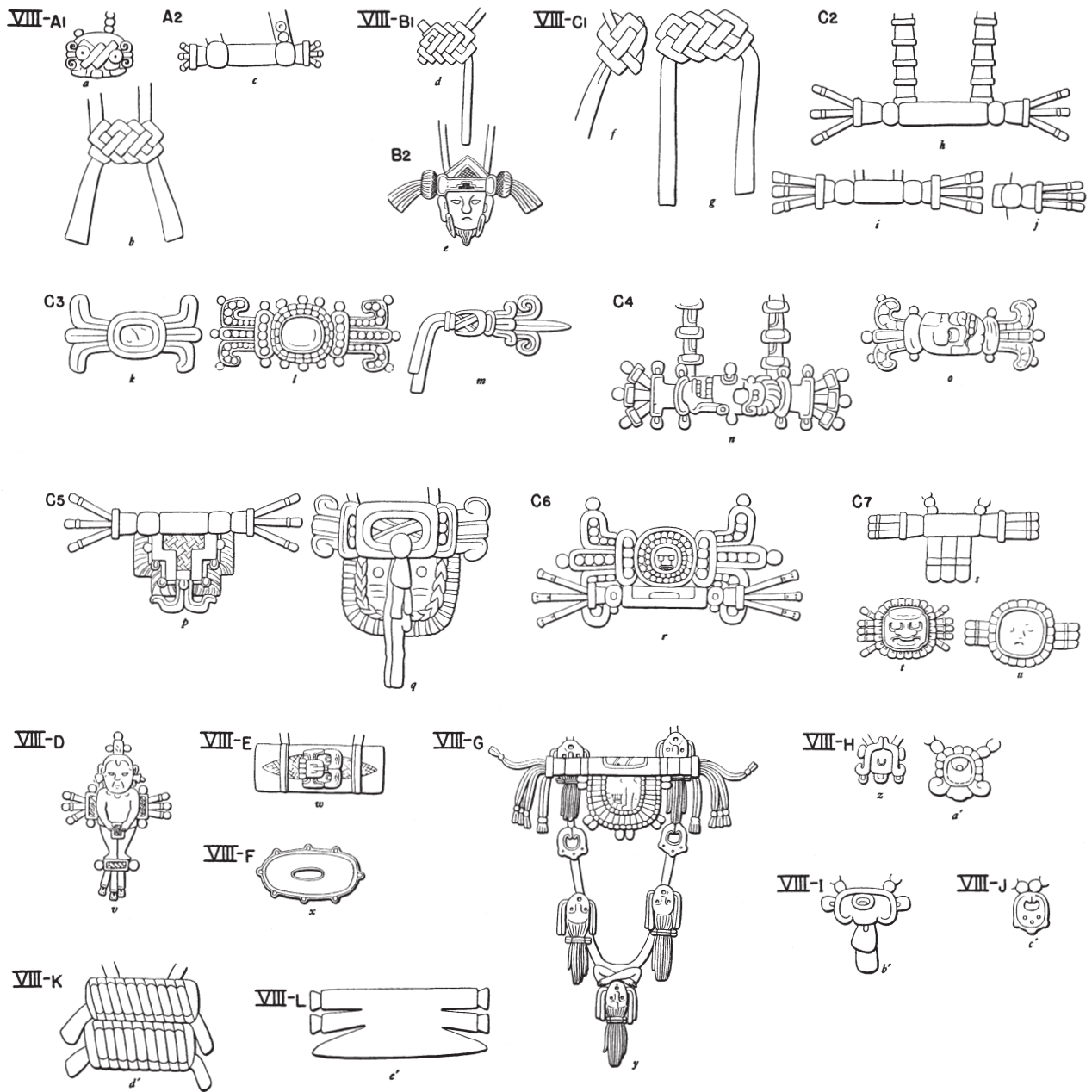


FIG. 22

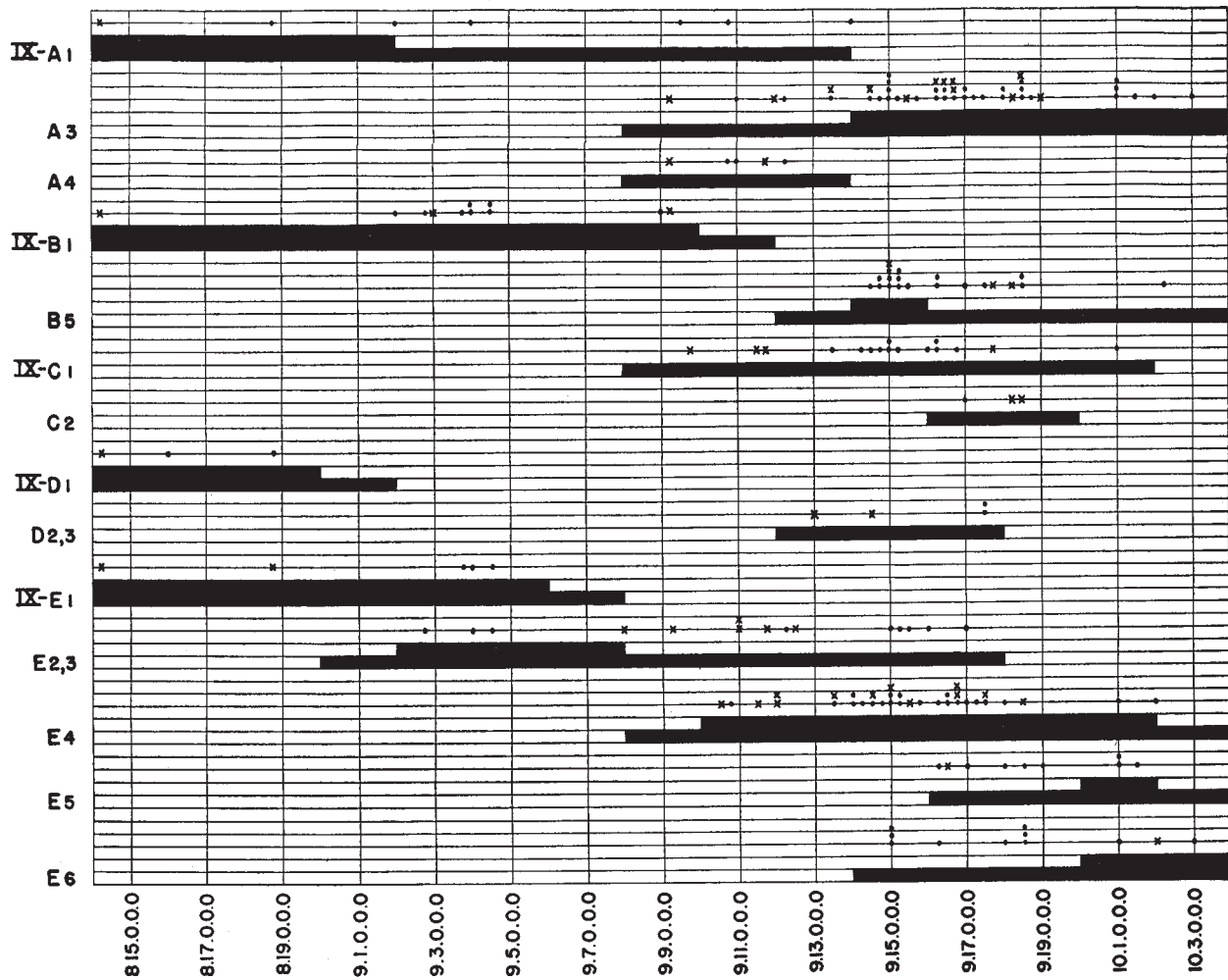


FIG. 23—BELTS (IX)

- IX: A1. Belt plain, or decorated with circles and crosses. No panels.  
 A2. Crosses and squares. Unique example of unknown date.  
 A3. Design of crosses, twist motif or sky signs. Also vertical elements dividing panels when not obscured.  
 A4. Secondary border interrupted by circular or notched elements, dots, etc.  
 IX: B1. Head on front of belt placed below upper border. Pendants usually obscure design on apron or hang in front of it (side view).  
 B2. Upper edge of belt rounded. Formative Phase, Copan.  
 B3. Typical Late Classic designs, with or without shells or tassels under belt. Note that heads align with belt.  
 B4. Three belt-heads grouped in front.  
 B5. Belt sharply curved.  
 IX: C1. Belt composed of vertical elements. Tubular beads?  
 C2. Belt composed of square elements.  
 IX: D1. Chain composed of alternating tau-shaped elements and beads.  
 D2. Same of later design. Smaller elements, added beads, and detail.  
 D3. Chain of twist or rope motif and groups of knots.  
 IX: E1. Belt-heads with large earplug, deep indentation. No knot element.  
 E2. Belt-head with earplug in side view. No knot element. Headdress. Early Tikal.  
 E3. Normal earplugs. Headdress. No knot element.  
 E4. Knot element.  
 E5. Knot element only. Earplugs on cheeks.  
 E6. Knot element, no earplugs.  
 E7. No features other than crudely delineated face.

## SOURCE OF ILLUSTRATIONS

a: Uolantun St. 1. b: Yaxchilan St. 27. c: Xultun St. 18.  
 d: Copan St. 5. e: Piedras Negras St. 34. f: Copan, misc. sculpture. g: Tikal St. 1. h: Copan St. E. i: Copan St. I.  
 j: Tikal St. 3. k: Naranjo St. 25. l: Copan St. P. m: Copan St. I. n: Naranjo St. 12. o: Motul de San Jose St. 2. p: Naranjo St. 8. q: Naranjo St. 24. r: Seibal St. 9. s: Piedras Negras St. 13. t: Uolantun St. 1. u: Palenque, Temple of the Cross. v: Etzna St. 19. w: Xultun St. 18. x: Naranjo St. 13. y: Tikal, lintel (Temple IV?). z: Leyden Plate. a': Yaxchilan St. 27. b': Xultun St. 12. c': Tikal St. 9. d': Piedras Negras St. 40. e': Piedras Negras St. 13. f': Piedras Negras St. 4. g': Copan St. P. h': Copan St. A. i': Calakmul St. 53. j': Naranjo St. 14. k': Naranjo St. 8. l': Xultun St. 10. m': Oxpemul St. 15. n': La Muneca St. 5. o': Calakmul St. 50.

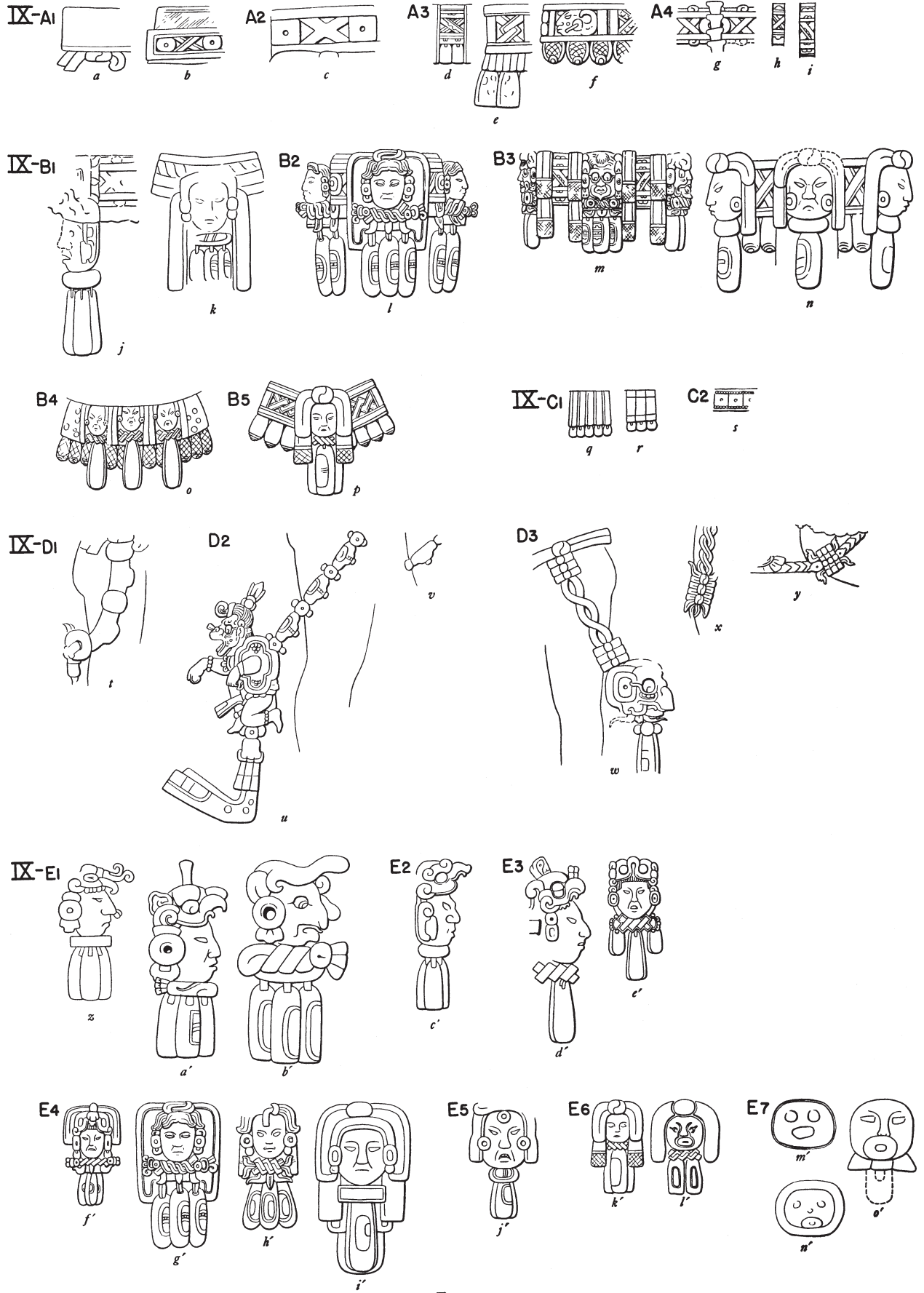


FIG. 23

example (*u*), from Stela 18 at Xultun, is unknown but is probably of the Formative Phase. The others are later.

The heads ornamenting the belt sometimes reveal the period of the sculpture. Early heads usually have characteristically large or deeply indented earplugs (E<sub>1</sub>). There is always a headdress of some sort, most often featuring the serpent. Heads of this type, but showing a less conspicuous earplug, are usually somewhat later (E<sub>2</sub> and E<sub>3</sub>). The design most popular during the Late Classic Period includes also a knotted element above the head, with its ends framing the face (E<sub>4</sub>). During the Dynamic Phase the head design is progressively simplified. The headdress and hair indication are omitted, but particularly striking is the casual rendering of the earplugs. In E<sub>5</sub> they appear as circles or sometimes half-circles on the cheeks of the face. In E<sub>6</sub> they are entirely omitted; often the face itself is only roughly indicated. In E<sub>7</sub> the knot element is dropped and the face is a circle with a mere indication of features. Although there are no surely dated examples of this type, it is almost certainly one that belongs to a period of extreme decadence.

## X—LOINCLOTH APRONS

FIGURE 24

The loincloth worn by the Maya hangs in a long apron in front, sometimes reaching as low as the ankle. This apron is often richly embroidered or decorated with fringes. When a figure is shown in full ceremonial dress, particularly when it is wearing a stiff belt ornamented with heads, like those mentioned in the preceding section, a second decorative apron is usually attached to the belt and hangs in front of the loincloth. A very common form of this apron consists of two conventional serpent heads with snouts turned outward in the form of frets. These serpents flank a design which is most often that of a mask, probably representing the sun god, for it has the large square eyes and filed teeth generally believed to denote this deity. Since the motif is very common, its development can be traced from the Early Period through the entire range of the inscriptions to the period of decadence.

Even before the appearance of the serpent frets, one finds related forms, such as A<sub>1</sub>, which consist of an apron slightly flaring at the end, and in front of it a rope, which is twisted near the end and has two diverging parts. This rope is a convenient diag-

nostic trait of the earliest types of apron, represented also by A<sub>2</sub>, A<sub>3</sub>, and A<sub>4</sub>. In A<sub>2</sub> the motif is formalized, and the apron is given distinctive form. In A<sub>3</sub> appear the two serpents, their noses turning outward. In A<sub>4</sub> another turn is given to the serpent's nose, defining for the first time the fret. In this form, however, it is still a minor element in the design, and the flaring element is retained. The rope with its characteristic divergent ends can be made out hanging in front of the apron, which is still largely obscured either by the rope or by the pendants of the head ornament, attached to the belt, and, in this period, often placed very low.

In the transitional type (B<sub>1</sub>) the serpent frets are stressed in the design and outline it. The rope disappears or remains only in vestigial form, while its twisted part is conventionalized and featured as an important element. The flaring element is retained under the frets in B<sub>1</sub>, but in the second example the mask motif is now stressed. Although in this group the frets are an important feature, they have not achieved their final form. The fillet makes only two turns and does not bend again toward the apron. This is true also of B<sub>2</sub>, an example from the Formative Phase at Etzna, which omits the mask but introduces the horizontal leaf-and-fringe motif that later often terminates the apron.

In C<sub>1</sub> the fret is complete, but vestiges of the flaring element to which the frets are attached remain in modified form and the face of the apron is obscured by the "twist" or "mat" element. C<sub>2</sub> appears to be fully developed, although the addition of elements to the outside of the frets suggests the earlier B<sub>1</sub>. C<sub>3</sub> is a late aberrant example, in which the face of the apron is obscured as in early forms.

D represents the fully developed serpent-fret apron. In this group the design is contained within the outline of the wearer's figure. In D<sub>1</sub> the frets are of modest dimensions; the last turn is inward toward the apron. The variant found at Copan and Quirigua (D<sub>2</sub>) does not employ the fret, but the extended nose of the serpent turns out or downward. In D<sub>3</sub> the frets are very large and rectangular; the fillet makes at least four turns. Such designs usually indicate a very high development of the Ornate Phase.

FIGURE 25

The frets in E, which tend to be late, are no longer contained within the outline of the figure but project beyond the legs. They are often irregular and unsymmetrical. In E<sub>1</sub> the fret turns back to

overlap the figure, but in E<sub>2</sub> the end of the fret is entirely clear of its outline. In this group irregular forms of the fret are very common; it is often replaced by large scrolls curving downward, as, for instance, in the third example (*g*). Such forms are very late.

F represents another design which seems to follow a parallel course of development. The design is less popular than that of the serpent-fret and its series remains incomplete. It is interesting to note its first appearance on the Leyden Plate, the earliest known example of a Maya figure (F<sub>1</sub>). The essential elements of which it is composed—the fillets, the motif of crossed bands, a large round element, and a three-part scroll—are all there in the earliest design, but the flourishes are absent. Unfortunately, there are no examples of this motif after the beginning of Cycle 9 until the Ornate Phase is already in full swing. Examples in F<sub>2</sub> show the extended, undulating ends of the fillets characteristic of this phase. F<sub>3</sub> employs the form of the late scroll. As in the preceding series, the later phases are marked by the frequent extension of the fillets beyond the figure. F<sub>4</sub> is in the style represented by scroll form H<sub>2</sub> (fig. 12) at Quirigua. The forms in F<sub>5</sub> are from the very late Decadent Phase, and show simplification of the motif as well as gross exaggeration of its prominent elements. A separate series has not been constructed for this type of apron, but the distributions given for the previous series may be used in dating an apron of this type if the criterion of projection beyond the figure applies.

FIGURE 26

A minor detail which may prove useful in determining chronology is the mouth of the mask, when it appears on an apron. The usual manner is to show only the upper jaw of the mask (G<sub>1</sub>). In later designs, the full mouth is outlined (G<sub>2</sub>); when it is depicted as a simple circle, one may feel fairly certain that the design is decadent and was made in Cycle 10.

The apron has many varieties of design, but only the serpent-fret type occurs often enough to furnish a complete series. Similar design structures may be recognized in examples very far separated in time, so that similarity of structure is in itself a very poor test of chronological position. However, when both motif and graphic manner are alike in two examples, one may assign them to the same general period. H<sub>1</sub> shows two aprons of striking similarity. One (*c*) is

from Stela 10 at Uaxactun, a monument which was probably erected in Cycle 8; the other is from the cave at Loltun, a carving which is sometimes assumed to be late. In this case, the close similarity of the two designs may argue approximate contemporaneity. H<sub>2</sub> shows a related design from the Late Classic Period. The one large knot is replaced by three small ones. The grotesque head is merely an embroidered motif, and the two diverging ends are given an undulating line. Detail is elaborated. H<sub>3</sub>, which is from a late design in Yucatan, expresses vaguely the same idea, but its style, though as simple as that of the early examples, lacks their expression of logical structure and realistic portrayal of elements. H<sub>4</sub> is a group of other forms of the later period which express the same scorn of realism.

To return to the Classic style, a simple embroidered apron, which probably is actually the end of the loincloth, is most often worn in the Usumacinta area. I<sub>1</sub> shows two common types. Aprons like those in I<sub>2</sub>, which are almost solidly embroidered, are usually fairly late and denote the Ornate Phase, well advanced. Occasionally the mask motif appears without the serpent-frets (I<sub>3</sub>). Its geometric treatment in the last example suggests a non-Classic influence. Aprons in J feature the beaded hanging, which most often includes a shell, a twist motif, and a small serpent head. The last example shows a type of hanging which is often worn with a long skirt.

K shows a type of apron which has a prominent knotted element as its main feature. The only dated examples of this type are one from Tikal (Altar V) in 9.14.0.0.0 (?) and one from Comitán (Stela 1) in 10.2.5.0.0. Although the cursive style is reflected in the Comitán example, the similarity of the two motifs widely separated in time is striking. L, which shows a soft apron falling in natural folds, is usually fairly late, as is the next type, M<sub>1</sub> and M<sub>2</sub>, in which the apron is knotted in the middle or constricted by a bead. These types, however, are too rare to permit a graphing of their distribution.

## XI—ORNAMENTS WORN ON ARMS AND LEGS

FIGURE 27

On their wrists and ankles, the Maya wore bracelets, often of very intricate design. The simplest type is made up of round or tubular beads, or of rectangular elements that may have been pieces of shell or jade. In early times such bracelets were simply made



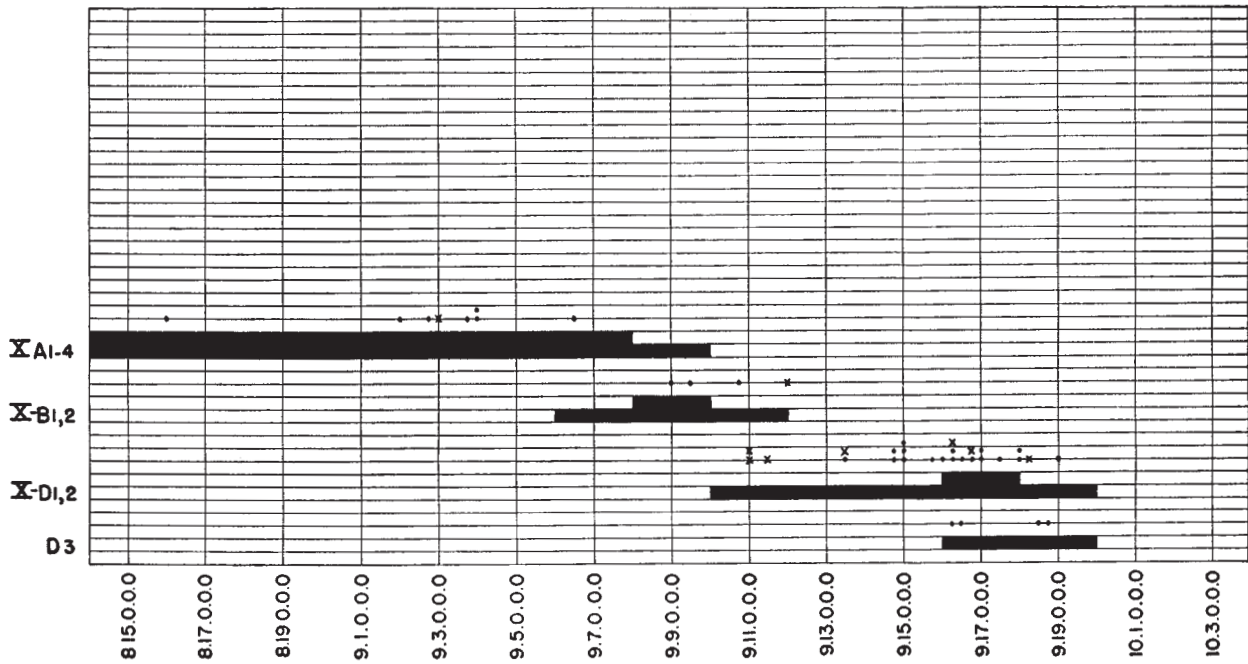


FIG. 24—LOINCLOTH APRONS (X)

- X: A1. Simple flaring apron with rope twisted near end. Note two diverging ends.  
 A2. Apron of formal flaring design. Rope motif ending in two diverging ends.  
 A3. Serpents with upturned noses. Rope motif. Face of apron obscured.  
 A4. Serpent-fret with two turns. Flaring apron design. Rope motif. Face of apron obscured.
- X: B1. Serpent-frets with two turns only. Twist supersedes rope. Mask motif. Flaring apron design below frets.  
 B2. Serpent-frets with two turns only. Horizontal leaf-and-fringe motif.
- X: C1. Serpent-frets complete (three turns). Vestigial forms of flaring apron. Decoration on under surface of frets. Twist motif in front of apron.  
 C2. Complete serpent-frets, mask. Decoration on under side of fret.  
 C3. Complete serpent-fret. Twist motif obscures mask. Aberrant.
- X: D1. Complete serpent-frets of modest dimensions and within outline of figure.  
 D2. Same, with frets replaced by undulating nose of snake.  
 D3. Very large frets, making at least four turns. Within outline of figure.

## SOURCE OF ILLUSTRATIONS

*a*: Tikal St. 8. *b*: Xultun St. 12. *c*: Yaxha St. 6. *d*: Tikal St. 1.  
*e*: Tikal St. 9. *f*: Tikal St. 3. *g*: Copan St. P. *h*: Copan St. 2.  
*i*: Etzna St. 18. *j*: Copan St. E. *k*: Tonina T12. *l*: Tonina T28.  
*m*: Copan St. 3. *n*: Yaxchilan L. 32 (Str. 13). *o*: Naranjo St. 22.  
*p*: Piedras Negras St. 4. *q*: Naranjo St. 14. *r*: Etzna St. 7.  
*s*: Copan St. B. *t*: Quirigua St. H. *u*: Quirigua St. K. *v*: Motul de San Jose St. 2.  
*w*: Etzna St. 5. *x*: Quirigua St. F.

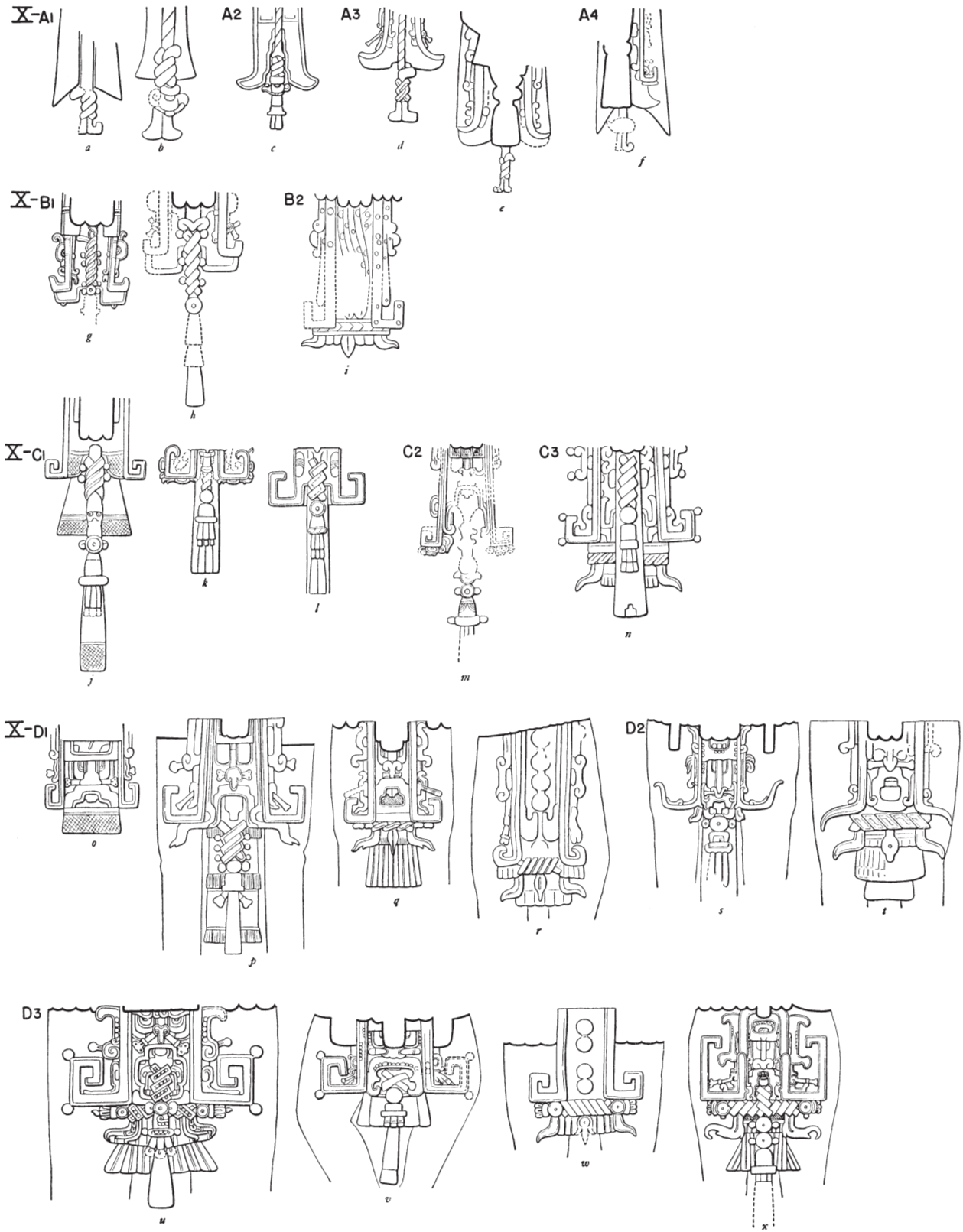


FIG. 24

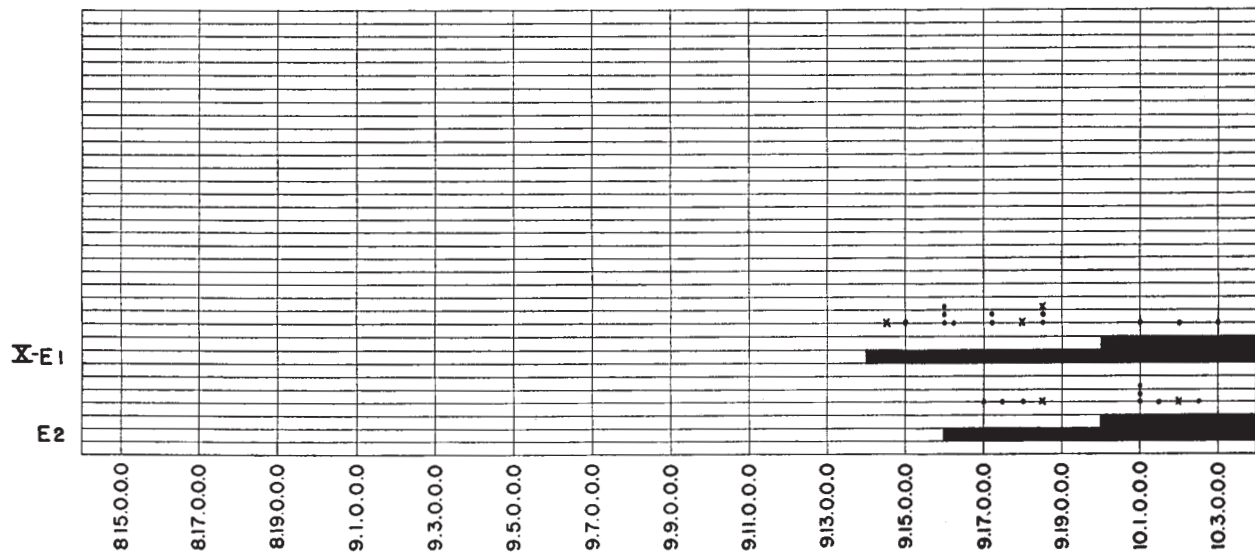


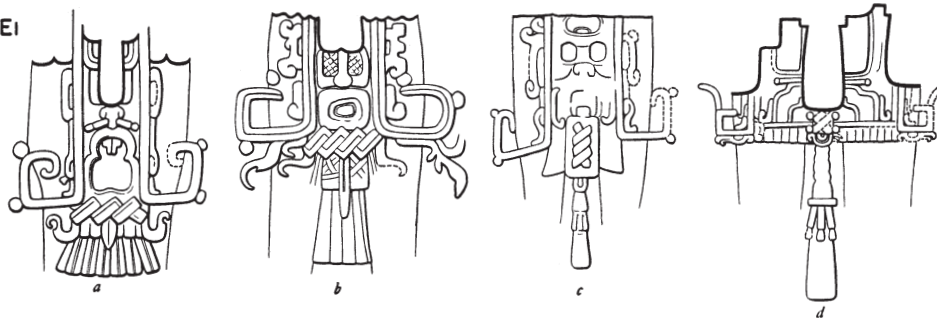
FIG. 25—LOINCLOTH APRONS (X)—*continued*

- X: E1. Serpent-frets projecting beyond legs of figure, but not entirely clear.  
 E2. Serpent-frets entirely free of figure. Also sometimes replaced by scrolls turning downward. Often cursive line.
- X: F1. Early form including fillets, crossed bands, large bead, and three-part scroll. No undulating ends on fillets. Scroll of simple type.  
 F2. Same, with undulating fillets, scroll of Ornate type. Detail. To be listed as D2, fig. 24.  
 F3. Same, with late scroll. D2, fig. 24; H1 or G1, fig. 12.  
 F4. Projecting scrolls of fillets. Quirigua graphic style. E1, fig. 25; H2, fig. 12.  
 F5. Projecting scrolls, with exaggerated ends. Often cursive forms. E2, fig. 25; G1, 2, or 3, fig. 12.

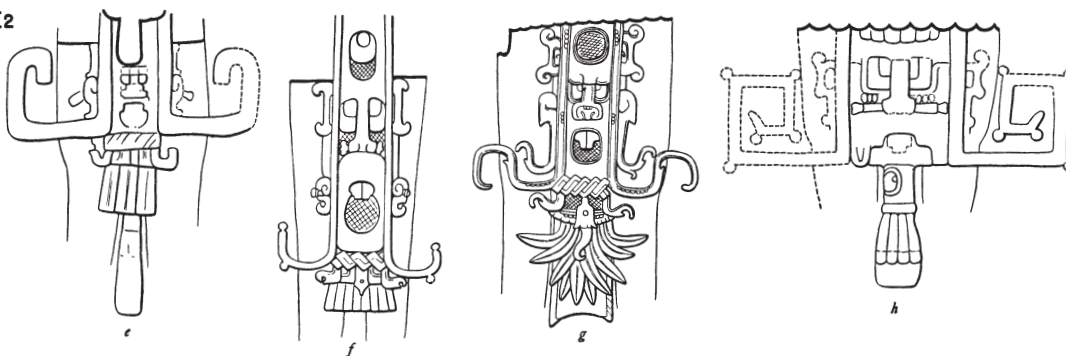
SOURCE OF ILLUSTRATIONS

*a*: Naranjo St. 12. *b*: Xultun St. 10. *c*: Morales St. 1. *d*: Calakmul St. 62. *e*: Xmakabatun St. 4. *f*: Ucanal St. 4. *g*: Seibal St. 10. *h*: Xmakabatun St. 3. *i*: Leyden Plate. *j*: Yaxchilan L. 3 (Str. 33). *k*: Piedras Negras St. 13. *l*: Copan St. A. *m*: Yaxchilan L. 14 (Str. 20). *n*: Quirigua St. A. *o*: Quirigua St. C. *p*: Seibal St. 1. *q*: Calakmul St. 50.

X-E1



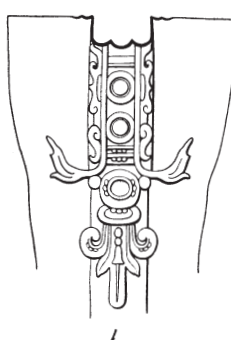
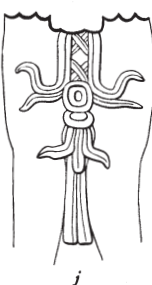
E2



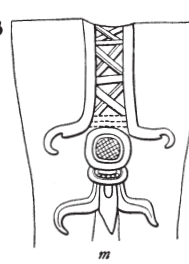
X-F1



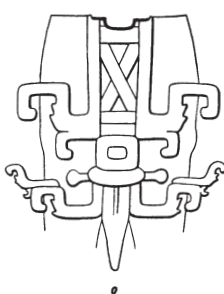
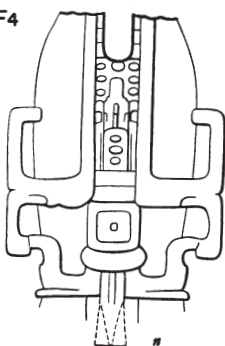
F2



F3



F4



F5

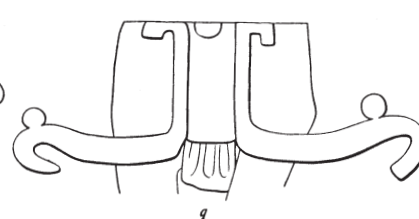
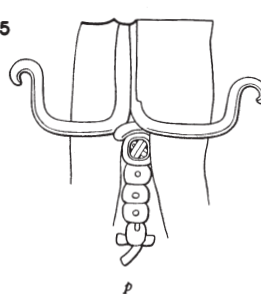
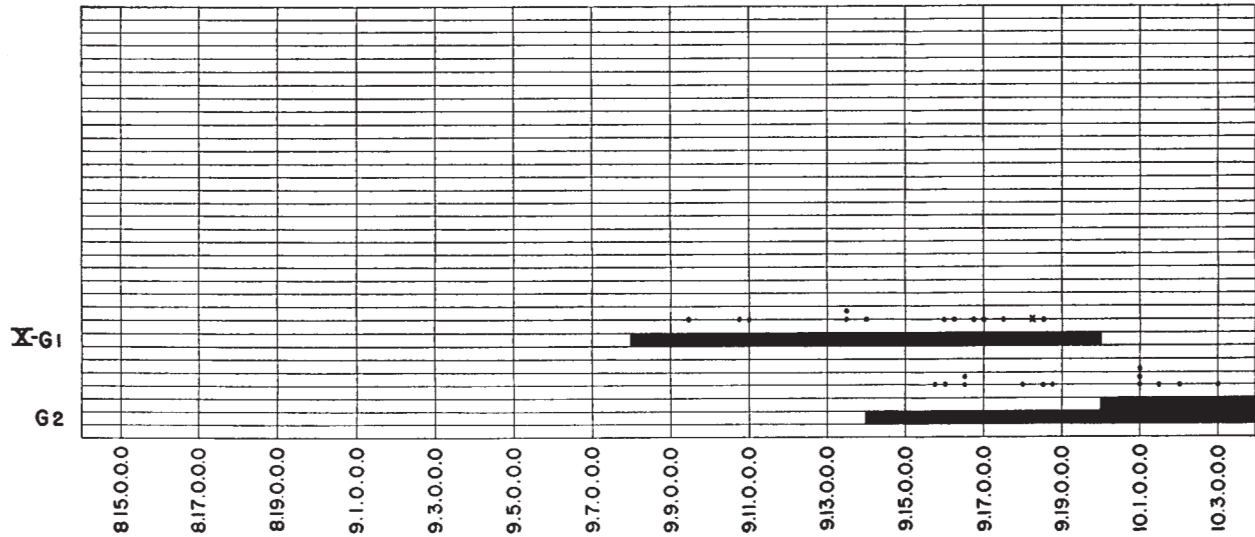


FIG. 25

FIG. 26—LOINCLOTH APRONS (X)—*continued*

- X: G1. Mouth of mask on apron. Upper jaw only is shown.  
 G2. Mouth of mask on apron completely outlined. Forms that are not notched are usually late.
- X: H1. Apron from Stela 10, Uaxactun. Head, knot, and two diverging ends. Same, from Hunacab mouth of Loltun cave.  
 H2. Similar motif from Ornate Phase.  
 H3. Detail of Puuc design with diverging ends. Lack of functional structure.  
 H4. Other forms from Yucatan.
- X: I1. Plain or fringed embroidered apron.  
 I2. Same, with almost solid decoration.  
 I3. Aprons with mask motif.
- X: J. Beaded hangings, often with shells, serpent heads, etc.
- X: K. Aprons with knot and rosette or puff. 9.14.0.0.0 and 10.2.5.0.0.
- X: L. Draped apron.
- X: M1. Apron constricted by beads.  
 M2. Apron knotted in the middle.

## SOURCE OF ILLUSTRATIONS

- a: Naranjo St. 13. b: Naranjo St. 12. c: Uaxactun St. 10.  
 d: Cave of Loltun. e: Copan St. D. f: Sayil Str. 4B1.  
 g: Chichen Itza, Chacmool Temple. h: Santa Rosa Xtampak St. 8. i: Copan St. 6. j: Piedras Negras St. 35. k: Naranjo St. 19. l: Piedras Negras St. 7. m: Cancuen St. 2. n: Oxpepul St. 17. o: Oxkintok Str. 3C7. p: Tikal St. 16. q: Yaxchilan L. 5 (Str. 1). r: Yaxchilan St. 11. s: Yaxchilan St. 1. t: Naranjo St. 24. u: Tikal Altar V. v: Yaxchilan L. 43 (Str. 42). w: Comitán St. 1. x: La Mar St. 2. y: Piedras Negras St. 12. z: El Caribe St. 2. a': Seibal St. 7.

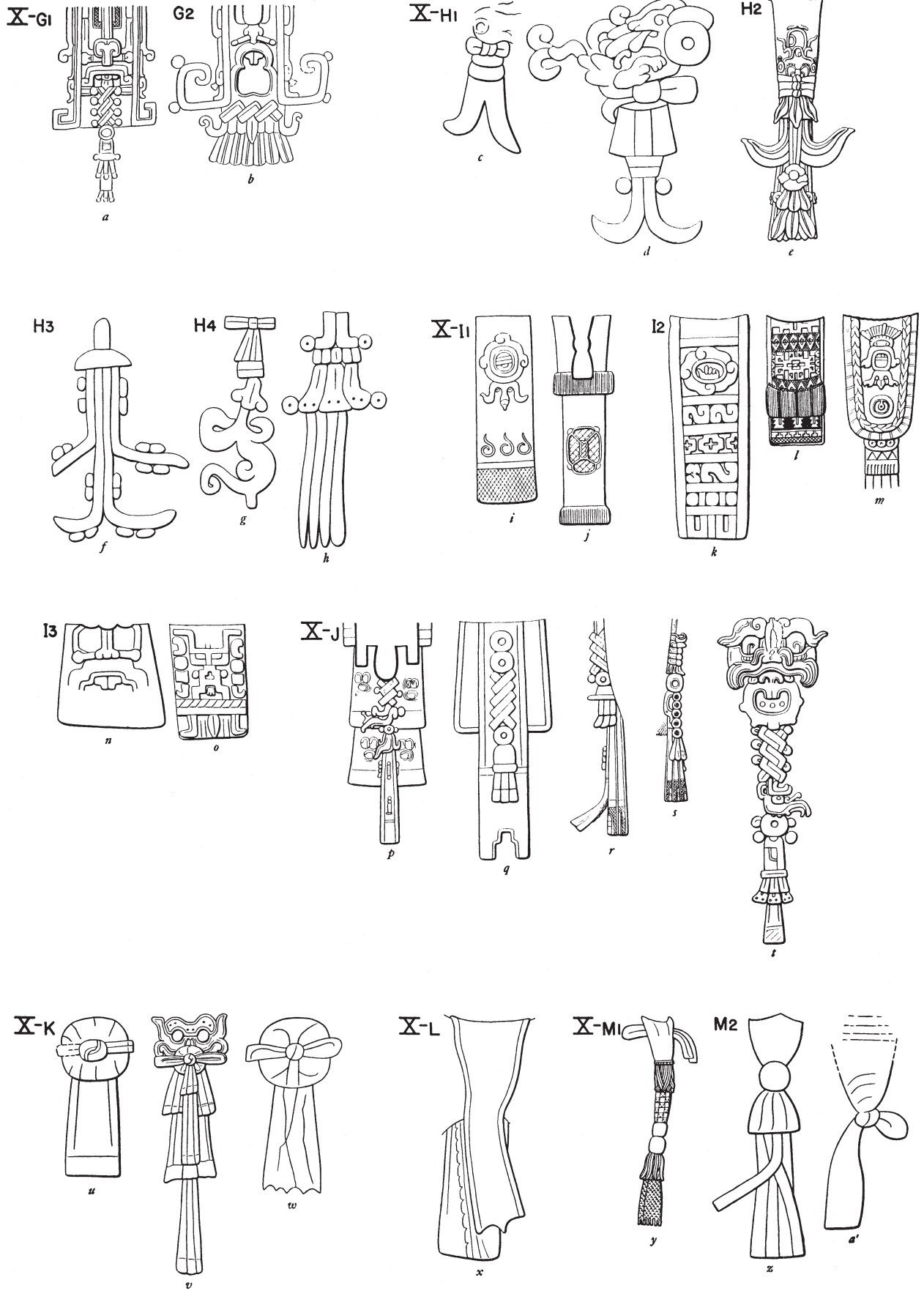


FIG. 26

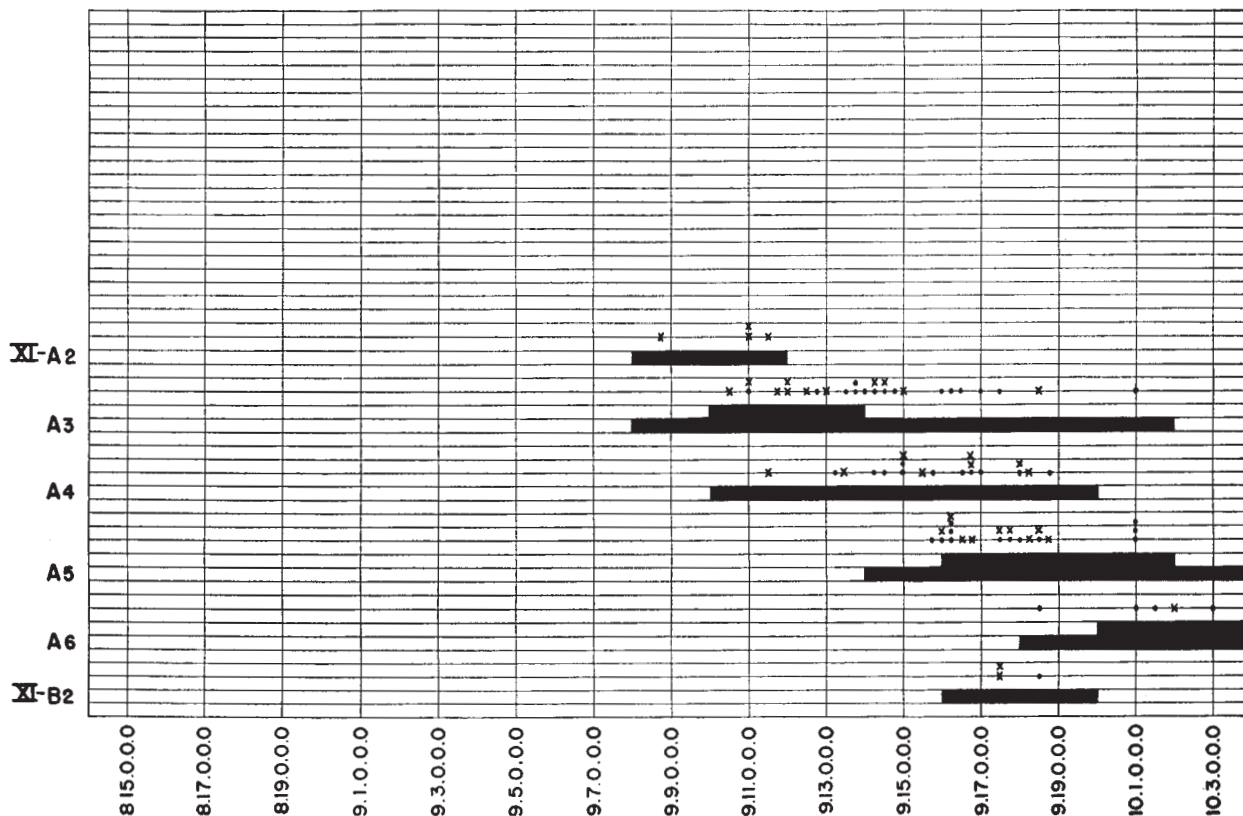


FIG. 27—WRISTLETS AND ANKLETS (XI)

- XI: A1. One, two, or three rows of beads.  
 A2. Cufflike form, with no specialized border (exclusive of simplified forms of the Late Period, usually showing cursive qualities).  
 A3. Simple border of beads, closely placed or spaced.  
 A4. Indication of lining, or light, inconspicuous border. Detail is usually minutely shown.  
 A5. Marked horizontal borders, either projecting or drawn across elements. Usually simplified rendering, often cursive line.  
 A6. Heavy horizontal border and vertical elements spaced apart.  
 A7. Miscellaneous late forms.  
 A8. Decorated cuff forms.  
 A9. Outlined form with beads projecting to side.  
 A10. Forms from Chichen Itza.

- XI: B1. Soft cuff tied around wrist or ankle.  
 B2. Very high cuff, composed of fringed layers. Possibly arm-guard.  
 B3. High wristlet with elements projecting to side. Puuc.

- XI: C1. Wristlet with three large round elements.  
 C2. Similar Late Classic forms.  
 XI: D. Wristlet of rope.

## SOURCE OF ILLUSTRATIONS

*a*: Naranjo St. 25. *b*: Tikal St. 18. *c*: Tikal St. 2. *d*: Piedras Negras St. 25. *e*: Piedras Negras St. 34. *f*: Bonampak Lintel of Str. 6. *g*: Naranjo St. 24. *h*: Piedras Negras St. 1. *i*: Xcalumkin, Glyphic Group, N. Bldg. *j*: Etzna St. 18. *k*: Naranjo St. 14. *l*: Piedras Negras St. 14. *m*: Piedras Negras St. 10. *n*: Cancuen St. 2. *o*: Yaxchilan L. 53 (Str. 55). *p*: Xcalumkin, Glyphic Group, S. Bldg. *q*: Ucanal St. 4. *r*: Seibal St. 10. *s*: Xmakabatun St. 3. *t*: Xultun St. 10. *u*: Naranjo St. 12. *v*: Copan, Temple 11. *w*: La Mar St. 1. *x*: Naranjo St. 8. *y*: Chochkitam St. 1. *z*: Xultun St. 5. *a'*: Piedras Negras St. 10. *b'*: Piedras Negras St. 2. *c'*: Santa Rosa Xtampak St. 8. *d', e', f', g'*: Chichen Itza, Temple of the Warriors. *h'*: Copan St. 1. *i'*: Tikal Altar V. *j'*: Copan, Temple 11. *k'*: El Caribe St. 1. *l'*: Seibal St. 7. *m'*: Sayil, Str. 4B1. *n'*: Tikal St. 4. *o'*: Yaxchilan St. 1. *p'*: Piedras Negras St. 7. *q'*: Yaxchilan St. 13. *r'*: Naranjo St. 20. *s'*: Chichen Itza, Temple of the Warriors. *t'*: Copan St. 1.



FIG. 27



of one or two, possibly three, rows of beads (Tikal, Stela 2). Such simple forms (A<sub>1</sub>), however, also recur on minor figures in the Late Classic Period and are not necessarily indicative of an early date. The cufflike form first appears in the Formative Phase of the Late Classic Period and may be made up of round, square, or oblong elements. The earliest examples have no finishing borders (A<sub>2</sub>). Simplicity, however, in itself is misleading, for after the Ornate Phase had run its course, the tendency again turns toward simplification and produces forms almost identical. Sometimes a casual, irregular rendering distinguishes these forms, but more often they can be recognized only by their association with other simplified elements.

The fully developed Late Classic wristlet or anklet has a specialized row of beads across the top, forming a finishing border (A<sub>3</sub>). Sometimes these beads are spaced, as in the last example (*j*). With the development of ornate styles, the functional elements are shown in greater detail. Usually a narrow border projects like a lining from beneath the elements which make up the wristlet. When the upper beads are spaced, it passes behind them, but it also may be shown under a solid row of beads (A<sub>4</sub>).

In later times, the horizontal border is emphasized and becomes a feature *per se* (A<sub>5</sub>). It may be projecting or flush with the bead elements, or it may be merely an incised line drawn across them. It loses its functional character. It soon becomes a convention, and many wristlets of this type are drawn with an irregular or cursive line. Actually it is hard to draw a clear line between this type and the preceding one, especially since weathering often obscures such fine details. But in distinct examples, the criterion of the stressed border is convenient and significant, for it illustrates a development exactly parallel to that of the collar design.

A<sub>6</sub> is a type which seems to be invariably very late. In this type the vertical elements are spaced and held together by heavy horizontal borders. A<sub>7</sub> shows two other late forms. The first is from Copan, and occurs only on architectural sculpture, from which we may conclude that it is of a late period. It occurs also at Naranjo and in the Puuc, but none of the examples are associated with fixed dates. The second example is from a late stela at La Mar. Two other common motifs of decoration occurring on cufflike forms are shown in A<sub>8</sub>. The first type (*x,y,z*) is probably derived from very early forms of anklet decoration (see G<sub>4</sub>), though at least one of the ex-

amples (*x*) is very late. The second type (*a',b'*) uses a border which is particularly characteristic of the Ornate Phase (see fig. 35,*e,f*). A<sub>9</sub> is an odd example from Santa Rosa Xtampak. It is an outlined form with beads projecting to the side, seemingly unrealistic and probably of the Decadent Phase. A<sub>10</sub> are miscellaneous examples from the Toltec Period at Chichen Itza. The first is particularly interesting because it is the type of wristlet or anklet which is depicted in the Dresden Codex. No precedent for it occurs in Classic sculpture, though it may be a corruption of the form A<sub>7</sub> from Copan.

An entirely different sort of wristlet is made of soft material and tied around the wrist or ankle with a knot (B<sub>1</sub>). It is usually worn by minor figures and has a very wide distribution in time. B<sub>2</sub>, probably a variant of this, is very high and may have served as an arm-guard, for it is often worn by figures that are dressed as ball-players. It seems to be a late type. B<sub>3</sub> is another example of a very high wristlet from the Puuc, and is probably even later.

C<sub>1</sub> is a wristlet from Stela 4 at Tikal. It may be a prototype of the anklet C<sub>2</sub>, which is very commonly worn in the Usumacinta region. It features three large beads, sometimes connected by a braid. D, a wristlet apparently made of rope, is not common. The examples are from Naranjo and Copan.

#### FIGURE 28

The earliest monuments are so badly eroded that detail of the wristlets and anklets is entirely destroyed. E<sub>1</sub>, from Stela 5 at Uaxactun, shows both an anklet and a similar element worn just under the knee. The same thing occurs often at Chichen Itza (E<sub>2</sub>) and is not characteristic of the Classic Period, when the anklet is very different from the narrow garter worn under the knee. Another type, which occurs in Cycle 8 at Uolantun and is invariably early, features a large round element with ornaments projecting above and below it. The lower ornament is sometimes a snake head (F<sub>1</sub>). F<sub>2</sub> is similar but of the Formative Phase.

On Stela 10 at Uaxactun, which may also have the element worn under the knee as in E<sub>1</sub>, the anklet appears as a simple knot (G<sub>1</sub>). A more elaborate form (G<sub>2</sub>) includes the fringe-and-leaf element. Apparently this form is early, but it also survives on Stela 5 at Tikal, which is dated 9.15.13.0.0 and has other archaic traits. The anklets at the beginning of Cycle 9 of the Early Period are usually a combination of these several elements and tend to be

high, covering about half the distance from the ankle to the knee. G<sub>3</sub> is a type which features two knots, sometimes combining them with the large round element in F<sub>1</sub>. Examples *j*, *k*, and *l* are from Cycle 8. The anklets of the early Cycle 9 are more elaborate (G<sub>4</sub>). Instead of knots, elements like G<sub>2</sub> are used; between them is a motif of crossed strands, flanked by vertical bands. These ornaments are fastened to the outside of the leg. The inside of the anklet is plain. In G<sub>5</sub> (*p* and *q*), from Yaxha, the vertical bands are omitted, and the effect is almost that of the gaiter worn in later times (see fig. 29, *e'-g'*), but the inner view of the anklet (fig. 28, *q*) shows that the strands do not encircle the leg and are merely decorative. A common tendency, as the Early Period passes into the Formative Phase of the Late Classic, is for the anklet to assume cufflike proportions and form. G<sub>5r</sub> is an example from Stela 1 at Tikal, which, though probably quite early, is highly advanced in design. G<sub>6</sub> is from Tonina; its date is unknown. In G<sub>7</sub>, common in Copan during the Formative Phase, the snake-head element assumes greater importance. Finally, in G<sub>8</sub> the crossed-band element is replaced by three knots and the snake head becomes the main element. At this stage, it is sometimes difficult to distinguish the anklet from the sandal, since the two often merge together. G<sub>9</sub>, in which the head faces to the back, is always late, like the sandals with the head ornament in Sandal Form XII:C6 (fig. 30).

The three knots associated with the snake heads sometimes appear alone (H<sub>1</sub>), and a similar arrangement may be formed with three bladelike elements (H<sub>2</sub>). This type occurs quite often at Yaxchilan, but most of the monuments which show it are undated.

There remains the type of wristlet which seems to be typical of the Formative Phase (I). Most examples of it show only the underside (*b'*, *i'*). Viewed thus, it is a cuff, to which is attached an element which projects at the sides. In general form this type of wristlet resembles the type shown in G<sub>2</sub>, but the one known instance in which the face of this wristlet is shown (*g'*) has a different design resembling shell motifs.

FIGURE 29

Just under the knee the Maya wore a garter which is often intricately designed. *a* to *f* are simple bands. *a*, from the early Stela 5 at Uaxactun, resembles the puff garter worn by the Toltec of Yucatan. *b* is a plain band, also from a Cycle 8 monument, and the

others show various degrees of elaboration. The Peten garter was usually composed of beads and a head ornament (*g, h, i*). On the Usumacinta, another type of garter was more common. It is characterized by spaced elements hanging from a decorated band (*j-p*). In *q* and *r* the two types are combined on a single design. *s-v* are simple beaded garters; *w* and *x* are the type worn by the Maya at Chichen Itza in Toltec times. *y* is another Toltec type; *z* is an odd example from Yaxchilan. Pads to protect the knee (*a'*, *b'*) were worn by ball-players, usually on one leg but occasionally on both.

High gaiters are particularly characteristic of Yucatan but are not common on Classic sculptures. They were worn as early as 9.12.0.0.0 at Etzna (*c'*, *d'*) and consisted of spaced bands crossed as they wound around the calf. *e'-h'* are Yaxchilan and Seibal examples. On these, the bands are crossed only once and they may originate in the type of high anklet which was virtually a gaiter, worn in the Early Period (cf. fig. 28, *q*). *i'* and *j'* are Yucatecan forms doubtless related to those at Etzna. *k'*, *l'* and *m'*, in which the garter consists of parallel strands, is also a Yucatecan type though it occurs once on a Classic stela (Stela 10) at El Palmar. Although it is possible to distinguish among these forms the development of ornate design, and in some cases to note dynamic or decadent influences, they do not lend themselves easily to classification and have not been utilized in the chronological series.

## XII—SANDALS

FIGURE 30

In figure 30 are shown different types of sandals worn by the Maya. Except at Copan, where there seems to be a gradual development from Early to Late Classic forms, the types worn in the two periods are very different. In the post-Classic Period in Yucatan, however, the early form with slight modifications returns to use. In this we have again an example which suggests the common origin, divergent development, and subsequent interaction and merging of cultural traits.

The earliest type of sandal has over the instep a strap to which the sole is attached by loops at each side (A<sub>1</sub>). In A<sub>2</sub>, which is later, the loop is enlarged to permit a higher tie and is placed at the heel of the sandal. The dated examples of this type, from Copan, are of the Formative Phase of the Late Classic Period, but this type also occurs at Yaxha on

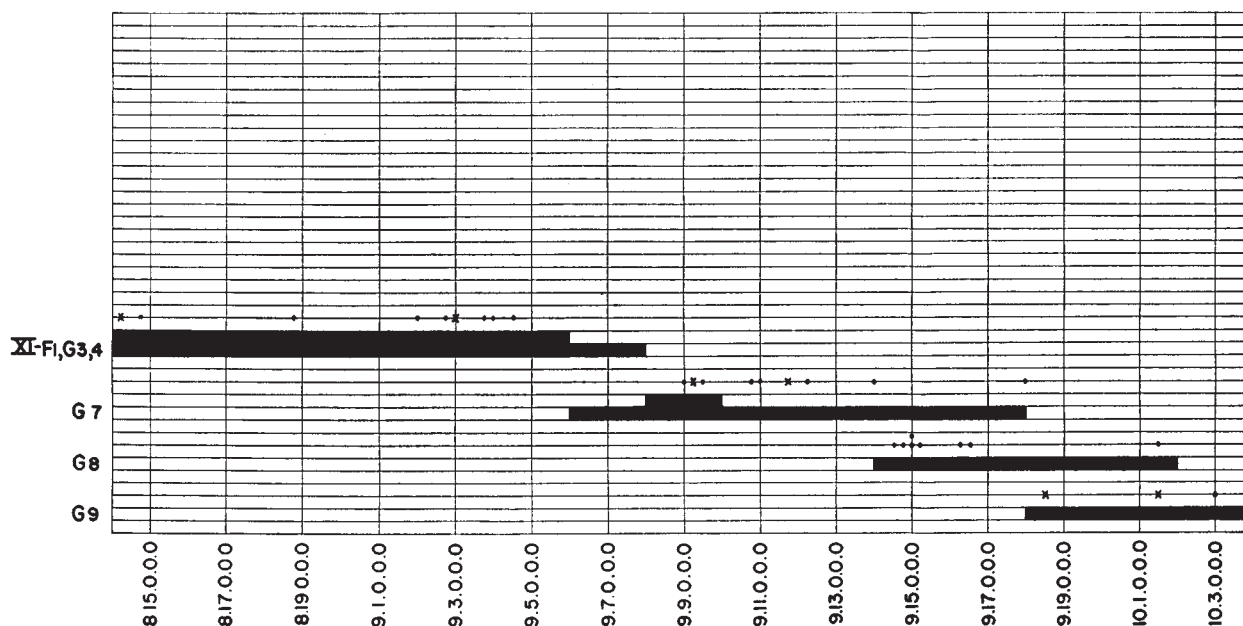


FIG. 28—WRISTLETS AND ANKLETS (XI)—*continued*

- XI: E1. Simple anklet and garter, Stela 5, Uaxactun.  
E2. Same, of the Chichen Itza period.
- XI: F1. Early wristlets and anklets composed of round element with ornaments above and below.  
F2. Probably same, of the Formative Phase.
- XI: G1. Simple knot on ankle.  
G2. Fringe-and-leaf, and knot or mat element worn as wristlet. Early, and as surviving archaism.  
G3. Designs featuring two knots and round element.  
G4. Designs featuring twisted or crossed bands on outside of leg, simple ties on the inside. Anklets of this type are tall.  
G5. Lower, cufflike forms.  
G6. Same, from Tonina.  
G7. Forms emphasizing snake-head design. Secondary element derived from Early forms.  
G8. Forms emphasizing snake head, with headdress of three knots. See sandals (fig. 30, *f'*).  
G9. Same with head facing back. See sandals (fig. 30, *f'*).
- XI: H1. Forms featuring three knots.  
H2. Forms featuring three pointed elements.
- XI: I. Formative Phase wristlets from the Usumacinta region.

SOURCE OF ILLUSTRATIONS

*a*: Uaxactun St. 5. *b*: Chichen Itza, Great Ball Court. *c*: Uolantun St. 1. *d*: Yaxha St. 4. *e*: Tikal, Stela 8. *f*: Uxul St. 2. *g*: Uaxactun St. 10. *h*: Tikal St. 13. *i*: Tikal St. 5. *j*: Uolantun St. 1. *k, l*: Leyden Plate. *m*: Yaxchilan St. 27. *n*: Yaxchilan St. 14. *o*: Tikal St. 3. *p*: Tikal St. 1. *q*: Yaxha St. 2. *r*: Tikal St. 1. *s*: Tonina T. 26. *t*: Copan St. P. *u*: Copan St. I. *v*: Copan St. 3. *w*: Copan St. 5. *x*: Tikal St. 16. *y*: Copan St. N. *z*: Xultun St. 3. *a'*: Xultun St. 10. *b'*: Yaxchilan St. 11. *c'*: Calakmul St. 51. *d'*: Aguas Calientes St. 1. *e'*: Yaxchilan L. 3 (Str. 33). *f'*: Seibal St. 8. *g'*: Lacanja St. 7. *h'*: Copan St. 6. *i'*: Piedras Negras St. 35.

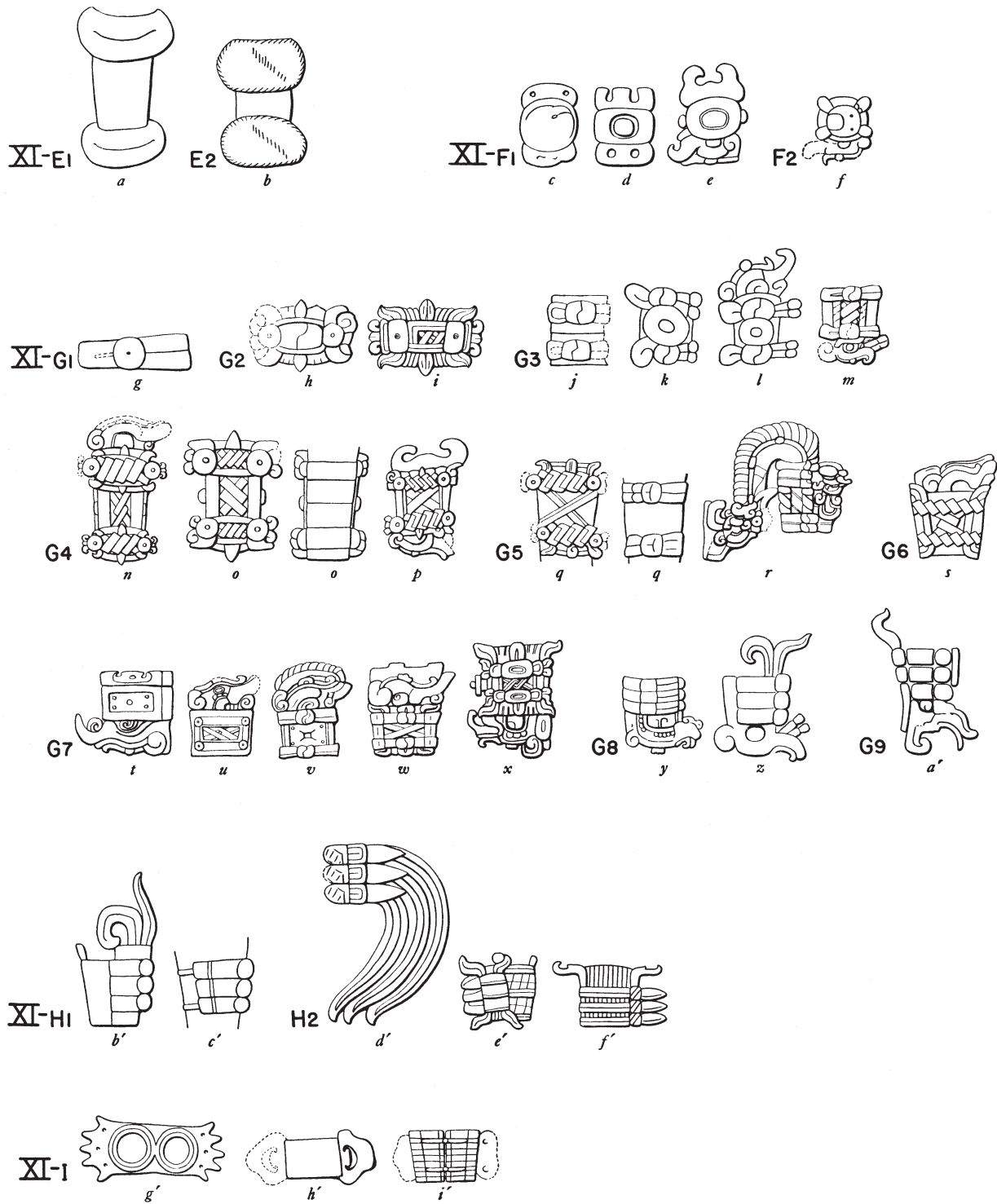


FIG. 28

## FIG. 29—GARTERS AND GAITERS

- a*: Aberrant. Early Uaxactun.  
*b-f*: Band forms showing progressive elaboration.  
*g-i*: Face ornament, typical of the Peten.  
*j-p*: Band with pendants, typical of the Usumacinta.  
*q-r*: Combined Peten-Usumacinta type.  
*s-v*: Simple bead garters.  
*w-y*: Types worn at Chichen Itza.  
*z*: Aberrant. Yaxchilan.  
*a',b'*: Knee pads worn by ball-players.  
*c',d'*: Crossed gaiters. Etzna.  
*e'-h'*: Gaiters from Yaxchilan and Seibal.  
*i',j'*: Crossed gaiters from Yucatan.  
*k'-m'*: Parallel strand gaiters.

## SOURCE OF ILLUSTRATIONS

*a*: Uaxactun St. 5. *b*: Uolantun St. 1. *c*: Xultun St. 12. *d*: Calakmul St. 9. *e*: Etzna St. 5. *f*: Piedras Negras St. 8. *g*: Piedras Negras St. 4. *h*: Tikal St. 16. *i*: Quirigua St. K. *j*: Copan St. 6. *k*: Naranjo St. 2. *l*: Yaxchilan St. 11. *m*: Piedras Negras St. 7. *n*: Cancuen St. 2. *o*: Yaxchilan L. 9 (Str. 2). *p*: Yaxchilan St. 20. *q*: Yaxchilan L. 33 (Str. 13). *r*: Copan St. N. *s*: Itsimte St. 4. *t*: Seibal St. 3. *u*: Yaxchilan St. 1. *v*: Yaxchilan St. 10. *w*: Chichen Itza, Chacmool Temple. *x,y*: Chichen Itza, Temple of the Warriors. *z*: Yaxchilan St. 15. *a'*: La Amelia St. 1. *b'*: Seibal St. 7. *c'*: Etzna St. 18. *d'*: Etzna St. 5. *e'*: Yaxchilan St. 13. *f'*: Yaxchilan Lintel 6 (Str. 1). *g'*: Seibal St. 1. *h'*: Yaxchilan St. 1. *i'*: Oxkintok Str. 3C7. *j'*: Chichen Itza, Chacmool Temple. *k'*: El Palmar St. 10. *l'*: Chichen Itza, Northeast Colonnade. *m'*: Chichen Itza, Temple of the Jaguars.

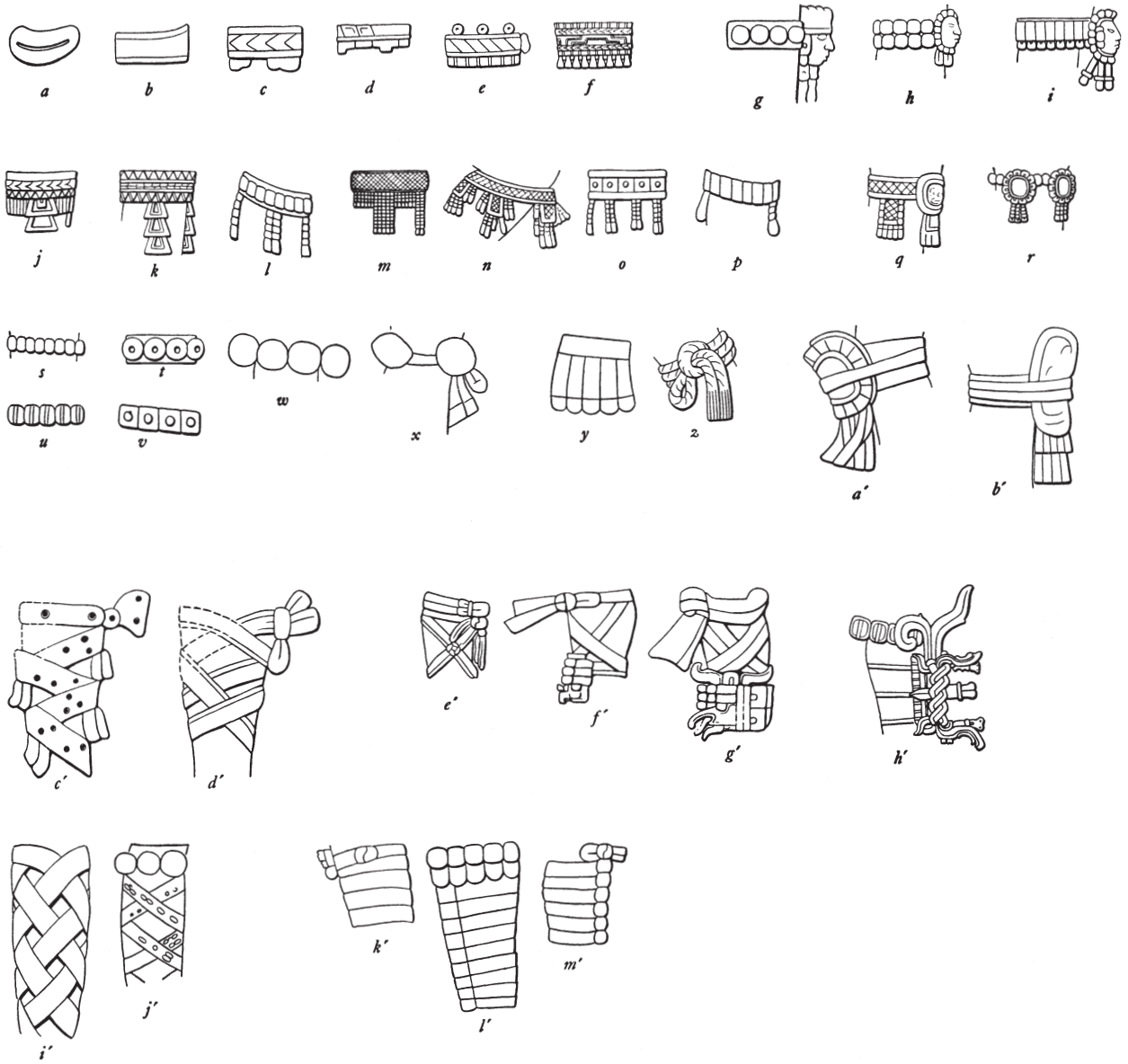


FIG. 29

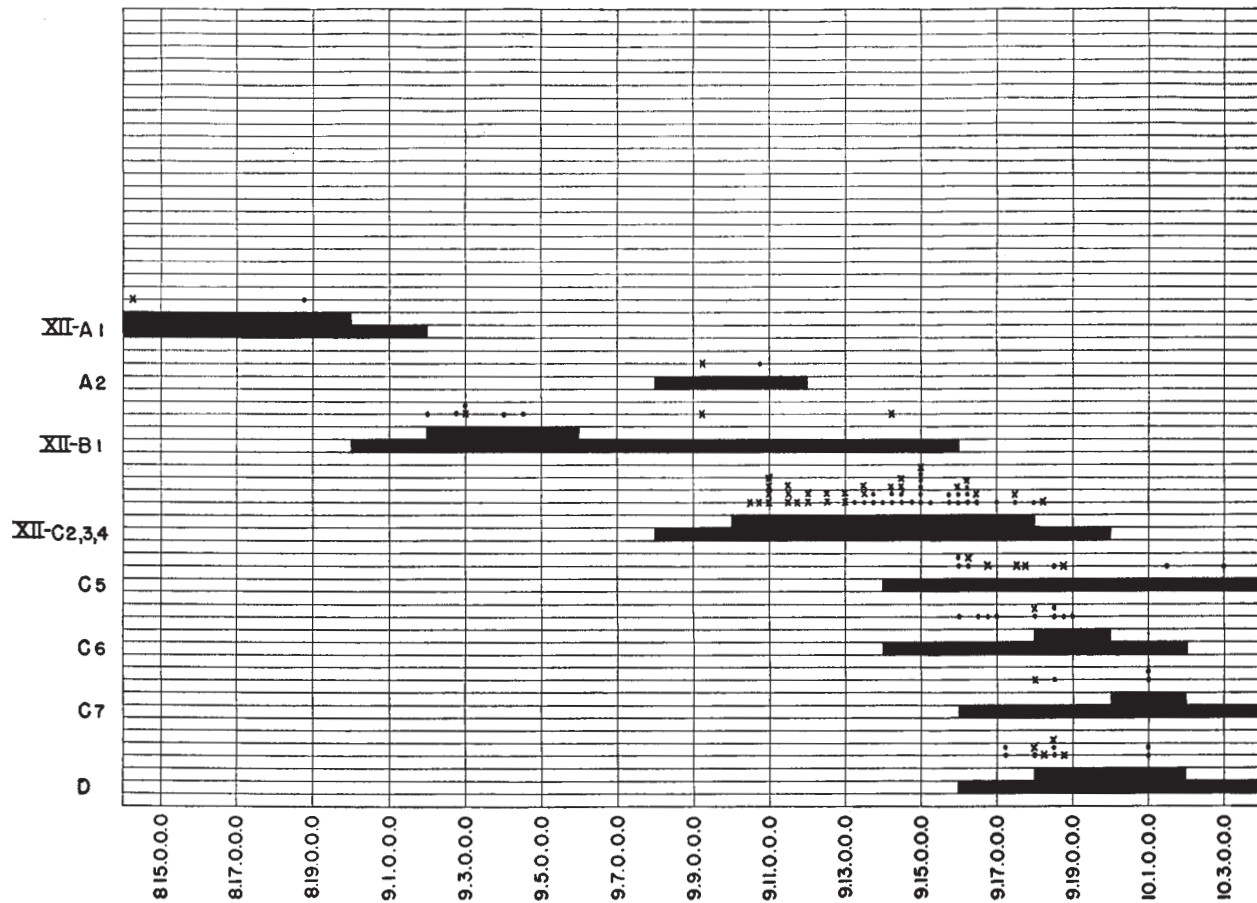


FIG. 30—SANDALS (XII)

- XII: A1. Strap on instep with loop at side attaching it to sole.  
 A2. Strap at ankle, with loop enlarged and placed at the heel.
- XII: B1. Solid heel with band above. Early Tikal.  
 B2. Yucatecan types with strap at ankle, heel often decorated. Sometimes open.  
 B3. Heel cut out.  
 B4. Puff in place of tie.  
 B5. Ditto, with strap on instep.  
 B6. Slipper. Toltec.
- XII: C1. Ankle-guard, shown as wide band around the ankle. Imperfect or decadent types.  
 C2. Ankle-guard and heel in one piece.  
 C3. Typical fringed ankle-guard, solid heel.  
 C4. Typical fringed ankle-guard, prominent and decorated, solid heel.  
 C5. Open heel, strap connecting ankle-guard or anklet with sole.  
 C6. Zoomorphic or anthropomorphic head facing back on heel or ankle.  
 C7. Very high ankle-guard, with or without strap on instep or ankle.
- XII: D. Anklet only, sandal omitted.
- XII: E1. Instep tassel, cone element stressed.  
 E2. Instep tassel, elaborated with detail, feathers prominent.  
 E3. Instep tassel, drawn as form with line indication of feathers.

## SOURCE OF ILLUSTRATIONS

*a*: Leyden Plate. *b*: Uolantun St. 1. *c*: Tikal St. 1. *d*: Yaxha St. 6. *e*: Yaxha St. 2. *f*: Copan St. 2. *g*: Tikal Stela 9. *h*: Kabah, the Codz Poop. *i*: Chichen Itza, Lower Temple of the Jaguars. *j*: Chichen Itza, Temple of the Atlantean Columns II. *k*: Chichen Itza, Temple of the Jaguars. *l*: Chichen Itza, Lower Temple of the Jaguars. *m*: Chichen Itza, Str. 2B2. *n*: Chichen Itza, Temple of the Chacmool. *o*: Seibal St. 2. *p*: Chichen Itza, Great Ball Court. *q*: Chichen Itza, Lower Temple of the Jaguars. *r*: Comitán St. 1. *s*: Chichen Itza, Great Ball Court. *t*: Yaxchilan St. 20. *u*: Yaxcapoil, column. *v*: Piedras Negras L. 12. *w*: Copan St. 6. *x*: Coba St. 6. *y*: Piedras Negras St. 1. *z*: Coba St. 1. *a'*: Naranjo St. 2. *b'*: Naranjo St. 24. *c'*: Tikal St. 20. *d'*: Calakmul St. 62. *e'*: Xcalumkin, Initial Series Bldg. *f'*: Xultun St. 3. *g'*: Quirigua St. K. *h'*: Naranjo St. 14. *i'*: Xultun St. 4. *j'*: Xultun St. 10. *k'*: Cancuen St. 2. *l'*: Kayal, jamb. *m'*: Seibal St. 10. *n'*: Piedras Negras St. 12. *o'*: Quirigua St. C. *p'*: Ixkun St. 1. *q'*: Seibal St. 9. *r'*: Piedras Negras St. 32. *s'*: Etzna St. 18. *t'*: Quirigua St. D. *u'*: Seibal St. 10. *v'*: Naranjo St. 12. *w'*: Tikal St. 11. *x'*: Xultun St. 3. *y'*: Xultun St. 10. *z'*: Calakmul St. 65.

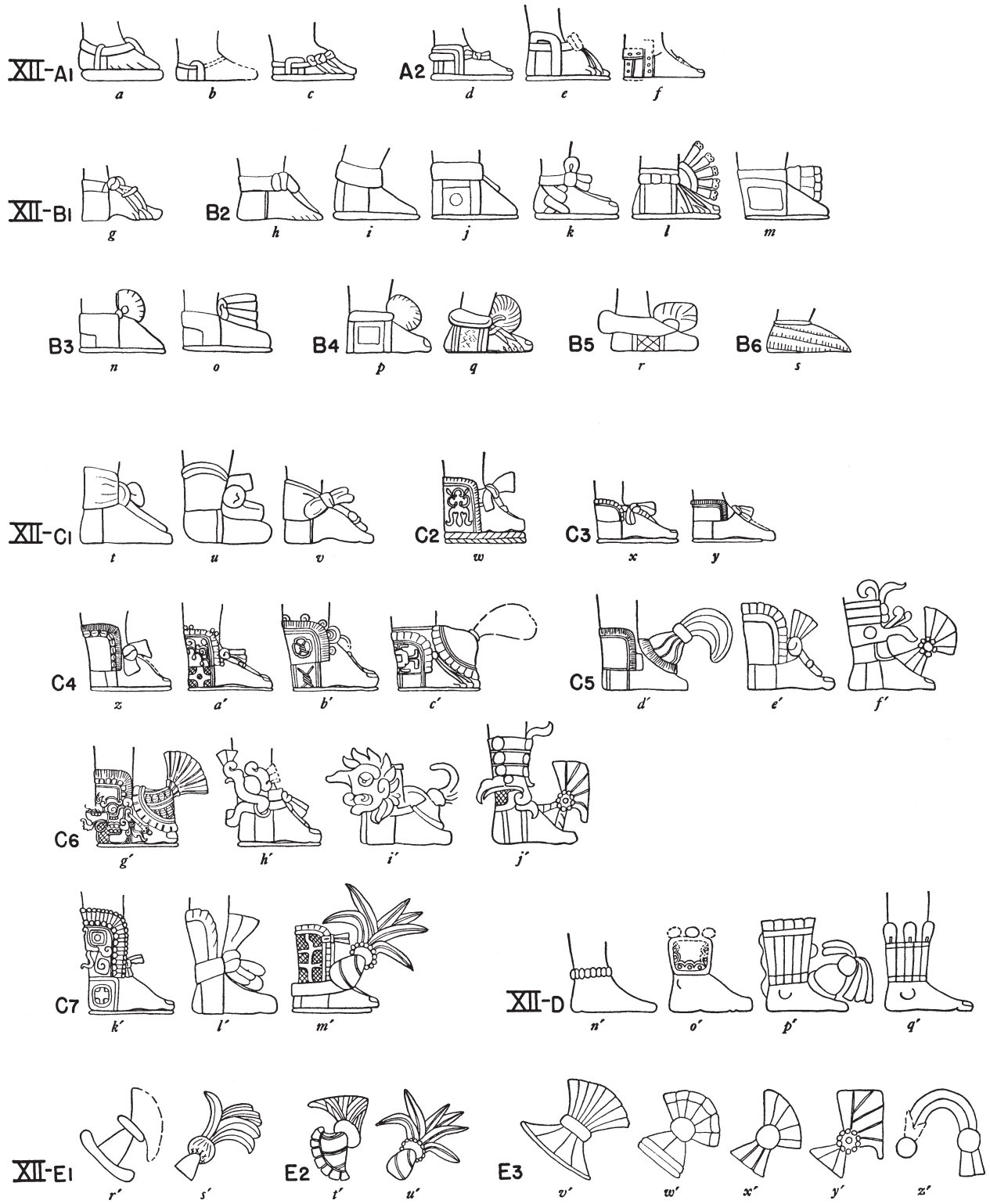


FIG. 30



undated monuments which are probably of the Early Period.

The early Cycle 9 sandals at Tikal have a solid heel and are tied at the ankle. There is a wide band above the heel, but the typical Late Classic ankle-guard is missing (B<sub>1</sub>). B<sub>2</sub> shows various forms of sandals from late Yucatan sculpture. Some very closely resemble early forms, particularly the first example, which structurally is virtually the same as B<sub>1</sub>. More often, however, the heel of the late sandal is decorated in some way and the tie is often elaborated with tassels. B<sub>3</sub>, with a cut-out heel, was worn at Chichen Itza and also in Cycle 10 at Seibal. B<sub>4</sub>, showing a puff in place of a tie, is particularly characteristic of the Toltec Period, but the same feature also occurs on B<sub>5</sub>, which is a Cycle 10 example from Comitán. We should expect, therefore, that many of these "Mexican"-type sandals from Yucatan also date from Cycle 10 of the Classic era. B<sub>6</sub> is a type of covering worn on one foot by figures from the ball court at Chichen Itza.

C<sub>1</sub> is a miscellaneous group of sandals which have an ankle-guard, but of somewhat ambiguous design, sometimes shown merely as a very wide strip of material wrapped around the ankle. Some of these forms may be early and may represent imperfectly developed types, but some may be late corruptions of the Late Classic form. C<sub>2</sub> is a regional variant, in which there is no division between the ankle-guard and the heel. It is found most often at Etzna, Piedras Negras, and Copan. Its earliest examples are of the Formative Phase but it occurs also in later periods. C<sub>3</sub> is the normal Late Classic type, which is coeval with the period and is distinguished by the fringed ankle-guard. C<sub>4</sub> is the same type but with the great elaboration of detail which distinguishes the Ornate Phase. In this type, the ankle-guard is usually large and prominent, allowing its elaboration by intricate textile motifs. The heel in all these types is a solid piece of material. In the next type (C<sub>5</sub>) the heel is open, and the ankle-guard is fastened to the sole by a wide strap. Such sandals are usually later than C<sub>3</sub> and C<sub>4</sub>. At Quirigua, the heels of the sandals were often decorated with a grotesque head, which faces back (C<sub>6</sub>). We have noted this trait also in the series dealing with anklets. Often, particularly if a monument is eroded, it is not possible to tell which is represented, but since the distribution of the two is probably approximately the same, it is not of great consequence under which of the elements this trait is recorded. It is a convenient clue to a late date, for

even when the carving is very badly weathered, the head motif can be recognized by a prominent eye and the projection of its features at the back of the foot. Another good indication of a very late date is the exaggerated height of the ankle-guard, often combined with a strap around the ankle or down on the instep, to which is usually attached a large tassel (C<sub>7</sub>). The first example (*k'*), which lacks the strap, is from a monument erected very late in Cycle 9. The second is from Yucatan; the third is typical of Cycle 10 in the Classic area.

The principal figure on the Maya stela usually wears a sandal of some sort, but about 9.16.0.0.0 a dancing figure becomes a popular motif. It is probably because dancing ceremonies could be better performed without the encumbrance of a sandal that in the Dynamic Phase the sandal is often omitted, though usually the anklet is still worn (D). Even the tassel on the instep is sometimes retained, though without visible means of support. Such tassels date back to the Formative Phase. The conelike structure with feathers at the end is very prominent in early examples (E<sub>1</sub>). E<sub>2</sub> is the ornate form, which in the later periods is very large. E<sub>3</sub> illustrates the late tendency toward simplification and formalization of the element. The tassel is depicted as a simple form, with the indication of the individual feathers given by lines or grooves.

### XIII—OBJECTS AND ACCESSORIES

#### FIGURE 31

The objects and accessories presented with the human figure probably express its function or office and thus indicate the motif.

The erosion of the stelae of Cycle 8 makes it difficult to form an idea of the common motifs of this time. In several instances the figure seems to hold a grotesque head in the crook of its elbow (A<sub>1</sub>, *a* and *b*). On other early figures a detached head is held in the hand or appears in the background as a secondary motif (*c*). Such heads sometimes resemble the head of the manikin (see C<sub>1</sub>, C<sub>2</sub>), but cannot be definitely connected with its representation except in one example of the very late period at Seibal (A<sub>2</sub>), which appears to be a late form deliberately presented in an archaic manner. At Xultun, in Cycle 10, we find a small figure of a jaguar held in the hand in the same way (A<sub>3</sub>).

By the time the typical Classic style emerges, one of the most common motifs presented is the figure

holding a ceremonial bar with a snake head on each end. The representation on the Leyden Plate, if it is properly dated as the earliest known example of a Maya figure, is probably the prototype of this sort of bar. It shows the two serpent heads connected by a flaccid body; this form survives into the Formative Phase of the Late Classic Period both at Tulum and at Copan, and is abandoned shortly after 9.11.0.0.0 (B<sub>1</sub>). Long before this time, however, in early Cycle 9, the rigid bar becomes the usual form (B<sub>2</sub>). The medallion, consisting of the mat and the fringe-and-leaf motifs under the serpent head, is indicative of an early date. This type survives throughout the Late Classic Period and into Cycle 10, but the ends of the bar are usually of another design (B<sub>3</sub>). At some sites, notably at Quirigua, the manikin sceptre is preferred after 9.15.0.0.0. The greatest popularity of the serpent bar remains in the Peten, at Coba, and at Copan. On the Usumacinta it is used more often in connection with minor figures and does not occur at Piedras Negras.

On Stela 1 at Tikal, a typical manikin figure, having a grotesque face and a leg which terminates in a serpent head, is placed in the mouth of a serpent (C<sub>1</sub>, *i*). Probably many other representations of anthropomorphic figures or heads held in the serpent's mouth depict the same concept, but since they lack the characteristic feature—the leg ending in a serpent head—their identification is somewhat uncertain. The full figure of the manikin can be identified also at Palenque, at Xultun (*j*) where it is shown sitting on the arm of the principal figure, at Sayil (*k*) where it is an independent motif, and at a number of other sites. In Classic Maya art, however, it is most often represented in the form of a ceremonial axe or sceptre (C<sub>2</sub>). Sometimes the blade of the axe is clearly to be seen projecting from the head (*m*). At other times, the blade is replaced by a scroll (*l*). The manikin as a sceptre first appears at Etzna in 9.12.0.0.0. Elsewhere, it does not become a popular motif until 9.15.0.0.0, when it replaces to a large extent representations of the serpent bar. It is not represented either at Piedras Negras or at Copan, though it is very common at Yaxchilan and at Quirigua. A somewhat similar distribution of the round "sun" shield suggests that the two are stylistically if not conceptually related.

FIGURE 32

The distribution of the different types of shields in the Maya area is in some respects puzzling. There

are no known examples of shields on sculpture from the Early Period. The earliest occurs in the Lacanja region in 9.8.0.0.0. This shield is rectangular and is trimmed with a long fringe of feathers (D<sub>1</sub>, *c*). Other examples in this group are associated with warriors of about the same period at Piedras Negras. The latest is dated 9.15.5.0.0. They are not found in other regions of the Classic area but the shield on the Halakal lintel and others from the Toltec Period at Chichen Itza have approximately the same form (D<sub>2</sub>). The Classic shield is round or square with rounded corners, but during the Ornate Phase one finds intermediate forms such as those in D<sub>3</sub>. In the first example (*f*), from Piedras Negras, the corners of the shield are rounded and trimmed with tassels. Forms *g* and *h* differ from the usual rectangular shield in that the motif on the face is placed with the short axis on the vertical. *i* is the round "sun" shield modified in form and with an added fringe; *j* is a unique square shield from a minor figure at Copan.

D<sub>4</sub> shows the typical Classic "sun" or mask shield. The identification of the motif on the face as that of the sun god is somewhat doubtful. During the Dynamic Phase this shield is often small and is worn on the wrist (D<sub>5</sub>). At Yaxchilan it is depicted as if flexible and often looks like little more than an ornament worn on the wristlet. Decadent forms of the mask shield are shown in D<sub>6</sub>. Geometric designs are rare. The two examples given in D<sub>7</sub> are from Calakmul.

In Yucatan, both round and rectangular shields were used. The round shield seldom has tassels, however, and often is trimmed with the long fringe characteristic of the rectangular form (D<sub>8</sub>). A certain type of Yucatecan shield is distinguished by a long tuft of feathers underneath (D<sub>9</sub>). This has also been observed in the Chiapas highlands. Although the round shield and forms derived from it are most common at Yaxchilan, some lintels show a long flexible shield (D<sub>10</sub>, *d'*); the same shield on the murals at Bonampak has a rectangular form in front view (D<sub>10</sub>, *e'*). This is very similar to the long rectangular shield of Yucatan, which, however, like the round shield, often has in addition a tuft of feathers (D<sub>11</sub>).

FIGURE 33

Another accessory commonly carried by the Maya is a richly decorated bag of standard design. On early forms there is one knotted element, placed at the top of the bag (E<sub>1</sub>). Later, there are usually two

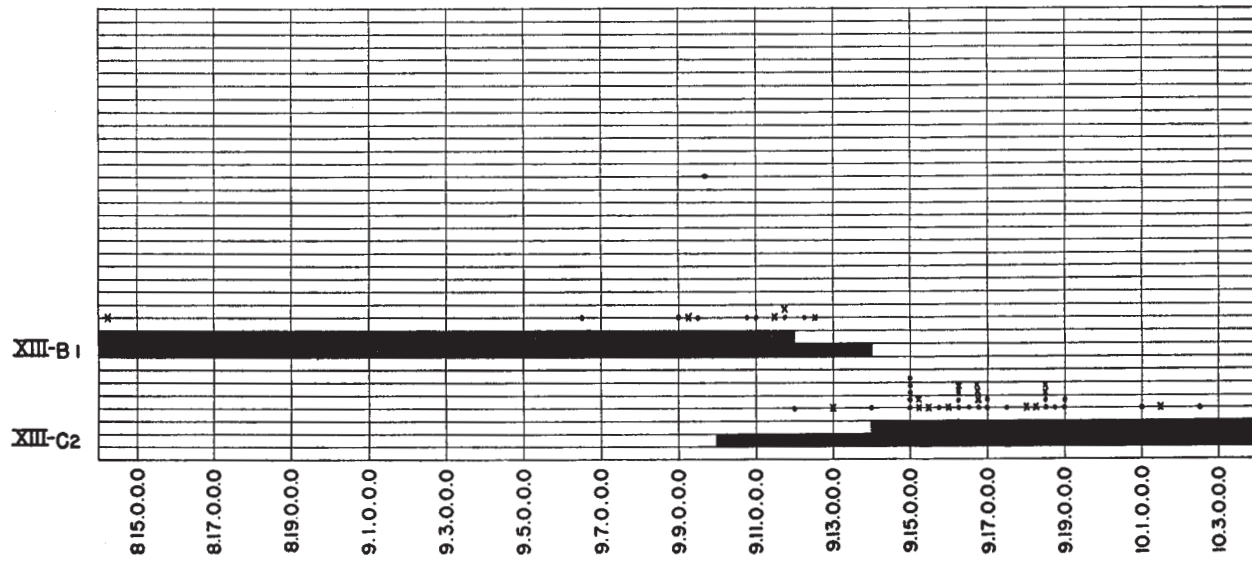


FIG. 31—OBJECTS AND ACCESSORIES (XIII)

- XIII: A1. Head held in crook of elbow or in hand.  
 A2. Same, late. Head of manikin.  
 A3. Jaguar, in hand.
- XIII: B1. Drooping, or flaccid serpent.  
 B2. Early serpent bar with mat motif at ends.  
 B3. Late serpent bar.
- XIII: C1. Full-figure manikin.  
 C2. Manikin sceptre.

## SOURCE OF ILLUSTRATIONS

*a*: Uaxactun St. 4. *b*: Calakmul St. 88. *c*: Yaxha St. 2.  
*d*: Seibal St. 8. *e*: Xultun St. 10. *f*: Copan St. P. *g*: Yaxchilan  
 St. 14. *h*: Naranjo St. 6. *i*: Tikal St. 1. *j*: Xultun St. 10. *k*:  
 Sayil Str. 4B1. *l*: Quirigua St. D. *m*: Yaxchilan L. 3 (Str. 33).

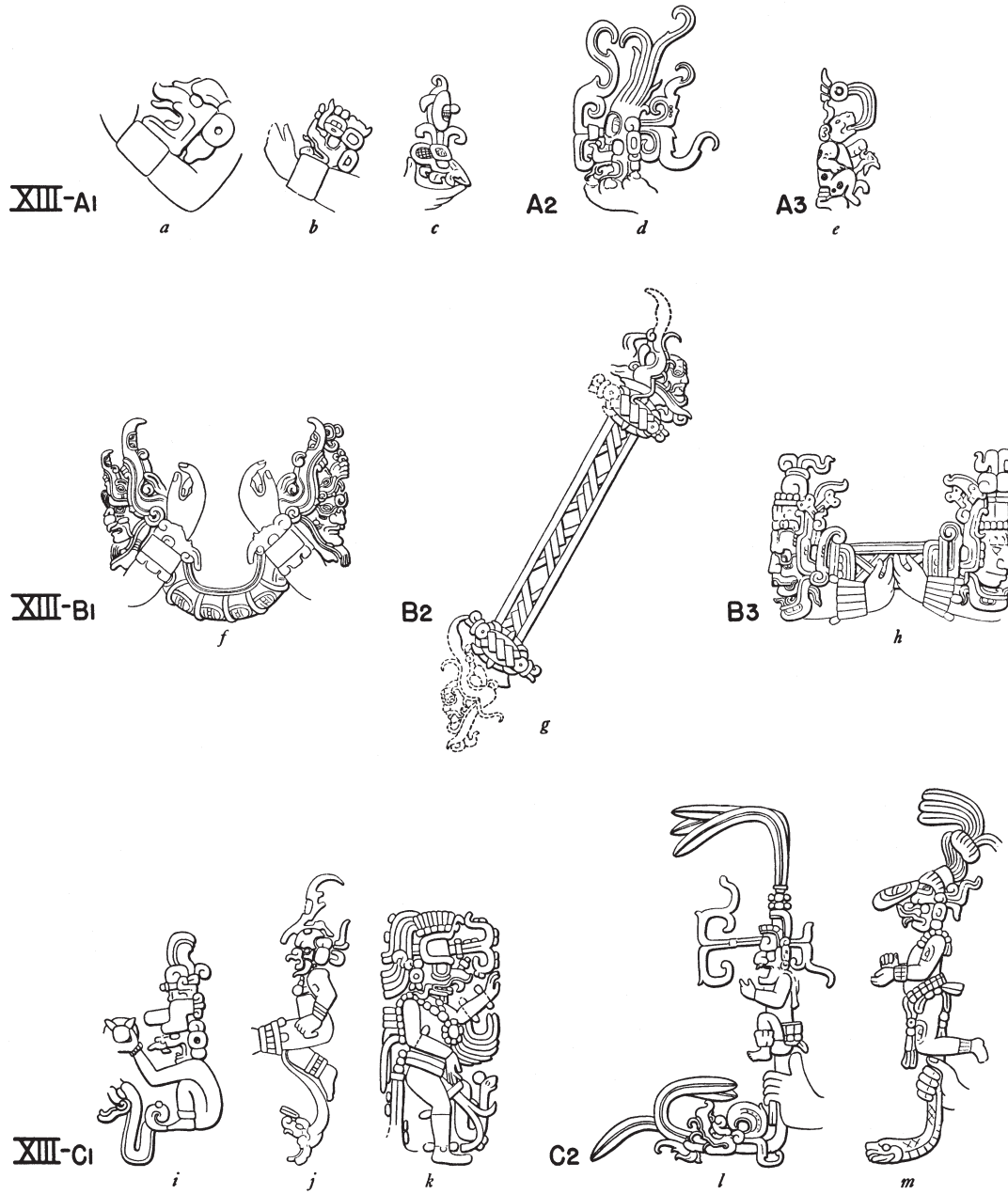
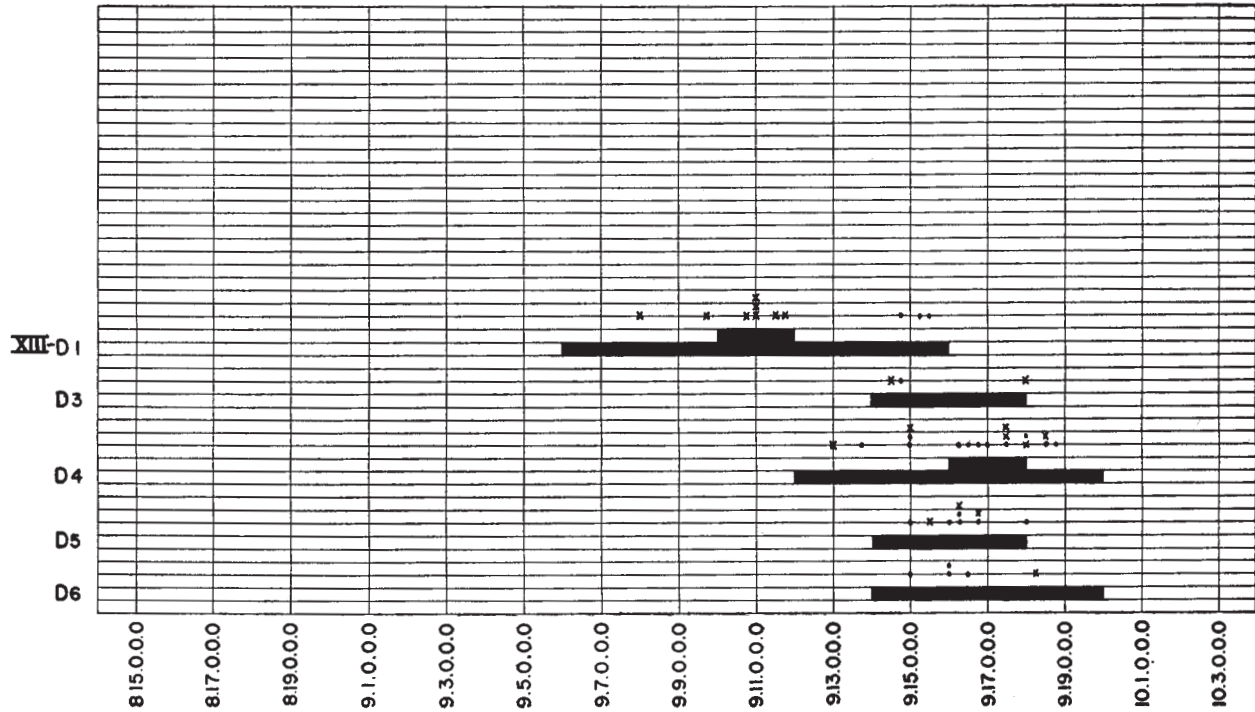


FIG. 31

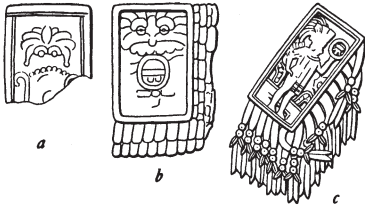
FIG. 32—OBJECTS AND ACCESSORIES (XIII)—*continued*

- XIII: D1. Rectangular shield, with or without fringe. Design placed vertically. Early Usumacinta.  
 D2. Same with mask or geometric motif. Late Yucatan.  
 D3. Types intermediate between D1 and D4.  
 D4. Classic mask shield: round or squarish with or without tassels at corner. Grotesque face.  
 D5. Same, worn above hand.  
 D6. Same, with decadent design of mask.  
 D7. Same, geometric forms and designs.  
 D8. Round shields of Yucatan, usually with long fringe, no tassels.  
 D9. Round shield, with hanging of feathers below. Yucatan.  
 D10. Flexible rectangular shield.  
 D11. Long rectangular shield with feather hanging below. Yucatan.

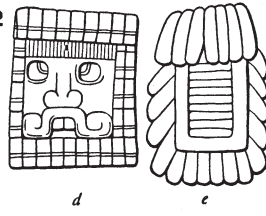
## SOURCE OF ILLUSTRATIONS

*a*: Piedras Negras St. 26. *b*: Piedras Negras L. 2. *c*: Lacanja St. 7. *d*: Halakal, Lintel. *e*: Chichen Itza, Northeast Colonnade. *f*: Piedras Negras St. 8. *g*: Naranjo St. 2. *h*: Cancuen St. 2. *i*: Copan. *j*: Copan Altar Q. *k*: Palenque, Temple of the Sun. *l*: Naranjo St. 21. *m*: Calakmul St. 89. *n*: Quirigua St. K. *o*: Copan. *p*: Yaxchilan St. 11. *q*: Ixkun St. 1. *r*: Yaxchilan L. 3 (Str. 33). *s*: Itzimte St. 1. *t*: Oxpemul St. 15. *u*: Calakmul St. 65. *v*: Calakmul St. 53. *w*: Xcalumkin, S. bldg. of Glyphic Group. *x*: Sayil, Str. 4B1. *y*: Chichen Itza, Temple of the Jaguars. *z*: Kanki, lintel. *a'*: Xcalumkin, N. bldg. of the Glyphic Group. *b',c'*: Chichen Itza, Temple of the Warriors. *d'*: Yaxchilan, L. 45 (Str. 44). *e',f'*: Bonampak, mural in Str. 1. *g'*: Etzna, St. 15.

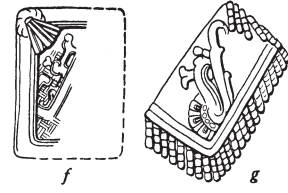
XIII-D1



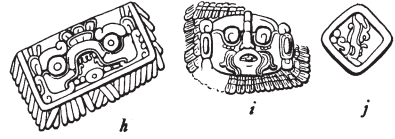
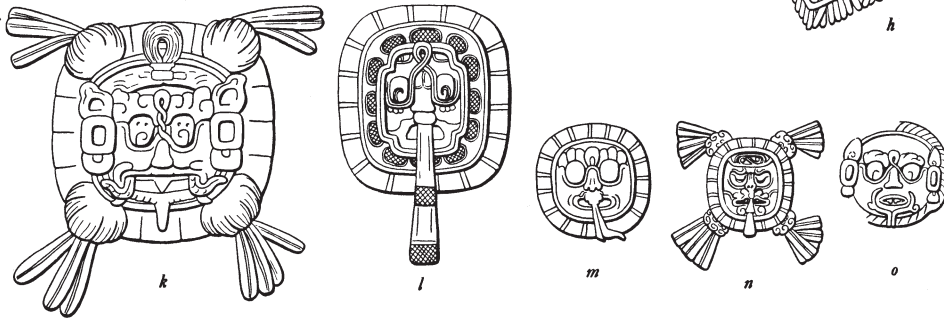
D2



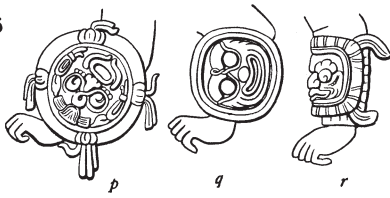
D3



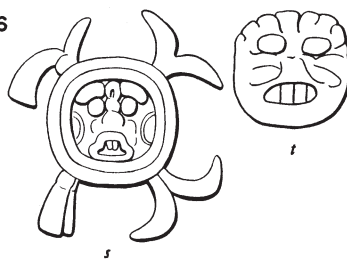
D4



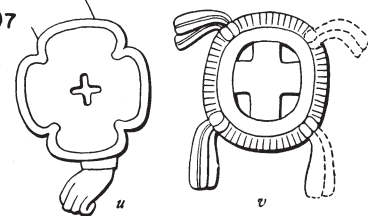
D5



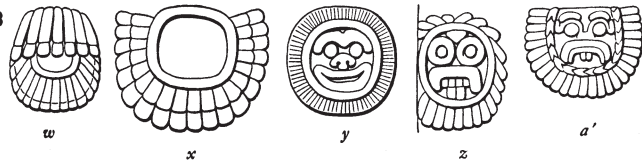
D6



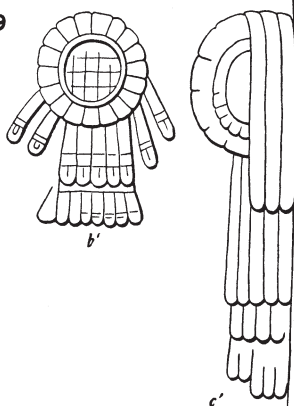
D7



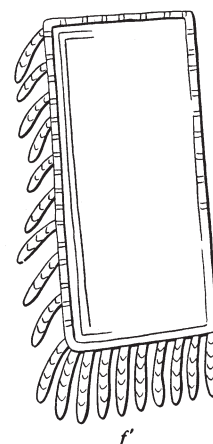
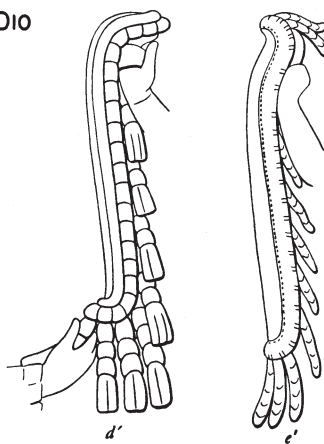
D8



D9



D10



D11

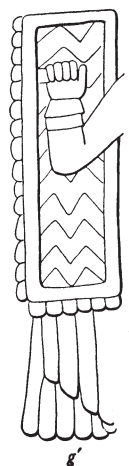


FIG. 32

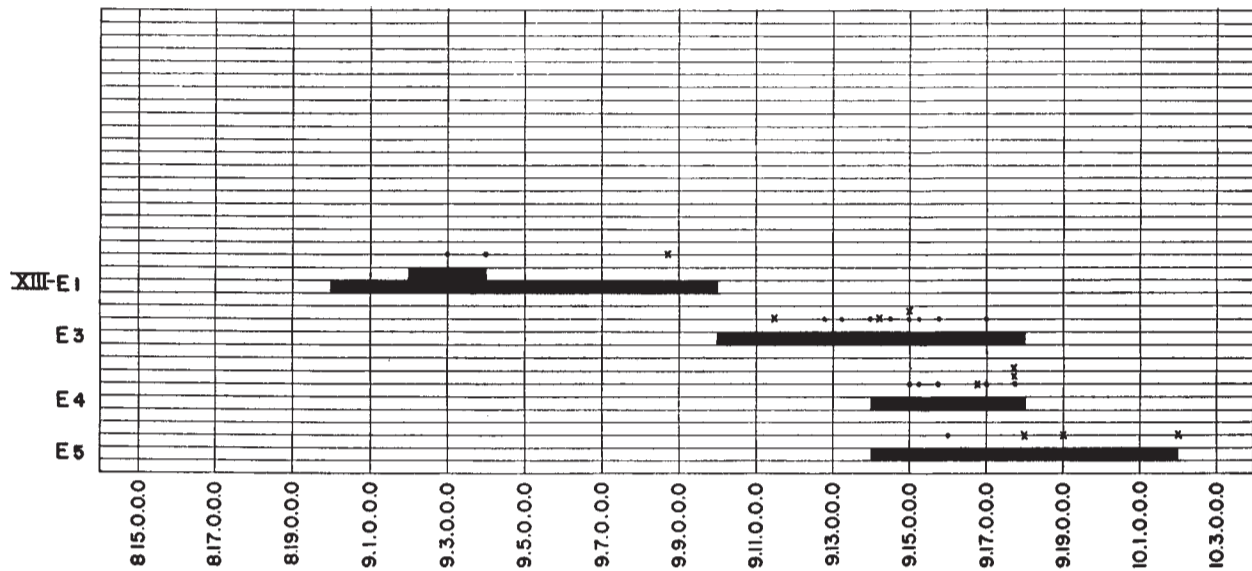


FIG. 33—OBJECTS AND ACCESSORIES (XIII)—*continued*

- XIII: E1. Bag with single knot at top.  
 E2. Aberrant form. Naranjo, Stela 19.  
 E3. Two knots, plain or feathered tail.  
 E4. Rattlesnake tail.  
 E5. Large scroll.  
 E6. Bag from Yucatan. Zigzag motif.
- XIII: F1. Eccentric flint. Etzna.  
 F2. Eccentric flint. Naranjo.  
 F3. Eccentric flint. Chichen Itza.
- XIII: G. Fans.
- XIII: H1. Unidentified object. Naranjo.  
 H2. Unidentified weapon. Morales.  
 H3. Unidentified object. Ball court, Chichen Itza.
- XIII: I1. Object from Yaxchilan.  
 I2. Object from Piedras Negras.  
 I3. Object from Seibal.
- XIII: J1. Pottery dish.  
 J2. Basket.

SOURCE OF ILLUSTRATIONS

*a*: Tikal St. 13. *b*: Yaxha St. 6. *c*: Piedras Negras St. 25. *d*: Naranjo St. 19. *e*: Piedras Negras St. 6. *f*: Naranjo St. 2. *g*: Motul de San Jose St. 2. *h*: Tikal St. 16. *i*: Piedras Negras St. 40. *j*: Piedras Negras St. 13. *k*: Yaxchilan St. 18. *l*: Tikal St. 5. *m*: Cancuen St. 2. *n*: Seibal St. 1. *o*: Halal, lintel. *p*: Etzna St. 18. *q*: Naranjo St. 30. *r*: Chichen Itza, Lower Temple of the Jaguars. *s*: Naranjo St. 8. *t*: Yaxchilan L. 16 (Str. 21). *u*: Naranjo St. 13. *v*: Morales St. 1. *w*: Chichen Itza, Great Ball Court. *x*: Yaxchilan L. 14 (Str. 20). *y*: Piedras Negras St. 14. *z*: Seibal St. 3. *a'*: Yaxchilan L. 13 (Str. 20). *b'*: Yaxchilan L. 24 (Str. 23).

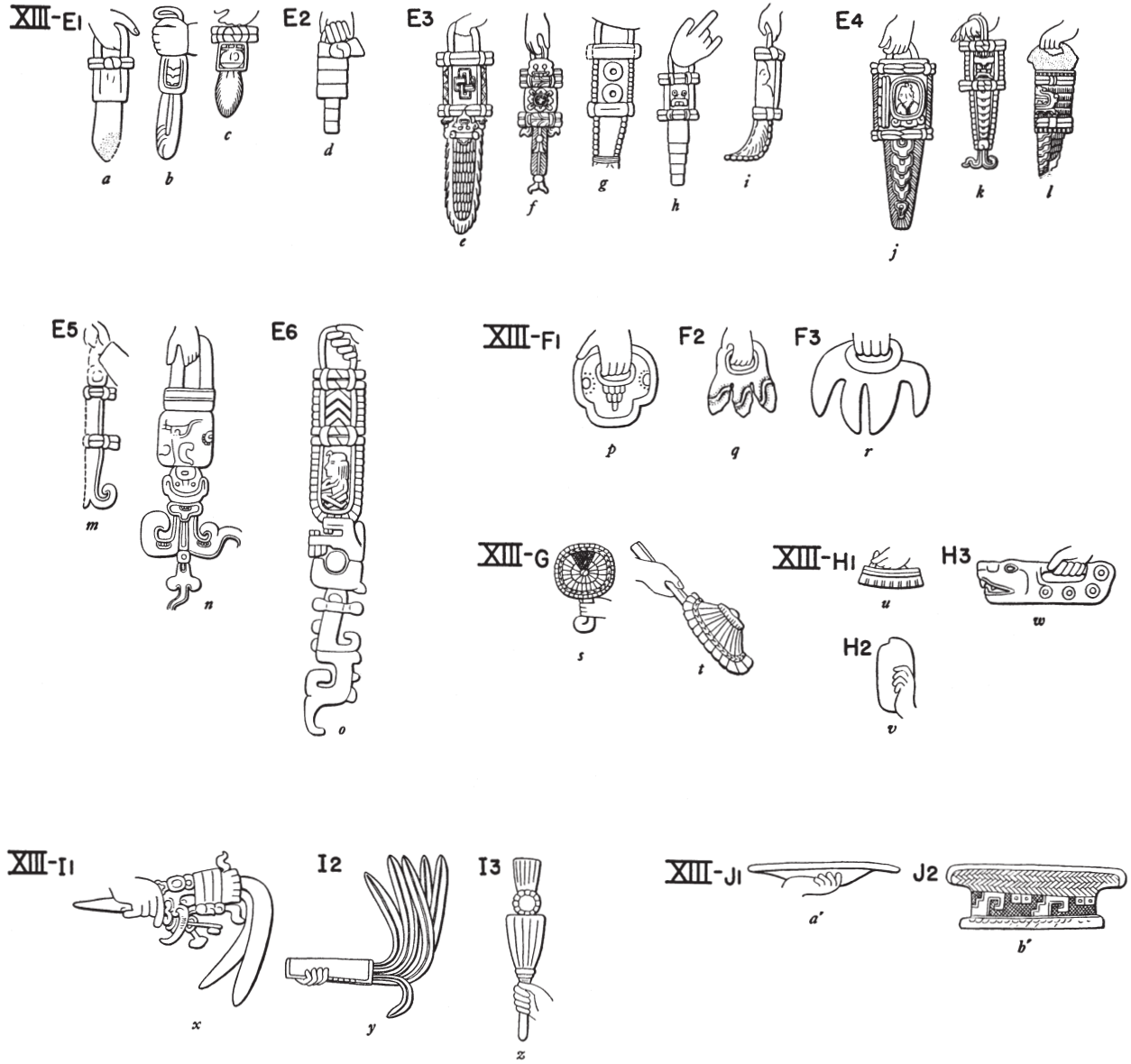


FIG. 33



knotted elements, one at the top and one at the bottom of the rectangular part of the bag (E<sub>3</sub>), though a notable exception occurs on Stela 19, Naranjo, which is a late monument (E<sub>2</sub>). The upper part of the bag is decorated with various designs, among them hieroglyphs; below is a long fringed end. After 9.14.0.0.0 this end is very often decorated with the rattles of a snake (E<sub>4</sub>), and somewhat later still, it usually ends in a large scroll (E<sub>5</sub>). E<sub>6</sub> is an example from Yucatan, which shows the zigzag design common in this area, and a loosely attached death's head and scroll at the bottom.

The rest of the plate is devoted to miscellaneous objects held in the hand. F<sub>1</sub>, F<sub>2</sub>, and F<sub>3</sub> show a form that is first observed at Etzna in 9.12.0.0.0 and occurs sporadically as late as the Toltec Period at Chichen Itza. Eccentric flints of this form have been found in Classic remains. In G are fans, particularly popular in representations at Yaxchilan, where they sometimes assume enormous proportions. Objects in H have not been identified. H<sub>1</sub> is from Naranjo. H<sub>2</sub> appears to be a weapon on Stela 1, Morales. H<sub>3</sub> is carried by Toltec ball-players at Chichen Itza. Other objects include a form which somewhat resembles a feather duster (I) and such dishes and baskets as are shown in J.

#### FIGURE 34

Arms and weapons are seldom represented in Classic Maya art, and occur on sculpture almost exclusively along the Usumacinta and in Yucatan. The most common weapon represented is a long spear or lance, which was apparently thrust or thrown by hand without the aid of a spearthrower (K<sub>1</sub>). In most representations the spear is merely held in the hand, and probably many of the forms shown are ceremonial in function. The blade of the spear may be smooth, notched, or serrated; it is usually fastened to the shaft by a prominent oval element with a fringe of feathers. Such forms as K<sub>2</sub>, which seem to be late, are shown in combat scenes on the lintels at Bonampak.

There are no examples of the spear from the Early Period, but the early figures at Tikal hold a staff of rather intricate design. The shaft of this staff is divided into segments, each consisting of a vertical element with two flanking elements slightly curved. The early forms of this type of staff are shown in L<sub>1</sub>. A later variation has shorter segments whose elements diverge more sharply (L<sub>2</sub>). L<sub>3</sub> is a simple staff with spaced groups of knots. Other types of staff

include the crook ending in a serpent head which was used at Piedras Negras at the beginning of the Late Classic Period (M<sub>1</sub>), another also crooked at the top (M<sub>2</sub>), and an elaborated type of staff from Yaxchilan with a manikin sitting upon it (M<sub>3</sub>). N is from Yaxchilan, O and P are from Chichen Itza, and Q is again from Yaxchilan. The bird in diving position seen on this staff is somewhat reminiscent of the bird associated with Mexican representations of Quetzalcoatl, and is often seen on the headdress of Toltec figures at Chichen Itza. Another type of shaft carried by the Maya, but more rarely, consists of a group of smaller darts bound together (R<sub>1</sub>). A group of darts held together in the hand, however, occurs only in association with Toltec figures (R<sub>3</sub>). R<sub>2</sub> is from a very late Classic monument and may be an intermediate form. The darts in R<sub>3</sub> were thrown with a spearthrower (S<sub>2</sub>) of typical design. Representations of such spearthrowers are very common at Chichen Itza, but it is still uncertain if the spearthrower was used by the Classic Maya. What few representations of combat there are in the Classic Period show hand-to-hand struggles; the spear, when shown, is held in the hand. There are two examples of objects, however, which seem to represent the spearthrower (S<sub>1</sub>). The first is very early (Stela 5 at Uaxactun). The second is of the Dynamic Phase of Late Classic at Bonampak. In both cases, the spearthrower is held by the shaft without insertion of the fingers into the holes provided for that purpose, and in neither case does the figure carry a dart or spear which could be thrown. If these objects are in fact spearthrowers, their value in the design must be symbolic.

The axe is sometimes shown used as a weapon, but it too, in most cases, is represented probably as an insigne of office (T). The Maya also had hafted knives (U); in one case the figure holds what is unmistakably a bone-hafted hatchet (V). In the illustration (fig. 34, *d'*) the blade has been omitted by mistake (see Morley, 1937-38, vol. 5, pl. 99*a*). The early figure on Stela 5 at Uaxactun holds a heavy club set with three pointed blades (W<sub>1</sub>). This weapon apparently was not common but something very much like it reappears in the Toltec sculpture of Chichen Itza (W<sub>2</sub>).

#### XIV—ORNAMENTAL DETAILS

##### FIGURE 35

During the Ornate Phase of the Late Classic Period, minute attention is given to the presentation

of detail. Most of the examples of textile motifs come from this period or from the Dynamic Phase immediately following, before a more cursive manner came into vogue. Some minor changes in motifs, however, may be observed. In the Early Period and during the Formative Phase of the Late Classic, the skirt the figure wears is usually finished by a border of beads and tassels (A<sub>1</sub>). While this border continues to be used, particularly on beaded skirts, during the later phases of the Late Classic Period it is generally replaced by a braid-and-fringe design, often interrupted by round elements (A<sub>3</sub>).

Tau-shaped elements and crosses are particularly common in band motifs (B<sub>1</sub>). Usually in the earlier designs the elements are symmetrical. The stepped fret, however, may have been used from the earliest times. We have not enough examples of it or, for that matter, of textile motifs altogether, to be certain of its chronological distribution (B<sub>2</sub>). The double fret and the S curve, however, may indicate an advanced period (B<sub>3</sub>). B<sub>4</sub> shows a form of design which occurs at Piedras Negras as a textile motif and also during the Puuc Period in Yucatan in architectural decoration.

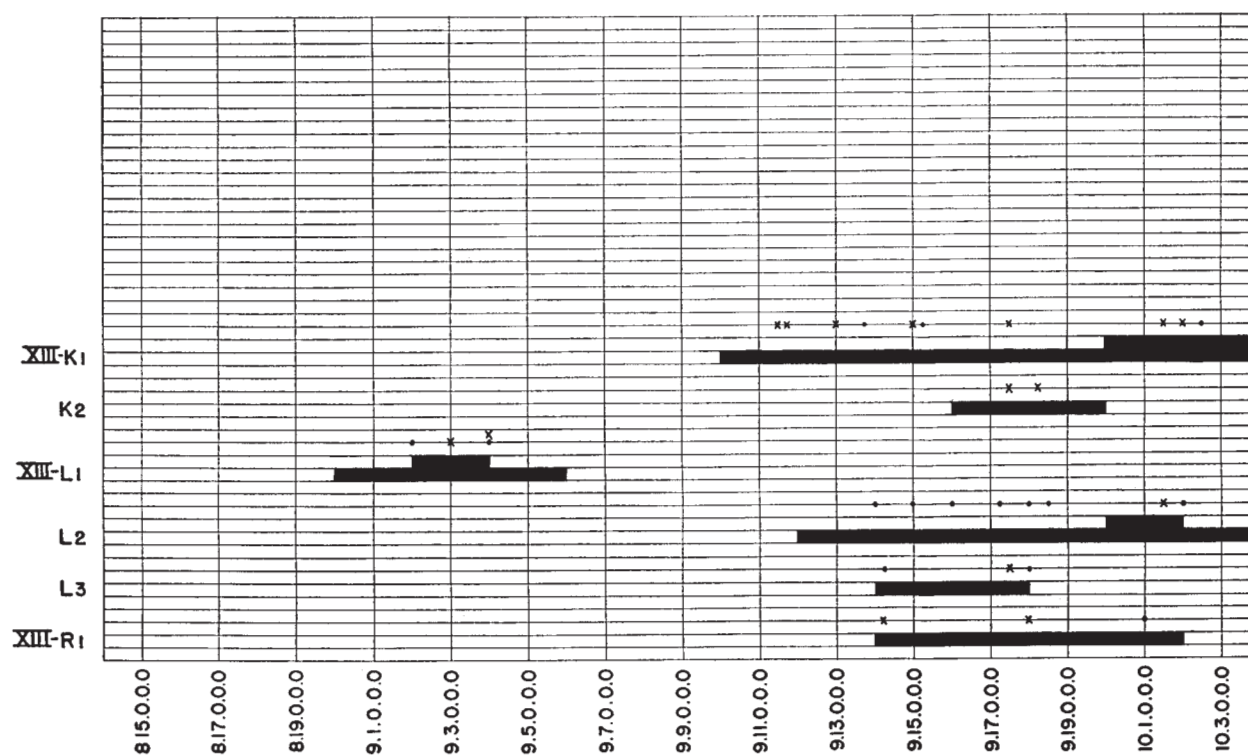
An isolated cross formed of interlocking elements is another very common motif (C<sub>1</sub>) and a variation which shows an outlined cross containing a mat design is perhaps even more popular (C<sub>2</sub>). All-over designs usually are laid out by crossed lines forming diamonds (C<sub>3</sub>).

The twisted band or mat motif is one of great antiquity and duration. The realistic representation of a rope ending in this motif is usually early (D<sub>1</sub>). Later it is shown elaborated with beads or with a jagged line (D<sub>2</sub>). As formal elaboration progresses

and outlining of elements becomes a feature of design, this form is also often outlined in neglect of its logical structure (D<sub>3</sub>). The guilloche (D<sub>4</sub>) is rare in Classic art but is very popular in the Puuc, where, in the Late Period, it is often used as a border both on monuments and in architectural ornament. There is a noticeable tendency in the Early Period to combine elements into a medallionlike form surrounded by the leaf-and-fringe motif (E<sub>1</sub>). The elements used in such motifs tend to become disassociated in the Late Period (E<sub>2</sub>).

F presents some motifs, probably symbolic, but of unknown significance. The first form is sometimes shown at the joints of limbs on animal forms. The third and the last are usually interpreted as representing rain clouds and are in the form of one of the infixes of the sign Cauac. G shows an interlaced figure used in the headdress at Piedras Negras and at Copan.

The symbol for Tlaloc, the Mexican rain god, was not unknown to the Maya but occurs only as a minor decorative motif. In Copan there is a Tlaloc-faced figure which seems to represent the manikin, with a serpent head replacing the foot and a characteristic scroll issuing from the head (H<sub>1</sub>). It is quite possible that the manikin is the Maya god corresponding to Tlaloc in the Mexican pantheon. The Tlaloc face is also found attached to an animal figure (H<sub>2</sub>); at Seibal it is shown on a man, who may be wearing it as a mask (H<sub>3,0'</sub>). At Yaxchilan and Chinkultic it forms the main element of a headdress (H<sub>4</sub>) and at Tikal it appears as an ornament on a bag. The design from Piedras Negras (H<sub>6</sub>) may be a geometric form derived from Tlaloc representations combined with the form XIV: G, which is analogous to the Mexican year sign.

FIG. 34—OBJECTS AND ACCESSORIES (XIII)—*continued*

- XIII:
- K. Spears.
  - L. Staffs divided into sections.
  - M. Other types of staff.
  - N. Broad staff. Yaxchilan.
  - O. Feathered staff. Non-Classic.
  - P. Harpoon (?). Non-Classic.
  - Q. Bird staff. Yaxchilan.
  - R1, R2. Darts (?). Classic. Rare.
  - R3. Darts. Toltec?
  - S1. Spearthrowers. Classic. Very rare.
  - S2. Spearthrower. Toltec.
  - T. Hatchets. Rare in Classic.
  - U. Knives. Rare in Classic.
  - V. Bone-hafted hatchet (blade omitted in illustration).
  - W1. Club set with flints. Early Peten.
  - W2. Same. Chichen Itza.

## SOURCE OF ILLUSTRATIONS

*a*: Yaxchilan St. 15. *b*: Piedras Negras St. 35. *c*: Seibal St. 1. *d*: El Caribe St. 2. *e*: Tikal St. 9. *f*: Tikal St. 7. *g*: Naranjo St. 8. *h*: Naranjo St. 30. *i*: Piedras Negras St. 26. *j*: Piedras Negras St. 7. *k*: Yaxchilan L. 6 (Str. 1). *l*: Yaxchilan St. 11. *m*: Chichen Itza, Temple of the Chacmool. *n*: Chichen Itza, Lower Temple of the Tigers. *o*: Yaxchilan L. 2 (Str. 33). *p*: Cancuen St. 2. *q*: Naranjo St. 2. *r*: Ucanal St. 4. *s*: Kabah Str. 2C6. *t*: Uaxactun St. 5. *u*: Bonampak St. 3. *v*: Chichen Itza, Great Ball Court. *w*: Jaina St. 1. *x*: Yaxchilan L. 58 (Str. 54). *y*: Xcalumkin, S. bldg. of the Glyphic Group. *z*: Oxpemul St. 9. *a'*: Uxmal St. 14. *b'*: Yaxchilan L. 26 (Str. 23). *c'*: Tikal Altar V. *d'*: Aguas Calientes St. 1. *e'*: Uaxactun St. 5. *f'*: Chichen Itza, Lower Temple of the Jaguars.

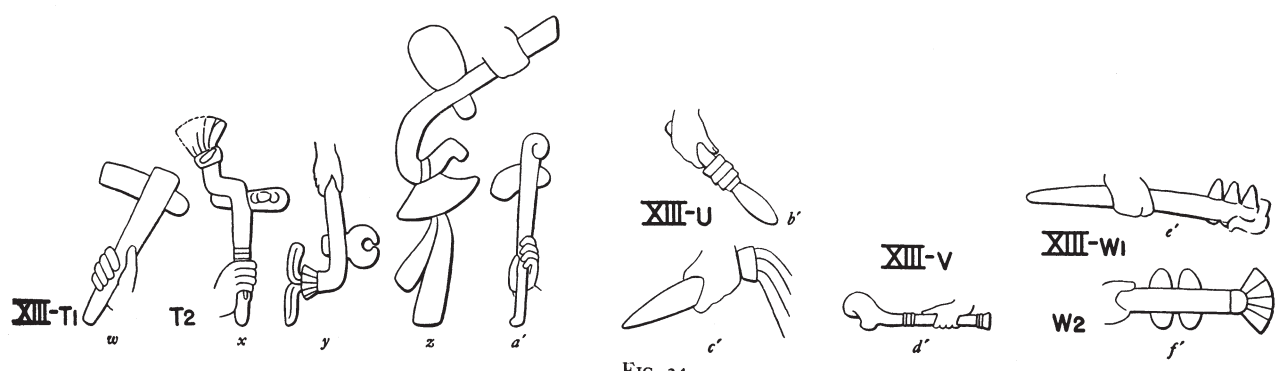
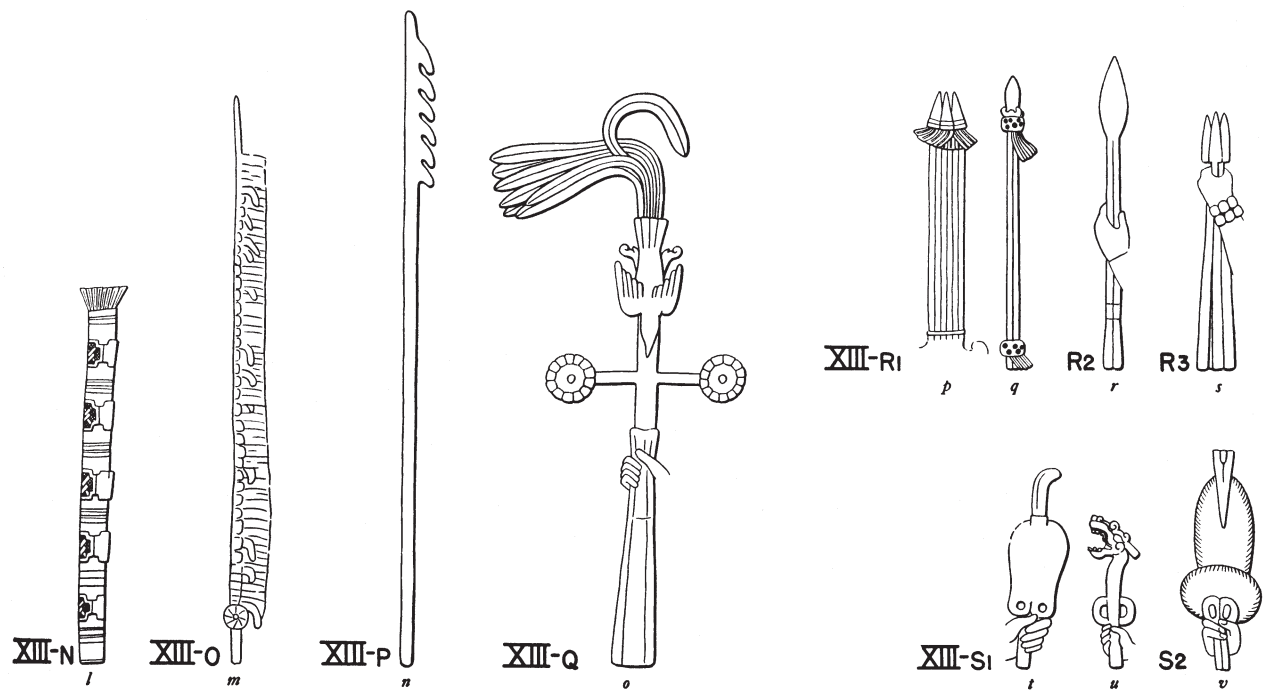
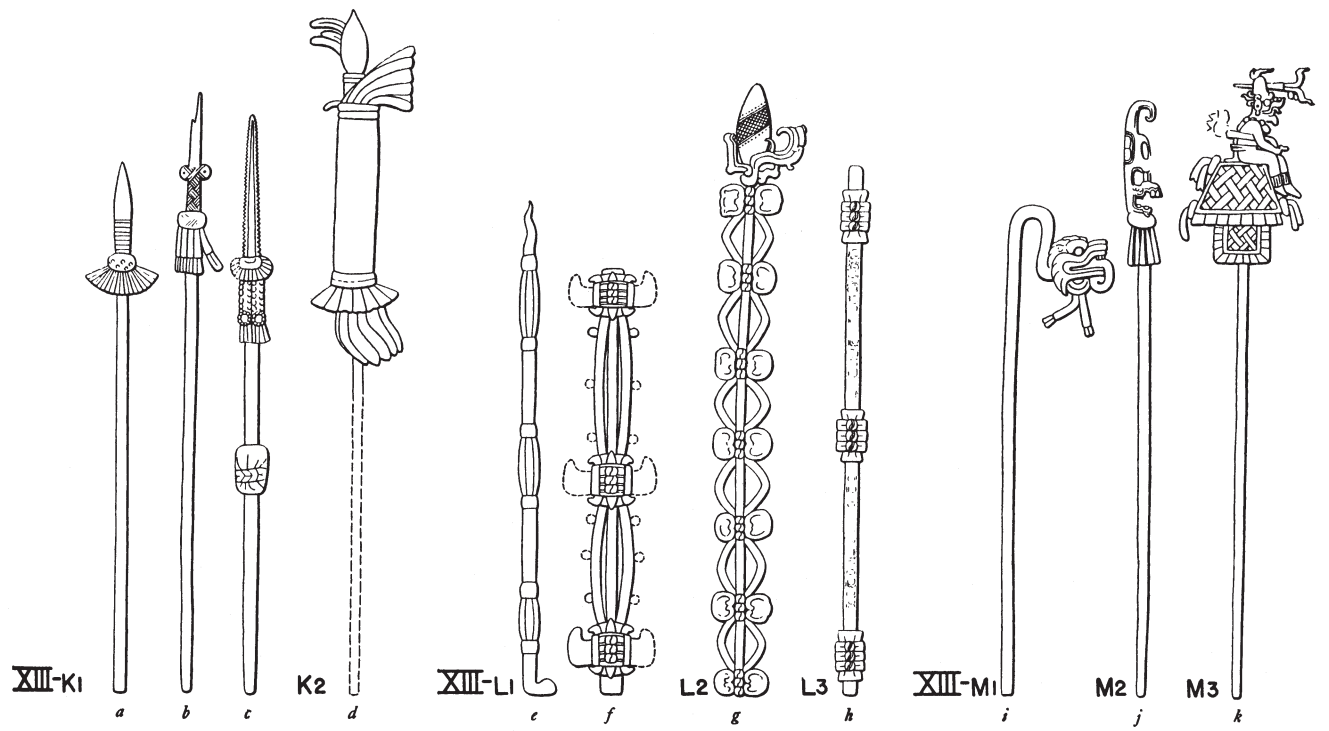


FIG. 34

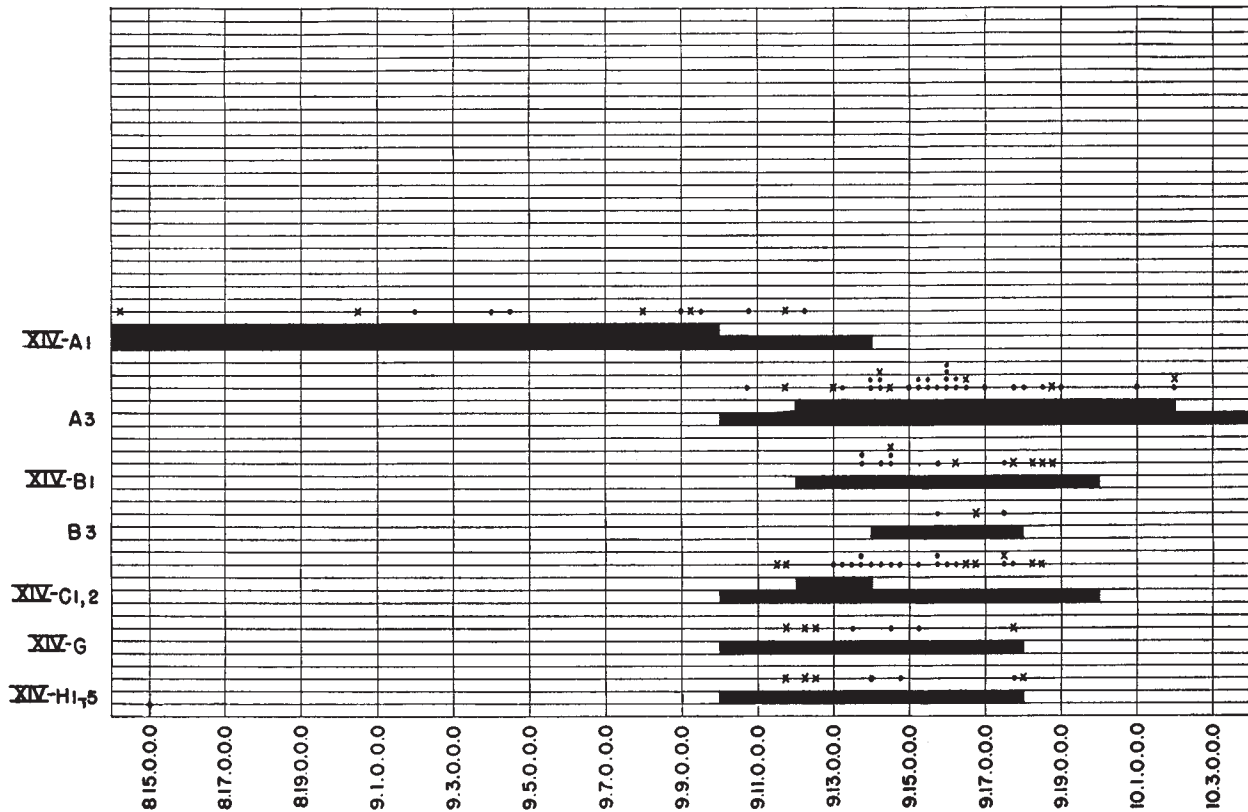


FIG. 35—ORNAMENTAL DETAILS (XIV)

- XIV: A1. Simple bead and fringe textile border.  
 A2. Same, decorated.  
 A3. Braid and fringe border.
- XIV: B1. Bands of symmetrical stepped elements.  
 B2. Bands of stepped frets.  
 B3. S-frets or curves.  
 B3. Other bands.
- XIV: C1. Interlaced cross.  
 C2. Cross with mat design.  
 C3. Diamond patterns.
- XIV: D1. Twist or mat motif with rope.  
 D2. Decorated twist motif.  
 D3. Outlined twist motif.  
 D4. Guilloche.
- XIV: E1. Early medallion elements.  
 E2. Late, disassociated parts of same.
- XIV: F. Miscellaneous ornamental elements.
- XIV: G. Headdress ornaments.
- XIV: H1. Tlaloc, manikin.  
 H2. Tlaloc, animal.

- H3. Tlaloc, human.  
 H4. Tlaloc, headdress.  
 H5. Miscellaneous tlalocs.  
 H6. Geometric design, possibly derived from tlaloc.

## SOURCE OF ILLUSTRATIONS

a: Tikal St. 9. b: Copan St. C. c: Naranjo St. 30. d: Coba St. 20. e: Tikal St. 16. f: Piedras Negras St. 13. g: Piedras Negras St. 1. h: Yaxchilan St. 3. i: Naranjo St. 19. j: Chichen Itza, Initial Series Bldg. k: Yaxchilan L. 24 (Str. 23). l: Piedras Negras St. 14. m: Naranjo St. 19. n: Piedras Negras St. 7. o: Naranjo St. 12. p: Tikal St. 1. q: Piedras Negras St. 7. r: Piedras Negras St. 1. s: Piedras Negras St. 35; t: Piedras Negras St. 7. u: Yaxchilan L. 43 (Str. 42). v: Yaxchilan L. 3 (Str. 33). w: Tikal St. 1. x: Copan St. 2. y: Seibal St. 8. z: Quirigua St. 1. a': Yaxha St. 13. b': Tikal St. 2. c': Tikal St. 7. d': Copan St. N. e': Naranjo St. 30. f': Copan altar of Stela M. g': Naranjo St. 11. h': Copan, miscellaneous sculpture. i': Copan Altar of Stela M. j': Copan St. 6. k': Piedras Negras St. 9. l', m', n': Copan, miscellaneous sculpture. o': Seibal St. 3. p': Yaxchilan L. 41 (Str. 42). q': Copan St. 6. r': Tikal St. 16. s': Cancuen St. 2. t': Yaxchilan L. 25 (Str. 23). u': Piedras Negras St. 8.

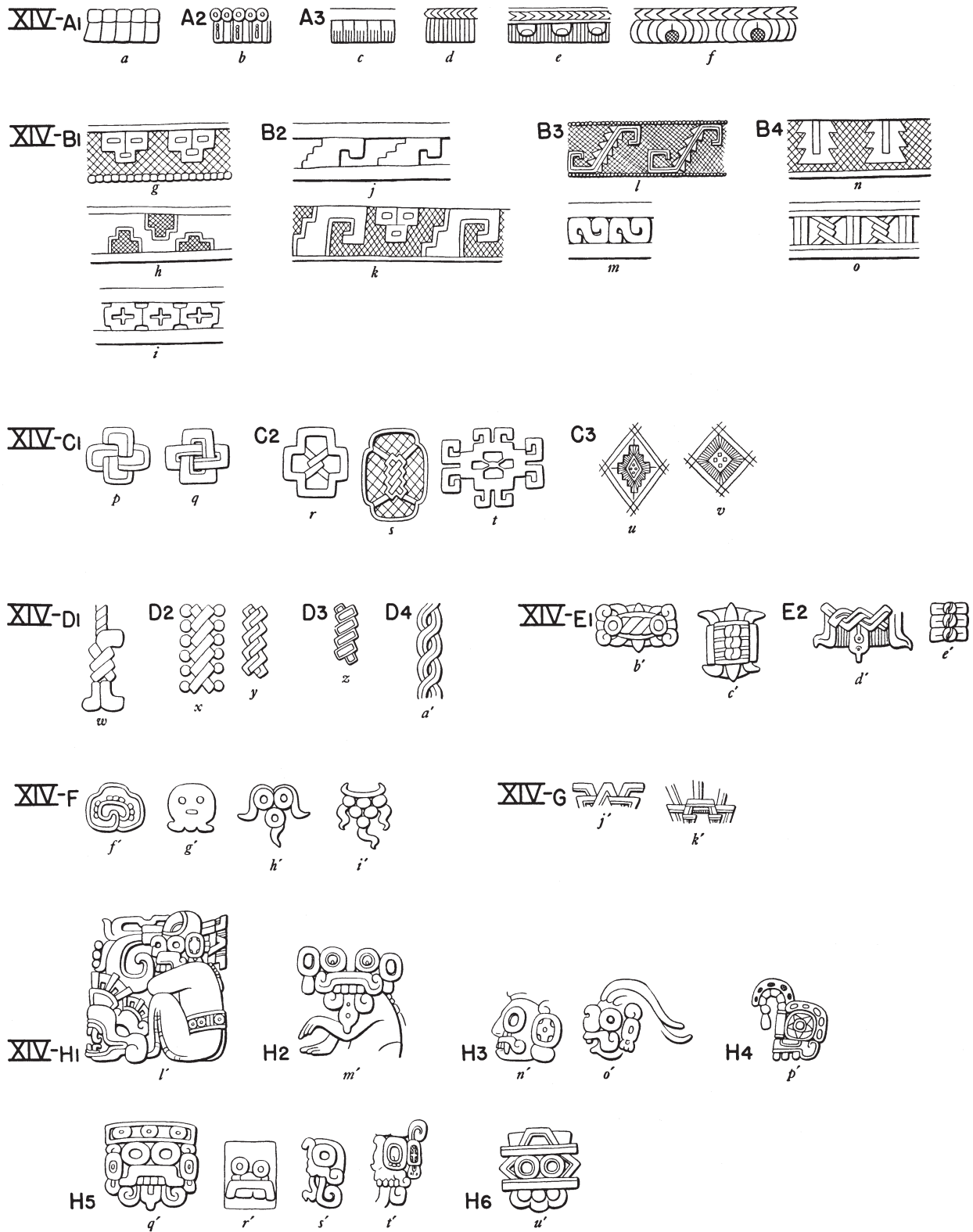


FIG. 35



*a*



*b*



*c*



*d*



*e*



*f*

FIG. 36 — EARLY MONUMENTS

*a*: Uaxactun, Structure E-VII-sub. *b*: Anthropomorphic mask, Structure E-VII-sub. *c*: Design on Tzakol vessel from Uaxactun. *d*: Polol, Altar 1. *e,f*: Uaxactun, Stela 10, possibly the earliest Maya monument. Scale: *d-f*, approx. 1/15.

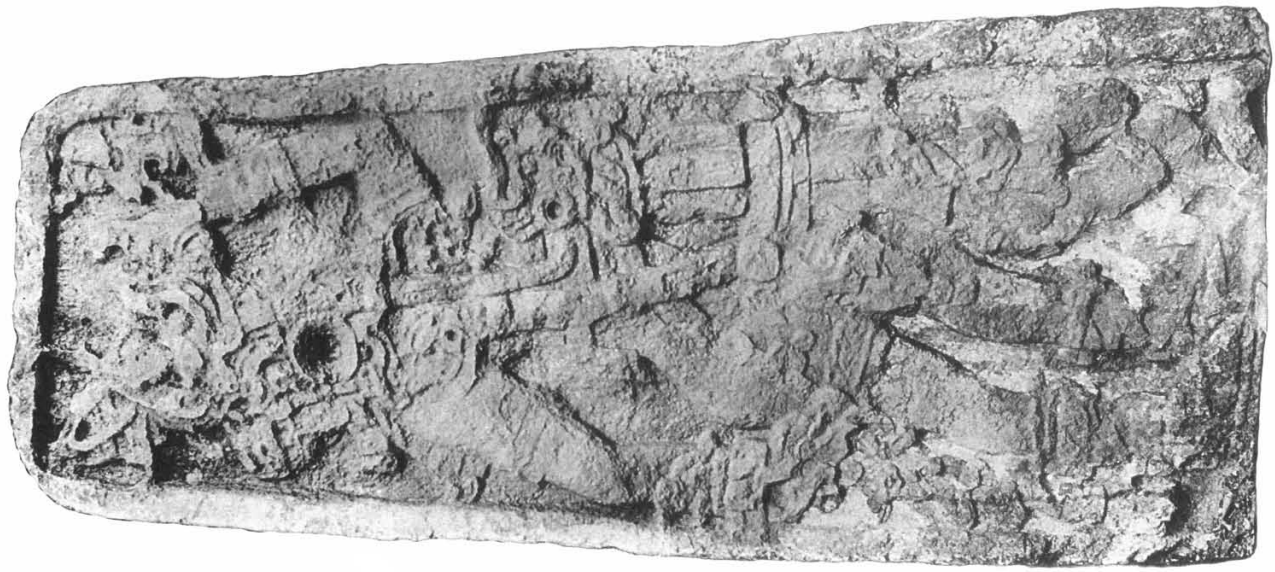
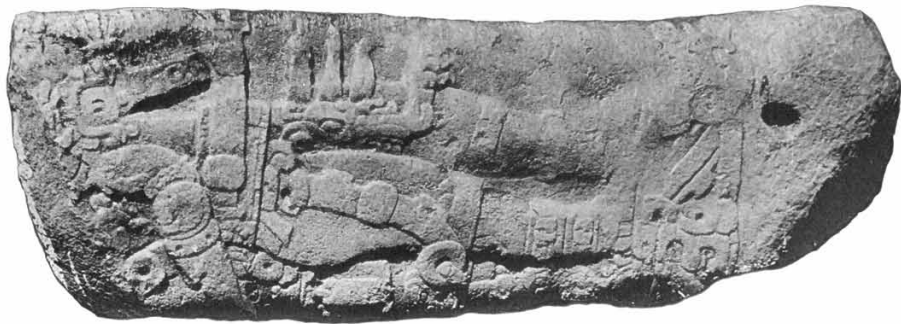
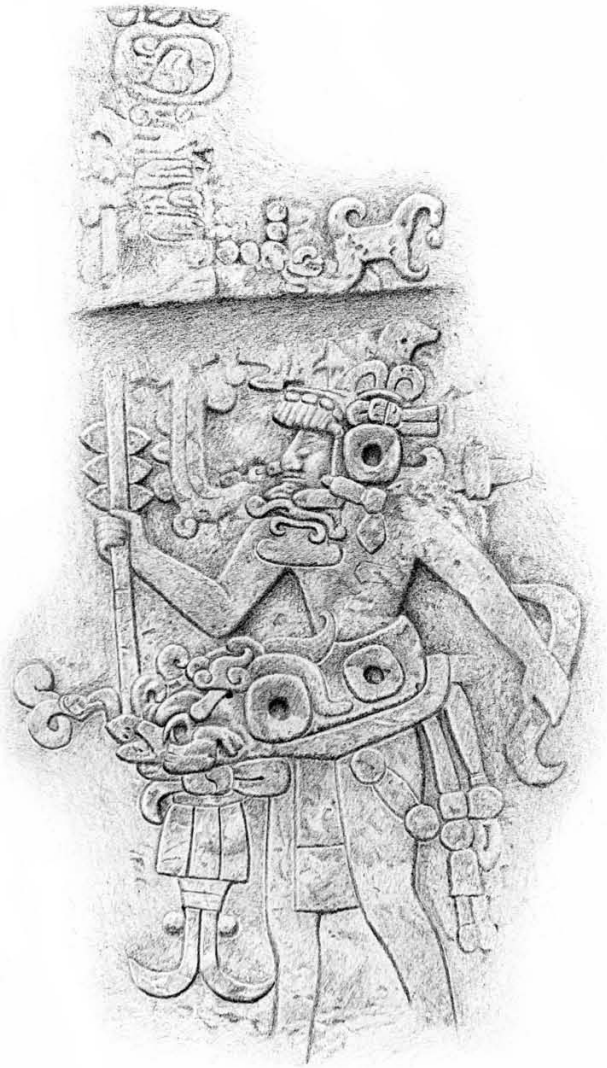


FIG. 37 — CYCLE 8 MONUMENTS  
*a*: Uaxactun, Stela 9 (8.14.10.13.15). *b*: Uolantun, Stela 1 (8.18.13.5.11). *c*: Xultun, Stela 12 (no date). Scale: approx. 1/15.





a



b



c

FIG. 38 — CYCLE 8 MONUMENTS — *continued*

a: Uaxactun, Stela 5. b: Carving at the Hunacab mouth of the cave at Loltun, Yucatan (drawing by Kisa Noguchi). c: Tikal, Stela 18. Scale: approx. 1/15.



*a*



*b*



*c*



*d*



*e*

FIG. 39— EARLY CYCLE 9 MONUMENTS

*a*: Tikal, Stela 9 (9.2.0.0.0). *b*: Altar de Sacrificios, Stela 12 (9.4.10.0.0). *c*: Yaxchilan, Stela 27 (9.4.0.0.0). *d*: Piedras Negras, Lintel 12. *e*: Uaxactun, fragment of altar from Structure A-V. Scale: *a-d*, approx. 1/15; *e*, approx. 1/5.



*a*



*b*

FIG. 40 — EARLY CYCLE 9 MONUMENTS — *continued*  
*a*: Calakmul, Stela 43 (9.4.0.0.0). *b*: Yaxha, Stela 6.\* Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



FIG. 41 — DEVELOPMENT LEADING TO LATE CLASSIC STYLES

*a*: Leyden Plate\* (8.14.3.1.12). *b*: Tikal, Stela 1.† *c*: Tulum, Stela 1 (9.6.10.0.0). *d*: Copan, Stela P (9.9.10.0.0), upper half of monument. Scale: *b-d*, approx. 1/15.

\*Photograph of cast, courtesy of American Museum of Natural History.

†Courtesy of Peabody Museum, Harvard University.



*a*



*b*

FIG. 42 — MONUMENTS OF THE FORMATIVE PHASE  
*a*: Calakmul, Stela 88. *b*: Coba, Stela 1 (9.12.0.0.0?). Scale: approx. 1/15.

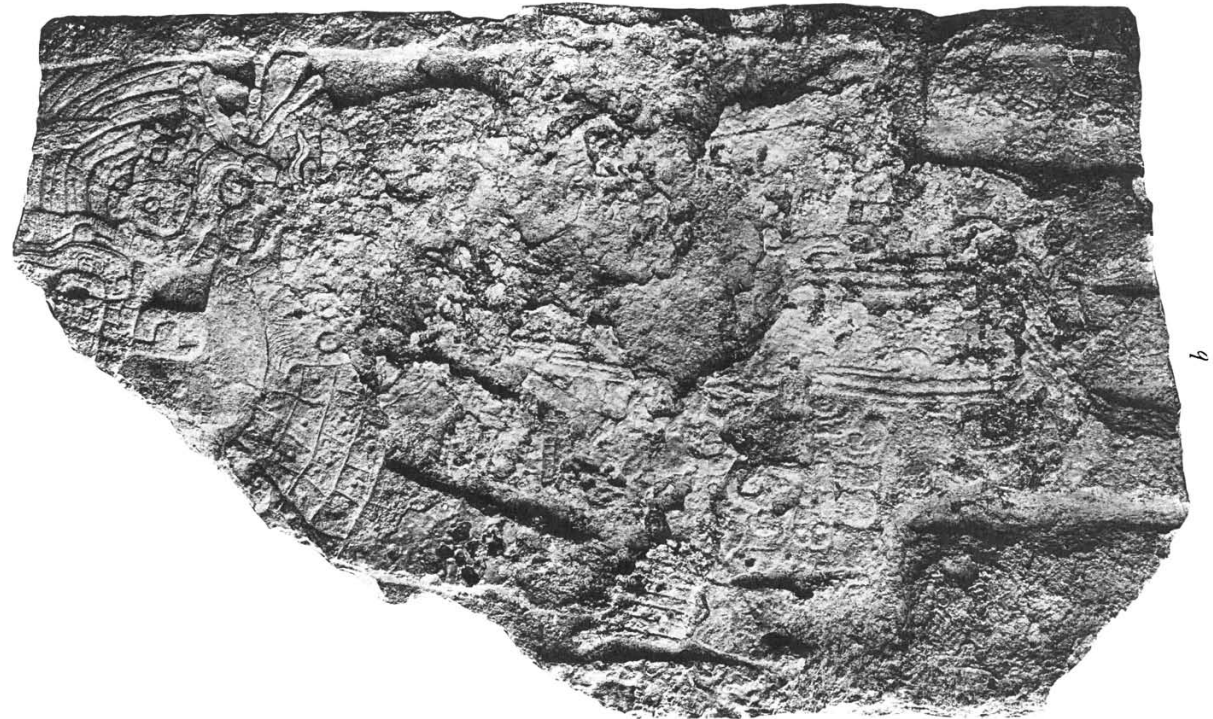
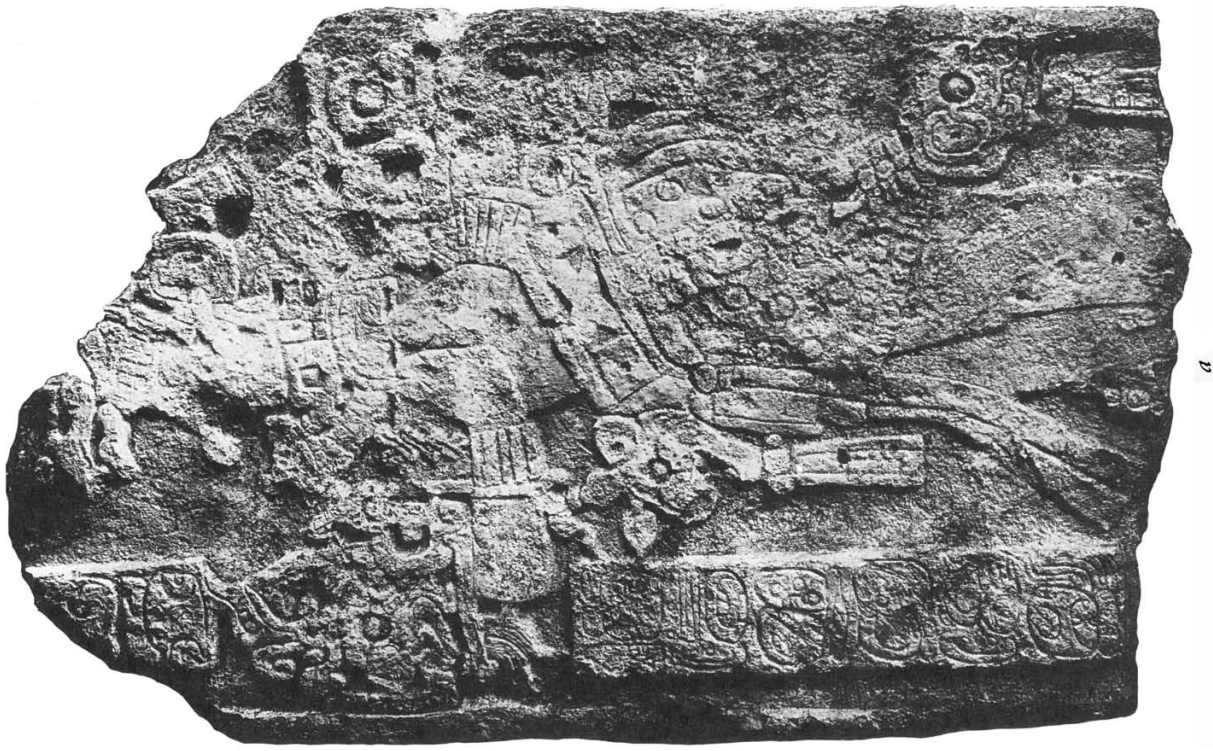


FIG. 43 — MONUMENTS OF THE FORMATIVE PHASE — *continued*  
*a:* Xultun, Stela 18. *b:* Xultun, Stela 21. Scale: approx. 1/15.



a



b



c



d

FIG. 44 — MONUMENTS OF THE FORMATIVE PHASE — *continued*  
a: Naranjo, Stela 25 (9.9.2.0.4). b: Lacanja, Stela 1\* (9.8.0.0.0). c: Bonampak, lintel of Structure 6.† d: Bonampak, Altar 3.  
Scale: approx. 1/15.

\*Courtesy of Frans Blom.

†Photograph by Giles G. Healey.

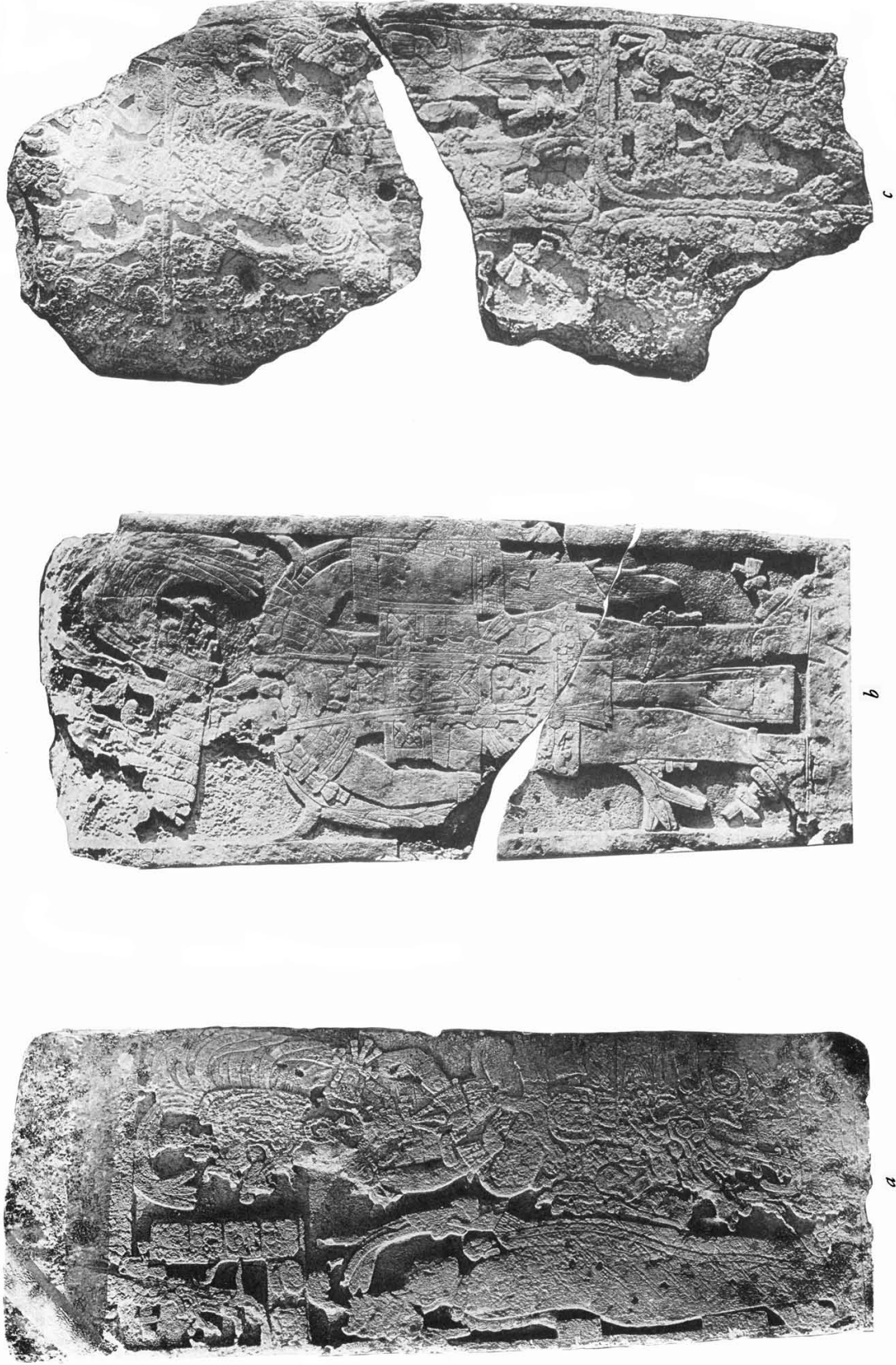


FIG. 45 — ADVANCED MONUMENTS OF THE FORMATIVE PHASE

*a*: Piedras Negras, Stela 33\* (9.10.10.0.0?). *b*: Piedras Negras, Stela 34\* (9.11.0.0.0). *c*: Jaina, Stela 1 (9.11.0.0.0) (not to scale). Scale: *a,b*, approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



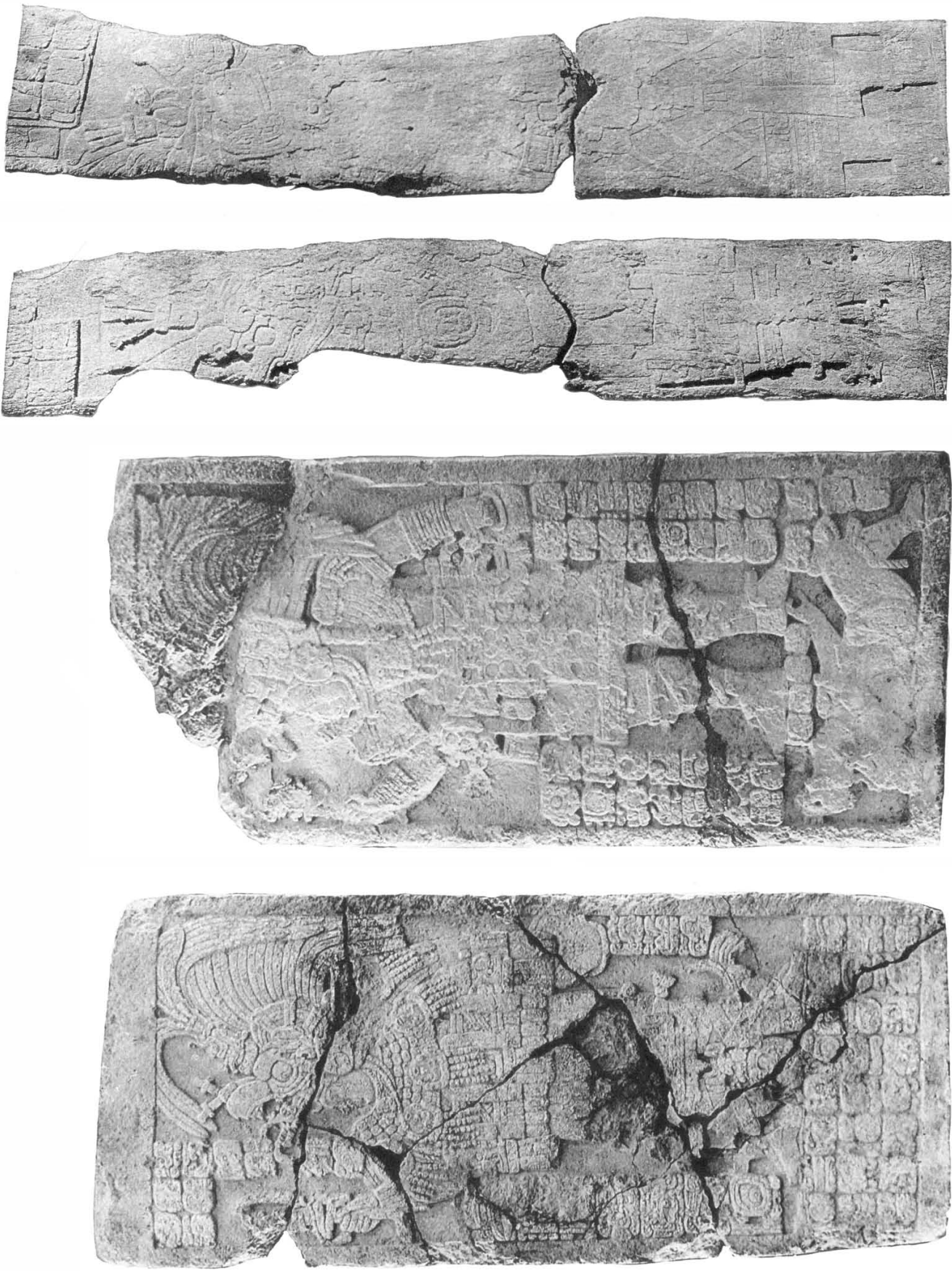


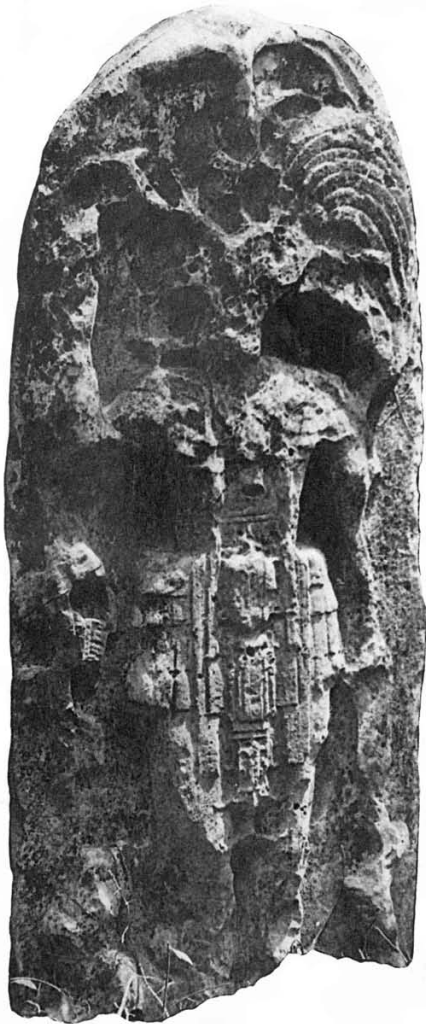
FIG. 46 — ADVANCED MONUMENTS OF THE FORMATIVE PHASE — *continued*  
*a*: Erzna, Stela 18 (9.12.0.0.0). *b*: Erzna, Stela 19 (9.13.0.0.0). *c*: Calakmul, Stela 9 (9.11.10.0.0?). Scale: *a, b*, approx. 1/15.



a



b



c



d

FIG. 47 — ADVANCED MONUMENTS OF THE FORMATIVE PHASE — *continued*  
a: Bonampak, Altar 2. b: Tonina T. 32 (not to scale). c: Tikal, Stela 10. d: El Palmar, Stela 12. Scale: a,c,d, approx. 1/15.

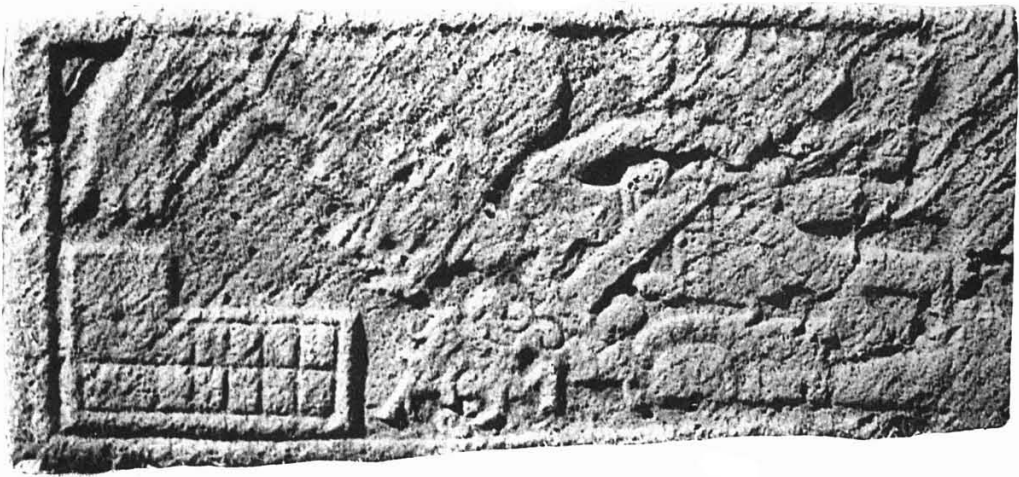
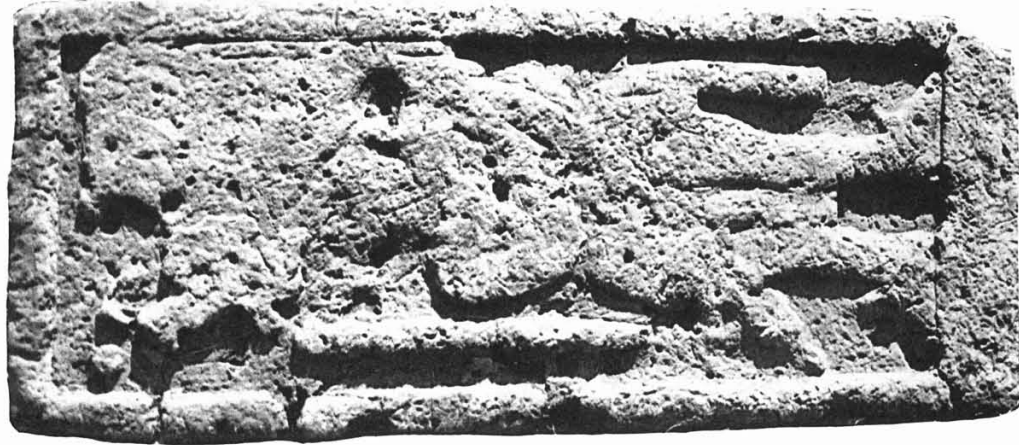
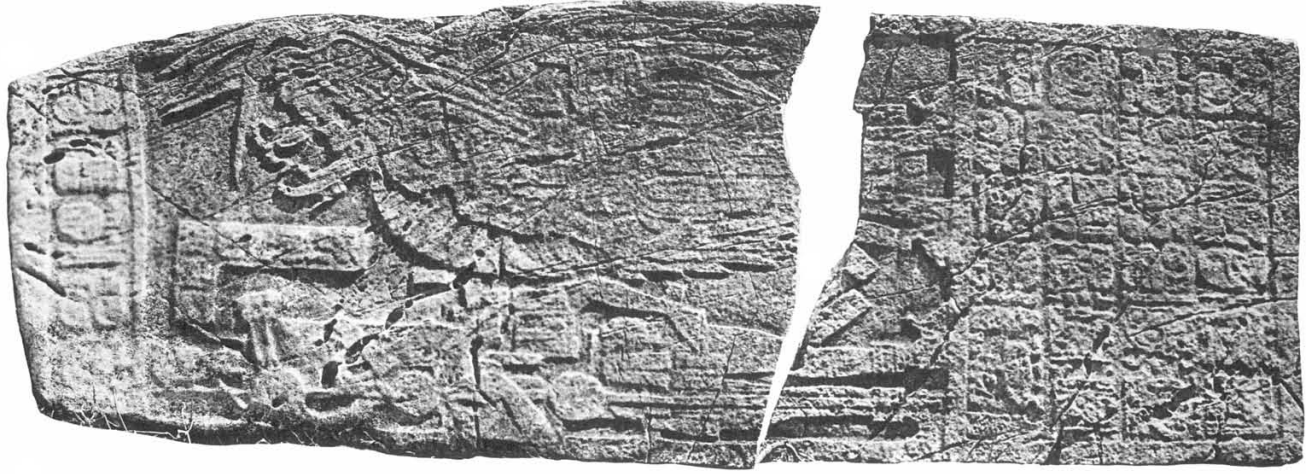
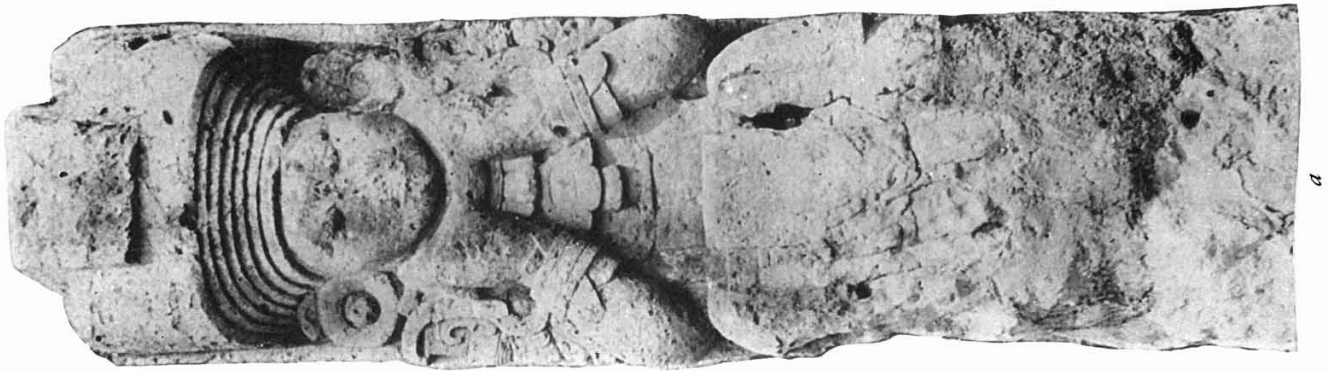


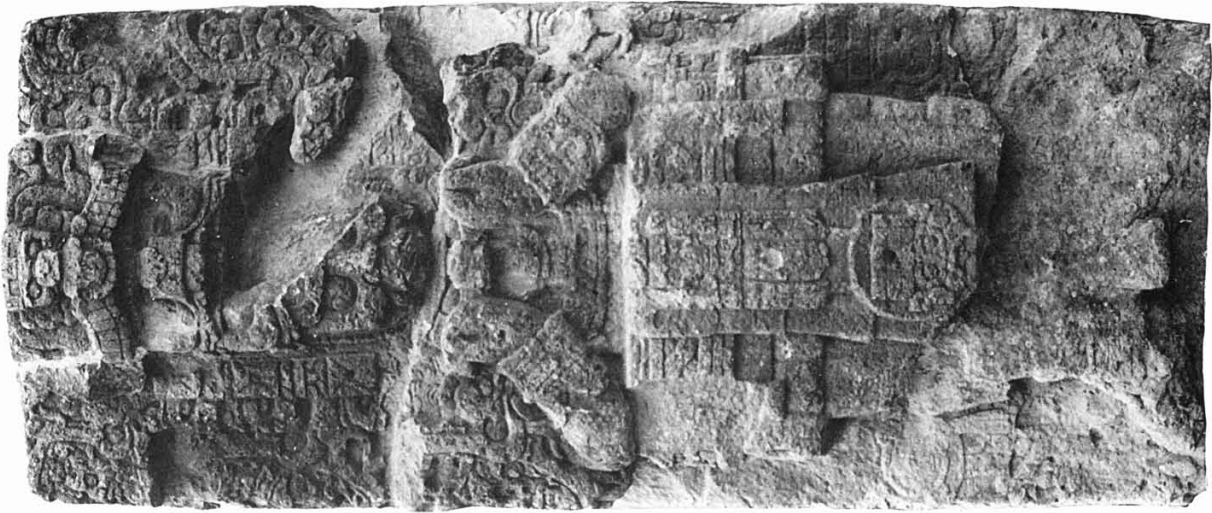
FIG. 48 — MONUMENTS PROBABLY OF THE FORMATIVE PHASE  
*a*: Altar de Sacrificios, Stela 9. *b*: Altar de Sacrificios, Stela 8. *c*: Chinkultic, Stela 10 (9.9.15.?.?) (not to scale). Scale: *a, b*, approx. 1/15.



FIG. 49 — THE DEVELOPMENT OF THE SERPENT-BAR MOTIF: COPAN, FORMATIVE PHASE  
*a*: Stela 7 (9.9.0.0.0). *b*: Stela 2\* (9.10.15.0.0?). *c*: Stela E (9.9.5.0.0.?). Scale: approx. 1/15.  
\*Photograph of cast in Peabody Museum, Harvard University.



a



b



c

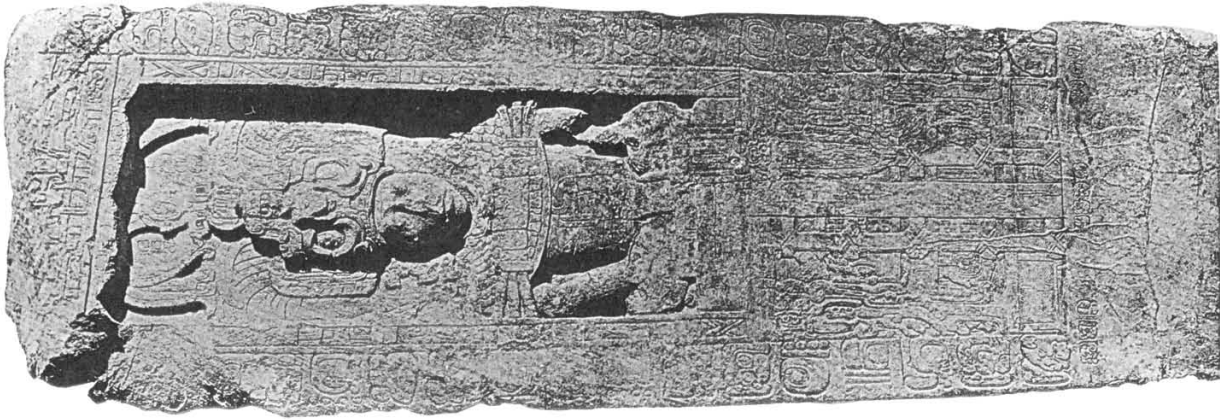
FIG. 50 — THE SERPENT-BAR MOTIF: COPAN — *continued*  
a: Stela 1 (9.11.15.0.0). b: Stela 5 (9.11.0.0.0?), west side. c: Stela 5, east side. Scale: approx. 1/15.



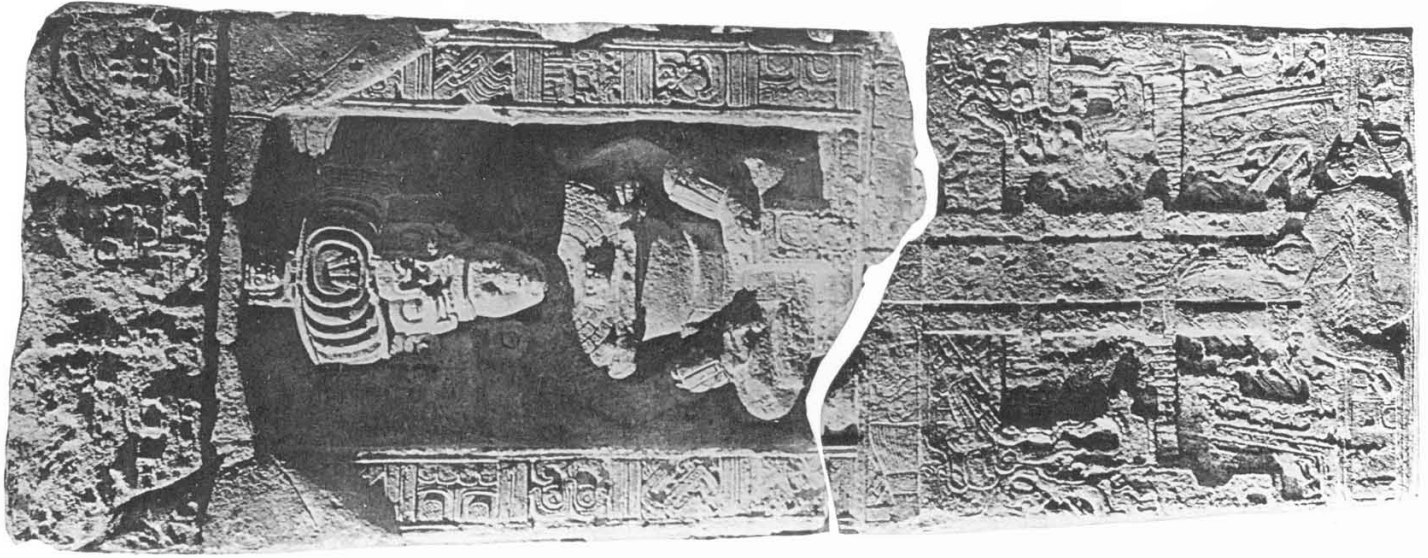
FIG. 51 — THE SERPENT-BAR MOTIF: COPAN, STELA C  
*a*: East side. *b*: West side. Scale: Approx. 1/15.



*a*



*b*



*c*

FIG. 52.— THE DEVELOPMENT OF THE NICHE MOTIF: PIEDRAS NEGRAS  
*a*: Stela 25 (9.8.15.0.0). *b*: Stela 6\* (9.12.15.0.0). *c*: Stela 11\* (9.15.0.0.0). Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.

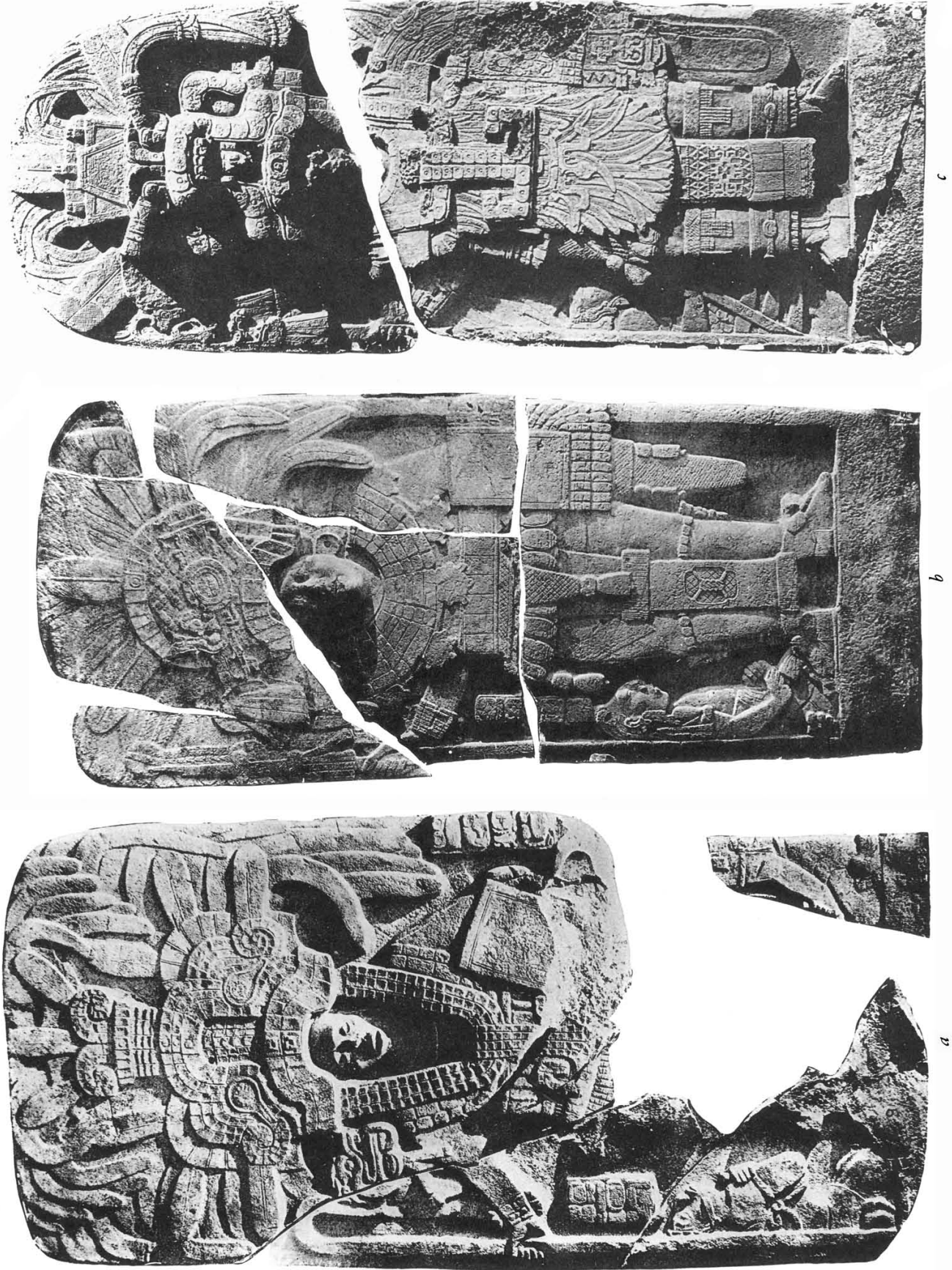
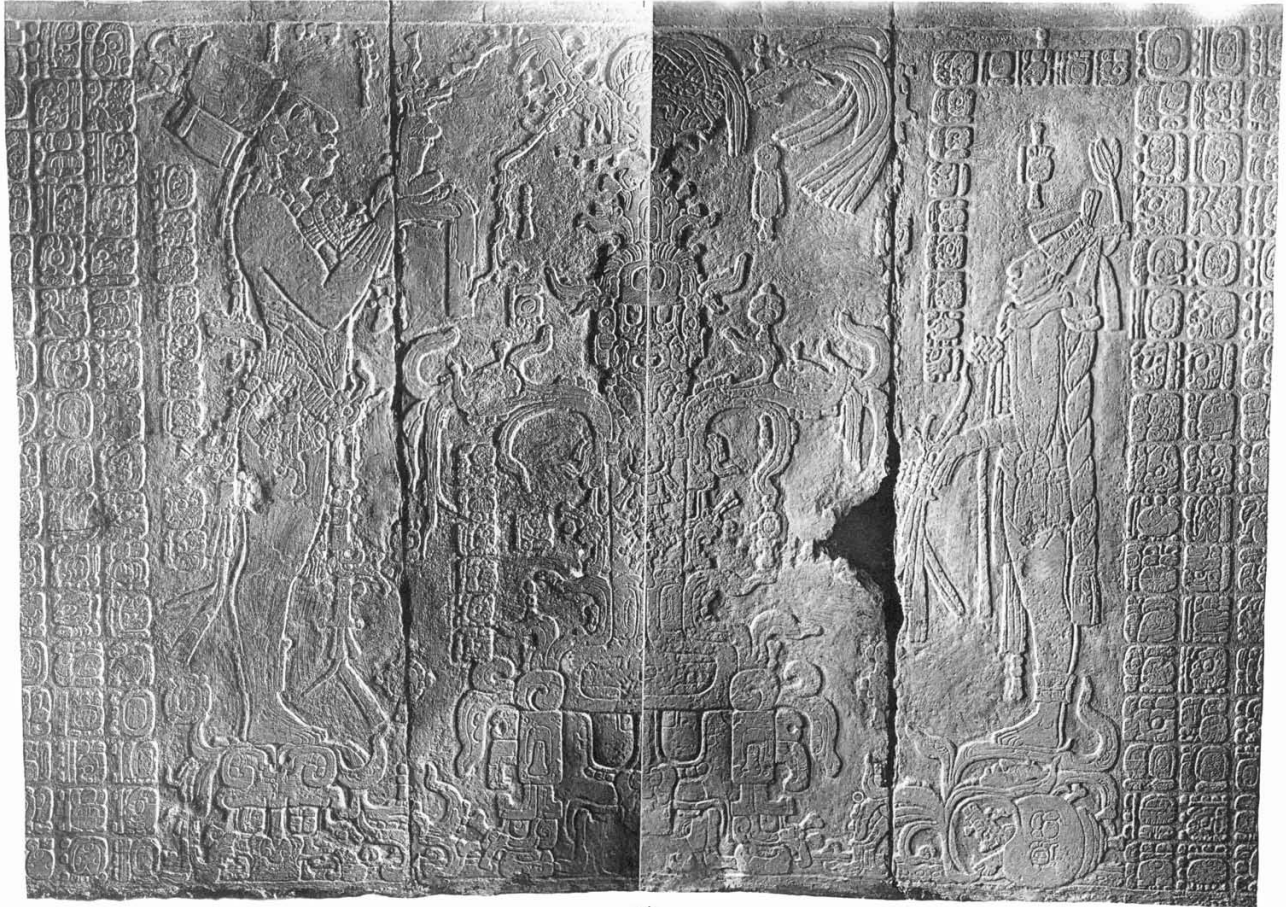


FIG. 53 — THE DEVELOPMENT OF THE WARRIOR MOTIF: PIEDRAS NEGRAS  
 a: Stela 26\* (9.9.15.0.0). b: Stela 35\* (9.11.10.0.0). c: Stela 7\* (9.14.10.0.0). Scale: approx. 1/15.  
 \*Courtesy of Peabody Museum, Harvard University.





a



b

FIG. 54 — PALENQUE

a: Panel from the sanctuary of the Temple of the Foliated Cross.\* b: Panel from House E of the Palace.\* Scale: approx. 1/15.

\*Courtesy of Peabody Museum, Harvard University.

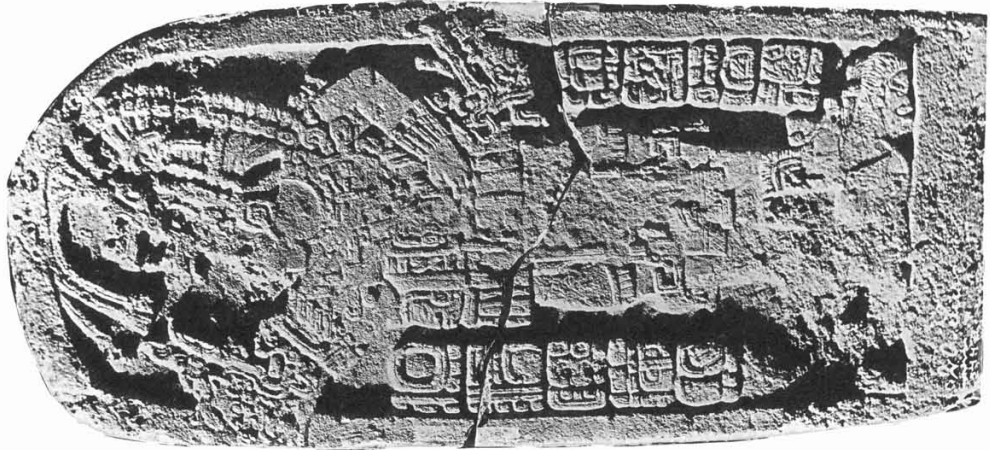
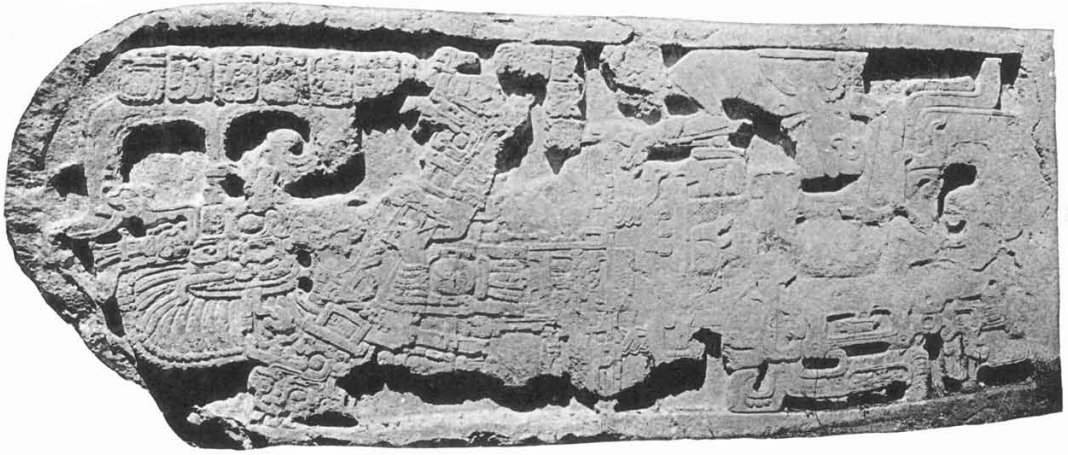
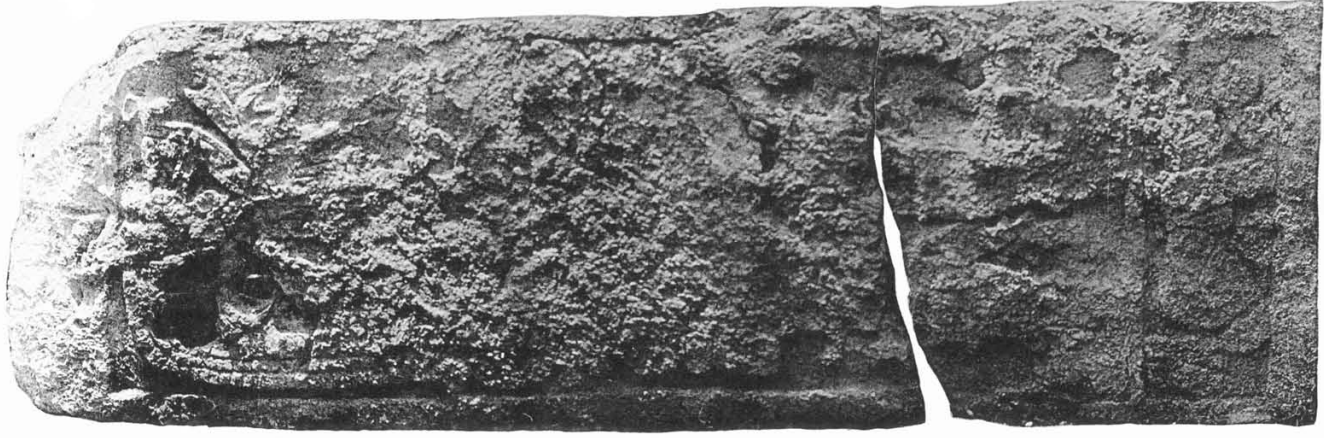


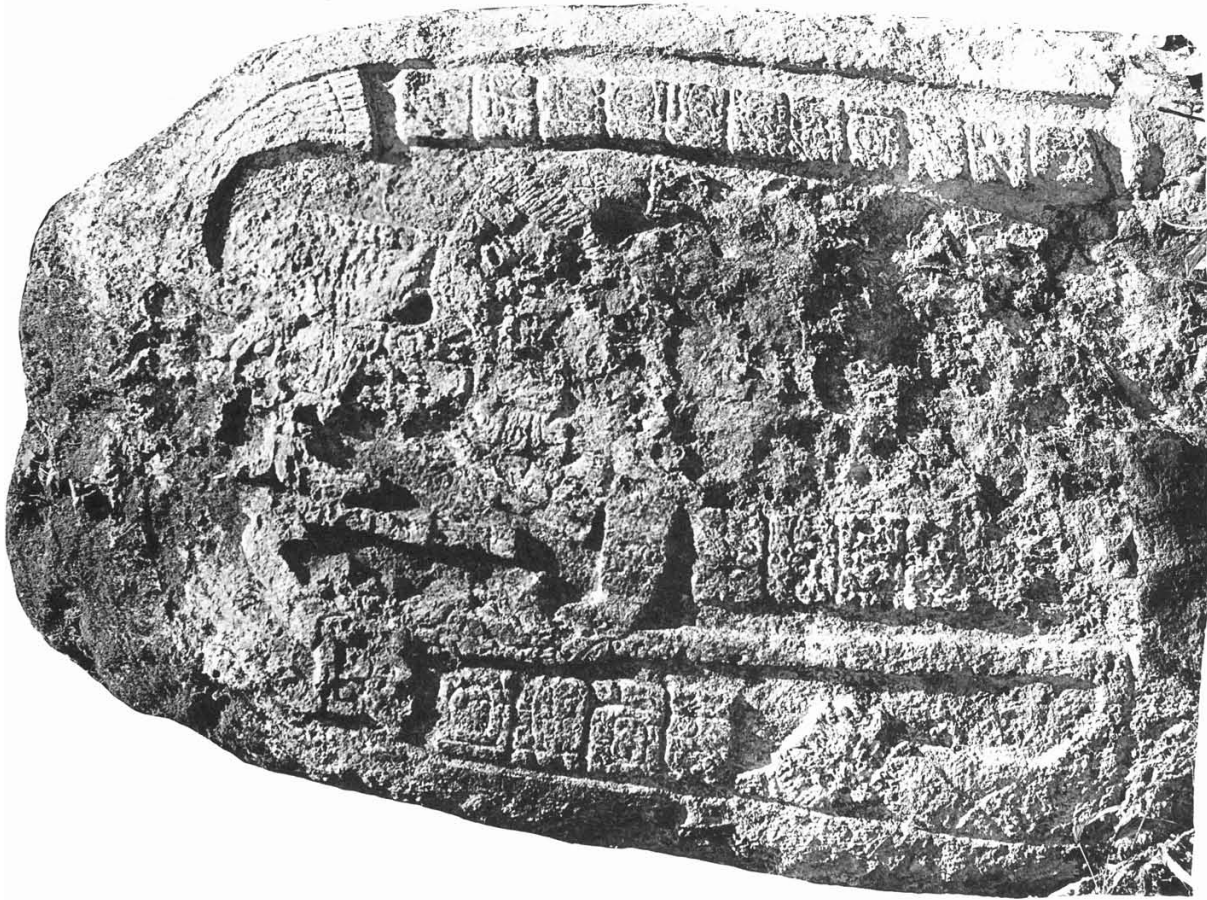
FIG. 55 — MONUMENTS OF THE ORNATE PHASE  
a: Naranjo, Stela 20.\* b: Naranjo, Stela 22\* (9.13.10.0.0). c: Calakmul, Stela 24 (9.13.10.0.0) (not to scale). Scale: a,b, approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



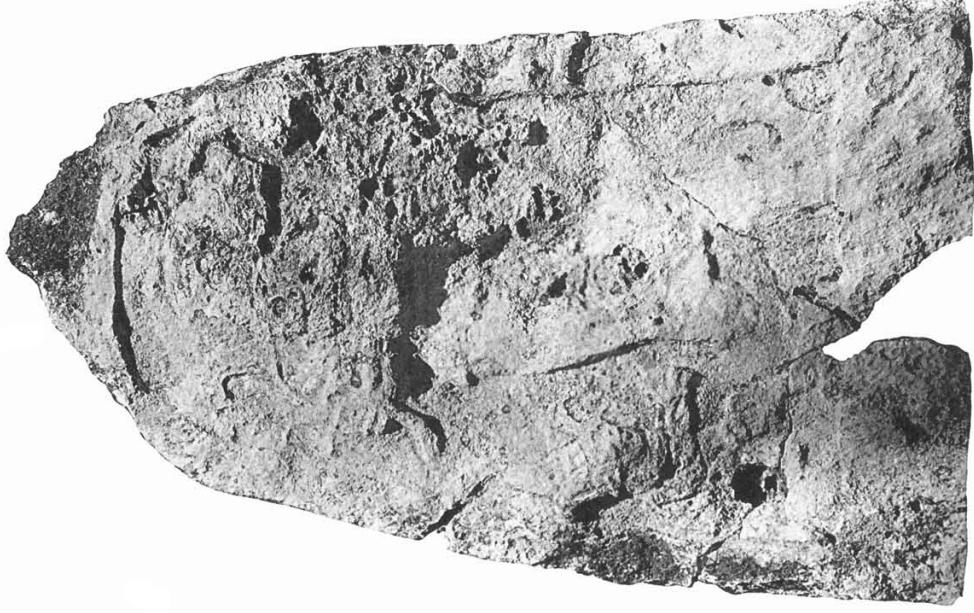
FIG. 56—THE ORNATE PHASE: CALAKMUL, STELA 51 (9.15.0.0.0)  
Scale: approx. 1/15.



FIG. 57 — THE ORNATE PHASE: COPAN  
*a*: Stela 4 (9.14.15.0.0) (not to scale). *b*: Stela B (9.15.0.0.0). Scale: *b*, approx. 1/15.



*a*

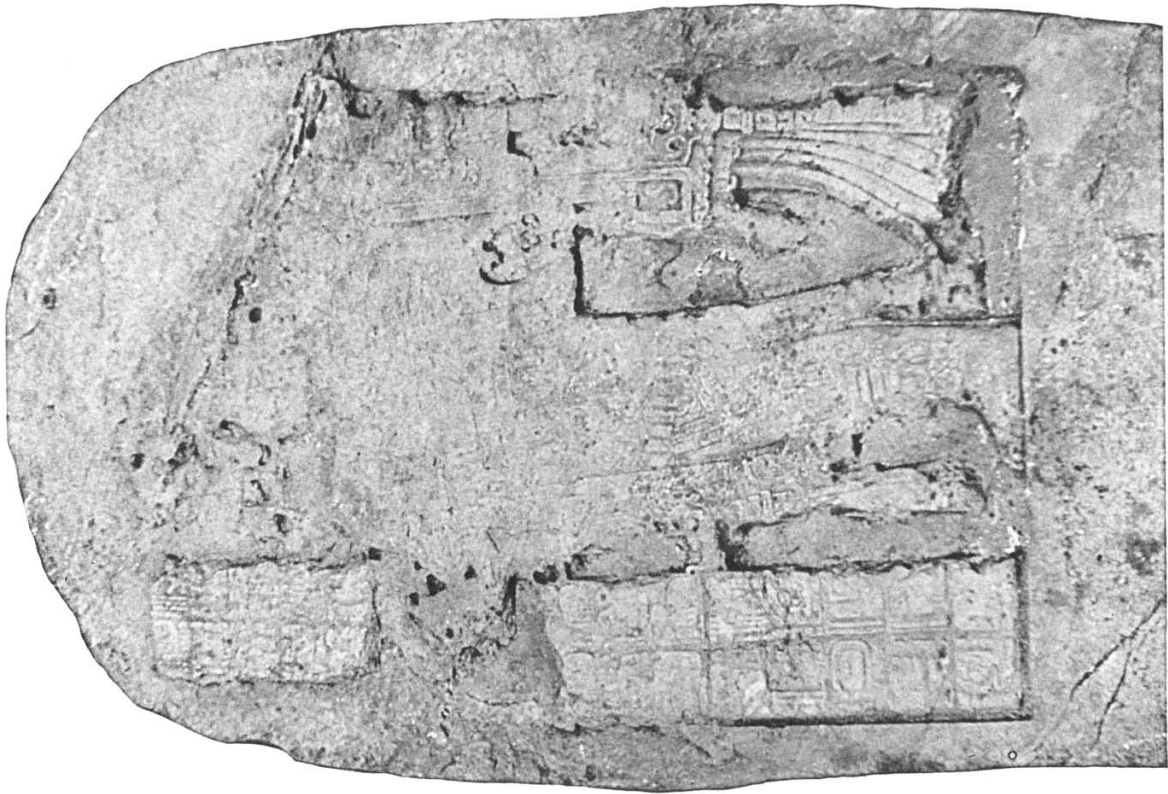


*b*

FIG. 58 — EL PALMAR  
*a*: Stela 8 (9.14.10.0.0). *b*: Stela 16 (9.18.10.0.0?). Scale: approx. 1/15.



FIG. 59 — EL PALMAR — *continued*  
*a*: Stela 10 (9.15.15.0.0?). *b*: Stela 41. *c*: Stela 31. Scale: *a*, approx. 1/15; *b,c*, not to scale.



b



a

FIG. 60 – TRANSITION TO THE DYNAMIC PHASE: TIKAL  
a: Stela 20 (9.16.0.0.0). b: Stela 19. Scale: approx. 1/15.



FIG. 61 — TRANSITION TO THE DYNAMIC PHASE: TIKAL AND LA FLORIDA  
*a*: Tikal, Altar 8 (9.16.0.0.0?). *b*: La Florida, Stela 9 (9.15.0.0.0?). *c*: La Florida, Stela 7 (9.16.15.0.0?). Scale: *a*, approx. 1/15; *b,c*, not to scale.





*a*



*b*

FIG. 62 — TRANSITION TO THE DYNAMIC PHASE: NARANJO  
*a*: Stela 28\* (9.14.10.0.0.?). *b*: Stela 13\* (9.17.10.0.0.). Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.

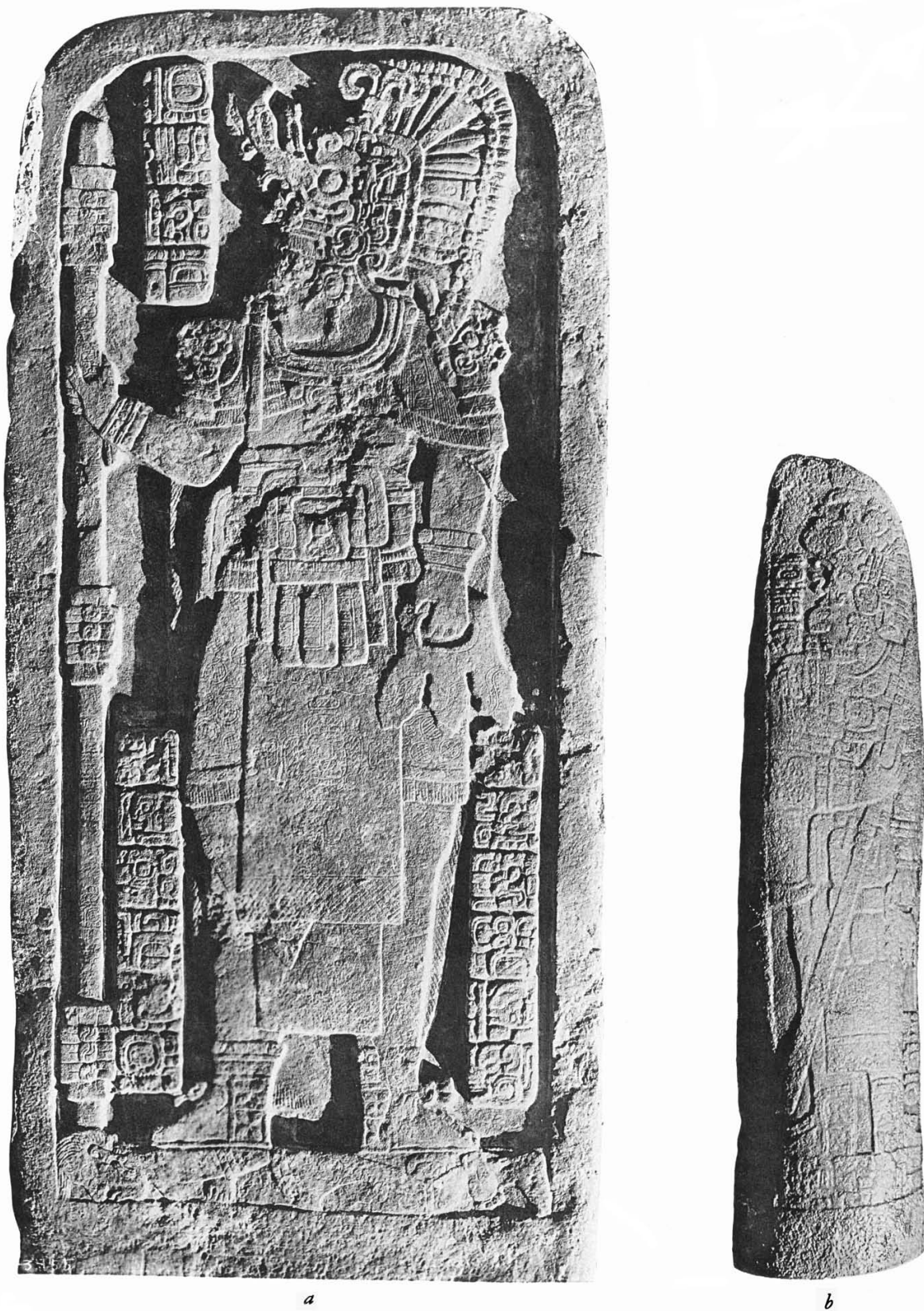
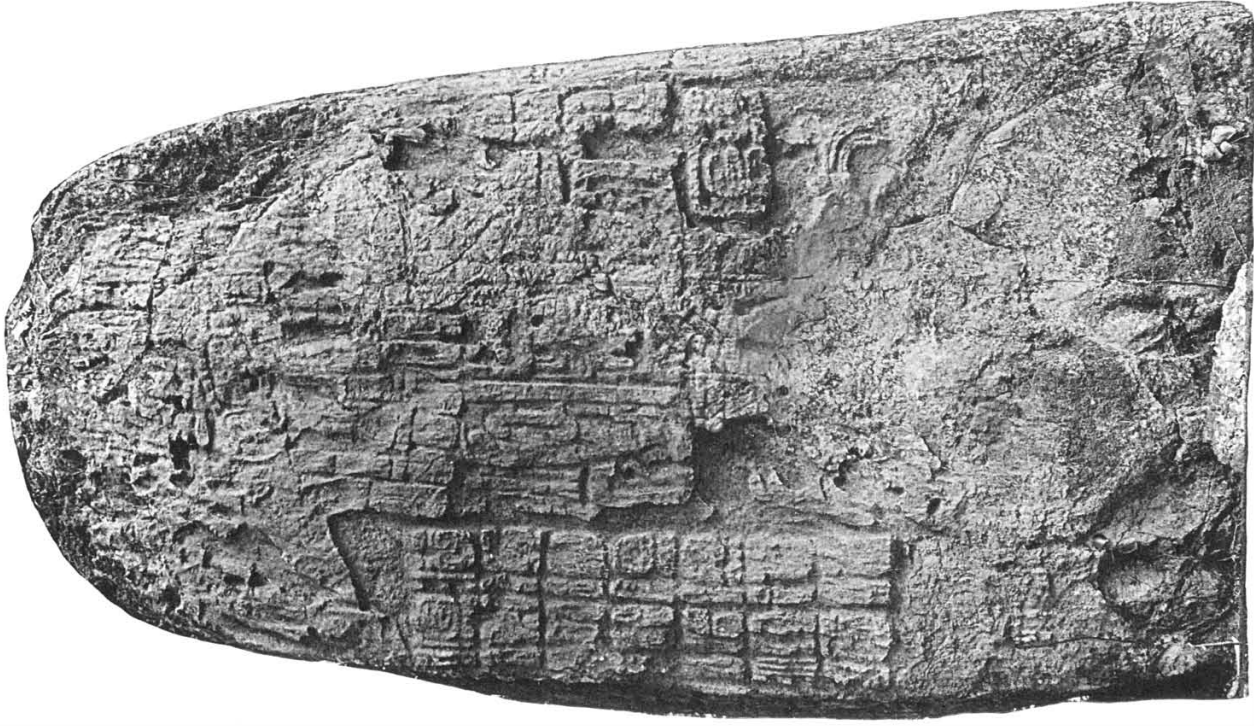


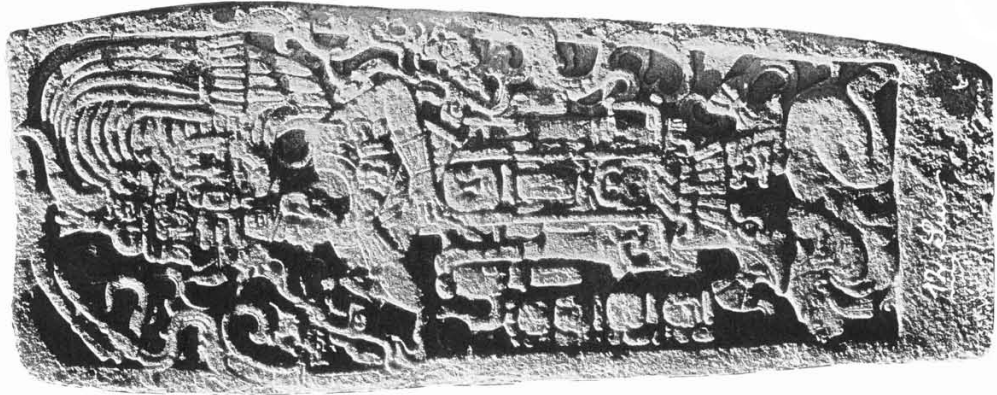
FIG. 63 — TRANSITION TO THE DYNAMIC PHASE: NARANJO — *continued*  
*a*: Stela 30\* (9.14.3.0.0). *b*: Stela 33\* (9.17.10.0.0?). Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



c



a



b

FIG. 64 — THE DYNAMIC PHASE  
a: Naranjo, Stela 8 (9.18.10.0.0). b: Naranjo, Stela 12\* (9.18.10.0.0). c: La Milpa, Stela 7 (9.17.10.0.0) (not to scale). Scale: a,b, approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



FIG. 65 – THE DYNAMIC PHASE: QUIRIGUA, STELA E (9.17.0.0.0), PART OF NORTH SIDE  
Scale: approx. 1/15.

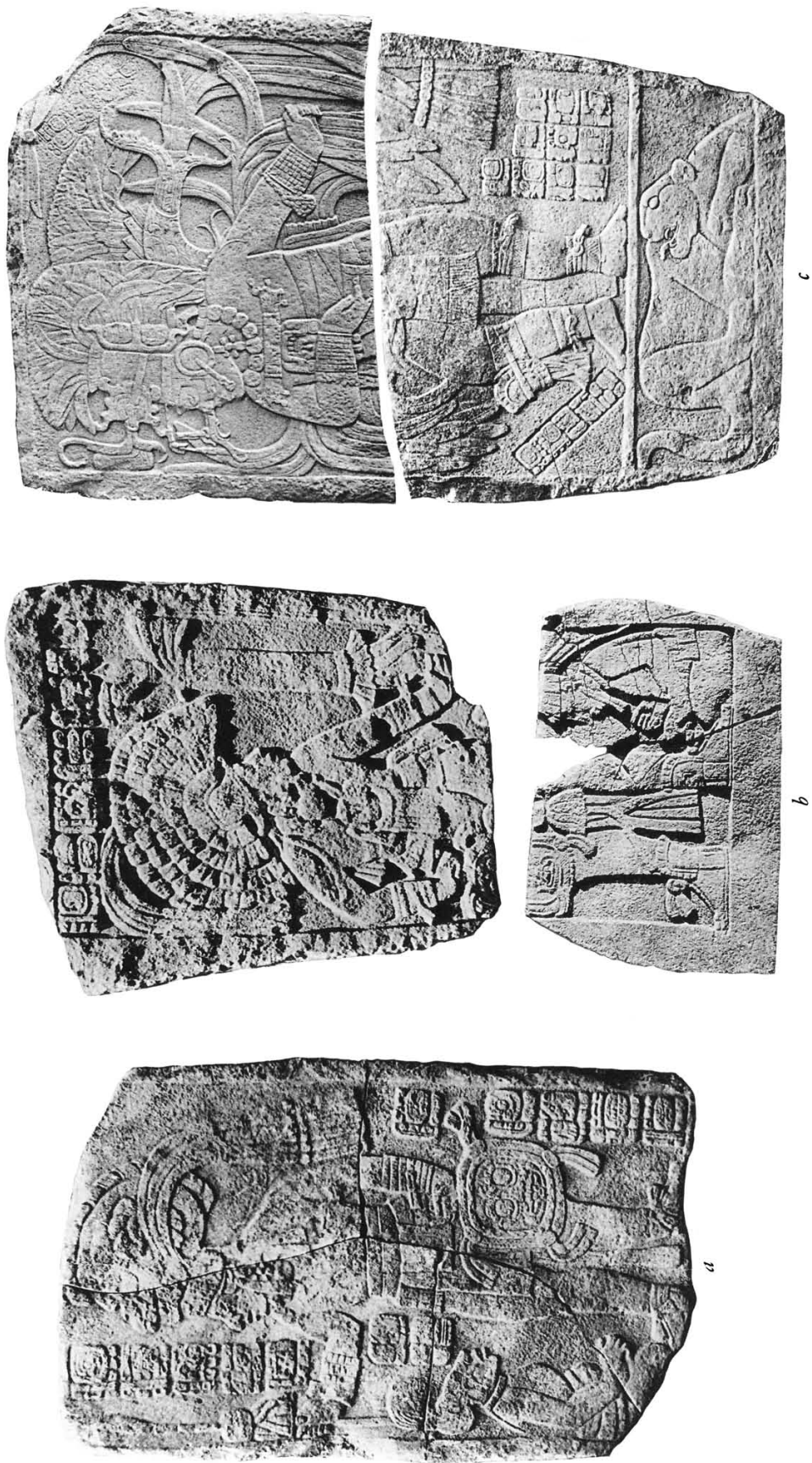


FIG. 66 — THE DYNAMIC PHASE  
*a*: El Caribe, Stela 1 (9.17.10.0.0?). *b*: El Caribe, Stela 2 (9.17.10.0.0?). *c*: La Amelia, Stela 1. Scale: approx. 1/15.

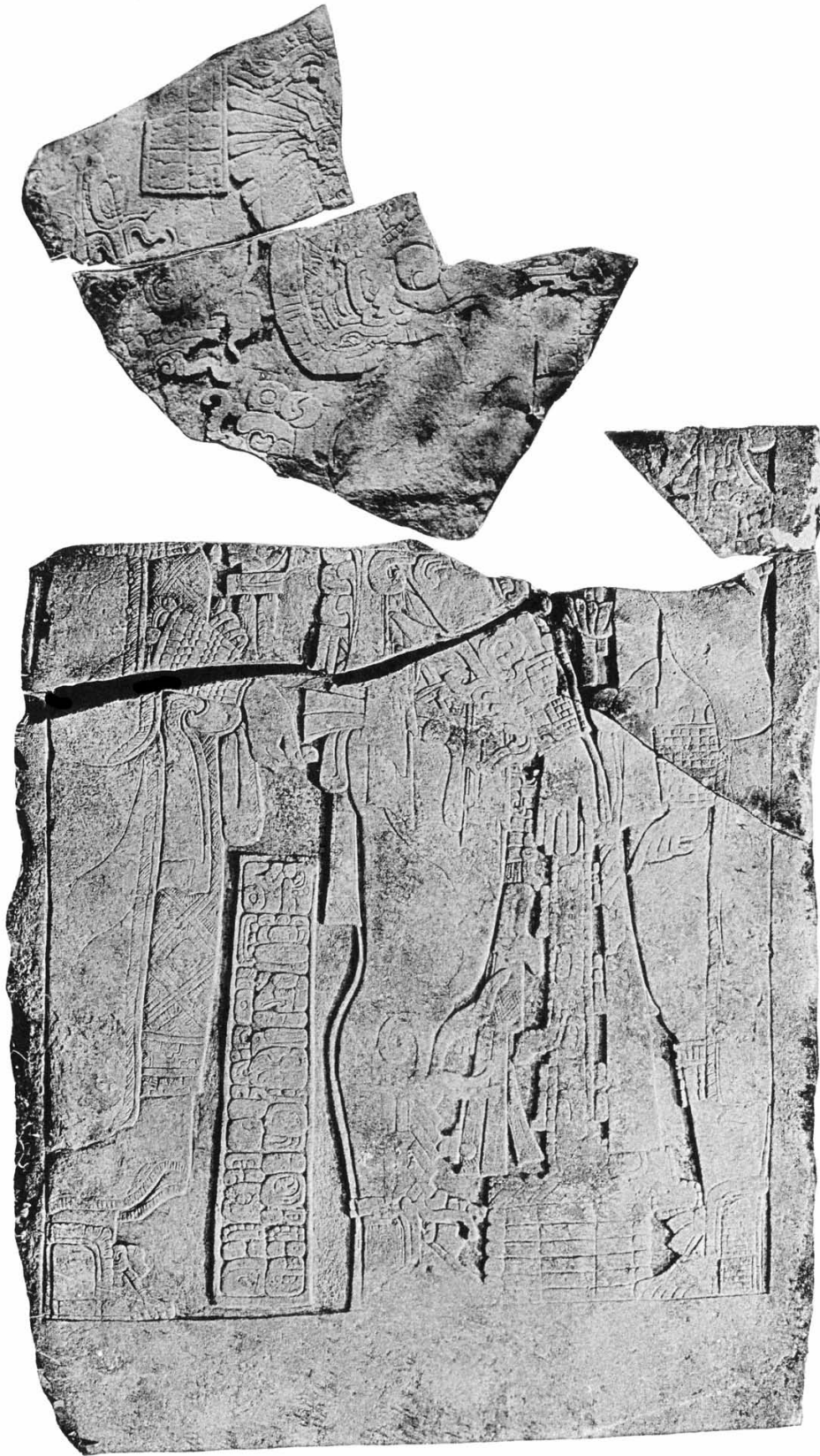


FIG. 67 – YAXCHILAN, STELA 3 (ORNATE OR DYNAMIC PHASE)  
Scale: approx. 1/15.

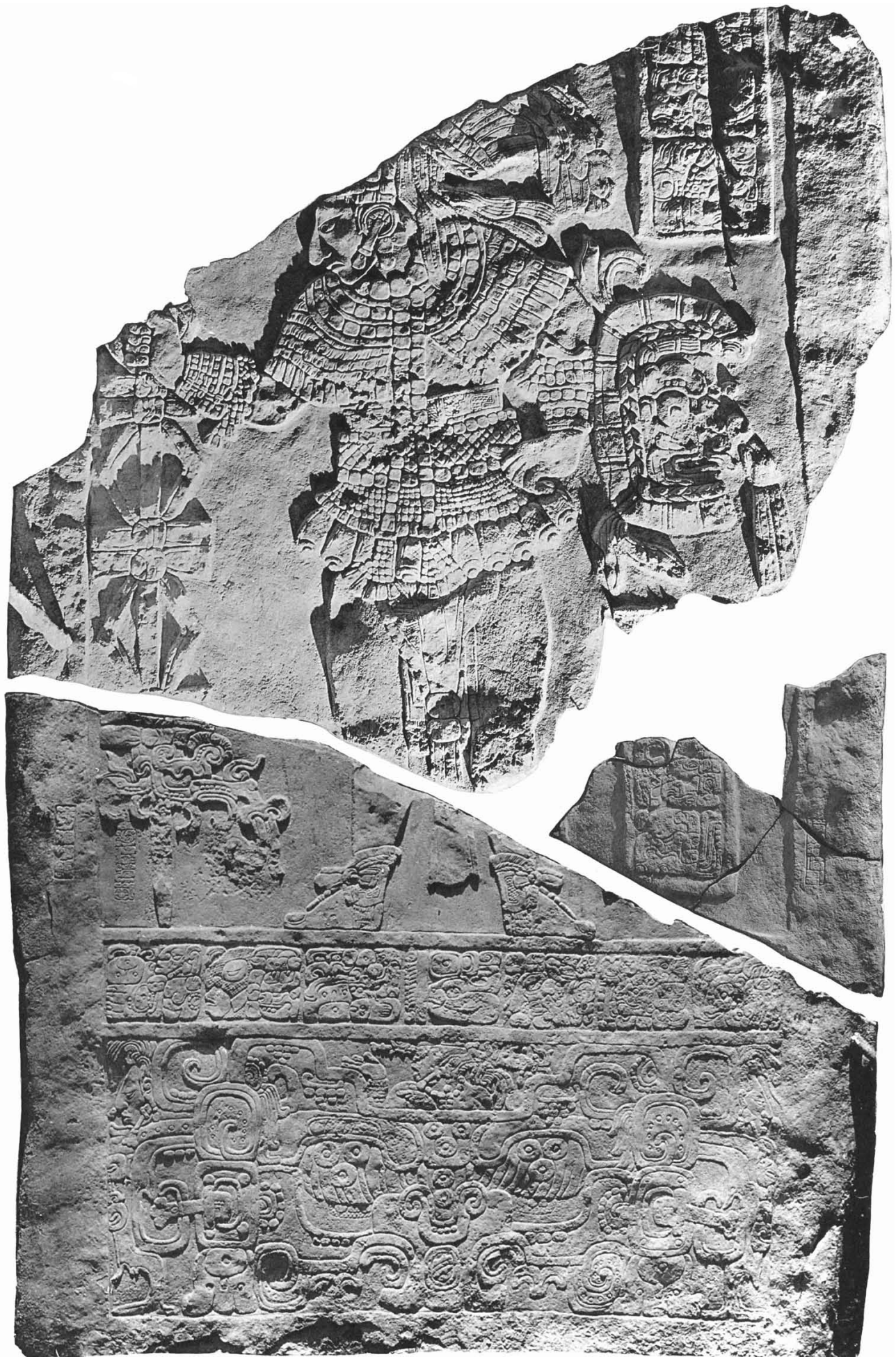


FIG. 68 — THE DYNAMIC PHASE: BONAMPAK, STELA 1  
Scale: approx. 1/15.



*a*



*b*



*c*

FIG. 69 — THE DYNAMIC PHASE

*a*: Bonampak, Stela 2 (9.17.15.0.0). *b*: Jonuta, relief.\* *c*: Bonampak, Stela 3. Scale: approx. 1/15.

\*Courtesy of Hasso von Winning.





*a*



*b*

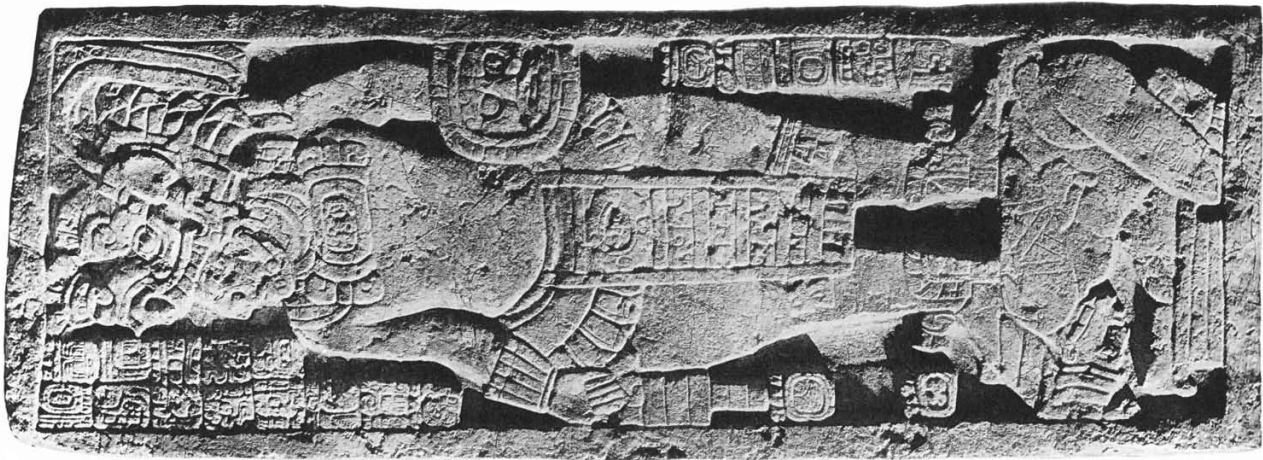


*c*

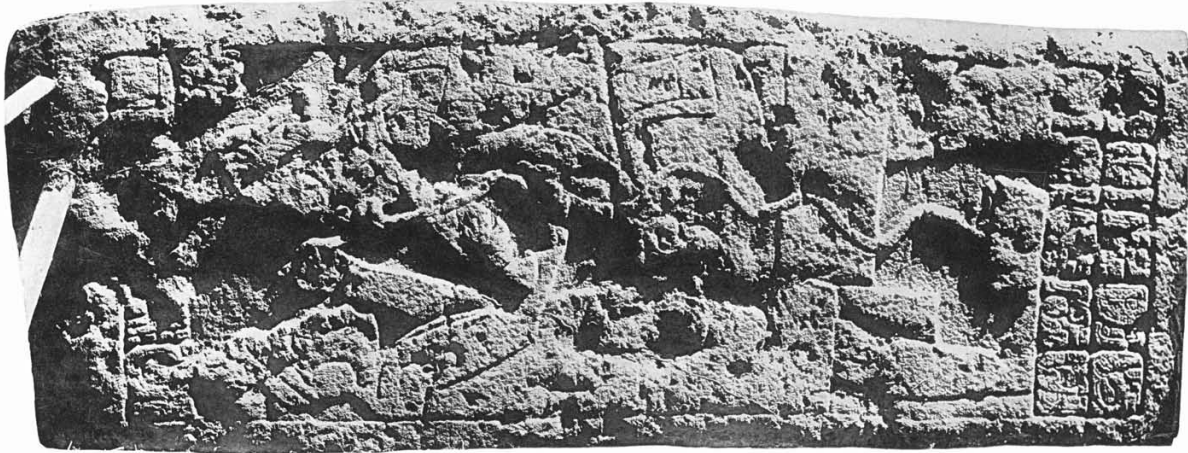
FIG. 70 — THE DYNAMIC PHASE

*a*: Bonampak, Lintel of Structure 1. *b*: Piedras Negras, Stela 13\* (9.17.0.0.0). *c*: Piedras Negras, Stela 12 (9.18.5.0.0). Scale: approx. 1/15.

\*Courtesy of Peabody Museum, Harvard University.



a



b

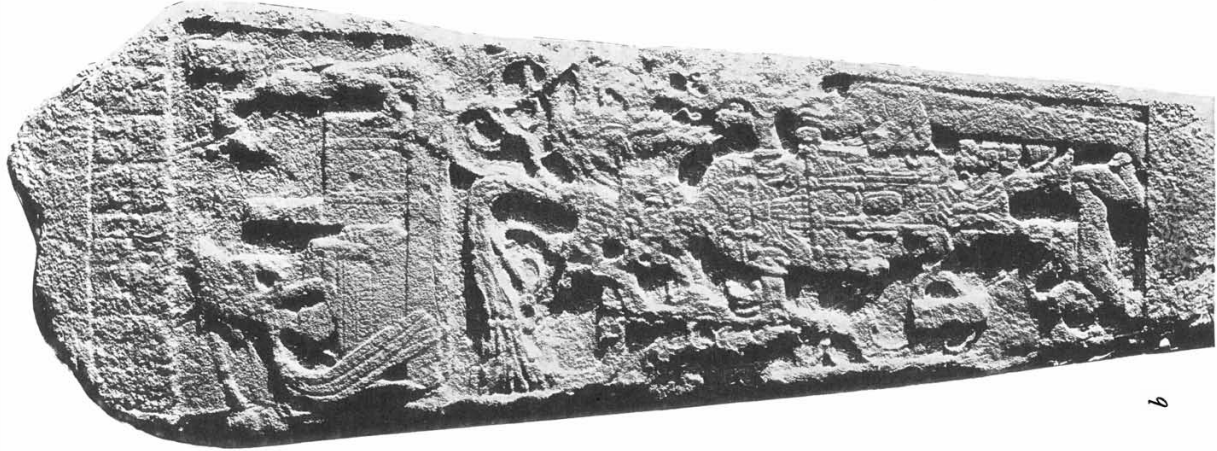


FIG. 71 — PETEN MONUMENTS SHOWING NORTHERN (?) INFLUENCE  
a: Naranjo, Stela 19\* (9.17.10.0.0). b: Naranjo, Stela 9\* (Cycle 10?). Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.

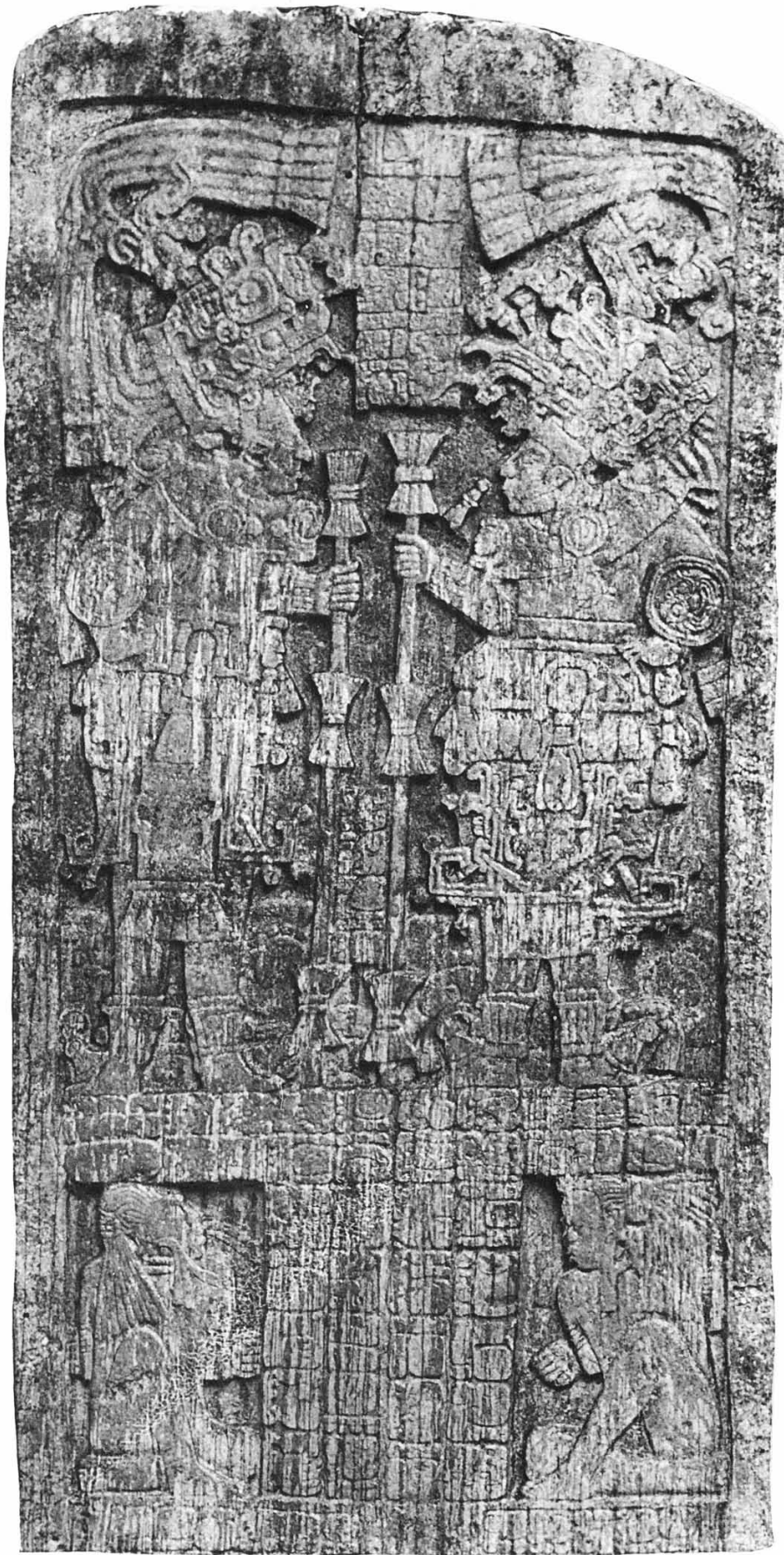
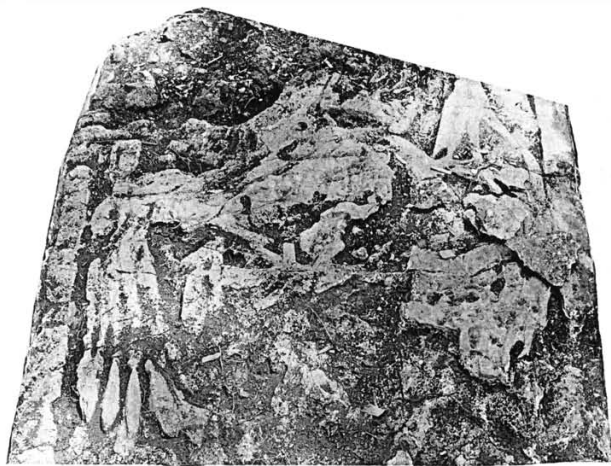


FIG. 72 — THE PANEL ARRANGEMENT: IXKUN, STELA 1 (9.18.0.0.0)  
Scale: approx. 1/15.



*c*



*a*



*b*

FIG. 73 — OTHER LATE MONUMENTS  
*a*: La Mar, Stela 2.\* *b*: Rio Bec V, Stela 6. *c*: El Palmar, Stela 14. Scale: *a*, approx. 1/15; *b,c*, not to scale.  
\*Courtesy of Peabody Museum, Harvard University.



FIG. 74 — MONUMENTS RELATED TO YUCATAN: YAXCHILAN, STELA 20  
Scale: approx. 1/15. Courtesy of Peabody Museum, Harvard University.

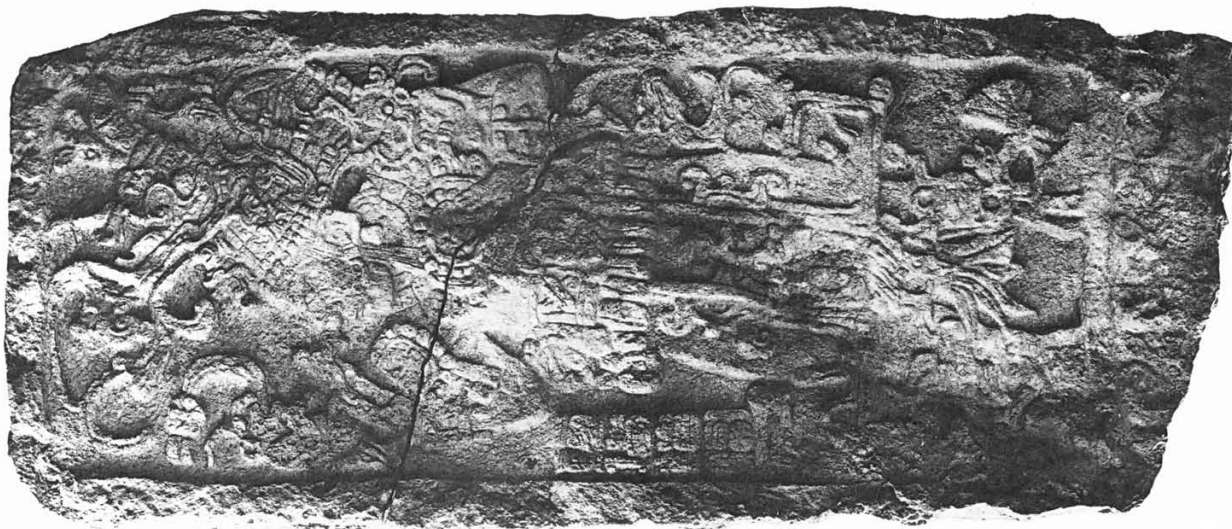


*a*



*b*

FIG. 75 — MONUMENTS RELATED TO YUCATAN — *continued*  
*a*: Pasion del Cristo, Stela 1. *b*: Chinkultic, Stela 9. Scale: *a*, approx. 1/15; *b*, not to scale.



*b*



*a*



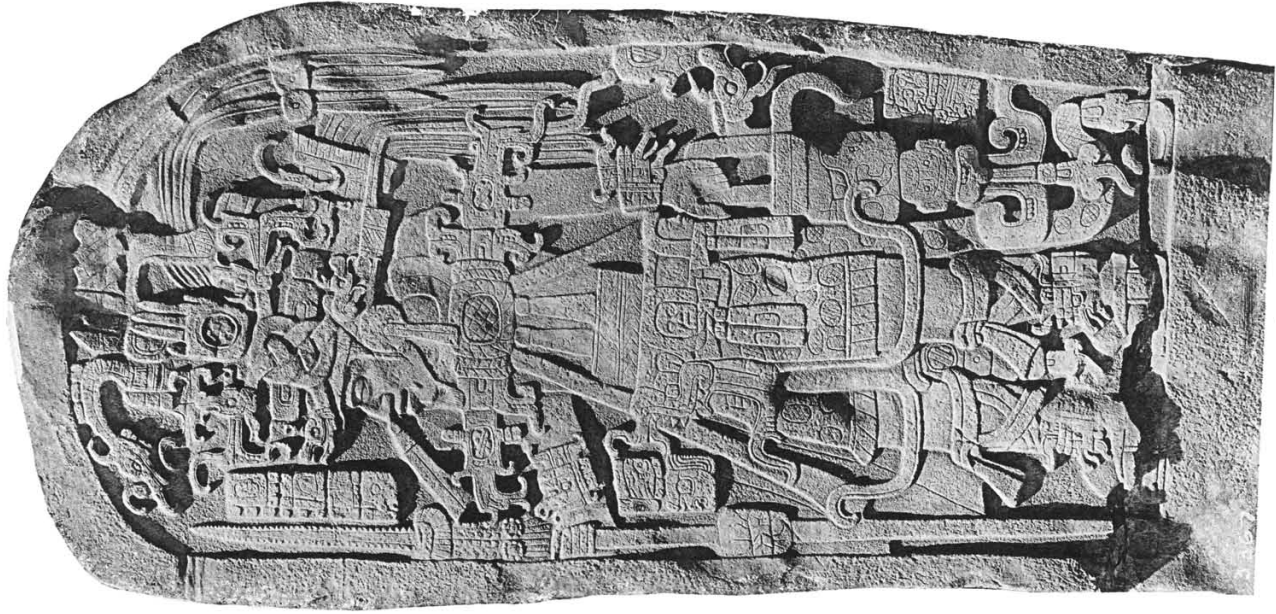
*c*

FIG. 76 — DECADENCE  
*a*: Ucanal, Stela 4 (10.1.0.0.0). *b*: Xultun, Stela 3 (10.1.1.10.0.0). *c*: Xultun, Stela 10 (10.3.0.0.0). Scale: approx. 1/15.

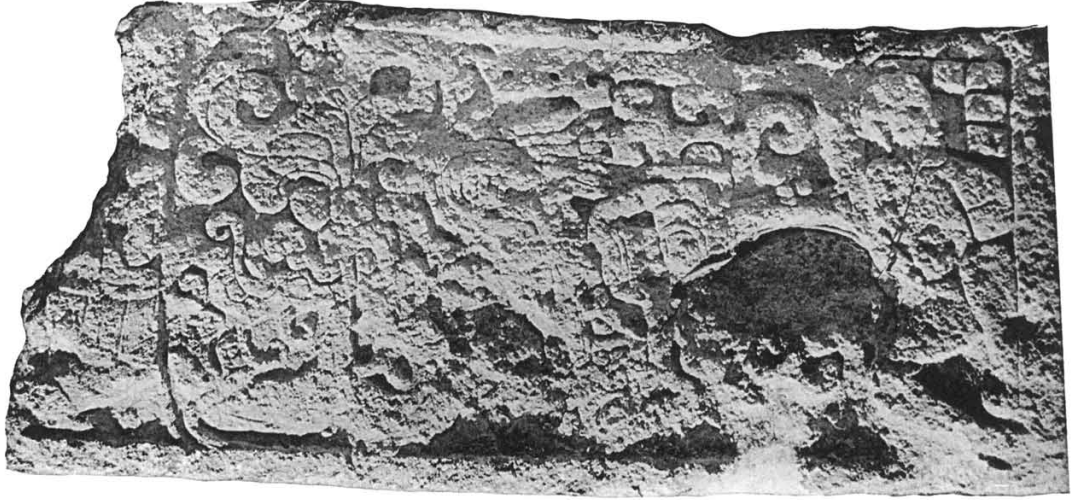


FIG. 77 — DECADENCE: SEIBAL, STELA 10  
Scale: approx. 1/15. Courtesy of Peabody Museum, Harvard University.

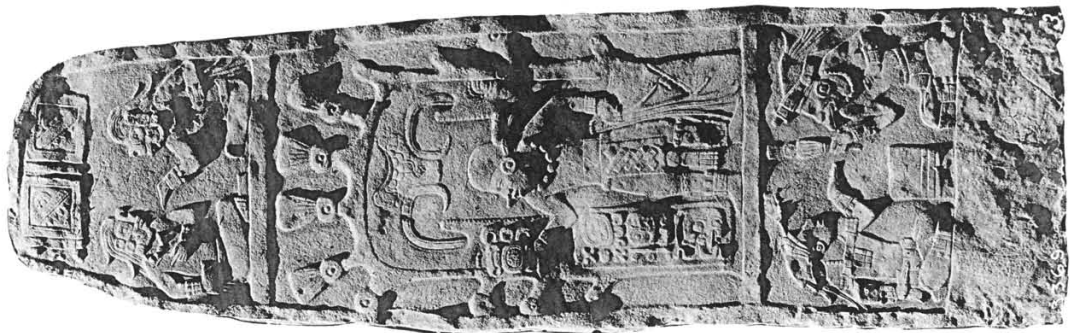




b



c



a

FIG. 78 — THE DECADENT PHASE  
a: Seibal, Stela 3.\* b: Seibal, Stela 1\* (10.2.0.0.0?). c: La Muñeca, Stela 5. Scale: approx. 1/15.  
\*Courtesy of Peabody Museum, Harvard University.



*a*



*b*



*c*



*d*



*e*



*f*

FIG. 79 — EXTREME DECADENCE, PROBABLY LATE MONUMENTS

*a*: Calakmul, Stela 65. *b*: Calakmul, Stela 17. *c*: Oxpemul, Stela 15. *d*: Calakmul, Stela 84. *e*: Calakmul, Stela 50. *f*: Calakmul, Stela 91. Scale: approx. 1/15.

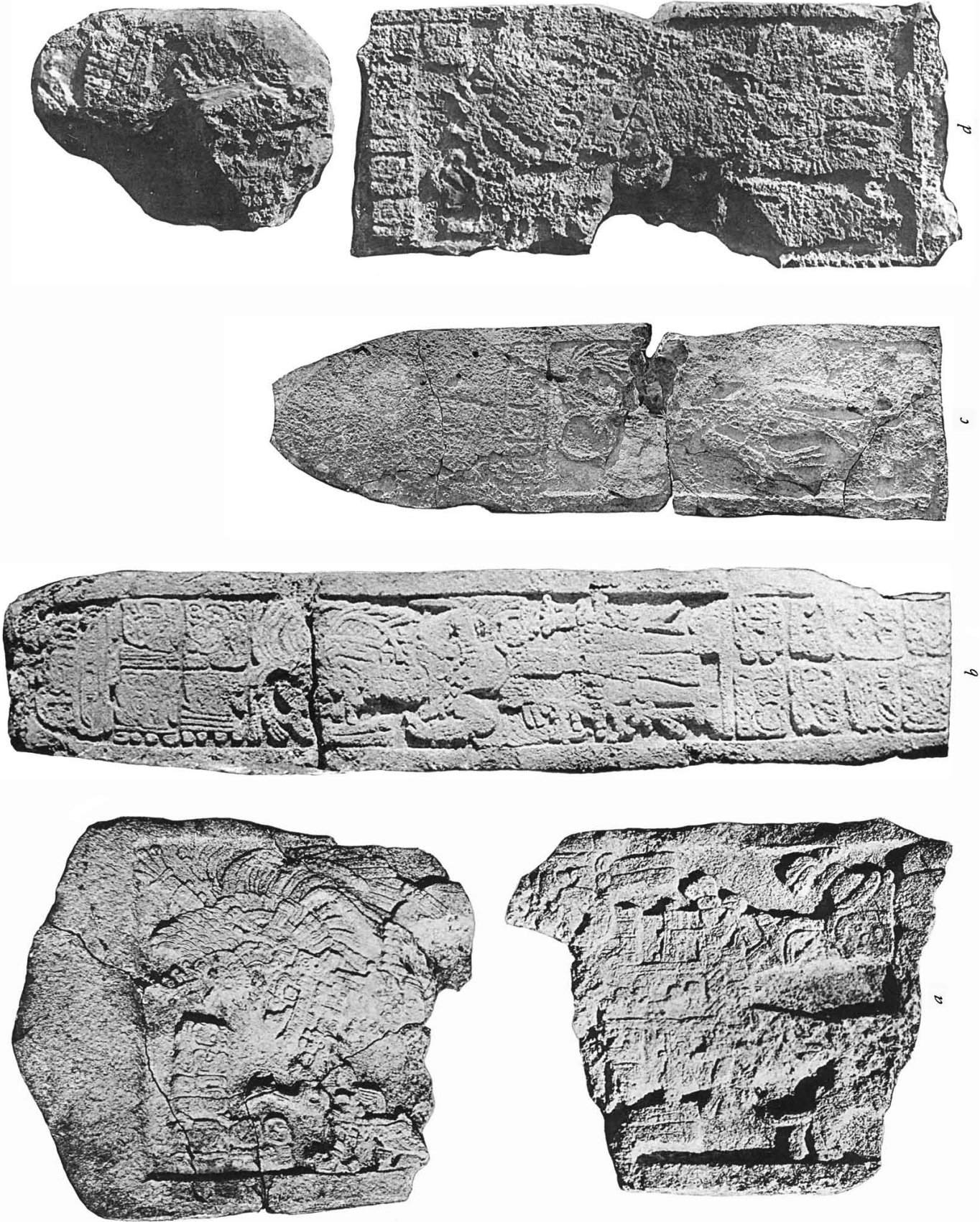


FIG. 80 — THE NORTHERN MAYA SITES: CLASSIC TYPES  
*a*: Erzna, Stela 5 (9.18.0.0.0?). *b*: Santa Rosa Xampak, Stela 5 (9.16.0.0.0?). *c*: Sayil, Stela 6. *d*: Uxmal, Stela 3. Scale: approx. 1/15.

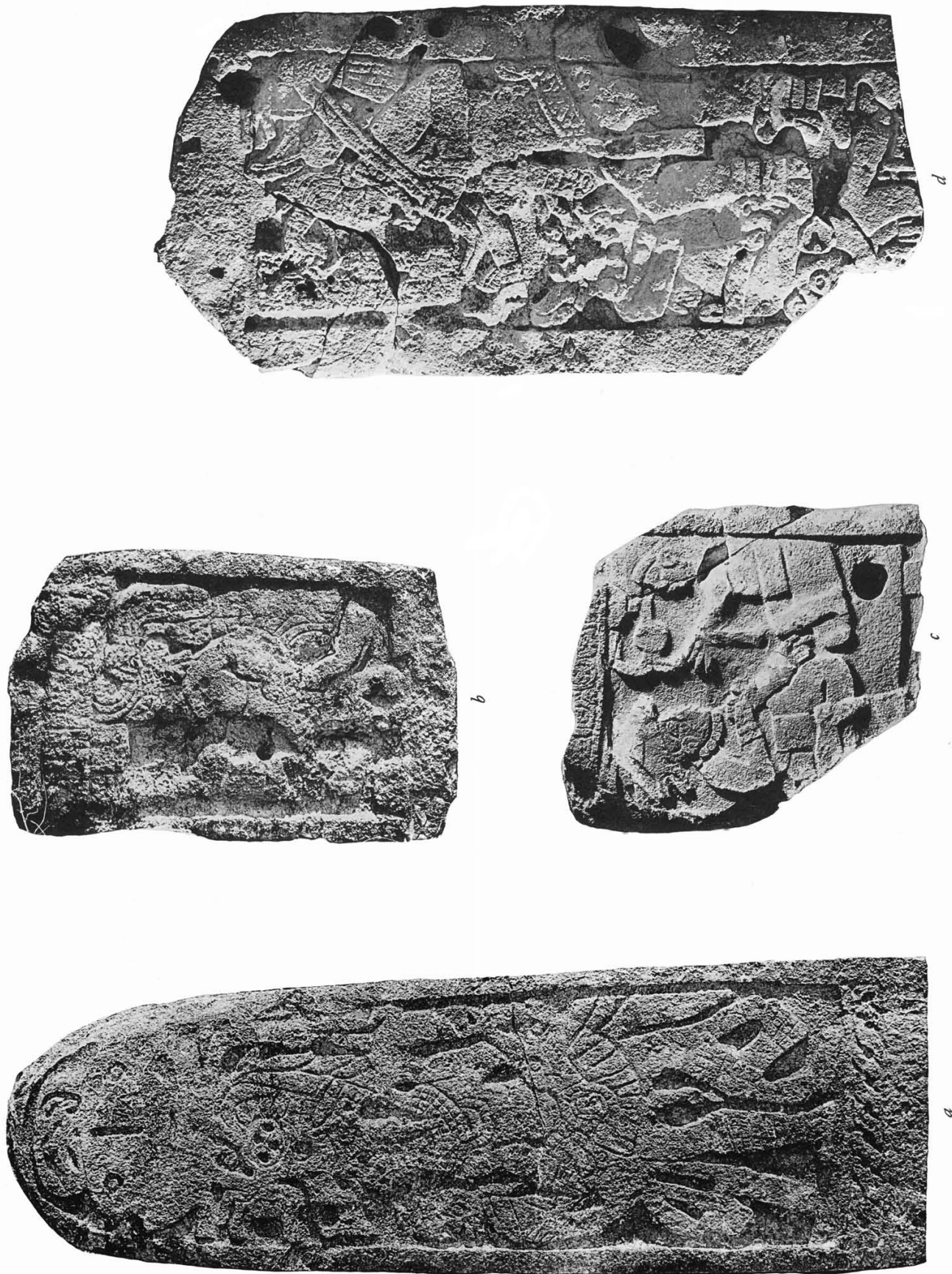


FIG. 81 — THE NORTHERN MAYA SITES: TYPES OF DIVERGENCE FROM CLASSIC FORMS  
*a, b*: The Quality X. *a*: Sayil, Stela 4. *b*: Etzma, Stela 12. *c*: Oxkintok, Stela 19. *d*: Oxkintok, Stela 26. Scale: approx. 1/15.



*a*



*b*



*c*



*d*



*e*



*f*

FIG. 82 — THE NORTHERN MAYA SITES

*a, b*: Panels from Ichmul. *c, d*: Stela fragments from Jaina (Stelae 2 and 3). *e*: Stela 2 from Dzilam now in the Museum at Merida. *f*: Stela 1, Dzilam. Not to scale.



*a*



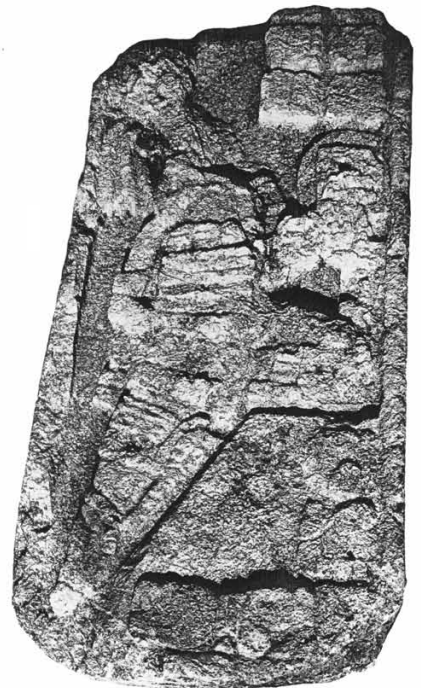
*b*



*c*



*d*



*e*

FIG. 83 — ETZNA, CAMPECHE  
*a*: Stela 1. *b*: Stela 2 (9.15.0.0.0?). *c*: Stela 4. *d*: Stela 7. *e*: Stela 6. Scale: approx. 1/15.

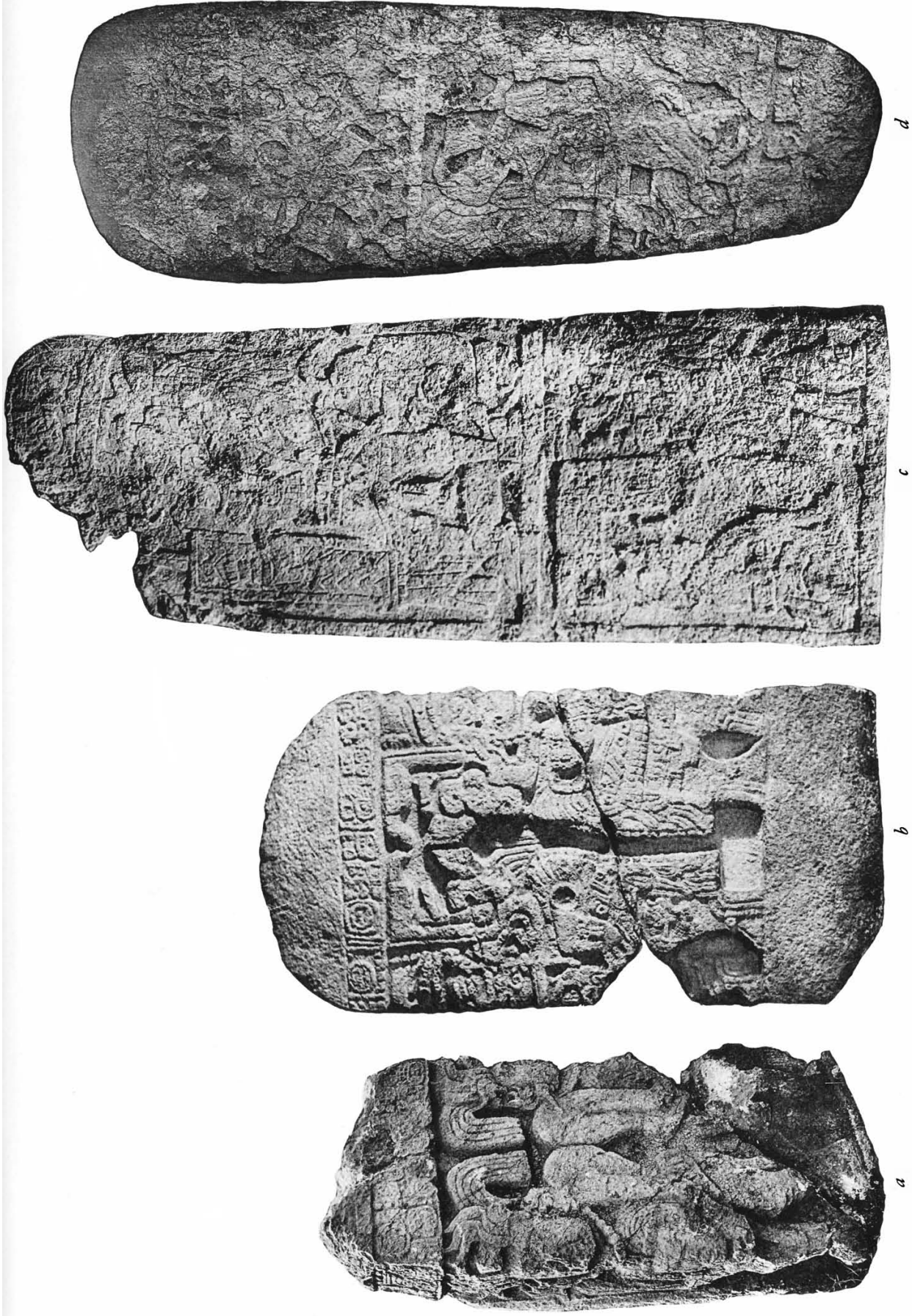
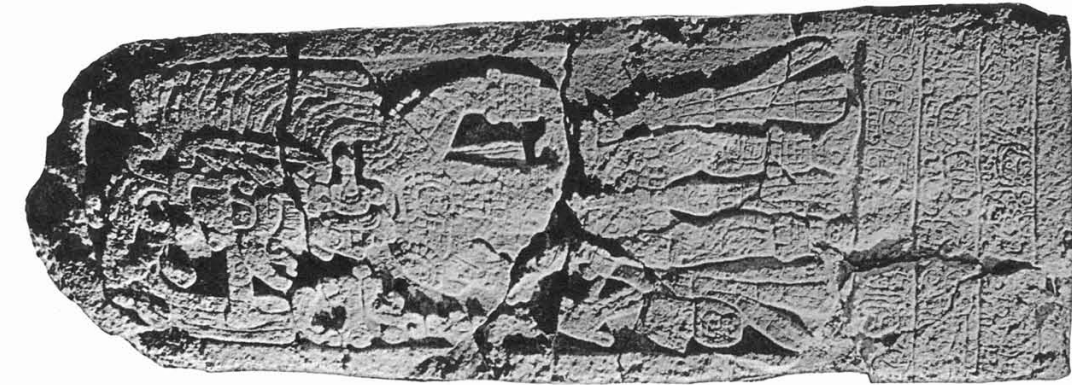


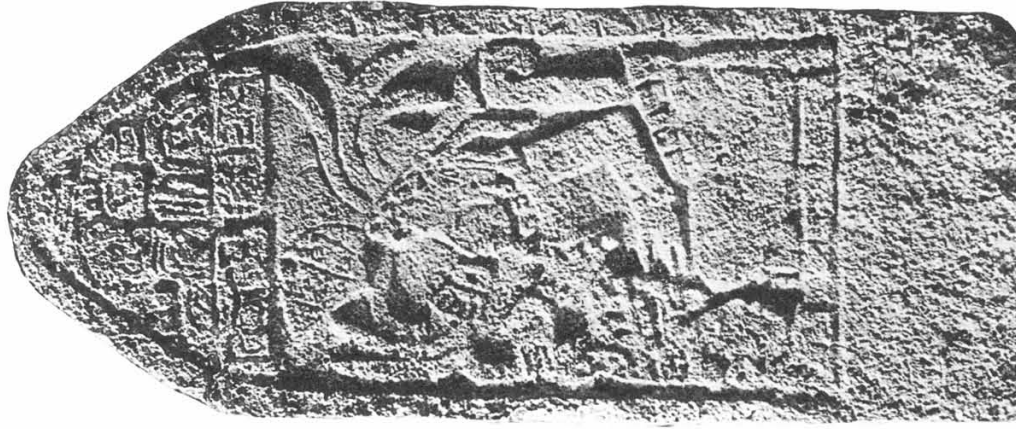
FIG. 84 — ETZNA, CAMPECHE: NON-CLASSIC MONUMENTS  
*a*: Stela 8. *b*: Stela 9 (9.19.0.00?). *c*: Stela 15. *d*: Stela 16. Scale: approx. 1/15.



*a*



*b*



*c*



*d*

FIG. 85 — SANTA ROSA XTAMPAK  
*a*: Stela 2. *b*: Stela 8. *c*: Stela 4. *d*: Stela 3. Scale: approx. 1/15.



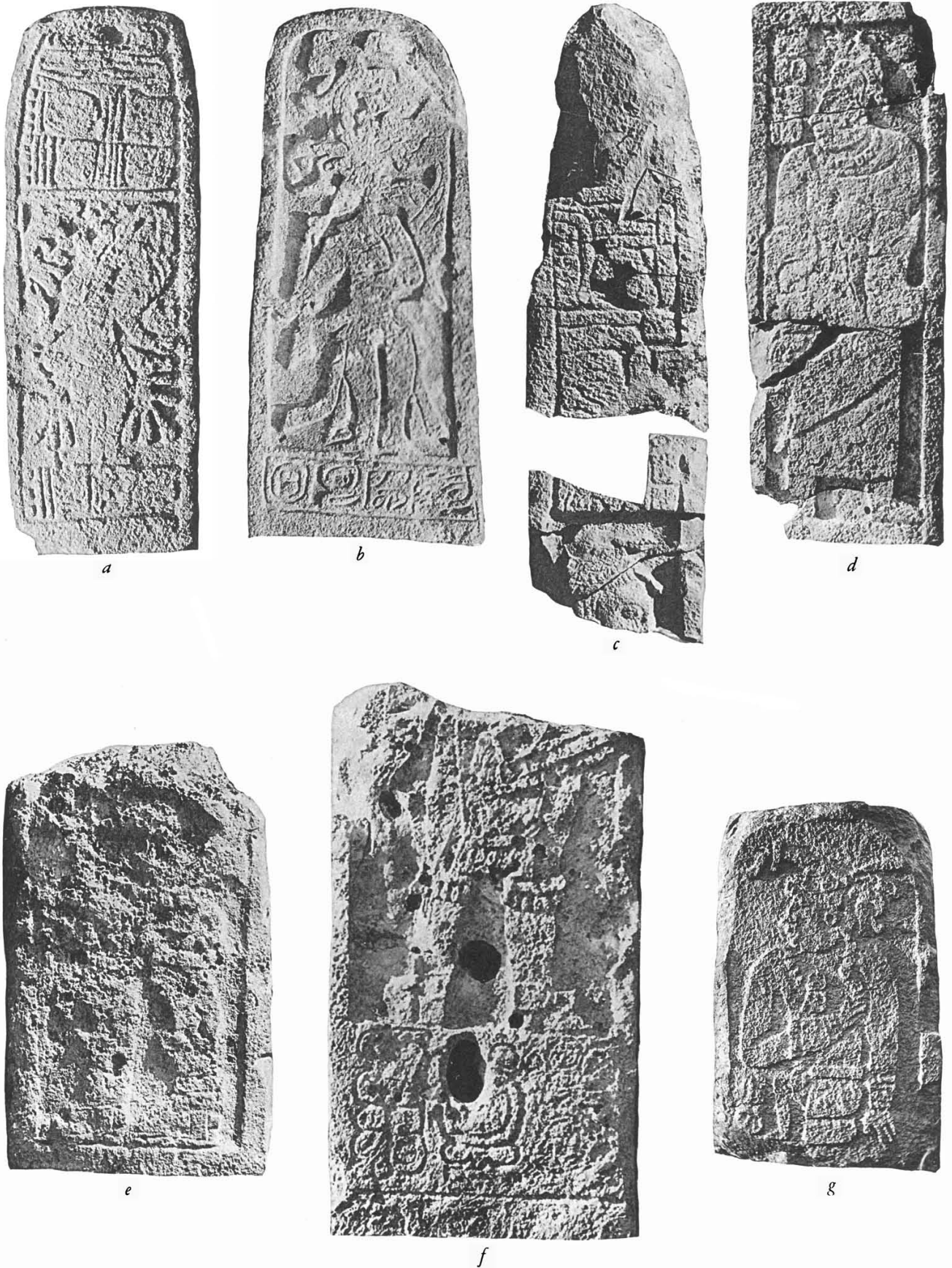


FIG. 86—SANTA ROSA XTAMPAK, OXKINTOK  
 Santa Rosa Xtampak, Stela 7 (9.16.0.0.0?). *b*: Santa Rosa Xtampak, Stela 1. *c*: Oxkintok, Stela 18. *d*: Oxkintok, Stela 24.  
 Oxkintok, Stela 4. *f*: Oxkintok, Stela 20. *g*: Oxkintok, Stela 14. Scale: approx. 1/15.

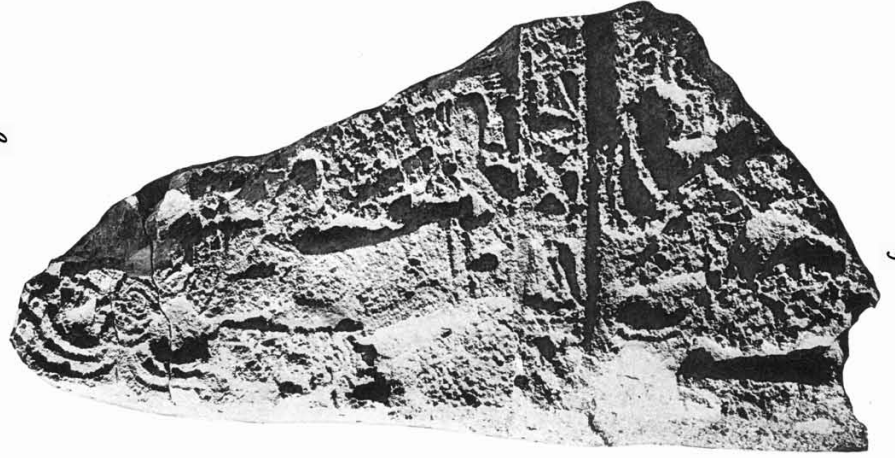
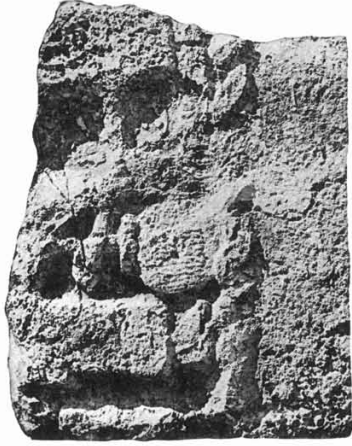
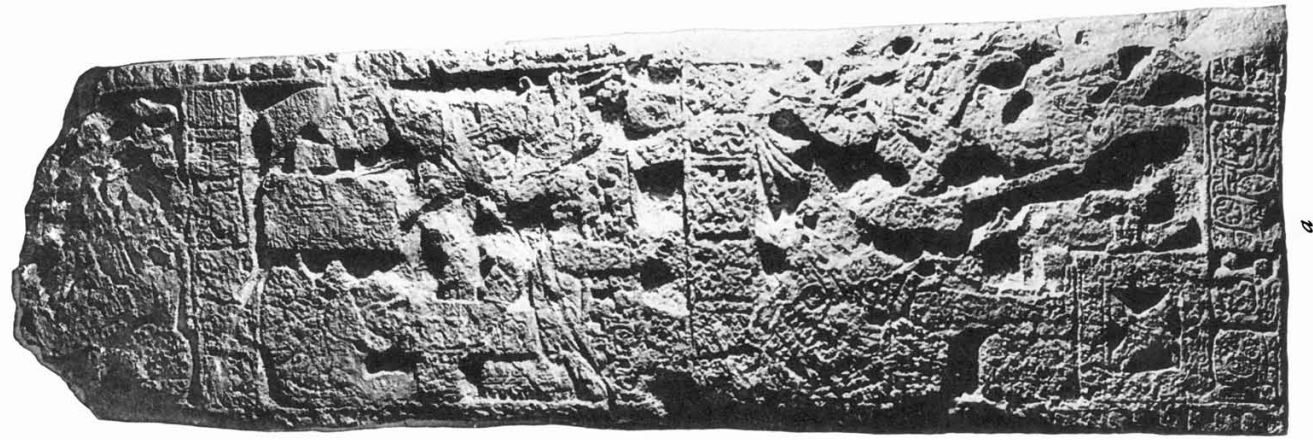


FIG. 87 — THE PANELED STYLE: OXKINTOK  
a: Oxkintok, Stela 3 (10.1.0.0P). b: Oxkintok, Stela 25. c: Oxkintok, Stela 2. d: Oxkintok, Stela 9. Scale: approx. 1/15.



FIG. 88 — THE PANELED STYLE — *continued*  
*a:* Oxkintok, Stela 21. *b:* Oxkintok, Stela 12. *c:* Oxkintok, Stela 10. *d:* Oxkintok, Stela 11. *e:* Yaxcopoil, Stela 2. *f:* Yaxcopoil, Stela 1. Scale: approx. 1/15.



*a*



*b*

FIG. 89 — THE DECADENT STYLE  
*a*: Sayil, Stela 3. *b*: Sayil, Stela 5. Scale: approx. 1/15.

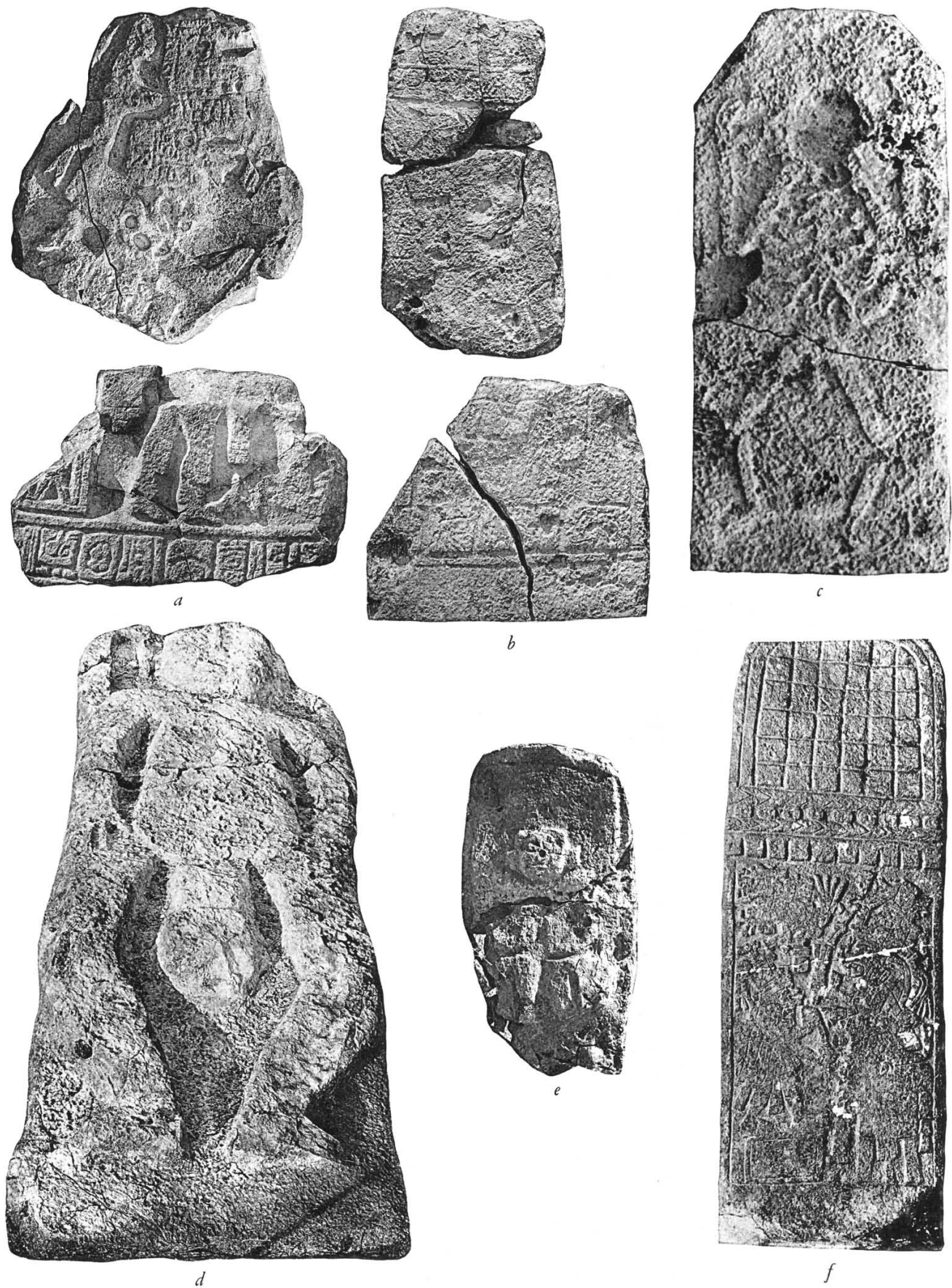


FIG. 90 — MISCELLANEOUS MONUMENTS: SAYIL, KEUIC, MAYAPAN  
*a*: Sayil, Stela 2. *b*: Sayil, Stela 7. *c*: Keuic, Stela 1. *d*: Sayil, Stela 9. *e*: Mayapan, Stela 7 (not to scale). *f*: Mayapan, Stela 1. Scale: *a,b,c,d,f*, approx. 1/15.

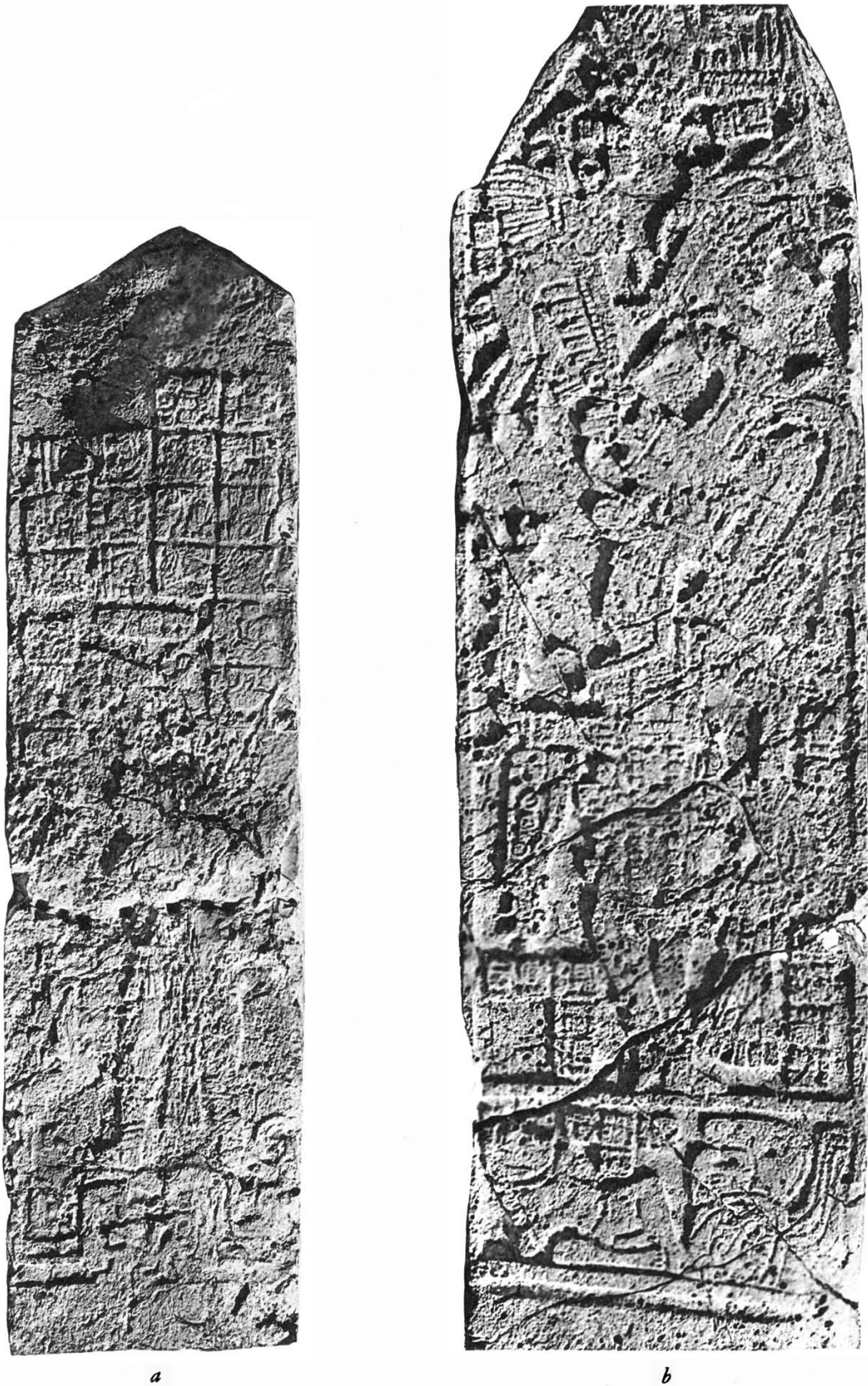


FIG. 91 — UXMAL  
*a*: Stela 4. *b*: Stela 2. Scale: approx. 1/15.

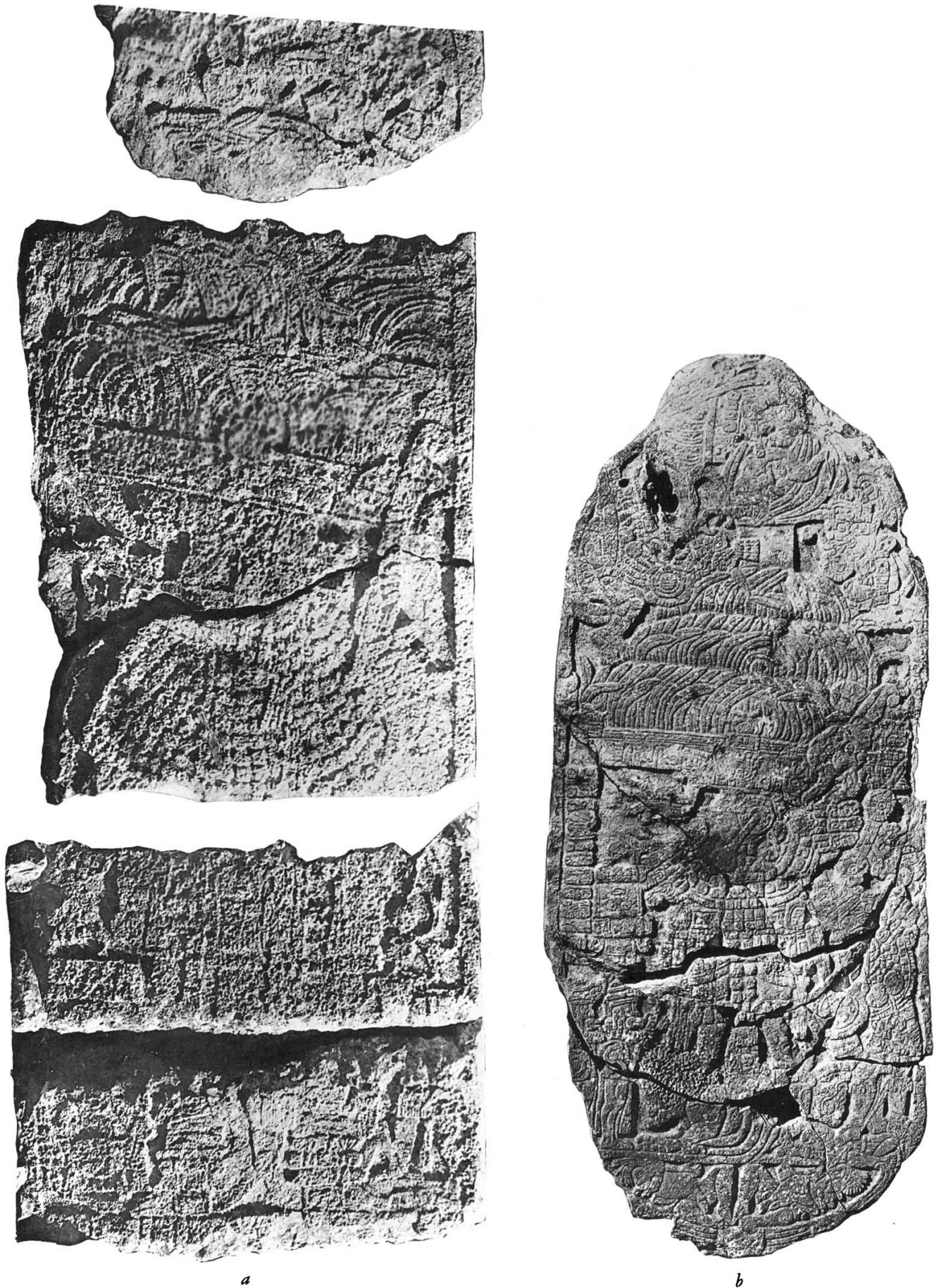


FIG. 92 — UXMAL: INTRODUCTION OF TOLTEC TRAITS  
*a*: Stela 11. *b*: Stela 14. Scale: approx. 1/15.

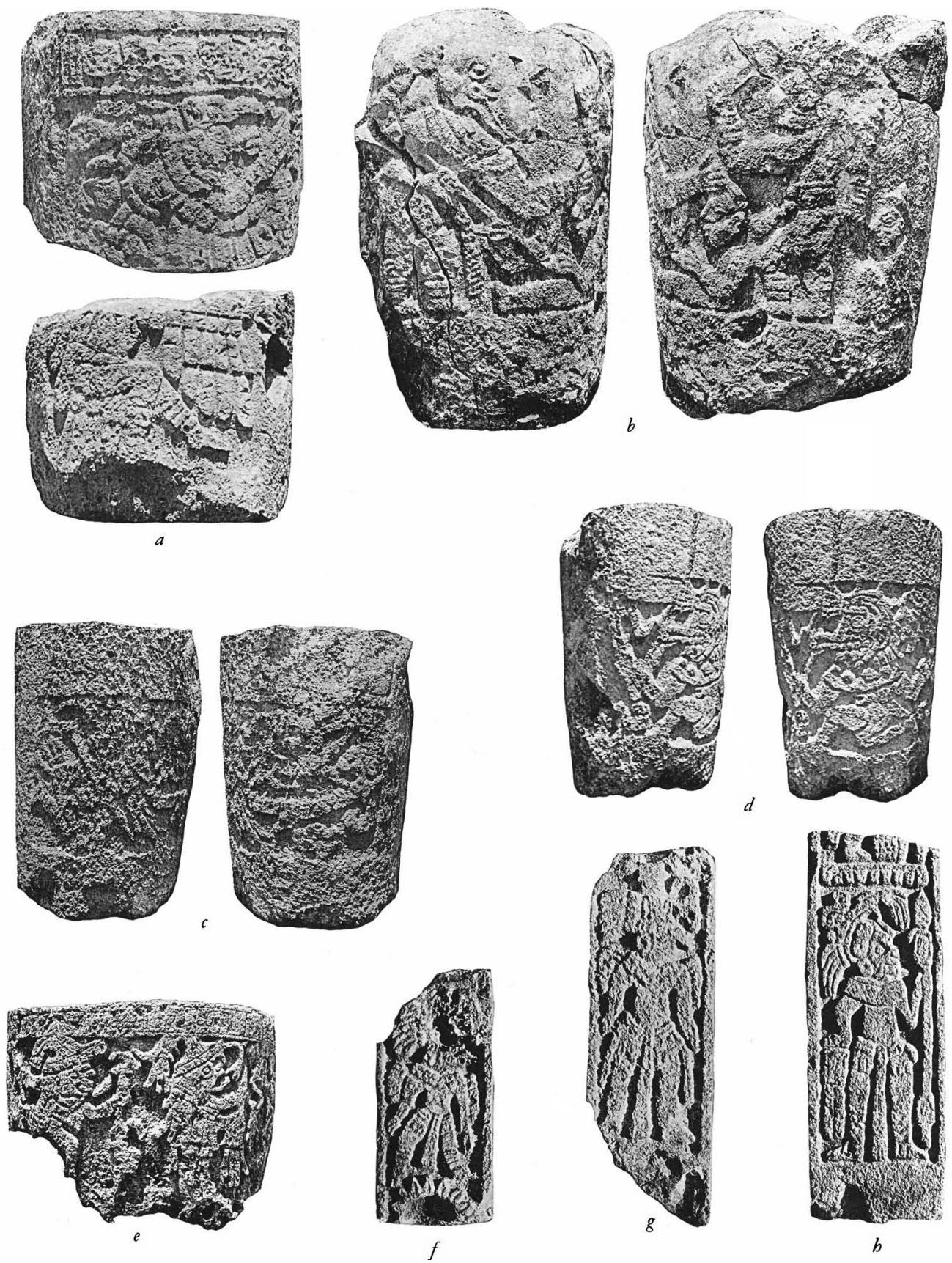


FIG. 93 — ALTARS AND PANELS

*a*: Kabah, Altar 3. *b*: Kabah, Altar 8. *c*: Kabah, Altar 4. *d*: Kabah, Altar 25. *e*: Labna, Altar 1. *f*: Labna, Monument 3. *g*: Labna, Monument 4. *h*: Labna, Monument 2. Scale: approx. 1/15.





*a*



*b*



*c*



*d*



*e*



*f*



*g*

FIG. 94 — ARCHITECTURAL SCULPTURE OF THE NORTHERN SITES

*a*: Santa Rosa Xtampak, palace, north panel. *b*: Same, south panel (not to scale). *c*: Xcalumkin, Initial Series Building, west jamb. *d*: Same, east jamb. *e*: Xcalumkin, north building of Glyphic Group, fragment of jamb. *f*: Same, west jamb. *g*: Same, east jamb. Scale: *c-g*, approx. 1/15.



FIG. 95 — ARCHITECTURAL SCULPTURE — *continued*

*a*: Xcalumkin, south building of Glyphic Group, east interior jamb. *b*: Same, west interior jamb. *c*: Same, lintel. *d*: Xcalumkin, south court of Glyphic Group, lintel. *e,f*: Xcalumkin, south building of Glyphic Group, panels. *g*: Kanki, lintel. *h*: Oxkintok, Structure 3C11, fragment of jamb. *i*: Xculoc puebla, atlantean figure (not to scale). Scale: *a-h*, approx. 1/15.

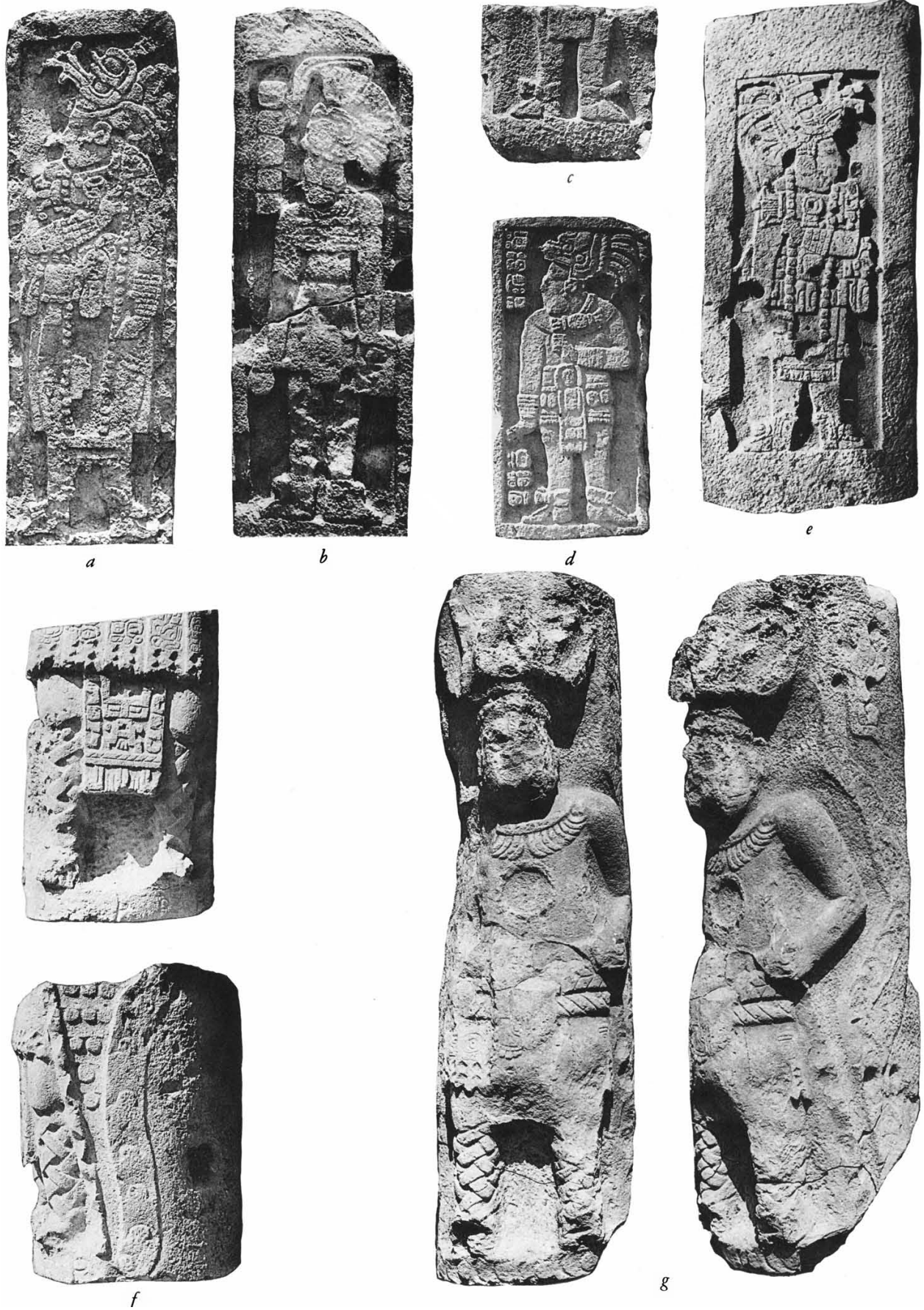


FIG. 96 — OXKINTOK, ARCHITECTURAL SCULPTURE  
*a*: Structure 3C10, south lintel. *b*: Structure 3C10, north lintel. *c*: Structure 3C10, jamb. *d*: Structure 3C7, panel. *e*: Structure 3C7, lintel. *f*: Structure 3C7, column of north doorway, front and side. *g*: column of south doorway, front and side. Scale: approx. 1/15.



FIG. 97.—OXKINTOK, STRUCTURE 3C7, COLUMNS OF CENTRAL DOORWAY  
*a*: North column, front and side. *b*: South column, front and side. Scale: approx. 1/15.

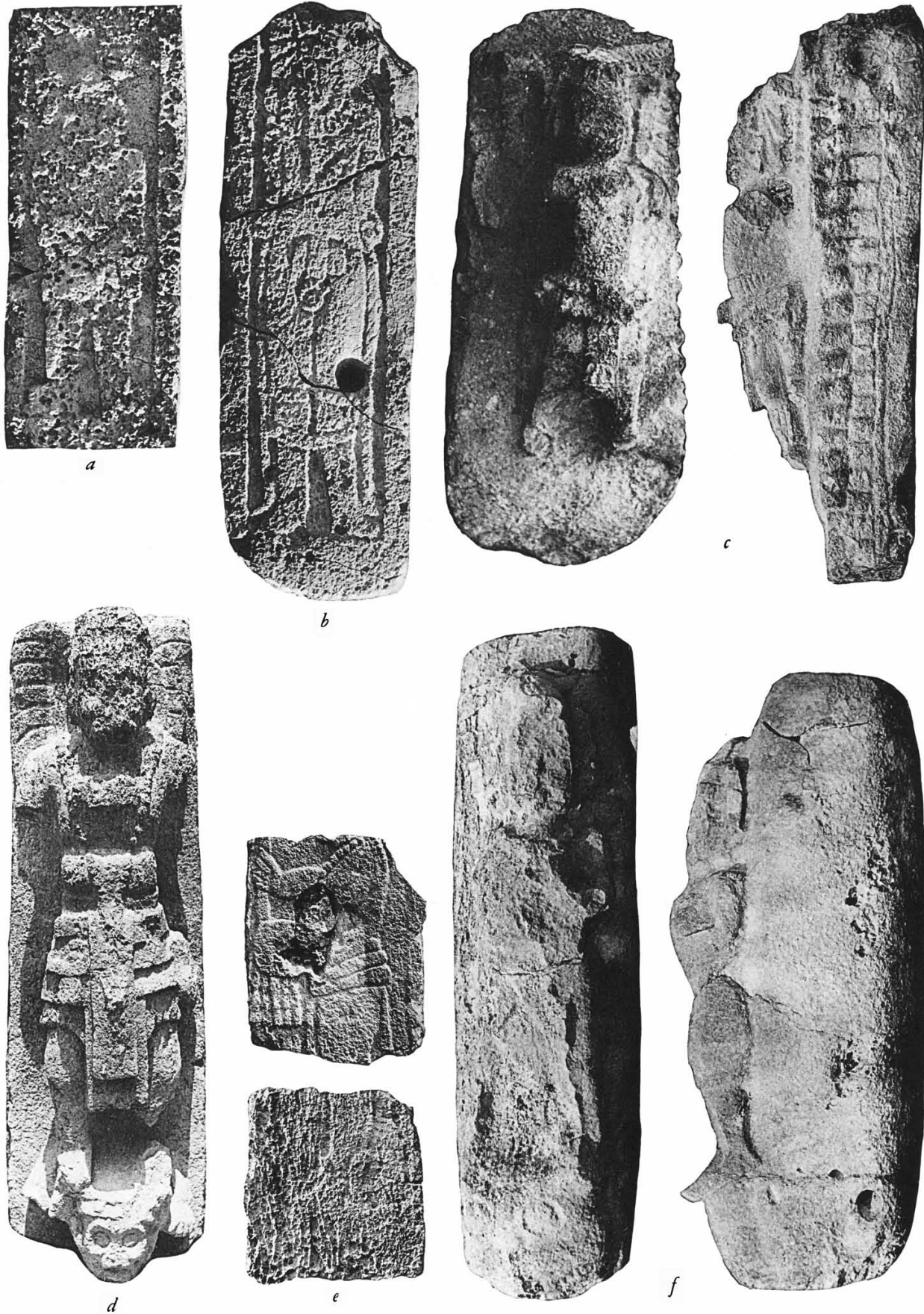


FIG. 98—OTHER ARCHITECTURAL SCULPTURE

*a, b*: Oxkintok (Xcupaloma), lintels. *c*: Xcochkax, Glyphic Lintel Building, jamb. *d*: Same, column. *e*: San Pedro (Dzitbalche), jamb. *f*: Same, column. Scale: approx. 1/15.



FIG. 99 — LOW RELIEF, LATE CLASSIC AND DECADENT

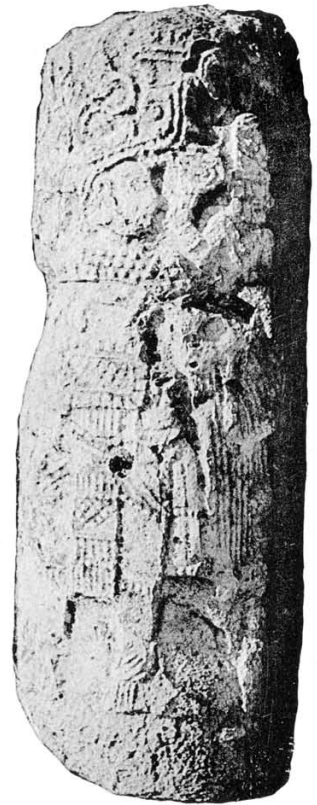
*a*: Cansabe, column. *b*: Kayal, jamb in Campeche Museum. *c*: Kayal, jamb in church. *d*: Xcocha, Roof Crest Building, column. *e*: Xcocha, Valley Group, column. Scale: approx. 1/15.



*a*



*b*



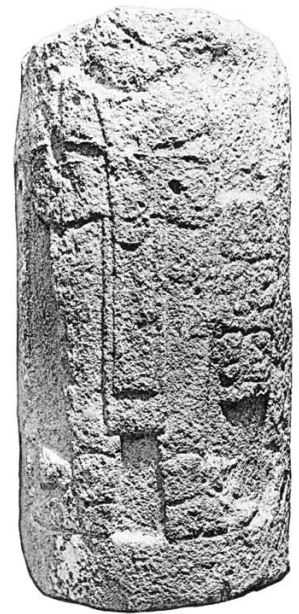
*c*



*d*



*e*



*f*

FIG. 100—LOW RELIEF, QUALITY X

*a*: Xcocha, Glyphic Band Building, column. *b*: Chilib, column in Merida Museum. *c*: Acanmul, column (Classic). *d*: Yaxcopoil, column. *e*: Same, jamb. *f*: Maxcanu, column. Scale: approx. 1/15.

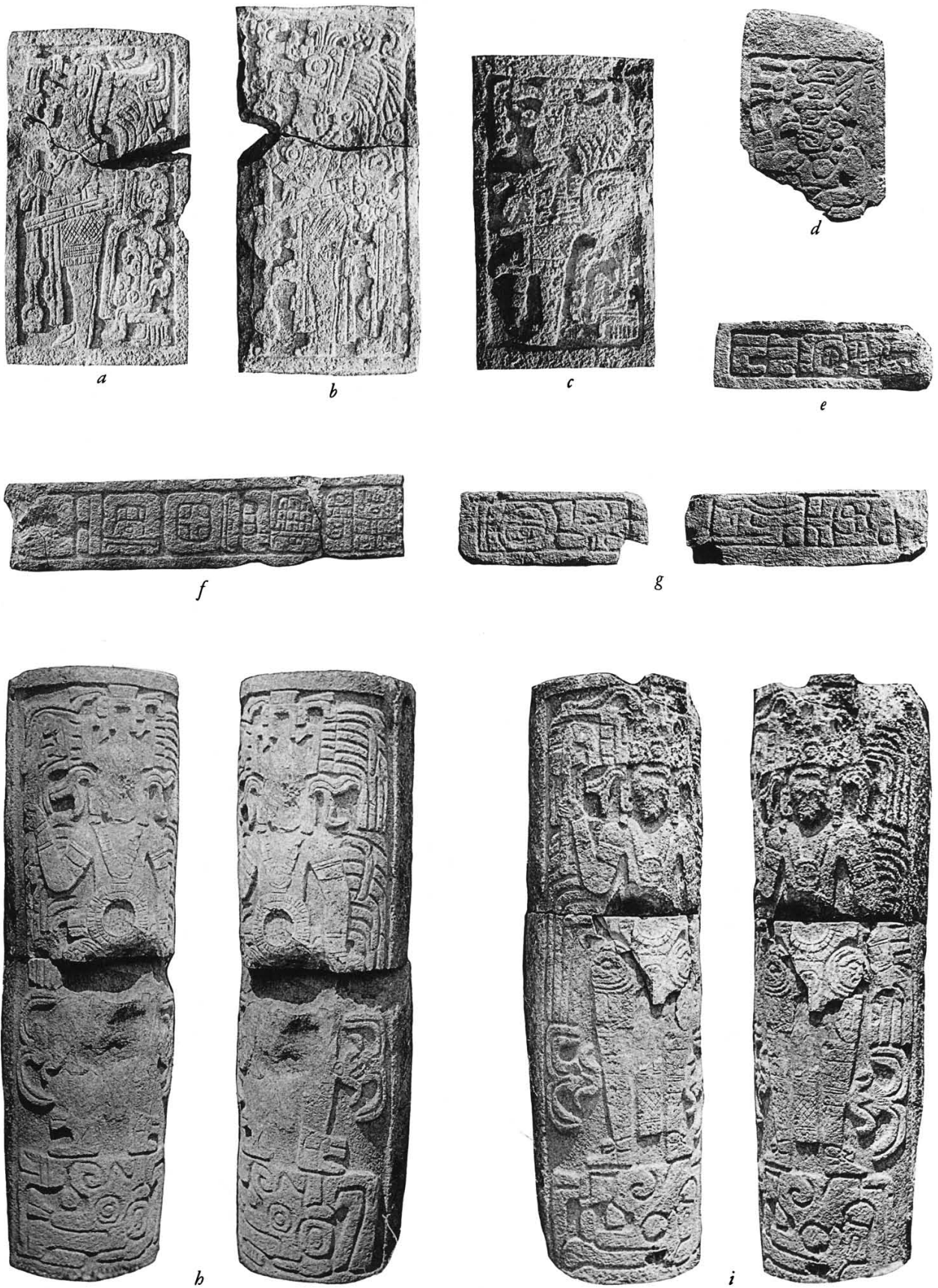


FIG. 101 — XCULOC, SCULPTURED COLUMNS BUILDING  
*a*: North lintel. *b*: Center lintel. *c*: South lintel. *d*: Capstone. *e*: South corbel, face. *f*: North lintel, edge. *g*: South capstone.  
*h*: North column. *i*: South column. Scale: approx. 1/15.





FIG. 102 — SAYIL, STRUCTURE 4B1

*a*: East lintel. *b*: Center lintel. *c*: West lintel. *d*: Center lintel, edge. *e*: East corbel. *f*: East column. *g*: West column. Scale: approx. 1/15.



*a*



*b*



*c*



*d*



*e*

FIG. 103 — NON-CLASSIC PANELS

*a,b*: Kabah, jambs of Structure 2C6 (the Codz Poop). *c,d*: Ichmac, jambs (?). *e*: Maxcanu, panel. Scale: approx. 1/15.



FIG. 104 — NON-CLASSIC PANELS  
*a*: Halal, jamb. *b*: Halal, lintel. *c*: Muluc Seca, panel, Structure 1. *d*: Huntichmul, lintel. Scale: approx. 1/15.



FIG. 105 — OTHER NON-CLASSIC SCULPTURES

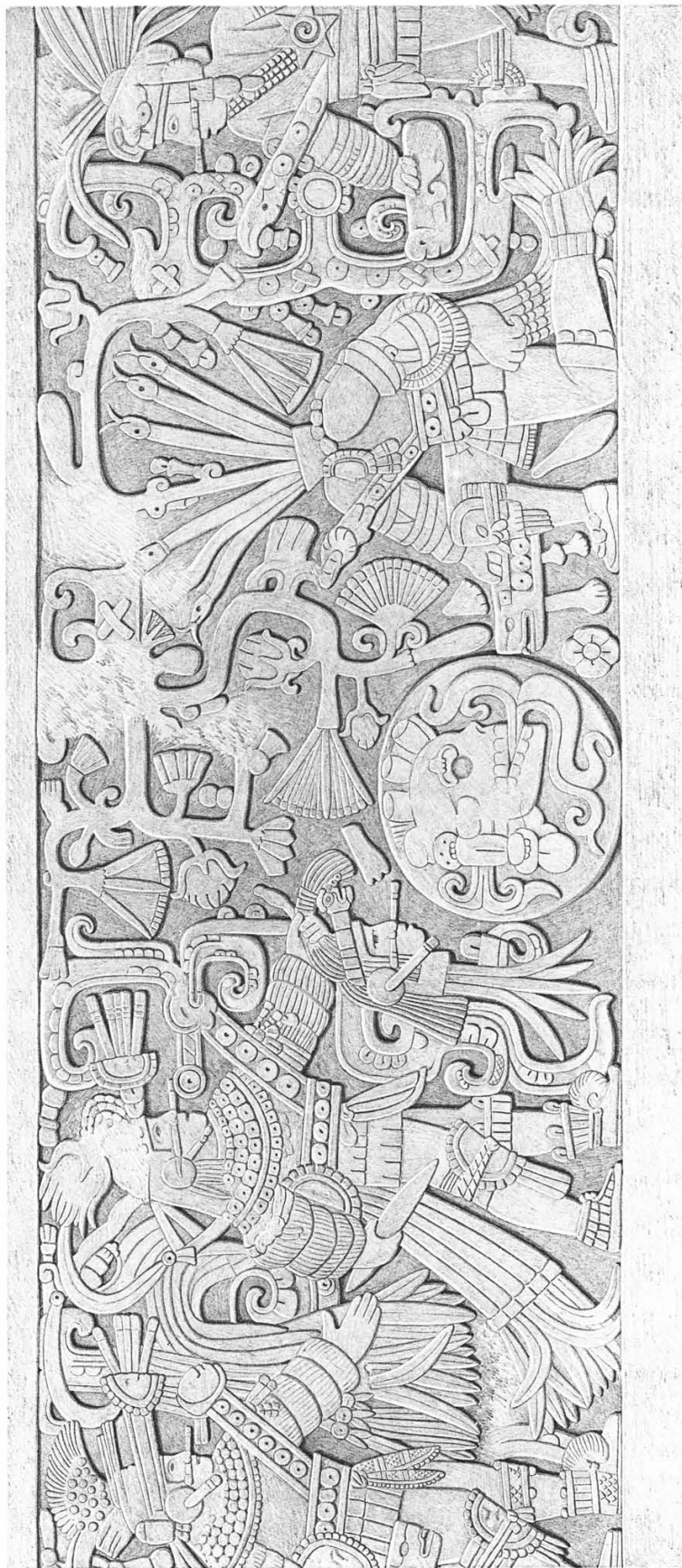
*a,b*: Columns from Calkini in Merida Museum. *c*: Sculpture from Temax in Merida Museum. *d*: Mayapan, fragment of figure. *e*: Mayapan, female figure. *f*: Mayapan, male figure. Scale: *a,b,c*, approx. 1/15; *d,e,f*, not to scale.



b



a



c

FIG. 106—CHICHEN ITZA AND HALAKAL  
a: Halakal, lintel. b: Chichen Itza, Akatzib, lintel. c: Chichen Itza, Ball Court, center panel on east bench (drawing by Kisa Noguchi). Scale: approx. 1/15.

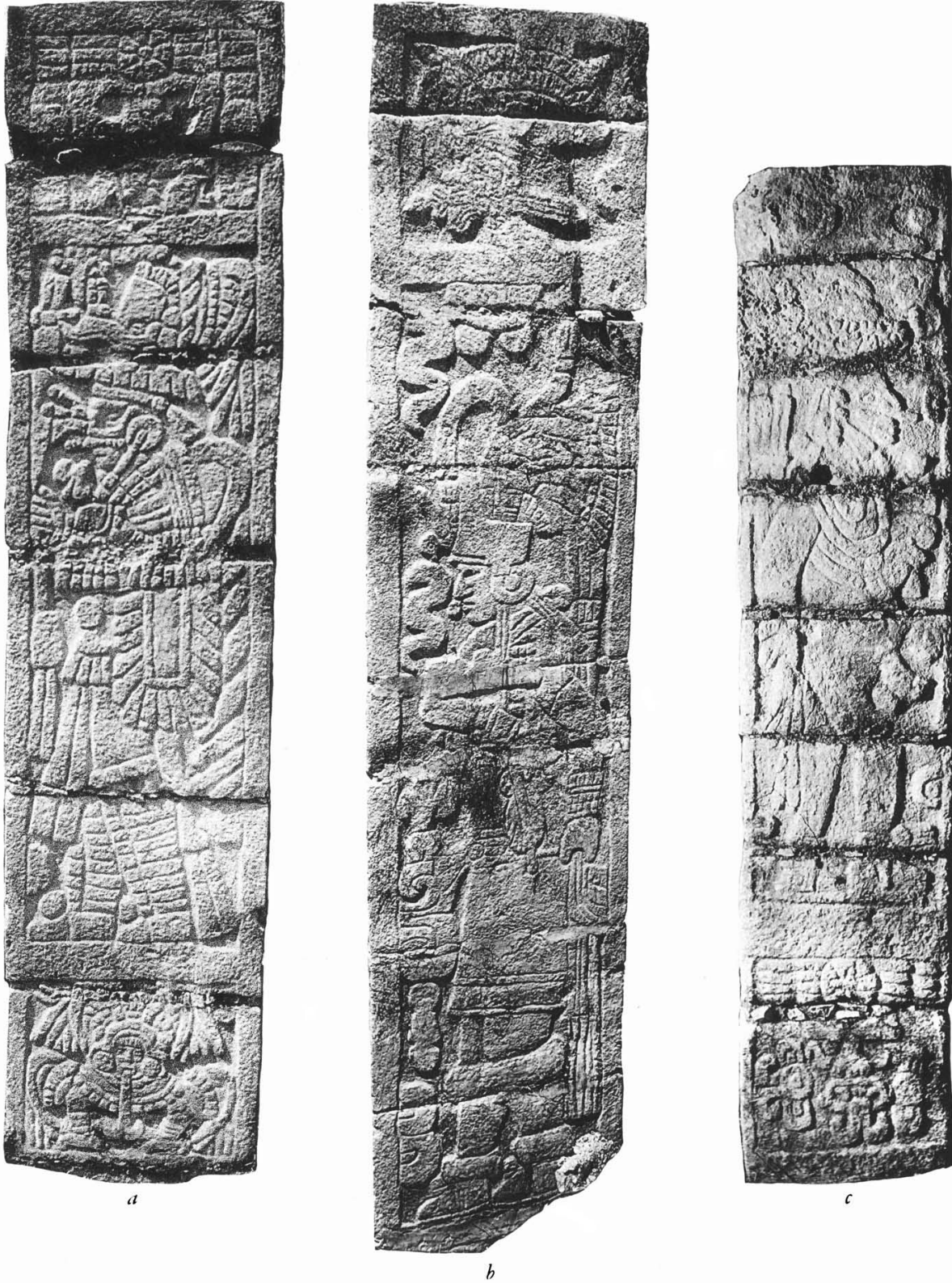
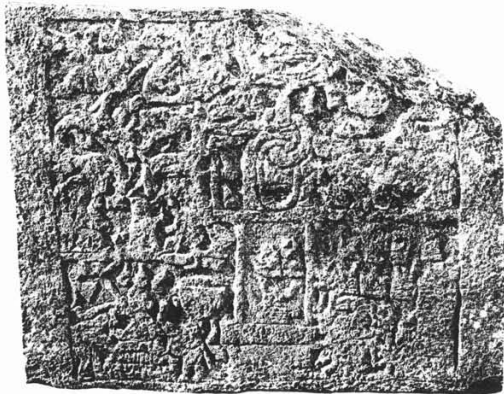


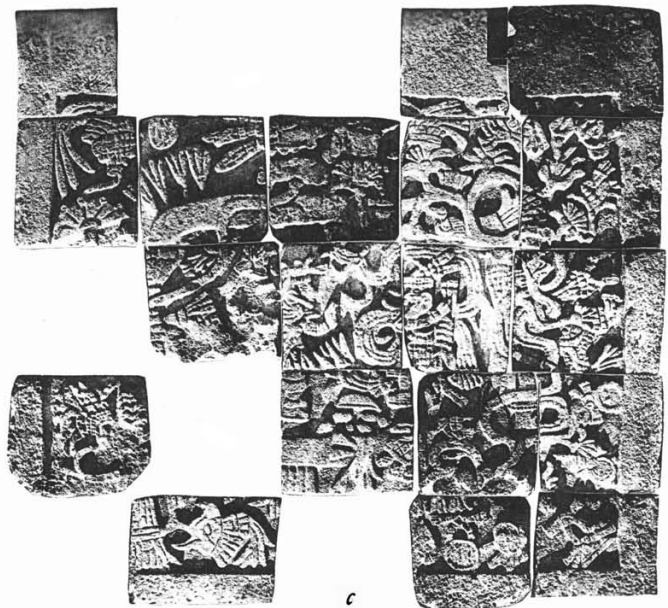
FIG. 107 — THE TOLTEC STYLE: CHICHEN ITZA  
*a*: The Northeast Colonnade, "Maya" figure. *b*: The Temple of the Warriors, Toltec figure. *c*: The Mercado, jamb, phallic figure. Scale: approx. 1/15.



*a*



*b*



*c*

FIG. 108 — CHICHEN ITZA  
*a*: Temple of the Warriors, panel. *b*: Temple of the Xtolec Cenote, lintel. *c*: Same, panel. Scale: approx. 1/15.



FIG. 109 – HIGHLAND GUATEMALA AND PACIFIC COAST

*a*: Santa Margarita, Colomba, stela. *b*: San Isidro Piedra Parada, stela. *c*: Finca Arevalo (Kaminaljuyu), altar. *d*: Chocola, relief.\* Scale: *a, b*, approx. 1/15.

\*Courtesy of the University of Pennsylvania Museum.





*a*



*b*



*c*



*d*

FIG. 110 — NON-MAYA STYLES

*a*: El Baul, Stela 1 (Herrera stela). *b*: Izapa, Stela 4. *c*: Izapa, Stela 11. *d*: Tajin, stela. Scale: approx. 1/15.

## The Classic Monuments

### THE PRE-CLASSIC PERIOD

Authorities are not yet agreed on what is the earliest contemporaneous date recorded in the Maya calendrical system. Many are skeptical of the interpretation Stirling has proposed for the bar-and-dot series discovered at Tres Zapotes, which he places in Cycle 7. The dates of the Tuxtla Statuette and of the Herrera stela at El Baul, which are similar series without period glyphs, are also in question. The earliest date accepted by most students as historical and roughly contemporary to its inscription is that of the Leyden Plate—8.14.3.1.12. It is known that at this time stone monuments were being erected at Uaxactun in northeastern Peten, for the earliest undisputed monumental record occurs there on Stela 9, and is less than eight years later than the Leyden Plate inscription. All the disputed early series are on the periphery of the Maya area. In the central region there is no significant body of sculpture which could be ascribed even tentatively to a period before 8.14.0.0.0.

#### STRUCTURE E-VII-SUB, UAXACTUN

There is, however, at least one example of stucco decoration which may precede the monumental series. This is on Structure E-VII-sub at Uaxactun, a pyramid which contains pottery of the Chicanel period only (Smith and Shook, 1940). Since Chicanel has not been found in association with stone monuments, and since the next period, Tzakol, is at least in one instance tied up with a Cycle 8 date, it follows that E-VII-sub can be ascribed to a period earlier than any known stela. The amount of ceramic material recovered, however, is small, and some students question that the structure is earlier than the Classic Period. Its decoration consists of 18 large masks, used in the design of the stairways (fig. 36,*a,b*). Eight of the masks are conventionalized renderings of the serpent motif; the others are anthropomorphic faces, not without some animal characteristics. On the foreheads of these faces are scrolls which in structure resemble the earliest forms found on stelae, and forms painted on Tzakol pottery (fig. 36,*c*). The body of the scroll is a plain fillet of con-

stant width, and to this is attached a wider extension or wing, which on the pottery example is decorated in different colors. The scrolls on E-VII-sub curve in opposite directions, as they seldom do during the Classic Period, and are more rounded in outline than are later scrolls.

The general effect of the faces is bold and monumental. All the elements which later compose the Classic Period masks are already present in specialized form. They are not, however, so closely fitted and adapted to each other as they are in the rigid organization characteristic of later masks; in detail no two masks are precisely alike. There is no question that the period to which they belong is in the direct line of the Maya artistic tradition. Some distinguish in them resemblances to the Olmec style and to the Tuxtla Statuette, but their even stronger similarity to later Maya masks attests a continuity of development which identifies them with the early stages of the Classic style. Moreover, one can hardly regard them as representing its origin. This must be sought in further excavations and by the study of earlier artifacts and pottery, for the monumental style is doubtless only one aspect of an art that reflects its development in various media.

### THE EARLY CLASSIC PERIOD

#### Late Cycle 8 (8.14.0.0.0–9.0.0.0.0)

Objects turned into plane of carving. Fluid, general body outlines. Marked relation to non-Classic styles. Pendent rear ornament. Large earplug.

It is sometimes assumed that early sculpture is of necessity "crude" and that its subsequent history is one of uninterrupted improvement. The erosion that very old monuments have suffered, marring lines and distorting forms, encourages this misconception. No one will deny that the sophisticated preoccupation with beautiful detail and with abstract composition of form and line which characterizes later periods of Maya sculpture is lacking in its earlier stages. Nevertheless, if we examine without prejudice the earliest stelae and compare them with the productions of the first quarter of Cycle 9, we may not find all of the changes progressive. The earlier monuments have a distinctive and vigorous quality of line, a regard for

the true proportions and outlines of the human body, and a vitality of pose, which are lacking in the later group. There is certainly little to go on in the evaluation of this style, but what we can make out is suggestive of an already highly developed artistic tradition. This earliest material may represent the first monumental sculpture in the region, but it is certainly not the first attempt of the Maya to draw.

Whether Maya sculpture began spontaneously in the Peten or was developed there from some earlier extraneous style is still an open question, and should remain so until we know more about periods of comparable antiquity in other regions. It has been suggested that the earliest stelae erected were carved in wood, but so far no empty cists or foundations to mark the location of such monuments have been discovered in support of this suggestion. A number of monuments of unknown date on the periphery of the Maya area show striking similarities to Cycle 8 stelae. This does not necessarily prove that they themselves are early, but it does show that the Peten style either had a far-reaching influence in very ancient times, or that it was itself only an offshoot or a variation of a more widespread early tradition.

#### THE PETEN

(Uaxactun, Uolantun, Xultun, Tikal)

The largest group of Cycle 8 stelae is at Uaxactun. Of these, Stelae 4, 5, 9, 10, 18, and 19 have some carving that can be distinguished, but all, with the exception of Stela 5, are badly eroded and most are broken as well. Stelae 15 and 16, which bear Cycle 8 dates, are in such poor condition that they hardly merit mention. The combined traits of Cycle 8 monuments, however, serve to define a style which seems to be distinct from that of the early sculptures of Cycle 9. The proportions of the figures are natural, and the continuous fluid line of the thigh is not obscured by clothing and ornament, for usually the figure wears no skirt. The legs are shown in side view and placed apart as high as the knee, whereas the shoulders most frequently are turned to the front. As Morley has emphasized, the feet of these earliest figures do not overlap, but are placed one behind the other. At the hips is a certain distortion, for the far hip is thrust forward while the other is depicted in side view. Hands are clasped in a characteristic manner, with the fingers curled around the thumb; and what appears to be an anthropomorphic head is usually held in the crook of the elbow. To the belt, decorated with prominent ovals and crosses, is at-

tached a chain on which an elaborate ornament hangs behind the legs of the figure. This pendent rear ornament is common in the Early Period and occurs sporadically in later times, but it is particularly characteristic of Cycle 8, when it is an almost unvarying feature of the design. Another prominent detail is a large, deeply indented earplug, which is conspicuous even on very badly eroded monuments. This earplug is probably attached to the headdress, which is fastened under the chin and closely encircles the face.

Stela 10 (fig. 36,e,f), which has some unusual features, has been included in this group, though there is no epigraphic evidence of its antiquity. Only a fragment of it remains, reshaped to make an altar for Stela 9, the earliest monument of the group (fig. 37,a). This suggests that Stela 10 may be even more ancient, but Morley (1937-38, 1: 117) has placed it at the end of the series near the close of the cycle, chiefly because it is carved on all four sides. There is no positive stylistic evidence to the contrary, since no data exist on the period prior to the erection of Stela 9, but certain peculiarities in the design, wherein Stela 10 differs from other Maya monuments, and traits which hint at distant connections with foreign styles are best explained by a very early date. In the background of this figure are large scrolls, round in outline and curving in opposite directions, quite unlike scrolls used on purely classic monuments. Something similar can be observed in late sculpture in Yucatan, but the nearest in form are the scrolls on the stucco masks of Structure E-VII-sub, which is thought by some students to be earlier than any of the known monuments. They also vaguely resemble scrolls on stelae from Izapa, in Chiapas (see fig. 110), and those on a monument from the Finca Santa Margarita, in the Department of Quetzaltenango, Guatemala (fig. 109). One of the figures on the latter stela wears a pendent rear ornament, and the Initial Series, which is without period glyphs, has a cycle coefficient of 7 or 8. Whether or not this monument is early, the fact that the scrolls of the Uaxactun Stela 10 are not distinctively Maya but are of a type not clearly differentiated, is itself an argument for its extreme antiquity. Even more striking is the similarity of the design of the loincloth apron of this figure to that of a figure carved at the Hunacab entrance to the cave at Loltun, Yucatan (see figs. 26,c,d; 38,b). If we can regard these distant connections as evidences of a common source of inspiration, we can expect that the earliest monuments, being closer to the ancestral style, would resemble

peripheral types more closely than would later sculptures, in which peculiarly Maya traits had begun to crystallize into specific conventions.

If this is so, Stela 5 at Uaxactun (fig. 38,*a*) is also best placed in the Cycle 8 group, as its date indicates. It shows a unique combination of traits having no parallel in any known style, but individually related to traits in very distant centers. Morley originally favored a date of 9.3.0.0 for Stela 5, apparently on the basis of its aesthetic merit. He writes: ". . . it seems unlikely on stylistic grounds that Stela 5 can date from as early as 8.16.1.0.12, just 372 days later than the dedicatory date of Stelae 18 and 19. Its style is more developed, the carving better executed and the arrangement of the design more advanced; in a word, stylistically considered, it is probably later than Stelae 9, 18, 19, 4, 15, 16 and 17, and also Stela 10, although the last has all four sides covered with carvings (Class 2), whereas Stela 5 has only three sides covered (Class 3)" (Morley, 1937-38, 1: 186. Since the publication of his *Inscriptions of Peten*, Morley, in a letter to A. Ledyard Smith, stated that he had changed his opinion and assigned the date 8.16.10.0.0 to Stela 5). This argument can be strengthened by adducing specific traits to its support, such as the placing of the torso in side view, the use of long plumes at the back of the belt of the figure, and the absence of the pendent ornament. On the other hand, if we compare this sculpture with Stela 20, for which the same date has been suggested, and with Stela 3, erected in 9.3.13.0.0, we discover very few points of similarity. Its outstanding traits are not commonly seen on Maya monuments and suggest foreign styles. The club set with triangular flints and the spearthrower were not depicted in Classic times. A club of this sort is shown on the Loltun carving, and both the club and the spearthrower occur in the style of the Toltec Period at Chichen Itza. The anklets and garters worn above the calf also recall the Toltec style; the sandals have a low strap like that of other Cycle 8 sandals but lacking the overlapping loop that fastens it to the sole. The position of the figure is also atypical. The weight rests more heavily on the forward foot than is usual, though the feet are placed one behind the other, in the manner of other early monuments. The head-dress, probably related to turbanlike forms at Copan, is nevertheless unique in design. Altogether it is difficult to form a stylistic appraisal of a monument so unusual, but we need have no hesitation in accepting the epigraphic evidence for a Cycle 8 date, if we

remember that other monuments of this period have widely diffused connections, whereas the stelae of early Cycle 9 conform more rigidly to the distinctive Maya pattern.

The best-preserved example, and perhaps the most typical of the Cycle 8 style, is Stela 1 at Uolantun (fig. 37,*b*). Its top had been shaped into an altar at some later time, and consequently the head of the figure, which comes at the break between the two pieces, is missing, but the lines of the body and the details of its dress are perfectly preserved. All the characteristic Cycle 8 features observed at Uaxactun are present also on this stela, except the position of the feet, which slightly overlap. In addition, the ornament hanging from the neck to waist level and turned into full front view, evidently because of a reluctance to foreshorten, is indicative of an early date. This manner of presenting detail, though not confined to Cycle 8, is used with particular frankness on the earliest monuments, and elements thus turned are allowed to project strongly from the body of the figure. The manner is strikingly represented on the Loltun carving (fig. 38,*b*). There are also analogies between the Uolantun stela and carvings of the Pacific slope of Guatemala, as we have observed in connection with Uaxactun. The figure stands on a panel decorated with a diagonal band having rectangular projections. There is a similar band on the stela at El Baul, which has a highly controversial Cycle 7 series (fig. 110,*a*). The lower panel of the stela at San Isidro Piedra Parada (fig. 109,*b*) also has diagonal bands. Above its figure is a motif ending in a double scroll, which may correspond to the motif above the Uolantun figure, now eroded, but also ending in a scroll and an undulating element. The pose of the Uolantun figure, with the hand raised high above its head, is suggestive of stelae at Santa Lucia Cotzumalhuapa, which are undoubtedly later; this is even more striking in the case of another early Maya stela, Stela 12 at Xultun.

Actually there is no epigraphic evidence that Xultun Stela 12 (fig. 37,*c*) is early. Its close resemblance to the Uolantun monument, however, leads us to believe that it is of the same general period, and a graph of its traits begins to drop after 9.0.0.0.0, raising a strong presumption that it was carved in Cycle 8 (fig. 6,*a*). Morley places this figure in the second quarter of Cycle 9, but since his argument is based largely on his judgment of the merit of the carving, it is hard to refute it. To maintain the view that it is a Cycle 8 monument, one can mention a number of

details in which this sculpture resembles more closely the Uolantun and other Cycle 8 stelae than the group from Tikal, which dates from the first quarter of Cycle 9. From the second quarter of Cycle 9, there are unfortunately no dated monuments in the vicinity of these sites. Like known Cycle 8 figures, that of Stela 12 wears no skirt. The legs which Morley describes as "spindly" are in proportion about midway between the study legs of the Uolantun figure and the straight long legs of the figures at Tikal, and altogether comparable to those on Stela 9 or Stela 3 at Uaxactun. What is more important stylistically, is the simple, continuous outline of the thighs and buttocks. In the Tikal group this line is obscured by clothing and ornament. The sandals worn by the figure do not show clearly on the photograph published by Morley, but one can make out a low strap, which is one of the characteristics of very early sandals. There is a pendent ornament at the rear, and another suspended from the neck by a heavy strap, which, together with the ornamental apron of the loincloth, is turned in front view and projects strongly from the figure. The large, deeply indented earplugs recall Stelae 9 and 19 at Uaxactun, both Cycle 8 monuments. The pose of the figure is like that at Uolantun, though the right arm is here extended. The isolated head to which the figure raises its left hand, and the glove or other object that obscures the right hand may also be observed on carvings at Santa Lucia Cotzumalhuapa. Although it is evident that these are of much later date, there is apparently some distant connection between the motifs.

There remains one more monument which probably was carved in Cycle 8: Stela 18 at Tikal (fig. 38,c). Its date is somewhat uncertain. It presents a sitting figure with its legs in side view, but the torso, and probably also the head, to judge from the mask-fastening under the chin, turned to the front. This peculiar position may also occur on Stela 4 at this site, though the latter figure, partly eroded now, looks as if it is cut off at the waist. Another example of this pose is on Stela 14 at Oxkintok (fig. 86,g), which depicts a figure with a large body and what appear to be diminutive legs. The head, in this case, is turned to the side and the carving shows no early characteristics. The Tikal Stela 18, on the other hand, exhibits all the early traits. It is more artificial in arrangement than the early monuments at Uaxactun, but in the preciseness and regularity of its line qualities it is comparable to the Uolantun stela. It

resembles also the fragment of an altar discovered in Structure A-V at Uaxactun, and probably originally associated with Stela 26 which bears the date 9.0.10.0.0 (fig. 39,e). The figure of Stela 18, unlike other figures of Cycle 8, wears a skirt, decorated with beads at the border. The skirt, however, also occurs on the Leyden Plate, which has the earliest undisputed date on record.

#### THE LEYDEN PLATE

The Leyden Plate (fig. 41,a), an inscribed jade, does not belong properly with the monumental sculpture we are discussing. The figure depicted, however, is of the same type as on the stelae and offers interesting points of comparison. Its style bears more resemblance to the group of early Cycle 9 monuments at Uaxactun than to the Cycle 8 group, and its graph indicates a probable date of 9.3.0.0.0, which is at variance with the inscription (fig. 4,e). The conventional position of the arms holding a double-headed serpent with a flaccid body, the wearing of a knee-length skirt and other articles of dress which tend to obscure the body outlines, are traits characteristically Maya. They are dominant in the central area and at Copan even after the beginning of the Late Classic Period. It is, of course, possible that the date inscribed on the Leyden Plate was retrospective. I believe, however, that our stylistic comparisons fail in this instance, simply because the details which are perfectly preserved on this small carving are eroded on contemporary stone monuments, and their known distribution cannot be extended back to the Cycle 8 period. The sandals worn by this figure and the pendent rear ornament are both of very early design; the most decisive feature is the Cycle 8 position of the feet, one squarely behind the other. Perhaps the particular style variant represented by this piece was coexistent with others at Uaxactun and Uolantun. If the Morleys (1938) were correct in believing that this piece was actually carved at Tikal, we might explain the later ascendancy of this particular style variant by the growth of this great city, which may have begun to dominate the region only after the turn of the cycle.

#### YAXHA

There is reason to think that some of the monuments of Yaxha, particularly Stela 5, may have been carved before the end of Cycle 8. Since they constitute a related group, however, and none are dated, they will all be discussed in the next section.

## THE EARLY CLASSIC PERIOD

Early Cycle 9 (9.0.0.0-9.5.0.0)

The development of typically Maya ornament. Side position of the figure, with overlapping feet. The serpent bar. Development of detail.

## THE PETEN

(Tikal, Uaxactun, Yaxha, Calakmul)

In the monumental series of Tikal, Stelae 1 (fig. 41, *b*) and 2 are more closely related to the Leyden Plate than are the monuments erected after 9.0.0.0. It is true that Stelae 1 and 2 also show more advanced traits, which are carried over into the Late Classic Period in the sculpture at Copan, but this may indicate merely that the rise of regional styles began even before the turn of the cycle. The dates of Stelae 1 and 2 are not known. Morley places them very early in Cycle 9. In his scheme of dating, this makes them approximately contemporary with Stelae 8 and 13, which are quite different in style. However, if one may reject the argument for the stylistic necessity of a very early date for the latter monuments, Stelae 1 and 2 can still be placed as late as the beginning of the cycle. The detail on Stelae 1 and 2 is unusually well preserved. The design is intricate, and some of its qualities, such as the double-line indication of quills of feathers and the minor grotesque figures clambering among the detail, are unique in the Early Period. The formal development is also advanced. The wing element of the headdress of Stela 2 is even more closely integrated with the mask than at Copan, and the supraorbital plates of the serpents have large scrolls. Nevertheless, there are some arguments in favor of the view that these stelae are earlier than the early Cycle 9 group at Tikal. The torso of the figures is in front view, as on early Uaxactun stelae; there is a pendent rear ornament; the earplugs are extremely large and attached to the headdress; and the sandals are of the earliest type, with an overlapping strap. Although all these traits occur on later stelae, they are lacking in the Tikal group which centers on the date 9.3.0.0. Their re-introduction into the Tikal style is, of course, a possibility, but an assumption of an orderly development offers a more satisfactory explanation.

Moreover, a fragment of an altar from Structure A-V at Uaxactun is very similar in style (fig. 39, *e*). As on the two Tikal stelae, almost all the space is filled with detail, and tau-shaped beads are featured in the design. The scroll form is simple, regular, and markedly rectangular as on the Uolantun stela and

Stela 18 at Tikal. Again there is no date for this carving, but it is possible that it was once used with Stela 26, dated 9.0.10.0. This figure, unlike the Cycle 8 figures at Uaxactun, wears a skirt finished with a beaded fringe.

The arrangement of the detail on this fragment and on Stelae 1 and 2 at Tikal is more intricate and more deliberate than on the Cycle 8 stelae. The essential form of the human body is obscured with a mass of detail. As on the later stelae of Cycle 8, forms are composed on a rhythmic variation of straight line and curve, which gives a certain feeling of rectangularity to shapes essentially curvilinear. These monuments appear to bear little relation to non-Maya styles, but many of the sculptures which emerge at the beginning of the Late Classic Period in such widely separated centers as Copan in the southeast and Coba in eastern Yucatan seem to be directly related to them (see figs. 41, 42). It is possible that the expansion of the Maya style and its consolidation as an entity distinct from styles of contiguous regions date from about the period of these sculptures, and it is particularly unfortunate that one cannot be entirely certain that they precede the early Tikal group.

The stelae that have been dated at about 9.3.0.0 and 9.4.0.0 are simpler in composition and less precise in the delineation of forms. With the exception of Stelae 20 and 3 at Uaxactun, the group is remarkably uniform. The favorite pose is a full side position. Perhaps the difficulty of depicting such a pose without foreshortening distracted the artist's attention from the purely aesthetic considerations of line and arrangement. The poses are stiff, the anatomical contours inaccurate, and the attention is focused entirely on the figure as a subject portrayed, rather than on ornament and detail. In later periods we find a revival of the ornate style, and a coexistence to some extent of ornate and simpler modes. Although, because of the uncertain date of Tikal's Stelae 1 and 2 we cannot be certain that the ornate style deteriorated at the beginning of Cycle 9, the evidence that we have points to a certain retrogression in artistic standards that may have preceded the end of the era.

Stelae 20 and 3 at Uaxactun preserve some of the richness of the former style and maintain the torso of the figure in front view. Unfortunately, the feet of the figure on Stela 20 are eroded, for it may be that they were turned outward in the manner of the Late Classic Period. The detail on Stela 20 is rich and deeply cut. Minor figures, however, are shown with

a simple, continuous, fluid outline that recalls the tradition of Cycle 8. On Stela 3 the outline of the thigh of the main figure is shown clearly as on earlier monuments, but the hips are obscured with ornament, thus breaking the continuity of the figure, so that the relation between the torso and the legs is not clearly expressed. One of the qualities apparent in this sculpture which represents an advance over earlier styles is the greater delicacy with which the detail is depicted. This is not merely a matter of the scale of the decoration but of the modulation of the scale and the relief. Motifs are composed of elements of strongly contrasting proportions, so that the essential design of the form receives emphasis, and its elaboration is like an overtone that contributes to its richness, but does not essentially modify the form. In the ornament of Stelae 1 and 2 at Tikal and also of Stela 20 at Uaxactun, each detail has approximately equal importance and stands out with equal clarity. In the case of Stela 3, one feels the attempt to subordinate some elements to others, though this is only the beginning of a tendency, which does not reach full maturity until the middle of the Late Classic Period, when virtuosity in the modulation of relief becomes one of the outstanding qualities of sculpture.

The other stelae at Uaxactun dated in the first quarter of Cycle 9 which have preserved some of their carving—Stelae 22 and 26—are so eroded that they serve only to illustrate a degree of variability in the modes of expression at this site which we do not find in the Tikal sequence.

Stela 26 had been intentionally effaced; only the deepest lines outlining the figure remain. The figure appears in full front view, but as on Stela 20, one cannot be entirely certain of the position of the legs and feet. Stela 22 is not much better preserved. It shows an unusual treatment of featherwork, in which the feathers are indicated as a mass divided with fine incised lines (fig. 16*j*), suggestive of Teotihuacan III painting. Unfortunately, we cannot see the design as a whole or judge if the analogy is close, but it may be remarked that a connection with Teotihuacan design in this period may be expected, for contemporary Tzakol pottery has been associated with Mexican wares by students of ceramics.

In Tikal, Stelae 3, 6, 7, 8, 9, 13, and 15 form a closely homogeneous group whose known dates range from 9.2.0.0 to 9.4.0.0 (see Stela 9, fig. 39*a*). The figures stand in side view; the composition is direct and simple. No attempt is made to fill with

ornament the spaces of the background, and very little attention is given to the outline of the body, though on some examples detail, such as of the hands and feet, is depicted with great care and considerable skill. There remains a tendency to turn into front view elements that normally would be seen from the side, but which are difficult to portray in this position. The resulting distortions, however, are as far as possible suppressed. Strong projection of elements is avoided, and there seems to be a deliberate intention to produce natural effects. A number of details begin to show clearly the typical designs that were to be developed during the subsequent period. The sandal is tied at the ankle instead of on the instep and has an ankle-guard in the form of a broad band. The serpent-fret appears on the apron of the loin-cloth for the first time. A characteristic staff of three parts, alternately meeting and diverging along its length, is held by five of the seven figures. It is interesting to note in these figures a subordination of detail to the main outlines of the design and considerable development of contrasts in high and delicate modeling not noted on earlier sculptures. The higher relief, however, still tends to be rectangular and there is actually less modeling in the round than on Stela 20 at Uaxactun.

Another large group of early figures is that at Yaxha. Not one of these stelae has a legible date, but early characteristics are so prominent in all of them that it is probably safe to place this whole group as not later than 9.5.0.0. It includes Stelae 1, 2, 3, 4, 5, 6, 7, 10, and 12. Their design is more ornate than that of the Tikal group and, at the same time, more casual in execution. Very early traits, such as the pendent rear ornament and the low sandal strap, predominate but, on the other hand, in most cases they show modification that implies development; others are suggestive of more advanced styles, as for instance, the wide beaded collar on Stela 2 and the well developed serpent-fret on Stela 4. It seems unwise to attempt on the basis of present knowledge to arrange this group in chronological order. I am inclined to agree with Morley that Stela 2 is probably considerably later than Stela 5, which could have been carved in Cycle 8. The figure on Stela 2 wears a wide beaded collar and its apron has a prominent serpent-fret. Moreover, the rendering of the anklets shows a certain variation of dominant and suppressed elements, which seems to presage an advance to later styles. I cannot, however, agree with Morley that Stela 6 differs significantly from other monuments

of the group, or is of much later date. The traits in which it differs, such as the triplicate staff and the bag, are features characteristic of Tikal in this period; the designs of the loincloth and the sandal are of an even earlier type than those on Stelae 2 and 4. If we assume that Yaxha was a less enlightened center than Tikal, judging from the technically inferior quality of its carving, and was more conservative in its artistic conceptions, we may move the group as a whole forward into the virtually unknown period following 9.5.0.0.0, but it seems to me unlikely that this group represents a long span of time, or that the stylistic differences that can be observed are in any way significant.

On Stelae 2, 4, 5, and 12, the figure is seen holding a double-headed serpent bar and an unattached head with a headdress ending in a scroll. The same type of scroll is used in the same way on other early monuments, for instance on the Leyden Plate. On Stela 6, a small kneeling figure with its hands bound in front of it resembles the minor figures on Stela 20 at Uaxactun. Stela 2 has a grotesque head in front of the feet of the figure, which recalls the arrangement on Stela 5 at Uaxactun. The lower panels of Stelae 6 and 10 present an interesting motif. They seem to be depicted with more surety of line than the figures themselves, as if it were a well established design which could be copied in detail even by an inexperienced artist. The design represents a creature with a human head depicted on its chest. Both Maler and Morley speak of this head as being the head of the monster itself, but I believe it should be regarded as a trophy or symbol subsidiary to the serpent-headed monster. The body is clearly not anthropomorphic. The hands are not human; and the joints at the elbows are emphasized by separate round motifs, which are usually associated with animal representations (see the altar of Stela M at Copan and Stelae 25 and 33 at Piedras Negras). A similar treatment of limbs can be seen on Altars A7 and A8 at Tikal, which are also most probably transitional or of the Early Period. This monster resembles representations on stelae from Izapa, a site on the Pacific slope of Chiapas, in the same region where we have found other analogies with very early Maya monuments (see fig. 110, *c*). It may be also the prototype of Aztec "earth monsters" depicted on the bottom or under side of stone bowls, boxes, statues, etc., in Mexico.

It is not at all certain whether Stela 11 belongs properly with this group. It is a very strange monu-

ment and the published photograph of it (Morley, 1937-38, pl. 161, *b*) does not show the design clearly. It is not even certain that a human figure is represented. Two earplugs with deep indentations stand out in the design, but the face between them resembles the face of Tlaloc rather than a human face. Only the prominent earplugs suggest that this sculpture is early. Otherwise its date is quite indeterminate. It may be pre-Classic, post-Classic, or merely aberrant.

Toward the end of the first quarter of Cycle 9, the typical Early Maya style was not confined to the immediate vicinity of Uaxactun and Tikal. To the north, at Calakmul, Stela 43 marks the date 9.4.0.0.0 (fig. 40, *a*). Morley has been reluctant to accept this as the contemporaneous date of the monument and writes, "Although the I. S. of Stela 43 at Calakmul is 9.4.0.0.0, such is the style of this monument that it must have been erected perhaps two centuries later" (Morley, 1937-38, 4: 386 n.). Denison follows Morley: "There is a date of 9.4.0.0.0 (Stela 43) but it cannot well be contemporaneous with the stela as it is more than a century earlier than the next nearest date of 9.9.10.0.0. Also, stylistic indications as well as the fact that the other dated monuments associated with the same building all date from 9.13.10.0.0 prove it to have been carved much later. Finally, on the monument are other Calendar Round dates, which may be much later than the Initial Series recorded" (Ruppert and Denison, 1943, p. 100). The last statement is certainly true and throws some doubt upon the contemporaneity of the Initial Series, but we have no indication that there were long secondary series or other Period Ending dates. On the basis of the inscription alone, 9.4.0.0.0 would be an acceptable date for this monument. The hiatus between this date and others at Calakmul should not be considered in evidence, since similar and even longer gaps exist wherever early monuments are found, e.g. at Uaxactun, Tikal, and Yaxchilan. As for the style of Stela 43, neither author has troubled to mention the specific "stylistic indications" on which he bases his judgment. The style graph constructed for Stela 43 in figure 6, *b* puts it clearly in the Early Period. The figure stands in side view, with legs slightly apart. The headdress is fastened under the chin with a mask, and there are large ornamental earplugs. The ornament on the belt hangs low over the apron of the loincloth, which has simple, incomplete frets. The serpent heads of the ceremonial bar are early in every respect: the supra-



orbital plate, the teeth, the tongue, and the upturned snout. The anklets, of which only a part can be seen above the floor, are of the type worn by the figures at Yaxha and contain the round element featured on the Leyden Plate. There is no specific element or quality about Stela 43 to suggest a date two centuries later than its Initial Series, and I believe 9.4.0.0.0 can be safely accepted as the dedicatory date of the monument.

#### COPAN

At Copan the epigraphic record reaches back into the Early Classic Period, but there is no evidence that figure sculpture accompanied the inscriptions, which are confined to broken and re-used fragments of stelae and altars, with only minor human figures. Altars J', K', L', M', and Q' show some sculpture that may be early. The designs, however, are difficult to make out and add little to our knowledge of style. The original markers of the second ball court may also belong to this period. Their sculpture is so marred that it is difficult to see the detail.

The central marker shows a bearded figure apparently kneeling on one knee in the common pose of a ball-player. The relief is distinct though very rough and apparently fire-worn. The detail is executed by incision on a flat surface. One can distinguish an early form of the scroll and no details which would necessitate a Late Classic position. The later markers of the second court are definitely Late Classic in character and are discussed on page 116. At Quirigua, Stela U appears to bear an early date, but there are no photographs of its sculptured design, and Morley is of the opinion that it is much later. It seems likely, however, that stelae sculptured with human figures were erected in this region in the Early Period and have since been destroyed. If so, they probably resembled the carving on the Leyden Plate and Tikal's Stelae 1 and 2, for the later Copan monuments show many traits in common with these figures, and one may guess that some variant of this style took root in the southeast and became the foundation of the Copan school before the early Cycle 9 group at Tikal was erected.

#### LA PASION AND THE USUMACINTA (Altar de Sacrificios, Yaxchilan, Piedras Negras)

Along the Usumacinta, monuments of early Cycle 9 do not differ essentially from those of the Peten. Stela 12 at Altar de Sacrificios is in every way comparable to the stelae at Tikal (fig. 39, *b*). At Yax-

chilan there are Stelae 27 and 14. Stela 27 (fig. 39, *c*) is the earliest example of what Maler calls the "Beneficent God" figure, perhaps a local variant of the figures which are shown scattering grains. The gesture of the two types of figure is similar, though at Yaxchilan, a long curling element outlined by dots replaces the falling grains. The face of the person depicted on Stela 27 is bearded. This is an unusual trait, which recurs in later times at Quirigua. It does not seem to be associated with any particular type of representation on Maya stelae, and the theory that bearded figures represent a particular personage or group of persons is difficult to maintain. The beard seems to occur sporadically in unrelated contexts. The arrangement of Stela 27 is simple and the pose is extremely rigid even for this period. In contrast to Stela 14, the drawing is awkward and uncertain. One gets the impression that the artist may be dealing with a less familiar subject.

Stela 14 has finer line qualities and exhibits closer relationships with other monuments of this period. Morley, who characterizes this sculpture as "crude," suggests for it a date in the second quarter of Cycle 9, for which he gives no clear reason, as his argument is chiefly concerned with proving that the contemporaneous date should fall between 9.4.0.0.0 and 9.11.3.10.13, a period which includes the Initial Series in Katun 4 (Morley, 1937-38, 2: 403). Since the position of the figure and other characters of style are consistently of the Early Period, there seems to be no valid reason for advancing the contemporaneous date beyond the first hotun following the Initial Series, which places the monument in 9.4.10.0.0.

At Yaxchilan there are also many stone lintels carved with human figures. Of these, undoubtedly the earliest is Lintel 36 in Structure 12. Judging from the position of the figure, which is badly eroded, I should be inclined to place it in the Formative Phase of the Late Classic rather than in the Early Period, but an associated glyphic lintel, Lintel 48, bears a date in Katun 4 and has many characteristics of the early period. These include deeply indented ear-plugs and typical early scrolls and snake heads. The date 9.5.0.0.0 suggested by Morley, falling at the very end of the Early Period, is therefore entirely possible.

Piedras Negras has no monuments sculptured in the typically early style, but its epigraphic evidence suggests that stelae were being carved here at least as early as 9.5.0.0.0. Stela 30, which appears to bear this date, is too eroded to offer evidences of style.

It is also possible that Lintel 12, found re-used in Structure O-13, is of the Early Period. Its Initial Series records a date in Katun 3, but the Long Count position of succeeding Calendar Round dates is not clear. The composition of the piece is of a type peculiar to Piedras Negras; local characteristics are strong also in the costumes of the figures and in the manner of their delineation. The knees of the principal figure overlap slightly, and the featherwork is arranged in a manner that suggests the Late rather than the Early Classic Period, so that there is some doubt that the carving is quite as early as its date indicates. Much of the detail is effaced, unfortunately, so that we can conclude only that it was probably carved either near the end of the Early Period or at the beginning of the Late Classic (fig. 39,*d*).

#### NORTHERN SITES (Oxkintok, Coba)

The discovery of a carved lintel at Oxkintok, with a clearly legible, though only partially preserved, Initial Series in Katun 2, brings up the possibility of the existence of early carved monuments in Yucatan. Stela 4 (fig. 86,*e*), of which nothing remains now but the legs of the figure, shows a pose related to early poses in the south. This may be an Early Period carving. It is possible that early monuments remain undiscovered or unidentified in this area.

At Coba, in eastern Yucatan, there are no early dates, but by the beginning of the Late Classic Period there is already here a remarkably advanced and locally differentiated style based on the Classic Maya tradition. We may expect, therefore, also to find sculpture of an early date. Thompson and Charlott consider Stelae 13 and 17 earlier than the other monuments in this area. These stelae show figures in side view carved in low relief. The erosion of the detail is so far advanced that only the very general features of the design can be made out. The composition is simple and there seems to have been little elaboration of ornament. The position of the legs of these figures, however, is not that which is characteristic of early Maya stelae. The feet are placed in the direct line of sight. In other words, only one leg of the figure is shown. This mode of presentation is inconsistent with the early preference for literal expression of forms even when it involves distortion of normal perspective. We have repeatedly noted this tendency to orient objects so as to express their significant proportions, and to show the legs of

the figure slightly apart in the early variants of the Maya style. The figures on the back of Stela 1 at Tulum (9.6.10.0.0), however, also stand in full side position with only one leg depicted so it is possible that this manner was locally used in Yucatan in the Early Period. Whether these sculptures are early or late, however, they are unrelated to the dominant Late Classic school at Coba, whose prototype, like that of Copan, is probably the Leyden Plate.

#### DOUBTFUL AND ERODED EARLY SCULPTURES

There are remaining a number of eroded, broken, and atypical sculptures which have been omitted in this discussion but which should be mentioned as probably belonging to the Early Classic Period. Among these are Kuxtun Stelae 6, 7, 13 (Morley places this monument, I believe erroneously, in 9.18.0.0.0), and 20; and El Encanto Stela 1. Stela 17 at Naranjo, though assigned by Morley to a later date, may also be an early monument. It appears to be a figure in side view, but the relief has scaled off badly and one cannot clearly make out its position. Some of the monuments at Naachtun are probably also early. Stela 3, for which an early date has been suggested, however, is so atypical in design that it cannot be related to other sculptures of the period.

Altar 1 at Polol (fig. 36,*d*) is a very interesting piece, which is undoubtedly of the Early Period and may even date back to Cycle 8. The drawing presented by Morley (1937-38, 3: 403) is not entirely accurate, for there are no feathers on the headdresses of the two figures. The headdress is fastened under the chin, and the earplugs are deeply indented. The arrangement of the figures, which flank a central panel of glyphs, recalls an altar from Kaminaljuyu (Kidder, 1946, fig. 133,*d*) which, though undated, is associated there with the Esperanza Phase. Another altar from the same site is illustrated by Lothrop (1926, fig. 109,*c*).

We might also mention Stela 4 at Tikal, though its period is somewhat uncertain. This strange monument was apparently moved from its original position in ancient times, for, when discovered, it was set upside down in a floor which partially covered the carving. It represents the top of a figure to a little below waist level. The position may have been similar to that of Stela 18, but if so, the legs, now eroded, must have been disproportionately short, as on Stela 14 at Oxkintok (fig. 86,*g*). The face is in front view and carved in somewhat flattened relief. The earplugs and the headdress are blocked out so

simply that one may question if the carving was ever completed. The early style is indicated by the position of the hands, the fastening of the headdress, and the large unsymmetrical earplugs. The rendering of the feathers is also early, and though the winglike elements to which the feathers are attached are formally developed, they are placed on the headdress somewhat higher than is usual in the Late Classic Period (fig. 17,r).

Toward the close of Katun 4, the distribution of dated monuments within the Classic area seems to have expanded, but the relation of the style to others outside the area, particularly to those of the highlands and of the Pacific slope of Guatemala and Chiapas, becomes more distant as the specific traits of the Maya development crystallize into distinctive conventions. Some of the sculptures at Cerro de las Mesas, in Vera Cruz, are perhaps related to the sculptures of early Cycle 9, but they are sufficiently distinct in style to be relegated to the chapter on non-Maya modes. The fact that their Initial Series have no period glyphs further excludes them from our Classic series.

In line qualities and in technique, the later monuments of the Early Classic era do not always compare favorably with earlier productions. Stiffness in pose is particularly noticeable, as well as a simplified, less fluid outline of the limbs. Relief is often rectangular and abrupt. Since after 9.5.0.0.0 there was an apparent hiatus in sculptural activity, it may have been preceded by a brief period of decadence, in which the standards of excellence suffered a certain decline. In the progression from a relatively simple and direct style to one more ornate and elaborate, and later to one which is less realistic and which shows a decline in draftsmanship, there is a certain parallel to the subsequent history of the Late Classic Period. These two periods seem to be two distinct waves of development separated by a lull which lasted in some regions about 70 years, in others perhaps as long as a century.

#### THE HIATUS (9.5.0.0.0-9.8.0.0.0)

After 9.4.10.0.0 comes a dark period in the history of Maya sculpture. There are some glyphic records but only one sculptured figure, Stela 1 at Tulum, which can be surely dated. It is possible, of course, that by mere chance we have failed to decipher dates on monuments erected at this time, but this seems unlikely when we consider the fact that, as the se-

quence begins to pick up after 9.9.0.0.0, there is a conspicuous and radical change in the presentation of the figure. This change, taking place at about the same time everywhere in the Maya area, argues that the apparent cessation of sculptural activity which immediately precedes it is of some real significance. Taken together, the break in the sequence and the changed artistic mode seem to be a reflection of some momentous historical event that disturbed the normal artistic development and was followed by a restoration of order and a new pulse of creative activity.

In their study of Uaxactun, A. L. Smith and R. E. Smith have been able to correlate the change from Tzakol to Tepeu pottery with changes in the technique of masonry construction (Smith, 1950). The further correlation of these changes with the sculptural sequence is impeded by the deplorable condition of Uaxactun monuments and their imperfect association with other archaeological remains. The association of Tzakol pottery with sculpture up to 9.3.10.0.0, however, is established beyond doubt. Until more data are uncovered, it may tentatively be assumed that the historical events which acted as incentive to change affected all aspects of culture simultaneously and that the hiatus in sculpture marks the transition between what we call the Early Classic and the Late Classic Periods. R. E. Smith has suggested the date 9.8.0.0.0 as the dividing point between Tzakol and Tepeu pottery. Keeping in mind that this is at best a rough estimate and that in any case the changes, however rapid, were probably not simultaneous throughout the Maya area, we may consider this date as applicable to the main division of cultural periods. It correlates remarkably well in the sculptural sequence with the time when the pose of the principal figure on Maya stelae was changed from a position in which the figure stands with both feet pointing in the same direction to one in which the feet are shown as pointing outward in opposite directions when the torso is in front view. Side positions are usually shown at this time with the far leg almost hidden. Rarely, the far leg is slightly advanced, and almost always it is at least partly obscured by the other at the level of the knees. The full front positions on Stelae 20 and 26 at Uaxactun suggest that occasionally the Late Classic position was used in the Early Period, but in both cases the feet of the figure are obscured by erosion. We may also expect the early position to be carried over into the Late Classic Period in rare instances, of which

three are actually known: Stela 6 at Uaxactun, with a very uncertain date early in Katun 9, Stela 1 at Naachtun (9.9.10.0.0), and Stela 1 at Seibal (10.2.0.0.0), the last a monument of the Decadent Phase. The pose of the figures is nevertheless a fairly reliable criterion differentiating the two periods.

Exactly when and how the change took place we cannot determine from existing data, for the list of monuments between 9.4.10.0.0, when the early series appears to break off, and 9.8.0.0.0, when the late position is first observed, is very brief. Stela 30 at Piedras Negras, dated 9.5.0.0.0, is entirely eroded. The same date is suggested for Stela 3 at Naachtun, but this reading is uncertain and the carving does not conform to any known style. For Stela 11 at Xultun, Morley proposes the date 9.5.7.0.0. The style of this stela is in general that of the Early Period, but the pose is ambiguous, for the legs of the figure are missing. The rendering of the arm which holds the staff is reminiscent of the early Cycle 9 style of Tikal; the presence of an independent motif in the upper left corner is also suggestive of the Early Period, when feathers were not yet freely manipulated to fill space in the composition. Featherwork is generously used, but with little grace, and the design of the headdress, with its superimposed masks, resembles that of Stela 2 at Uxul, a monument of the earliest phase of the Late Classic Period. Stela 11 may be classed, therefore, as an early monument showing some transitional features.

Stela 17 at Tikal has two Initial Series which express odd dates in Katun 6, but no final date is legible. It is only a fragment, showing some featherwork that seems to belong to an early phase of the Late Classic Period. Stela 18 at Copan, also a fragment, has no legible date. The date 9.7.0.0.0 suggested for it by Morley is a mere speculation, though it is quite probable that the monument is the earliest of the Copan sequence. Pusilha Stela O, with an Initial Series of 9.7.0.0.0, may have been sculptured, but there is now no evidence of a figure. Xultun Stela 7, for which Morley gives the date 9.7.10.0.0, has neither a clear glyphic record nor sculpture well enough preserved to be appraised. The early date was chosen because of its proximity to Stela 8, but the latter is almost certainly a late monument.

#### TULUM

The only monument with a legible date and a human figure that clearly falls between 9.4.10.0.0 and 9.8.0.0.0 is Stela 1 at Tulum (fig. 41,c). The date

given for this monument in Lothrop's report is 9.13.10.0.0 7 Ahau. The notation Lahuntun 7 Ahau, however, can also be read as the lahuntun of the Katun 7 Ahau. Since this would be a direct reference to the Initial Series 9.6.10.0.0, which does fall in a Katun 7 Ahau, it is the preferable interpretation and is accepted here. Although the feet of the figure on the front are missing, the outline of the skirt shows its hips in front view, and the feet were probably turned outward in the manner of the Late Classic style. Possibly, therefore, the Late Classic begins as early as 9.6.10.0.0 in this area. Except for the changed position of the figure, the arrangement of the hieroglyphs on the face of the monument, and the long skirt, the style is very much like that of the Early Classic Period in the Peten and resembles particularly closely that of the Leyden Plate. This is again fairly good evidence that the expansion of the Maya style of carving took place before the early Tikal sequence, perhaps about the beginning of Cycle 9.

Conspicuous early traits of the Tulum figure are: the lack of featherwork, the flaccid serpent, the position of the arms and hands, the closely framed face, and the low placing of the ornamental head on the belt. The scrolls are simple in outline and the undulating elements tend to fold too sharply on the first undulation. Tapering and progressive diminution of the waves of these elements lack the studied regularity which later is characteristic.

The figure on the back of the monument stands in side view. Again the feet are missing, but the legs appear to be squarely in the line of sight—an unusual manner apparently characteristic of the region, for we see it also at Coba.

The next dated monument, Stela 7 at Lacanja (9.8.0.0.0), is so clearly in the Late Classic tradition that it is discussed with other monuments of the Formative Phase.

#### THE LATE CLASSIC PERIOD

##### The Formative Phase (9.8.0.0.0-9.13.0.0.0)

Surviving early traits and emergence of regional Late Classic styles. Feet pointing outward. Axial arrangements. Simple relief.

Although after 9.8.0.0.0 sculpture throughout the Maya area is characterized by the Late Classic pose of the figure, regional styles at the inception of the period are distinct in costuming and accoutrements. Unfortunately, there are far too few monuments of this period to define the separate schools clearly or

to delimit them geographically. Development is rapid and as the Late Classic style reaches maturity, the growing interchange of traits results in a blend of regional variations. As the artist's vocabulary is increased through the introduction of new forms, the general trend is toward greater complexity of ornament. Emphasis shifts from the subject to the quality of the detail, which tends to obscure the figure itself. Scrolls are depicted with a more fluid line, with studied, regularly decreasing undulations, and conspicuous tapering. Feathers, attached to a wing-like element, become a conventional feature of the design of the headdress, which now is fastened around the head, and such elements as the serpent-frets at the side of the apron are conventionally developed to become conspicuous elements of composition. A sandal with a fringed ankle-guard, and cuff-like wristlets and anklets become common elements of dress.

The process of the integration of the Late Classic style is not continuous and varies for each site. Its current can be traced in a general way, though monuments showing different stages of its development may nevertheless be contemporaneous. Even in later periods deliberate reversions to archaic forms are not infrequent. Generally speaking, however, some degree of archaism, i.e. of the use of one or another feature or mannerism common in the Early Classic Period and later falling into disuse, can be observed on most monuments before 9.11.0.0.0. After this date, such features occur only sporadically in exceptional cases, when the artist seems deliberately to copy early forms.

#### THE PETEN

(Uaxactun, Naachtun, Naranjo, Tikal, Xultun, Uxul, Calakmul, El Palmar)

Stela 6 at Uaxactun and Stela 1 at Naachtun are the only known monuments of this period to preserve the early position of the figure. Both are in a poor state of preservation, but the early indication of overlapping featherwork can still be made out on the Naachtun monument. The three-part staff held by the Uaxactun figure is compared by Morley to the early triplicate staffs at Tikal. Actually, it resembles more closely the element depicted in the background of Stela A at Copan, which was erected in 9.15.0.0.0. If Stela 6 were not so badly eroded, one might find stylistic distinctions in the manner of depicting this motif. Merely superficial similarities of this sort sometimes bridge an immense span of time,

and the reliance on the observation of similar motifs without regard to the manner of their depiction is of doubtful value in chronological appraisal. In all other respects this seems to be an early monument and might be placed in the Early Classic Period, if it were not for its inscription, which indicates a later date, and the fact that it is associated with a structure containing pottery of the Tepeu Phase. One may note also that the feet are placed more nearly in line with each other than in the Early Period. The monument is, however, so badly eroded that its stylistic evaluation cannot be decisive.

Stela 25 is an example of the Formative Phase at Naranjo (fig. 44*a*). The pose is in general that of the Late Classic Period, but the position of the arms and hands in holding the serpent bar is identical to that used in the Early Period. The striking quality of this sculpture is its extreme simplicity. No use whatever is made of featherwork, and the attire of the figure is almost devoid of ornament. In this it resembles some of the early figures at Tikal, as also in the design of the sandal, which lacks the fringed ankle-guard, and in the low placing of the ornamental head on the belt. On one side of this monument is a clear notation of a Cycle 8 date, but the other side also records the end of Katun 9 and carries the count forward to 9.9.2.0.4. Although there is no final Period Ending, it is fairly clear that this figure was carved before 9.10.0.0.0.

Among other sculpture in northeastern Peten that can be attributed to this period are Stelae 10 (fig. 47*c*) and 12 at Tikal. Morley suggests an even earlier reading—9.3.13.0.0.0 and 9.4.13.0.0—but stylistically these dates are not satisfactory. The position of the figures is clearly Late Classic, as is the formal arrangement of featherwork and other detail, and the manner of fastening the headdress high on the head. There are also, however, early traits. The feathers are depicted as overlapping each other; those which form the cape are treated in the same manner as on Stela 1 at Copan, dated 9.11.15.0.0. The treatment of the belt is reminiscent of the earliest Copan figures, and the ornamental head is placed low on the belt. All the early features that can be noted appear elsewhere at the beginning of the Late Classic Period; all are modified in some degree. A position in the Early Period for these sculptures is, therefore, highly improbable. In view of the fact that Stela 5 (9.15.13.0.0), even at this late date, has many archaic details, these sculptures may have been carved as late as 9.13.0.0.0. Certainly the high, round relief, the

contrast of fine and bold detail, and the long inscriptions, apparently covering eons of time, tend to confirm this view.

Another monument of the Formative Phase is Stela 21 at Xultun (fig. 43,*b*). The date 9.14.10.0.0, suggested by Morley, seems much too late. It is based on what may be a badly eroded Initial Series, but if this is an Initial Series, it is an unusual one, for it uses both head numerals and bar-and-dot numerals as coefficients for period glyphs. Although bar-and-dot numbers are often used for day and month coefficients when head numerals designate the periods, it is improbable that the shift from one to the other would take place within the series itself. The reading is open to serious doubt. The style of the figure favors a date prior to 9.14.0.0.0. The position in which the serpent is held is perhaps the strongest argument in favor of an early date. The treatment of the jaw of the serpent head on the wing element of the headdress is also early. There is little formal elaboration in the design of the serpent heads of the bar. It is true that the apron of the loincloth has fully developed frets and ends in a horizontal motif. Moreover, there is a certain cursive irregularity in the delineation of the apron design, but this irregularity does not extend to other parts of the design and there are no other late traits, so that we are led to explain the cursive line as merely an aberrant variation to which all styles are subject to some extent, a mere uncertainty on the part of the artist. In any case, 9.14.10.0.0 is an inappropriate date for this monument, for this was the period when formal elaboration reached its zenith and lines are almost without exception very regular and precise.

A curious mixture of the archaic and the advanced appears on Stela 18 at Xultun (fig. 43,*a*). The position of the figure, with hips in side view but shoulders *en face*, is unique in Maya sculpture. The earplug, with the main part shown in front view and the central element from the side, is like the earplug on Lintel 48 at Yaxchilan (9.5.0.0.0 ?) and Stela 7 at Lacanja (9.8.0.0.0). The scroll form is typically Late Classic in structure but lacks elaboration and is drawn with an uncertain line.

The emergence of the mature Late Classic style is illustrated at Uxul in southern Campeche, by Stelae 2, 4, 6, and 13. The earliest of these, Stelae 2 and 4, though deplorably eroded, show the lack of featherwork, the archaic anklets, and the ornamental snake heads attached to the earplugs of the masks which derive from the Early Classic Period. These monu-

ments are not well dated, but Stela 2 has an Initial Series with a katun coefficient of 9, and was probably erected in this katun. Stelae 13 and 6 (9.11.10.0.0 and 9.12.0.0.0—the second, it must be admitted, a doubtful date) are completely in the Late Classic tradition. Possibly some features now eroded might have permitted us to distinguish them from more advanced styles, but unfortunately both are in poor condition and their preserved traits, such as the large tassels on the sandals of Stela 13 and the beaded featherwork of Stela 6, are normally associated with the Ornate Phase which follows 9.13.0.0.0.

Stelae 28 and 29 at Calakmul (9.9.10.0.0) reveal their archaism in the position of the arms of the figures, especially that of Stela 28, but again their detail is so obscure that their style is somewhat ambiguous. Stela 88 (fig. 42,*a*) also shows the archaic arrangement of the arms of the figure and should be fairly early. Stela 9 (fig. 46,*c*), however, presents a real difficulty in stylistic appraisal and one of the rare incongruities which we have encountered. The Period Ending 9.11.10.0.0 is perfectly clear on one face of the stela; the only doubt about the date lies in the fact that the remaining glyphs of the inscription, which occupy one complete side, are entirely eroded, and the count may, therefore, continue. In several respects, the design of this stela is inconsistent with a date of the Formative Phase. The diagonally held staff is usually late, and particularly incongruous is the design of the apron of the loincloth, which has immense rectangular frets that seem to extend beyond the figure and merge with the border. Unless this is a trick or erosion or an illusory effect due to imperfect photography, this feature alone would be sufficient to place Stela 9 in a later period. The development of the apron frets is fairly consistent and such exaggerated frets are an infallible indication of a late date. The early type of earplug, and the archaic design of the anklets and garters, on the other hand, argue strongly that the 9.11.10.0.0 date is correct and the style graph gives an uncertain peak within our estimate of error. This is a case which requires further study. A re-examination of the monument might be of value. In the interim this case serves as a reminder that our distribution charts, particularly for this period, which has left so few well preserved monuments, may yet be far from complete.

A number of other stelae in the Peten for which dates of the Formative Phase have been suggested are so eroded that little stylistic evidence remains. Stela 19 at Xultun is tentatively placed by Morley even

earlier, in the first quarter of Baktun 9. This monument is almost surely Late Classic. The design of the earplug seems to be of the transitional type also observed on Stela 18, but the strong outline of the shoulder ornament and the collar as well as the tendency to use simple incised line in rendering suggests a decadent rather than a poorly developed technique. It is very difficult to judge the style of this piece, however, since little of the carving survives.

Stela 34 at Naranjo, although complete and in some areas even well preserved, has also lost too much of its detail to give a clear indication of when it was carved. The strictly axial position of the figure, however, and the formal but restrained design of the headdress, in contrast to the casual rendering of the Xultun monument, give a fair degree of assurance that it was carved either late in the Formative or early in the Ornate Phase.

The same may be said of Stelae 12 and 31 at El Palmar which are both more ambitious in the design of their headdresses but show no signs of advanced development in the composition of forms.

More doubt exists in the case of Stela 2 at Naachtun, for which Morley suggests the date 9.10.10.0.0. Although all detail is gone, the exaggerated size of the pectoral worn by the figure and the apparently close correspondence of the design with the frame formed by its border suggests a greater preoccupation with ornament than is usual in the Formative Phase. Stela 21 at Naachtun presents a different problem. Its design is unusual, particularly for the Peten. The figure is presented in front view and recalls the figure on Stela 1 at Piedras Negras. The detail, however, is more crudely treated. The low strap of the sandal that encircles the foot below the ankle generally denotes the Decadent Phase, but there are no other indications that the figure is late. Since the style is ambiguous in this case, it offers neither confirmation nor denial of Morley's reading of the very eroded Initial Series in Katun 12.

#### COPAN

The most satisfactory sequence of stelae at the beginning of the Late Classic Period is at Copan. Stela 18 is probably the earliest monument, but it is now little more than an eroded fragment. Stela 7 was erected in 9.9.0.0.0, Stela P in 9.9.10.0.0, and there is some evidence that Stela E dates from 9.9.5.0.0. Then followed Stela 2 in 9.10.15.0.0 and Stela 3 in 9.11.0.0.0. These monuments are particularly closely related in their design to the Leyden Plate (fig. 41).

They also resemble Stelae 1 and 2 at Tikal, Stela 20 at Uaxactun, and the altar from Structure A-V at the same site. This indicates that the style ancestral to Copan sculpture diverged from the Peten tradition at an early date, probably before 9.2.0.0.0, unless our estimate of the dates of Stelae 1 and 2 at Tikal is incorrect. At present, however, there is no evidence that monuments were actually being erected at Copan at such an early date.

At the time its first figures were being carved, Copan seems to have had little contact with the rest of the Maya area, for, except for the Late Classic position of the figures, its style is independent of its contemporaries. It is unusually ornate, and patterned to cover with ornament all the surface of the monument. The relief, as elsewhere in this period, is monotonous, with no clearly accented features, except the outline of the figure itself. The faces, shown in front view, are somewhat flattened; the relief of the limbs tends to be rectangular.

Almost without exception, the elements of dress on these monuments can be traced to the Early Period, though they undergo a definite formal development. The jaguar headdress, fastened under the chin with a mask, the large unsymmetrical earplugs attached to the headdress, the sandals with overlapping straps, the flaccid serpent, and the position of the arms and hands, all recall the Leyden Plate design. They are no longer, however, merely expressions of these elements, but are parts of a pattern adapted to the rectangular field of the monument and related to each other in a formal arrangement.

Stelae E (fig. 49,c) and 3 substitute a mask for the jaguar headdress and introduce minor figures into the design. In this respect Stela E appears to be more advanced stylistically than the other stelae of Katun 9, and since its date is not recorded on the stela itself but is deciphered on its altar, it may legitimately be questioned. An altogether consistent stylistic progression, however, is intrinsically improbable, and within the period of time in question, such stylistic distinctions may be insignificant. Spinden has praised this monument as one of the earliest on the basis of its rectangular, low relief, the proportions of the figure, and the almost vertical position of the forearms. In these respects also, however, we should not expect an invariable progression, particularly since the proportions of the figure and the position of the arms may be influenced by the shape of the monument. The slender proportions of the figures in the group as a whole are certainly notable. We find

unusually slender proportions also in the early Cycle 9 group at Tikal, on the altar to Stela 2 at Bonampak, and on some of the Palenque sculptures. This preference for slim proportions, though hardly general, seems to have been widespread at about this time. Stela 2 (fig. 49, *b*) has somewhat squatter proportions and more rounded relief than Stela E, but its jaguar headdress is of an earlier type.

This monument is placed on a mound marking the north end of the ball court, but originally the mound was not connected with the other ball court structures and the monument may have been carved before the latest court was constructed (Strömsvik, 1949). The earlier Court 2 had two sets of carved stone markers, one of which has already been mentioned (p. 109). The second set of three markers, placed directly on the first, clearly belongs in the Formative Phase of the Late Classic Period. This can be seen in the design of the snake-head headdresses, the prominent tasseled border of the skirt and in the simple (not notched) form of the scrolls, which have marked tapering and undulation of Late Classic type and interior decoration of lines and dots. The fringed ankle-guard, which first appears at Copan in 9.12.10.0.0, is worn. In view of the strongly archaic character of early Copan stelae it seems very unlikely that these markers are very much earlier than 9.12.0.0.0, and since the evidence seems to indicate that the latest ball court buildings were erected at the same time as Stela 1 (9.11.15.0.0 or possibly 9.12.0.0.0), one might conclude that these latest markers were placed in the second ball court at about 9.11.0.0.0 or even 9.11.10.0.0. Their remarkable state of preservation argues that they did not have long use (Strömsvik, 1949.)

The quality of the relief may undergo slight changes within the span of this group, the later monuments emphasizing contrasts in depth. The change from rectangular to rounded relief, however, takes place abruptly, and it is something more than one of degree.

In 9.11.15.0.0, Stela 1 (fig. 50, *a*) was set up on the steps of the west structure of the ball court. It marked a radical departure from the conventional mode of carving stelae at Copan, and its style probably precipitated the changes which are apparent on subsequent monuments. It is an interesting question whether such a basically different piece of work as Stela 1, different not only in technique and subject but also in its artistic conceptions as expressed in the proportions of the figure and in the composition of

detail, could have been spontaneously created by some unusually original native artist, with no inspiration from the outside. It seems more reasonable to look for a precedent of the new qualities in some other contemporaneous style. The turbanlike headdress, for the first time depicted on a major figure, is used on minor figures of the earlier monuments at Copan, and may be indigenous. This type of headdress is worn around the head; the elaborate earplugs and mask-fastening are discarded, but a vestigial form of this fastening remains as a biblike form under the chin. The soft, closely fitting belt and its simple treatment, on the other hand, suggest the Usumacinta area; the round relief, the half-round figures of Tonina which are also low and squat in their proportions. There are no contemporary monuments, however, from which the style of Stela 1 can be directly derived. It has virtually no elements in common with the style of the Peten, and its inspiration, if from without, must have come from some peripheral style as yet unknown. It is perhaps worth noting that this monument was set up when the whole plan of the Hieroglyphic Court was being radically changed.

The most significant contribution of Stela 1 to the art of Copan was an increased emphasis on the conception of the design as an arrangement of masses or three-dimensional forms, expressed in the composition of receding and projecting surfaces. Oblique masses, however, are not yet introduced, and the figure can still be adequately envisaged on perpendicular planes, in spite of its rounded contours. There are no major elements that would appear foreshortened in front or side view. Such a figure requires no model for its design, for it can all be blocked out on the original surface of the stone.

The next two stelae, Stela I (9.12.5.0.0) and Stela 5 (fig. 50, *b, c*), revert to the dress of the earlier figures, but their sturdier proportions and their rounder relief may stem from the same source as the innovations on Stela 1. The fangs of the serpent heads and the solid heels of the sandals of Stela I are new features. The date of Stela 5 is uncertain. Its two altars have been dated 9.11.15.0.0 and 9.12.0.0.0. Morley reads the coefficient of the Initial Series katun on the monument itself as 13. This coefficient is a face numeral. It shows a young head, but neither the typical headband for 3 nor the jaw element which identifies 10 is clear. In style, this monument is altogether comparable to Stela I, so a position in either Katun 13 or 11 is possible, though, in view of the radically



transformed style of monuments after 9.14.10.0.0, the earlier date is preferable.

On the loincloth on the west side of Stela 5 is a motif which strongly resembles the head of Tlaloc, though it has the filed teeth of the sun god instead of fangs. An even clearer Tlaloc head appears on the turban on Stela 6 (9.12.10.0.0). This monument is of the same type as Stela 1. Its loincloth design is that of Usumacinta figures, and its fringed sandals are of Late Classic design which are not used on earlier monuments at Copan. The interlocking motif on the headdress is also a common and early motif at Piedras Negras. The latter half of the Formative Phase seems, therefore, to show growing contacts between Copan and the Usumacinta and southern highland areas, though these alone do not adequately account for the introduction of the Tlaloc motif, which, at least in late periods, is strongly associated with Mexico. From this time on, the Copan style is less isolated from other regions than it was at the beginning, and, though it always preserves a strong individuality, it borrows traits freely from other Maya schools.

#### PUSILHA

The Tlaloc motif also occurs on Stela C at Pusilha, an undated monument but one which can be assigned to the Formative Phase on the basis of its simple but elongated scroll forms and the design of its serpent heads. Morley gives a tentative date of 9.9.0.0.0 for this monument. The style graph gives an uncertain result, but its peak seems to be somewhat later. 9.11.0.0.0 may be a more suitable date. Stelae K and P may also fall in this period, though their state of erosion makes it difficult to judge.

#### SALINAS DE LOS NUEVE CERROS

In contrast to Copan, the Usumacinta and the Pasion regions at the inception of the Late Classic Period are already relatively free of early Peten traits and quickly develop original styles, some of which are remarkable for their flowing lines, their sophisticated composition, and their advanced use of featherwork in the design. Nevertheless there may be, along the northern border of the highlands, sites which link the style of Copan with that of Tonina in Chiapas. There has been little exploration in this region but Seler (1902-23, vol. 3, no. 3, pl. 1) illustrates a sculpture from Salinas de las Nueve Cerros, near the river Chixoy, which is without doubt closely related in style to the Formative monuments at Copan. It is not likely that this is an isolated oc-

currence; there probably are other sites in this region which use round relief and full front presentation of the figure.

#### LA PASION

##### (Altar de Sacrificios)

Lower, near the confluence of the Chixoy and the Pasion rivers, which form the Usumacinta, the style of this period was very different, if we can judge from two known examples and if we have placed the Salinas de los Nueve Cerros sculpture correctly. Here Stela 8 at Altar de Sacrificios (fig. 48, *b*) has an Initial Series of 9.9.15.0.0. As we have seen in the Peten, archaic features were by this time largely discarded, but finer details were not yet standardized and regional features were still distinct. The composition of Stela 8 is simple and the axis of the figure is stressed. Unfortunately, all detail is gone. One can see that a large feathered headdress was used, but that ornament in itself did not play an important role in the composition.

Stela 9 (fig. 48, *a*), which Morley places in 9.10.0.0.0, may be a later monument, although the stylistic proof is inconclusive. The fact that the axial arrangement is stressed and the angle at which the bar is held are points in favor of Morley's view. On the other hand, the placing of the arms is not early, and the serpent head seems to have a supraorbital plate that turns forward in a scroll, and fairly long fangs, which began to be popular after 9.13.0.0.0. These details, unfortunately, are not clear, and others which might have been helpful are entirely obliterated.

#### THE USUMACINTA

##### (Lacanja, Bonampak, Yaxchilan, Piedras Negras)

A stela discovered by Sr. Raul Pavon Abreu at Lacanja (or Stephens, as this site has also been called)\* near Yaxchilan (fig. 44, *b*) is better preserved than either of these monuments. The composition is not symmetrical, but axial arrangement of the figure is still deliberately stressed by a staff held vertically and precisely at the middle of the figure. The date is 9.8.0.0.0. Archaism is apparent in the design of the headdress and plumes and in the beaded fringe of the skirt. The figure depicted on the shield stands in the Early Period position. Beaded plumes appear on this monument for the first time.

\*Another name given to this site is Na Balum Winik (Sotomayor, 1950).

Curiously enough, this type of beaded plume, with two small diverging tips, which is also common at Piedras Negras, goes out of style in the Usumacinta area before the last quarter of Cycle 9 but reappears again in the Toltec Period at Chichen Itza. We may expect to find it surviving somewhere in the interim, unless this eclectic style deliberately chose early models for its inspiration.

On the lintel from Structure 6 at Bonampak (fig. 44,c), which has no Period Ending date but which is consistently transitional in style, the symmetry is very subtly and skillfully broken to harmonize with the profile head and the glyphic arrangement. It is particularly unfortunate that we do not know more precisely the date of this carving in order that we might weigh the test of surviving archaisms against that of purely aesthetic traits, such as the quality of line and composition, in determining the chronology of this period, for, in spite of the early character of the headdress, the wristlets, the collar, and especially of the serpent heads, this design already shows a high degree of sophistication. The undulating tongues and beards of the serpent heads, though still simple in outline, illustrate clearly the studied grace of line, which is one of the outstanding characteristics of Late Classic sculpture.

The altars of Stelae 2 and 3 at Bonampak (figs. 47,a; 44,d) also have some archaic traits, and are undoubtedly earlier than the monuments with which they are associated. Neither seems to have been designed originally as an altar, and apparently they were removed from their original position and reused in this function. The altar to Stela 3 presents a motif something like a moon glyph within which sits a figure. This is a common motif at Yaxchilan where it is found on several monuments in connection with the sky band and a portrayal of the "Beneficent God" (see Stelae 4 and 8). The Yaxchilan examples are obviously later than that at Bonampak, which shows an early position of the hands and archaic featherwork.

The other Bonampak altar recalls the style of Palenque. It is a panel depicting several figures, and it is particularly notable for its low, delicate relief, which utilizes a sure and sensitive incised line. The date of the carving can only be very roughly surmised as falling somewhere in the first half of the Late Classic Period, since the costuming is very simple and offers few motifs for comparison. The only truly archaic trait is the jaw of the serpent head with its round molar, interrupting the fang. The pose of

the main figure, which leans abruptly from the waist, lacks the relaxed repose of later compositions; the simple rendering of the wristlets is another indication of an early date. This sculpture recalls vividly the relief in Temple E at Palenque, the date of which is also, unfortunately, unknown. It is also not unlike Lintel 7 at Piedras Negras.

At Yaxchilan there are no clearly transitional monuments. A date of 9.9.0.0 has been suggested for Stela 2, but it must be accepted with some reservation, for 9.12.5.0 would fit the decipherment equally well and is stylistically just as probable. The detail of the sculpture, which is done in low, angular relief, is obscure. There are no clear archaisms, and local characteristics are prominent. If this sculpture is early, the strong horizontal band which finishes the wristlet appears to be an anachronism, but as evidence it is hardly strong enough to preclude the possibility of the suggested dating, for there are no other traits consonant with a late date.

Stela 6, which has an odd date in Katun 11, may have been erected before 9.13.0.0, though its final date is lacking. It is virtually a repetition of the motif on Stela 27, without its early characteristics. Its composition is simple, its relief somewhat monotonous and its draftsmanship undistinguished. From its style alone, it is difficult to judge when this monument was erected. Its style graph shows a center at 9.14.0.0 but there is no clear peak and the complete lack of either late or early features confirms the epigraphic evidence of a date prior to the Ornate Phase.

Stela 19 and possibly Stela 15 may also be classed in the category of monuments with indecisive stylistic traits. They will be discussed, however, with other monuments of their group in the chapter dealing with the Ornate Phase, since their stylistic graphs, like that of Stela 6, center on 9.14.0.0; in their case there is no epigraphic evidence to suggest an earlier date.

At Piedras Negras, Stela 25 (9.8.15.0; fig. 52,a) and Stela 26 (9.9.15.0; fig. 53,a) represent two different subjects, which, from time to time, continue to be depicted at this site. They are comparatively free from the early Peten traits which characterized the contemporary sculpture of Copan, but their simple rigidity of arrangement is typical of the Formative Phase. In general aspect, they do not resemble each other, but they have in common the quality of their relief, which is a combination of low and high projection. The faces of the figures are carved virtually in half-round, but the relief of the

bodies, though also high, tends to be rectangular, and detail is depicted on planes. The roundness of the relief is less significant in the development of sculpture than the conception of the design as an arrangement in three dimensions. These earlier figures can be drawn on a single plane without foreshortening any important element. Comparing, for instance, the arms of the figure of Stela 25 with those on Stela 11 (fig. 52,c), a much later monument, one can see that on the former they are carved on a single plane, whereas on the latter the elbows recede from the wrists and shoulders, and the arms would appear foreshortened in front view.

Related to this weakness in three-dimensional visualization is a notable quality of relief seen on early monuments. Although there are strong contrasts between deep carving and lighter indication, which sometimes amounts to no more than incision, the transition between the two tends to be abrupt, and they are seldom both used in a single motif. Thus, the lower panel of Stela 25 is carved in relief of one depth and the details are so nearly equal in stress that the panel counts in the design as a single unit, and only by deliberate effort can its design be apprehended and related to the more deeply carved figure. In contrast, Stelae 11 (fig. 52,c) and 14 emphasize important lines in their corresponding panels, which form a pattern with the shadows of the niche. In much the same way, the light incision on the shield of the figure on Stela 26 fails to register against the more bold detail of the figure's dress. Such ineptitude in conception of three-dimensional forms and in the correlation of values in the design is sometimes merely the fault of the individual artist, and is not an infallible indication of an early date. Its prevalence at the beginning of the Late Classic Period, however, may be the result of deficient training in the technique of sculpture, traceable to the period immediately preceding, in which sculptural activity was at low ebb. The technique appears to be derived from habits of draftsmanship on a plane surface, and it is possible that at this time painting was the major art.

Aside from these general technical deficiencies, Stelae 25 and 26 also show some traits characteristic of the transition from Early to Late Classic. Among these is the treatment of feathers on Stela 25, in which the quill is indicated at the side instead of in the middle of the feather, which overlaps the one above it. The headdress of Stela 25, though it is fastened around the head, retains the hanging flaps, which on

earlier figures cover the back of the neck. The same element occurs also on Stela 5 at Tikal, which, though a much later monument, nevertheless shows a number of other archaisms. The wristlets of Stela 26 are typical of this period in Piedras Negras, and are similar to those on the Lacanja monument. Those of Stela 25 are more characteristic of the Late Classic Period, but lack the finishing details used in the Ornate Phase.

Comparing with Stela 25 the next figure of its type, Stela 6 (fig. 52,b) erected in 9.12.15.0.0, we can see a decided difference in the modeling of the figure, whose shoulders recede into the background. The shadows cast by the headdress, especially by the panache of plumes above it, form a deliberately composed pattern. There is still, however, lack of unity in the design as a whole, since the low relief of the surrounding panel is in no way related to the composition of the figure. The design of the headdress, too, retains certain archaisms, for instance, the mask-fastening under the chin and the ornate ear-plugs, though these no longer form a single unit of design with the headdress but are treated as separate, nonfunctional elements. At this period such headdress elements are already rare. The last instance at Copan is on Stela I in 9.12.5.0.0.

These niche figures at Piedras Negras all represent the same subject. The figure is shown sitting in a shrine ascended by a ladder and draped with a curtain above. The sky band which occurs with the "Beneficent God" at Yaxchilan decorates the shrine, and above is a winged motif like the designs on the inner shrines of the Palenque temples. There seems to be a close correspondence between the Piedras Negras niche figure and the "Beneficent God" motif, and both may be related to the grain scatterers portrayed on Stelae 2 and 13 at Piedras Negras (see fig. 70,b).

The so-called "warrior" figures—Stelae 26, 31, 35, 7, 8, and 9 (fig. 53)—preserve strongly local characteristics, not only in their dress but also in the manner of presenting the figure.

Some of these characteristics, although limited within the Classic area to Piedras Negras, occur in a modified form in areas outside. Seler gives a drawing of a stone figure from a finca near Xochicalco whose headdress is very similar to that of the Piedras Negras warriors, although the figure appears to represent a woman (1902-23, vol. 2, no. 2, fig. 64). Jades and figurines from various parts of Mexico sometimes show similarities to this design. The small rectangu-

lar shield carried by the warriors occurs only at Morales, Tabasco, within the Classic area, but similar shields are used in very late times at Halakal and at Chichen Itza. In view of the fact that the stone vault, which was an important trait in Classic culture, was apparently not used in the Early Classic Period at Piedras Negras, one may wonder whether this city did not originally form part of a cultural area distinct from the rest of the Peten and more closely allied to southern areas of Mexico.

Even in later times, the "warriors" preserve a remarkable degree of stylistic independence from current artistic trends. They maintain a measure of rigidity of composition at the same time when other subjects are rendered with greater freedom. Their chronology can be judged only by the treatment of detail and the carving technique. On Stelae 26 and 35 one may note the early treatment of featherwork, and on Stelae 26 and 31 the simple design of the collars as indications of their early date.

Lintel 2 shows the warrior motif in a larger composition; the design, carved in 9.11.15.0.0, shows no archaism whatever, except perhaps the rather simple treatment of the relief. The dress of the figures is, for this period, local in type, though later its influence is felt in other regions. Although the design is clearly Late Classic, the circle around the eye worn by the minor figure at the right recalls apparently late non-Classic sculptures such as the jamb from Halakal (fig. 104, *a*) and the recumbent figures on the frieze of the Temple of the Warriors at Chichen Itza. The relation of sculptures at Piedras Negras with Yucatan is again illustrated by Lintel 4, in which the figure wears a sleeveless jacket like those shown on the jambs of the Codz Poop at Kabah (fig. 103, *a, b*). This jacket is also worn at Yaxchilan, but here curiously enough it is the later sculptures which seem to be related to Yucatan designs, whereas at Piedras Negras similarity is strongest in the Formative Phase. Our chronology, however, is too uncertain to establish this point beyond question. Lintel 4 (Piedras Negras) has other peculiar traits such as the earplug which hangs from the lobe instead of covering the ear. This is definitely non-Classic but more suggestive of the Pacific slope of Guatemala than of Yucatan. Unfortunately, Lintel 4 is undated. Its "warrior" composition, however, and the simple treatment of wristlets suggest the Formative Phase.

Lintel 5 is another warrior now badly eroded, but Lintel 7 shows a different design which apparently gained later in popularity. Its central figure recalls

that of Altar 2 at Bonampak and the two are probably of the same general period.

Another group of monuments at Piedras Negras attributed to the first part of the Late Classic Period are Stelae 32, 33, and 34. These are carved in low relief and are distinguished by an informal arrangement of the figure. Of these only Stela 34, erected in 9.11.0.0.0, still shows early traits. It introduces into Piedras Negras the serpent-fret type of apron, which seems to be indigenous in the Peten, at a time shortly before Copan began to receive its influences from the Usumacinta. This apron is partly obscured by an ornament hanging just below waist level, and does not have the formal regularity of later designs. The overlapping feathers at the lower left also testify to an early date. The hatchet held in the right hand of the figure resembles a type common in western Yucatan, and the short loincloth with its end hanging between the legs also suggests a Yucatan connection. These traits appear to fade out at Piedras Negras as the Late Classic Period progresses, but similar traits persist in Yaxchilan and in the region of the upper drainage of the Usumacinta. The reason for this is not entirely clear.

Stelae 32 and 33 are free of any traces of archaism. The suggested dates for these monuments, 9.10.10.0.0 and 9.10.15.0.0, are nevertheless probably correct. The use of the double-line shaft indication on the feathers of Stela 33 argues a later position, but, on the other hand, the relief of these figures, which makes no emphasis of aesthetically significant lines, the position of the sitting figure, which leans slightly but does not bend at the waist, and the design of the headdresses, lacking the formal rectangularity that characterizes the Ornate Phase, are all consistent with a date prior to 9.13.0.0.0.

#### PALENQUE

At Palenque there is no epigraphic series that can be used as a base for stylistic appraisal, and its highly individual style cannot be readily judged by the criteria established for other sites. The ornamental elaboration of scroll forms, so useful elsewhere in determining chronology, did not progress at Palenque beyond the stage of studied but simple outlines. Other imperfectly developed features can be observed in the details of dress on Palenque figures. On the stucco panels of House D, however, we find these in combination with traits which are certainly later, and we may infer that the development of ornamental forms was somewhat retarded in this

region. The style of most Palenque sculptures fits best at the end of the Formative Phase or at the beginning of the Ornate. The stucco decoration and the sculptured panel in House E, the piers of House C, and the "young man" panel of the Temple of the Cross all have marked early characteristics, although in the last case the archaism appears to be deliberate. Since there are no dates in the whole series, however, more detailed discussion of it is deferred until the next section dealing with the period after 9.13.0.0.0, so that the entire group can be considered together.

#### CHIAPAS HIGHLANDS

(Tonina, Tenam, Chinkultic, Santo Ton,  
Stone of Chiapa)

There is a similar situation at Tonina, where monuments show a very strong admixture of early mannerisms, combined with a highly developed technique of carving. Here, however, is at least one piece which without question belongs to the Formative Phase of the Late Classic Period. This is Monument T-32, a fragment of a headdress carved in a style strongly reminiscent of the early group of sculptures at Copan, erected between 9.9.0.0.0 and 9.11.0.0.0 (fig. 47, *b*). It consists of superimposed masks held together by thin, vertical bands of the twist motif superimposed on the earplugs. Above this is a wing element attached to the earplug and only loosely related to the masks. The face of the figure is closely framed, as if the headdress is fastened under the chin. As are most Tonina sculptures, the entire piece is shaped to the form of the headdress. This type of carving, which is not full round but nevertheless follows the general outlines of the figure, occurs also on the Stela of Palenque. The body of T-32 is missing. This is a great loss, because a number of torsos found at this site cannot be clearly related to a style of known date. All the extant pieces are carved in high, round relief with their feet placed obliquely. This mode of carving was not used at Copan until 9.14.10.0.0.

On the other hand, many of the graphs constructed for Tonina monuments point to dates consistent with the ornamental development of the beginning of the Late Classic Period. In most cases, however, the graphs are indecisive, since they are based on fragments lacking many of the elements important in stylistic determination. Possibly the progress of the ornamental development was retarded here in some degree by the isolation of the

region from other parts of the Maya area; or the manner of presenting the figure and the technique of showing the detail may have been in advance of that at Copan. Thus, although the sequence of development may be generally inferred, precise dating of these monuments is not possible.

The date 9.11.5.0.0 suggested by Morley for Monument T-28 is entirely consistent with its degree of ornamental development, which still shows many elements derived from the Early Classic Period. The design of the apron of the loincloth, the beaded fringe of the skirt, and the outline of the leaf elements on the fringe motif, find direct parallels in early Copan sculptures. The stocky proportions of the figure, the round relief of its legs, the diagonally placed feet with the tassel of the loincloth depicted on a column between them, and the finely modulated rendering of the detail, particularly of the texture of the skirt, are qualities which one does not see at Copan until after 9.14.0.0.0. Monument T-12 is very similar. The diagonal placing of the arms is early. The design of the belt and the decorative elements on the frets of the apron, with the tassel obscuring its face, are all transitional forms. T-26 is somewhat more advanced, but there is archaism in the design of its headdress, which includes the earplugs and makes no use of featherwork.

These sculptures may be regarded as intermediate in style between the early group at Copan (9.9.0.0.0–9.12.0.0.0) and the late group (9.14.10.0.0–9.16.10.0.0). Although their graphs suggest the possibility of even earlier dates, the period between 9.11.0.0.0 and 9.15.0.0.0 should adequately include the series.

A headdress similar to that of T-26 is also reported from a finca near Tenam (Blom and La Farge, 1926–27, p. 425). Further explorations of this region and the valleys to the north may reveal other examples of this style and help to clarify its relation to the style of Copan.

Strangely enough, with this one exception, the sculpture from Tenam, Chinkultic, and Comitán is in low relief. One example is the ball court marker from Chinkultic, which bears the date 9.7.17.12.14. The carving is excellently preserved and shows a degree of artistic merit unusual for its period. The early date, however, though it is not a Period Ending, is confirmed by the treatment of the featherwork, which is raised on one side and has the quill indication off center. While the 9.7 date should not be literally accepted as the contemporaneous one, it

was probably not very far in the past when this monument was carved.

Stela 10 at Chinkultic has an Initial Series in Katun 9. The design of this stela, particularly the arrangement of the featherwork, seems to indicate a somewhat later date, and it is my belief that the count probably carries forward for two or three katuns. Formative traits, however, are in evidence: for example, the snout of the serpent mask, which turns back, the position of the hands of the minor figure, and the apparent lack of outlines or borders on the collar of the principal personage. There seems to be no attempt to balance the two figures, who are standing stiffly side by side, or to use the line of the feathers for purposes of pure composition. The very slim proportions of the minor figure also suggest a date in the Formative Phase (fig. 48,c).

Another monument which may possibly belong in this phase is Stela 1 at Santo Ton. This is suggested by its strictly axial arrangement and by the vertical ribbon or band which apparently serves to fasten the upper ornaments of its headdress. Such functionally rather than ornamentally related elements are usually fairly good indications of an early date, for expression tends to be less literal as ornament becomes the principal subject. A similar vertical band may be observed on the early Stela 7 at Tikal and on the Stone of Chiapa. It is true, however, that such bands also occur in later periods, as for instance on Stela 9 at La Florida, though here it is somewhat more formally integrated with the design of the headdress. The omission of the sandal also throws some doubt on an early date for the Santo Ton monument. In rare instances it occurs even in the Early Period, but it is more often associated with the period after 9.16.0.0.0 when the dancing pose was introduced. Since the stylistic indications are indecisive, the date of this stela remains in doubt.

The well-known "Stone of Chiapa" presents another instance of the vertical band on the headdress. The design of the earplug, with its rope or twist-motif attachment, is also early. This figure holds the ceremonial bar nearly vertically, as do the figure of Stela 25 at Naranjo (9.9.2.0.4) and the figures at Coba. The supraorbital plate of the serpent has a simple outline and an archaic decoration of transverse lines on the snout. The date 9.19.0.0.0 suggested for this monument is incongruous with these early stylistic traits. It may be recalled that what appear to be very large numbers, with periods above a cycle occur also on Stela 10 at Tikal and on Stela 1 at Coba,

both monuments of the Formative Phase. Although higher periods also occur on later monuments, the resemblance of the inscription on the Stone of Chiapa to the series on these two monuments tends to confirm our stylistic appraisal of it as early in the Late Classic series.

#### NORTHERN SITES

(Coba, Jaina, Etzna)

We have found on the southern margin of the Maya area a strong persistence of Early Period traits. In the northeast the full complex of dress details which comes to characterize the Late Period appears virtually complete at its very start on the monuments at Coba (provided, of course, that Thompson's reading of the dates there is correct). Unfortunately, the inscriptions are long and very badly weathered. Sometimes they contain more than one Initial Series, and the difficulty of deciphering the dates must be taken into consideration. The dates given for Stelae 6 and 4 (9.9.0.0.0 and 9.9.10.0.0) are somewhat doubtful. In this study both monuments are tentatively placed at 9.9.10.0.0, for the latter date also occurs on Stela 6 and the latest has been chosen uniformly as the contemporary date.

Except for a modified archaism in the position of the arms and the ceremonial bar, an absence of notches and projections on scrolls, and possibly the use of an archaic molar on serpent heads, there are no clearly definable early characteristics on these stelae. The headdresses are fastened around the head, and their plumage is attached to a formal wing element, designed on rectangular lines. Sandals with a fringed ankle-guard are worn, and the cufflike beaded wristlets, on Stela 6, apparently have a specialized row of beads at the top. Thompson, in his discussion of the Coba sculptures, comments on their advanced qualities. "The art of the early stelae of Macanxoc is very far in advance of that of the early stelae at Naranjo, for instance, where the early Stela 25, carrying the date 9.9.0.0.0 3 Ahau 3 Zotz, is much more primitive than anything in Cobá, and even the later stelae dating from around Katun 14 are less sophisticated than the Cobá stelae dating from a Katun or two earlier" (Thompson, Pollock, and Charlot, 1932, p. 196).

Stelae 1, 2, 3, 5, and 21 and probably also 8, 12, and 15 are very similar to the earlier monuments. Erosion has made a comparison of significant detail extremely difficult, and no clear advances in ornamental development are perceptible. Charlot, in his

stylistic study of the Coba monuments, very sensibly concludes that a chronological arrangement on a stylistic basis has small chances of corresponding to fact (Thompson, Pollock, and Charlot, 1932, p. 190). In the case of Stela 21, the very qualities which convince Thompson and Charlot that the monument is early argue, in my opinion, a later date. Although the indifferent execution of the figure gives a superficial impression of crudity, the formal development of the dress details is at least as advanced as that on other monuments. The date 9.11.0.0.0 cannot be justified on the basis of quality, for Stela 6, admittedly erected in 9.9.0.0.0 or 9.9.10.0.0, is certainly superior to Stela 21, and if we regard the crudities of execution as evidence of the imperfect development of the style, an even earlier date for Stela 21 would be indicated. Against this we have some evidence. The hands of the figure are open, not clasped as in the Early Period, whose influence can still be seen on Stela 6. The belt head-ornament seems to omit the indication of hair and replace it with the conventional knot characteristic of later periods. None of the dates suggested by the epigraphic evidence is entirely satisfactory stylistically; in a case such as this, when crucial detail cannot be clearly made out and the inscription is equally obscure, any assigned date would be little more than a guess.

A characteristic feature of this group at Coba is the bar ornament which hangs on a very long necklace of tau-shaped (or, in reality, probably bell-shaped) beads. Such necklaces occur on Stelae 1 and 2 at Tikal, and on the altar associated with Stela 26 at Uaxactun. As in the case of the first Copan stelae, which also resemble the latter monuments although not in the same details, the divergence of the unknown variant ancestral to the Coba school seems also to date back at least as far as the turn of the cycle. As at Copan also, the style is remarkably uniform and seems to have persisted for some time without major changes.

As we have seen, there is a greater variety of subject and style at this time in the Usumacinta area. This is probably true also of western Yucatan, which may be one of the reasons that we have been unable to discover or identify a group here of comparable antiquity, although Oxkintok at least and probably other sites have a monumental sequence that may extend back into the Early Period.

Stela 1 Jaina (fig. 45, *c*) has none of the formal qualities of the Coba group, and although the best reading of its date is 9.11.0.0.0, the lack of rigidity

in the arrangement of its figures and the casual execution of its detail are comparable only to late carvings in the rest of the Maya area. The arrangement itself, which involves several figures, is foreign to the Classic Maya tradition. It may be the prototype of the paneled arrangements at Oxkintok and Etzna, none of which has been dated. In the southern part of the Maya area such arrangements are always late; sometimes, as on Stela 3 at Seibal, they are associated with non-Classic traits. The figures of the Jaina stela, however, are essentially Classic and link it closely with the general Maya development. Their style, unfortunately, is undistinguished by any traits which are characteristic of a period. This sculpture is further discussed in connection with other monuments of the northern sites (see p. 160).

At Etzna, Stelae 18 and 19 (fig. 46, *a, b*) are Classic in character and consistent in style with the dates of their Initial Series—9.12.0.0.0 and 9.13.0.0.0. Except for a faint trace of archaism in the design of the headdress of Stela 18, with the wing element not quite vertically placed in respect to the mask, these monuments show a mature Late Classic development, as yet not complicated by a preoccupation with ornament. The short loincloth is a local characteristic, common at Yaxchilan and in the Puuc region. Two new elements, which later become common throughout the Maya area, occur for the first time: the horizontally placed motif at the end of the loincloth-apron, and the manikin sceptre, which after 9.15.0.0.0 is almost universally preferred to the earlier serpent bar.

It is remarkable that many traits, typical of the Late Classic Period occur for the first time in northern and western Yucatan or in the southwest; for example, the formal plumed headdress, the fringed sandal, the cufflike wristlet, beaded plumes, and the manikin sceptre. It is well perhaps not to attach too much importance to this point, for the beginning of the Late Classic Period is meagerly represented in the central area. Nevertheless, the evidence seems to indicate, not a central artistic center from which influences were emanating, but rather the contrary: the absorption by the center of influences from highly developed peripheral styles. It is perhaps pertinent also to note that the Late Classic style achieves its highest integration at about the time or shortly after the beginning of the Period of Uniformity which Teeple noted in the inscriptions. After 9.13.0.0.0, although regional peculiarities remain, elements of costume and mannerisms of rendering appear to

be freely exchanged. Particularly notable is the strengthening influence of the Usumacinta styles on the art of the Peten and Copan.

There may be some sociological implication in this growth of contact between regions within the area, at a time when art shows virtually no influences from the outside, except, perhaps in the outlying district of Yucatan. It seems to be more than a mere strengthening of trade relations between important centers, and some sort of political integration of the southern lowland area might very well have accompanied the process.

### THE LATE CLASSIC PERIOD

#### The Ornate Phase (9.13.0.0.0-9.16.0.0.0)

Static composition. Notched scroll. Elaboration of ornament. Emphasis on textiles designs. Finely modulated relief.

The period between 9.13.0.0.0 and 9.16.0.0.0, which is the apex of the Ornate Phase, is characterized by the elaboration of detail and its precise and sensitive rendering. At first apparent only in the rendering of dress details, of embroideries and textures, this preoccupation with pure form rather than subject culminates in the elaboration of scrolls and other abstract and symbolic motifs. The notches and projections of scroll forms and the studied care with which they are related to the main directions inherent in the form can be used as a diagnostic of the mature Late Classic style. Though not all schools of the period employ such abstract forms, the influence of this development is reflected in the details of costume and in their treatment as independently decorative motifs.

#### THE PETEN

(Tikal, Uaxactun, Xultun, Naranjo, Itsimte, Calakmul, El Palmar, Oxpemul)

Stela 16 at Tikal (9.14.0.0.0) is an excellent though somewhat conservative example of this phase. It is an extremely formal arrangement, in which masses of ornament are deliberately used as the principal elements of composition and great care is lavished on the design of every individual detail. The simultaneous use of two pectorals, the treatment of the sandal, the anklet, and the garter, the elaboration of the earplug and the noseplug, the design of the skirt and its fringe, together show a preoccupation with ornament and its forms and textures typical of this phase which was becoming free from concentration on the literal expression of the subject, but in which inter-

est had not yet shifted to the composition of abstract forms and lines, and the emphasis of mobile qualities. The figure holds a ceremonial bar in such a way that the arms are sharply foreshortened and only the hands can be seen. This is an advance over the earlier mode of showing limbs as far as possible in their most significant proportions, but it avoids the problem of perspective by obscuring the foreshortened member.

In front of Stela 16 is the round carved Altar V. The treatment of textures and detail is simpler on this altar than on the stela, and there is more freedom in the composition of the figures. This is generally true, however, of minor figures, which are less strictly governed by the edicts of convention. Consequently, they are more difficult to place in time, often showing articles of dress that do not appear on contemporary stela figures. Altogether, I am more inclined to agree with Spinden (1924, p. 214) that the "artistic evidence is non-committal," than to accept Morley's categorical judgment (1937-38, 1: 340) that "Esthetically considered, it is impossible for either Stela 16 or Altar V to have been carved later than Stela 5." Indeed if Altar V is not contemporaneous with Stela 16, it is probably considerably later than Stela 5. This judgment is based not so much on stylistic considerations as on the motif of the bones and skull, which seldom appears on Classic monuments. The headdress of the left figure is decorated with crossed bones, a design that occurs on the late paintings at Bonampak. The form of this headdress, which looks like a coolie hat, recurs on Stela 9 at Oxkintok, which is also probably a late monument. The design of the loincloth apron suggests Stela 3 at Itsimte (9.16.0.0.0?) and Stela 1 at Comitán (10.2.5.0.0; fig. 26, *u-w*). In spite of the late association of motifs, however, the altar shows few qualities of dynamic composition. The poses of the figures are not axial but there is no attempt to adjust them to a round field. Elements are allowed to pass out of sight as they reach the border and the lower part of the figures is cut off by a straight line of an altar or platform supporting the bones and skull. The treatment of detail is not elaborate but very fine, and, although there is a tendency to prefer incising to modeling, textural effects are not neglected. Certainly the stylistic evidence leaves the way open for a late date for this monument, but it cannot be regarded as decisive.

Stela 5 at Tikal (9.15.13.0.0) is executed in higher and rounder relief than is Stela 16 but has the same



qualities of extremely intricate detail and the same stiffness of arrangement. The swirling featherwork enlivens the design, but the direction of its motion is only loosely integrated with the composition as a whole. This monument exhibits unexpectedly archaic traits in its costume accessories, which are anachronistic to the unmistakably ornate manner of its rendering, with its fine gradations of relief and its intricate forms. The wristlet is a direct copy from the Early Period; the flap of the headdress, which obscures the back of the neck, is also a relic of the past. These traits must have been already obsolete when this monument was carved, and their occurrence must be explained by a deliberate attempt to portray old-fashioned articles of dress. Probably this is because the monument stands in a group of early stelae.

Stela 20 (fig. 60,*a*) is again carved in low relief but is similar to Stela 5 in arrangement and in the character of the detail. This monument was probably erected in 9.16.0.0.0 and shows a number of late features, such as the wearing of the shield on the wrist and the prominent scrolls at the end of the bag held by the figure. In front of this stela is a round altar on which is carved a bound captive, showing very similar qualities of delineation (fig. 61,*a*).

The exquisitely carved wooden lintels of Tikal are not dated with certainty but feature the lahuntun ending 9.15.10.0.0, from which the count continues forward. They are all closely allied in style, and on the basis of epigraphic evidence, therefore, can be placed tentatively at the very end of the period we are discussing or at the beginning of the next. This chronological position—between 9.15.10.0.0 and 9.17.10.0.0—is entirely confirmed by the stylistic evidence. In every case, the detail is beautifully and realistically worked out, with redundancy of ornament. The compositions, on the other hand, tend to be simple and static, and each element is independently conceived. The internal structure of the individual form receives most of the artist's attention. The lintels of the great temples have particularly elaborate scrollwork, closely related to the forms developed at Copan between 9.14.10.0.0 and 9.16.0.0.0. Notches and projections are even more elaborate than at Copan and sometimes approach late forms, but the delineation is always studied and precise and has none of the spontaneity of very late designs. A number of late traits, however, appear on the carvings, whose introduction into general use dates from about 9.16.0.0.0, so that it is somewhat more probable that these lintels were carved after, rather than

before, this date. Among these later traits is the design of the sandal on the lintel which Maudslay assigns to Temple A. It is decorated with a bird head facing back from the heel. The open heel of the sandal depicted on the Basle lintel and the wearing of the shield on the wrist are other late traits. The use of the ornament hanging from the belt of the figure is an archaism which may be surprising in such late carvings (fig. 23,*y*). The sporadic occurrence of such early elements, however, is not in itself unusual; the design and form of this motif is easily distinguishable from that of the Early Period. The same type of rope hanging from the belt is shown in front view on Stela 13 at Naranjo, dated 9.17.10.0.0 (fig. 23,*x*).

The stelae of this period at Uaxactun are almost entirely destroyed. Stela 2 is probably a monument of this period, also perhaps Stela 14, which shows no late characteristics, though Morley gives it a late date. At Xultun, also, no good examples have survived. Stela 2, which Morley tentatively dates 9.13.0.0.0, and Stela 15 (9.14.0.0.0) are in very poor condition. Little more remains at Naachtun, though this site has a large series of monuments. The exaggerated pectoral and round shield worn by the figure on Stela 2, Naachtun, is in keeping with the style of this phase, although its Initial Series seems to be earlier and is read by Morley as 9.10.10.0.0 (see p. 115). Stela 18, dated tentatively at 9.11.0.0.0, also shows a round shield, and the bold outlining of the collar of the figure is not consistent with such an early date. Not enough remains of Stela 4 to give evidences of style, but the rendering of the plumes confirms its suggested date of 9.14.10.0.0. Stela 9 is only a fragment; Stela 6 barely shows the outline of a figure and its serpent headdress.

Of all the Peten sites, Naranjo has the best series of monuments of this period. As a group, they are conservative, restrained, and formal in their design. The development of elaborate scrollwork and of the free and fluid line which distinguishes the sculpture of Calakmul and Copan, made little impression on the style of Naranjo until the late period. Curiously too, at 9.15.0.0.0 and 9.16.0.0.0, when the Ornate Phase reached its highest state of advancement, there is a gap in the sculptural sequence at this site. The earlier phases of sculpture at Naranjo, represented only by Stela 25, are also virtually unknown. The sequence begins again 80 years later with Stelae 22 and 24 (9.13.10.0.0) and continues with Stela 21 (9.13.15.0.0), Stela 23 (9.14.0.0.0), Stelae 29 and 30 (9.14.3.0.0), and Stelae 28 and 31 (9.14.10.0.0), a

group which is concentrated in a period of one katun. I believe we can also safely include Stelae 1 and 20 in this group. However, since Morley has appraised Stela 20 (fig. 55,*a*) as a late monument and has placed it stylistically as intermediate between Stela 14 and Stela 12, it may be well to discuss its stylistic traits in detail and to attempt to refute the arguments for its late position.

In discussing Stelae 13, 6, and 14, Morley states his stylistic criteria as follows: (1) increasing naturalness in the position and proportions of the principal figure; (2) increasing profusion and flamboyance in costume accessories; and (3) increasing excellence in the carving of details. He then continues (1937-38, 2: 130): "Stela 20 is certainly stylistically inferior to Stela 12 (9.18.10.0.0) and superior to Stela 14 (9.18.0.0.0). This order, Stelae 14, 20 and 12, seems indicated by the same criteria as the sequence of Stelae 13, 6, and 14 above." Morley in a measure admits that the sequence is too short in time to reveal such general trends when he adjusts the dating to fit the epigraphic evidence and justifies the adjustment by the fact that the individual skill of artists may vary. If we test the criteria with the known sequence of dated monuments, we will find that these trends are not consistent. For example, the positions of the figures on Stela 13 (9.17.10.0.0), Stela 28 (9.14.10.0.0?), and Stela 30 (9.14.10.0.0) are almost identical. As to bodily proportions, it may be argued that the figure on Stela 30 has a singularly short left arm, but this defect is not entirely corrected on the later Stela 13. The position of the figure on Stela 22 (9.13.10.0.0), on the other hand, is as graceful as any, and the figure holds the ceremonial bar in exactly the same unusual way as does the figure on Stela 20, with the right arm extended to support it. The quality in position which marks both Stelae 12 and 14 as late monuments is the modification of the normal symmetry of the body, particularly of the legs. On Stela 14 the feet of the figure are standing on slightly different levels, so that one leg is a little longer than the other; on Stela 12 the lines of the belt and the apron are not perpendicular but slant in a way which stresses the direction in which the figure faces. Such deliberate irregularities which break the vertical axis are typical of the later styles. Though the lack of them in Stela 20 does not necessarily prove its earlier date, it has some weight as confirmatory evidence if it can be shown that the monument exhibits no other late features.

Passing to the next criterion, that of profusion

and flamboyance of accessories, we must regard the two separately, for the mere multiplication of accessories is a different quality from their free distortion for the purposes of design, which is the essence of the truly flamboyant Maya school, coming to maturity at a later date. In fact, almost every accessory shown on Stela 20 can be duplicated in the design of Stela 22 (9.13.10.0.0; fig. 55,*b*), the earliest monument of the series, with the possible exception of the forward-flung panache of plumes, which is compensated on Stela 22 by a large scroll issuing from the headdress. The flamboyance of Stelae 14 and 12 (fig. 64,*b*), on the other hand, is expressed not in the multiplication of detail but in the adaptation of such subsidiary elements as scrolls to the shape of the field on which they are depicted, and in their utilization as important and purely decorative motifs to adorn the background. The disproportion between the enormous scrolls and the inconspicuous manikin heads to which they are attached shows that the artist had little regard for their function as elements of the subject, and exploited their purely decorative properties. The fluid distortions of the serpent snout, which turns in a forward direction, and the forward-turning scrolls of the supraorbital plate are other late features which Stela 20 lacks. The serpent heads on Stela 20, with snouts turning back, are like those of Stela 22 and are, even for this period, of conservative design. On the basis of Morley's own criterion of flamboyance, Stela 20 belongs with the earlier group of monuments.

The quality of the detail is more difficult to judge. Regarding the fine depiction of textile design on Stela 21 (9.13.15.0.0), it appears to me that later sculptures were less excellent in this respect. Beautifully executed monuments occur in the Dynamic Phase as well as earlier, but virtuosity in carving had already reached its peak in 9.13.0.0.0; in many instances the Dynamic Phase brings with its simplifications and distortions a certain casualness in technique and a progressive inattention to detail. Within the contested range of dates for Stela 20, excellence of carving is hardly a valid test, but it weighs in favor of rather than against an earlier position.

There are also a number of specific details which tend to show that Stela 20 probably belongs with the earlier group of Naranjo monuments. To list these briefly: (1) The type of sandal: on Stela 20—textile design, heel eroded; Stelae 14 and 12—backward-facing head, heel open at back. (2) The type of loincloth-apron: Stela 20—simple frets, details of

serpent eroded; Stela 14—simple frets, serpent eye with forward-turning scroll, full mouth on face of apron; Stela 12—projecting frets, marked lack of rectangularity, full mouth on mask design. (3) Belt heads: Stela 20—earplugs and hair indicated; Stelae 14 and 12—round earplugs on cheeks of face, hair omitted. (4) Wristlets: Stela 20—no horizontal borders; Stela 14—light horizontal borders; Stela 12—strong borders, vertical elements set apart. (5) Featherwork: Stela 20—small tassels, feather panache allowed to pass behind border, quill indicated by single line; Stela 14—no tassels; panache designed to fill space, double-line quill; Stela 12—long tassels, feathers treated as a mass, with long sweep of plumes filling upper left corner; double-line quill indication.

The best line of argument for an earlier position for Stela 20 is in the summation of traits shown by the graph in figure 6, *c*. This graph is altogether comparable to others constructed for the group whose dates range from 9.13.10.0.0 to 9.14.10.0.0, and it is unlikely that the date of Stela 20 lies far outside this range. Morley considers only dates after 9.15.0.0.0 as possibilities for the position of 7 Cib 14 Chen or Yax, inscribed on the face of the stela. He excludes 9.11.9.17.16 and 9.14.2.12.16 7 Cib 14 Chen as well as 9.10.9.13.16 or 9.13.2.8.16 7 Cib 14 Yax. The value 9.14.2.12.16 is probable both from the appearance of the month glyph and from its chronological position, with 9.13.2.8.16 as a close second. Except for the fact, however, that the former date lies close to 9.14.3.0.0, which seems to have been important at Naranjo, it has no peculiar significance. There is a date at Tikal, 5 Cib 14 Zotz, for which Morley has suggested the Long Count position 9.15.2.12.16 and which could be its katun anniversary, but this relationship may be merely fortuitous.

Two more monuments at Naranjo, Stelae 2 and 3, can be properly placed in the period between 9.13.0.0.0 and 9.16.0.0.0. Stela 3 shows a skirted figure very much like those of Stelae 24 and 29 and is probably of the same general period. Stela 2 is a little different, and in the design of dress and accessories shows the influence of the Usumacinta school. Almost every detail of Stela 2 appears also on Stela 2 at Cancuen, on the Pasion River, but the specific features which mark the latter monument as late are missing on the Naranjo figure. Since almost all the detail can be traced back to earlier monuments at Piedras Negras, there is no reason to advance the date of Stela 2 far beyond its Initial Series, which falls in Katun 14. The only feature which has a late

distribution and has not been observed in earlier periods is the short, double-shafted spear. The proper position of Stela 11 in the sequence of Naranjo monuments is very uncertain although the monument is well preserved. Morley gives a questionable estimate of 9.11.10.0.0. The style graph centers on 9.14.0.0.0, but it is broad and without a definite peak. It may be somewhat distorted by the fact that there are no other Katun 11 dates at Naranjo and many in Katun 14. The parallel arrangement of the plumes, on the other hand, and the way they follow the border suggests a date later than either of these estimates. The rendering is similar to that on Stela 19 (9.17.10.0.0). Stylistic evidence raises a strong doubt that such an early date as 9.11.10.0.0 can be correct. It is more likely that this is one of the conservative monuments of the Dynamic Phase, of which there are several at Naranjo.

Reviewing the development of sculpture at Naranjo between 9.13.0.0.0 and 9.16.0.0.0, we find a distinctive style, perhaps related to the slightly earlier style at Coba, fully matured at the beginning of this period and showing no progressive changes within the brief span of the existing dates. Intrusive traits, possibly from the upper drainage of the Usumacinta, are not infrequent. Among these is the straight embroidered apron of the loincloth, as on Stela 30, and the interlocking element on the head-dress of Stela 24, which is common also at Piedras Negras and Copan. Although the typical ornate scroll occurs on Stela 22 in 9.13.10.0.0, which is as early as it has been noted anywhere, it is used very little at Naranjo; the ornate development appears to be arrested until the late type of scroll is abruptly introduced again in 9.18.0.0.0. Unfortunately, the period between 9.15.0.0.0 and 9.17.0.0.0 is not represented by dated sculpture, a fact which may have some historical significance in view of the high incidence of dates at this time at Calakmul and at Copan.

From about 9.15.0.0.0 on, some monuments begin to show traces of the late development of dynamic forms and characteristically late details. Stela 5 at Itsimte (Maler's Stela 6) shows more advanced traits than do the monuments at Naranjo. The simplified rendering of the belt-heads, which are all shown in front view as on the Calakmul Stela 52 of the same date (9.15.0.0.0) and on Stela 2 at Motul de San Jose, and the wearing of the shield on the wrist, are typical of the next phase of the Late Classic, which we have named the Dynamic Phase. Stela 3

also shows advanced traits in the dancing position of the figure, in the sandals with open heels, and in the accented horizontal bands of the anklets. The date 9.16.0.0.0 is perhaps as early as can be reasonably ascribed to it.

Calakmul, though in southern Campeche, is typologically a Peten site. It has no less than 74 sculptured monuments ranging from 9.4.0.0.0 to at least 9.19.0.0.0, a period of nearly three centuries. Erosion, however, has so destroyed the detail of the carvings and the dates, that only a small group of stelae, most of whose dates center on the Period Ending 9.15.0.0.0, are actually available for study, and nothing like a historical restoration of the progress of sculptural development can be attempted. The indications, however, are that a decided change took place between 9.13.10.0.0 when Stela 24 was erected and 9.15.0.0.0 when sculpture achieved a very high degree of quality at this important site. Both in time and in character, the change corresponds to a similar development at Copan. The Calakmul artists seemed less concerned, though, with the elaboration and multiplication of motifs, and more with their decorative values. They were keenly aware of the expressive potentiality of lines. In the well preserved group of stelae dated about 9.15.0.0.0—Stelae 51, 52, 53, 54, 89, and 62 (9.16.0.0.0)—we can see, particularly if we study the design of the serpent heads, the same quality of fluid line and extended, somewhat exaggerated form that distinguishes the Great Period at Copan. The supraorbital plate of the serpent head is turned forward in a prominent scroll; its snout also elongated and undulating upward and forward. This development is not apparent at Naranjo until much later, and in 9.14.10.0.0 sculptors still depicted their serpents with these elements turning toward the back. Although the conception of the figure itself at Calakmul tends to be simple, and the intricate ornament that preoccupied Copan sculptors is absent, the attention of the observer is directed to the lively forms of the detail, which are like overtones of the principal design. It is this regard for particular emphasis and the composition of the whole that makes Calakmul sculpture appear to be in advance not only of Naranjo but also of Copan. Particularly notable is the headdress on Stela 51 (fig. 56), in which the motif of the serpent dissolves in a rhythm of undulating forms on a background of cascading curls. Although there is really no mobility in the pose of the figure, the position of the arms is carefully designed to form an arc about the principal area of

attention. Such directional devices begin to be perceptible here for the first time. As yet they do not affect the whole composition and are used subtly without deliberate distortions.

Not all monuments achieve the same degree of artistry, for the skill and taste of the individual sculptor here play an important role. Thus Stela 62, though later, is rigidly designed with the central axis of the figure frankly stressed. The serpent head of the headdress is elongated, and its essential form even more deliberately obscured than on Stela 51 but with less decorative effectiveness. Not infrequently conventions designed with a specific purpose are used by later artists without regard to their essential meaning, and so degenerate into mere mannerisms. That is why excellence is a poor criterion of chronology, especially in late periods when it tends to regress. Newly introduced modes of expression actually lose their effectiveness as they tend to become conventional, for they are aesthetically most potent when they hold the attention of the artist and are consciously exploited.

El Palmar is another site in southern Campeche which appears to have sculpture of high quality but so eroded that it offers little material for study. Stela 8 (fig. 58,*a*), the best-preserved monument of the site, shows a pose and an arrangement of featherwork quite advanced for the date 9.14.10.0.0, as indicated by its inscription. Stelae 12 and 10 (fig. 59,*a*) are probably earlier but are too eroded to be placed accurately. From what little can be seen of its sculpture, Stela 41, which Morley places in a very late period (10.2.15.0.0), is a monument not unlike Stelae 12 and 31; in fact its headdress, with its vertical band placed at an angle to the central mask element, strongly suggests an early date. The nose of the mask, turning forward, is a later feature, however. None of the detail suggests either dynamic arrangement or decadence, and however hesitant one may be to base judgment on such a small fragment, there seem to be sufficient stylistic grounds to refute the suggestion of a very late date.

Lesser sites in the Peten and in southern Campeche do not always attain an equal degree of intricacy and artistic skill in their sculptures. The sculpture of Oxpemul, for example, consistently lacks the delicacy of rendering of contemporary monuments at Calakmul, but it cannot be mistaken either for early or for truly decadent carving. The mobility of the poses of the figures is highly sophisticated and the simplifications are deliberate, of the sort that

become increasingly frequent after 9.15.0.0.0. On Stelae 12 and 17 the use of one head only to decorate a belt which projects beyond the body, probably because ornaments were originally placed on the sides and naturally produced this effect, and the omission of details on these belt-heads, resemble the treatment of the belts on Stelae 6 and 7 at La Honradez, carved at about 9.17.0.0.0. The action pose of Stela 10 at Oxpepul and the exaggerated elements on Stela 9 are features of the late development, expressed more crudely than in finer styles. One may even wonder if this late tendency to simplify and distort did not originate in the styles of the lesser sites, whose artists could not afford the rigid and exacting technical training required in the Classic schools and therefore were less strictly governed by traditional conventions. Though their dates fall within the Ornate Phase, these monuments properly belong with the somewhat later Dynamic group.

#### COPAN, QUIRIGUA

While sculptors in the Peten were concentrating on the development of design in low relief, those of Copan were preoccupied with the technique of sculpture in the round. The stelae of the Ornate Phase—Stelae A, B, D, M, N, F, H, C, and 4, arranged by Spinden in this order—differ sharply from previous monuments. Both Spinden and Morley stress the higher, rounder relief of these sculptures and, on some of them, the more natural angle of the feet of the figure. They assume that the advance along these lines took place gradually and that it can be used as a criterion of time within the span of this later group. The placing of Stelae F and 4 toward the end of the series, in spite of the fact that their dates (9.14.10.0.0 and 9.14.15.0.0?) clearly indicate that they stood near its beginning, is based largely on the virtuosity expressed in their deeply undercut relief. One cannot reasonably assume, however, that each successive artist tried or was able to outdo previous productions technically unless he had some specific improvement in method to aid him. As between this group of stelae and the preceding (Stelae 1, I, 5, and 6) we can infer such an improvement because the difference in the relief is not one of degree but of kind and implies a radical change in the conception of spatial arrangement and very probably also in the methods of preliminary design. The monuments of the earlier group, even when in round relief, are conceived and designed on perpendicular planes. The masses have different de-

grees of projection, but are never oblique to the face of the monument. A drawing of the front or the side of such a stela involves virtually no foreshortening. The artist could design the monument by sketching or blocking it out directly on the surface of the stone, establishing his principal planes and then rounding the forms. This procedure would not be applicable to the later group. Many important elements, such as the feet of the figure and minor motifs, are set at an angle to the faces of the original block, and to the Maya, who were unaccustomed to perspective and foreshortening, the problem of composing a design such as this in preliminary sketches on a plane surface must have been all but insurmountable. They were accustomed, however, to use plastic materials such as clay and stucco, and since the designs of the monuments are very intricate and could hardly have been executed without some preliminary study, it is natural to infer that some sort of model in clay or plaster was used for the purpose. Now whether this inference is correct or not, once the artist has freed himself, in this way or another, from the compulsion to design everything on perpendicular planes, the actual angle of the masses and the depth and roundness of the relief are relatively immaterial. It is the earlier artists, for whom the technique is a novelty and whose imagination is stirred by the totally different conception of three-dimensional forms arranged obliquely in space, who would be the more likely to explore its possibility to the utmost at the expense of other purely formal considerations. The fact that the relief of Stela 4 (fig. 57,*a*) is virtually full round and that the angle of the feet is less than that of other figures of the group does not, therefore, argue for its late position but, on the contrary, suggests that the artist's full attention was centered on the perfection of a newly acquired technique. For this reason, and because the dates are within the range indicated by trait-graphs for the monuments, 9.14.10.0.0 and 9.14.15.0.0 are accepted in this study as the dates of Stelae F and 4.

We have seen that round relief is associated at Copan with elements native to the Usumacinta region, but since we have not found in that region a style of sculpture in the round, it may be that the Usumacinta traits were not introduced into Copan directly. The problem of the relation of the Tonina high-relief sculpture to that at Copan challenges investigation of the intervening areas, which are still virtually unexplored. Tonina artists apparently em-

ployed diagonal masses before they were used at Copan, but only to a very limited degree. The figure alone was designed on a three-dimensional basis. All the ornament and accutments were conceived on subsidiary surfaces that followed the surface of the main mass. It is possible that this technique was inspired by some peripheral style of carving in full round, and that the influence reached Copan later. Once introduced, however, it was exploited at Copan to a degree which raises the technique to a new category entirely, in which elements are freely manipulated and oriented in space.

Possibly also the art of architectural sculpture had something to do with the development of this new manner of design. It may be traceable to the use of stucco ornament, in which forms are built up rather than carved out and are not conditioned by the shape of the original mass. Architectural ornament in stone, though less so than in stucco, is also more independent than monumental sculpture of the original form of the material, for it is built up of individual masses which can be set diagonally into the surrounding masonry. The desire to adapt such designs to monumental sculpture may have precipitated the development of new techniques. The mask decoration on the corners of Stela B (fig. 57, *b*) gives the suggestion that there was close relationship between monumental and architectural sculpture at this time.

Stela H of this group has no Period Ending date, but 9.14.19.5.0 is the same as the terminal date of the Initial Series on Stela A (9.15.0.0.0) and there is very little reason to suppose that it was carved much later. The only late feature on this stela is the rendering of the wristlet, which with its drooping fringe is like the wristlets on Stela 2 at Cancuen, on Stela 12 at Piedras Negras, and on Stela 1 at La Amelia, all late monuments of the middle and upper Usumacinta regions.

Stela C (fig. 51, *a, b*), which also is not dated, is more difficult to place. As in the case of Stela 5 at Tikal and Stela 13 at Yaxha, the combination of early and advanced traits on this monument suggests deliberate copying rather than a transitional style. The east face has more archaic features than the west. Among these are the lack of featherwork; the general arrangement of the headdress, which resembles that of Stelae 3 and I; the tightly clasped hands; the not quite horizontal forearms; the delicate, decorated frets of the apron and the beaded trimming of the skirt. The use of the grotesque face in the design of the serpent head, on the other hand,

is a very advanced trait, though this face on Stela C does not yet have the traditional form seen on Altar O at Copan, Stelae 7 and 12 at Naranjo, and Stela 10 at Seibal (fig. 13, *f', b'*).

There is no Initial Series on Stela C, and its several Ahau dates are not clearly placed in the Long Count. The inscription ends with a date which is somewhat eroded and which Morley interprets as 9.17.12.0.0 4 Ahau 18 Muan. The month coefficient looks more like 13 than 18 and it is equally possible, especially since the next glyph appears to be a hand ending sign, that this date is the end of Katun 15—4 Ahau 13 Yax. 9.18.5.0.0 4 Ahau 13 Ceh is another possibility, but since Stela C shows no traits of the Late Period, the earlier position is preferable on stylistic grounds.

There are two other reasons for preferring an earlier date than Spinden and Morley suggest, not only for Stela C, but for Stelae H, F, and 4 as well. The date 9.16.12.5.17 6 Caban 10 Mol, which is repeated at least a half a dozen times elsewhere at Copan, plays no part in the stela inscriptions. We do not know its significance, but the chances are that it would have been mentioned on one or another of these monuments if they had been erected later, just as the date 9.13.14.13.1, which was a favorite at Piedras Negras, appears on stelae there. There is also the fact that the stylistic qualities associated with this date and with the late Structure 11, particularly the tendency toward strongly outlined and bolder, more architectonic features of design, are not expressed on any of the stelae of this group, though they can already be perceived on Stela N, erected in 9.16.10.0.0. The manikin sceptre, which is widely used in the Peten and at Quirigua after 9.15.0.0.0, is also absent. While none of these arguments is in itself conclusive, our failure to find any expected late traits in the group indicates its limited extent in time.

None of these stelae, moreover, shows the dynamic qualities which elsewhere characterize the next phase of the Late Classic Period. Not only is the pose of the figure static and symmetry strictly preserved, but there is no definite accent produced by the greater elaboration of any part of the design, and the attention of the observer is allowed to gravitate to its natural focus near the center of the monument and to the face as the significant area of the human figure, where it remains at rest. One often fails to notice at first glance the intricate figures concealed in the marginal detail; their design is incidental and distracting to the main impression. The unity of the composition depends largely on symmetrical ar-

rangement, and each element preserves a certain independence of others. The featherwork, for example, is arranged as an effective display in itself, with little relation to the lines of the figure. On the sides of Stelae D and H the sweep of the feathers is used to direct the eye to the front of the monument, but such rare use of directional devices is unrelated to any unified scheme of motion in the design as a whole. Scrolls are also elaborately balanced in themselves and give to the design only a superficial sparkle of small rippling motions without creating any major currents. The extreme elaboration of detail on Copan stelae should be distinguished, therefore, from true flamboyance, which implies a certain spontaneity. Their careful preservation of balance in each element and their very restricted use of expressive lines gives them a truly classic feeling of formal pattern.

The rich architectural sculpture of Copan merits more detailed study than can be undertaken here. The possibility of its influence on monumental sculpture has already been mentioned. There is no evidence, however, of major stylistic changes; it is probable that most of the material we have was executed within a relatively brief period of time. The sculptures associated with the different structures are, however, more or less distinctive in character. Those of the Hieroglyphic Stairway and Structure 26 show particularly strong resemblances to the Usumacinta styles, and there is reason to believe that they are earlier than the sculpture of Temple 11 and probably also of Temple 22. The blending of the square type of shield with its fringe and the round type of the Peten can be observed more than once. The straight embroidered loincloth, the garters with three pendent ornaments, the interlaced angular motif which supports the plumage of the headdress, and the short cape made of separate flaps, all are common at Piedras Negras at the beginning of the Late Classic Period and probably were introduced into Copan at about the time of the erection of Stelae 1 and 6 (9.11.15.0.0-9.12.10.0.0). The Tlaloc motif, also introduced at that time, occurs on the hieroglyphic frieze inside Temple 26.

On the altar at the foot of the Hieroglyphic Stairway is a serpent-mouth design, which is similar to the motifs adorning the doorways of Temples 22 and 11 and which recalls the architectural sculpture of the Rio Bec and Chenes regions. Unfortunately, we do not know when it was carved. Morley believed (1920, p. 272) that the construction of the

stairway began or was projected as early as 9.13.18.17.9, but apparently refers its actual execution to the hiatus in the monumental sequence between 9.15.5.0.0 and 9.16.5.0.0. Although definite stylistic proof is lacking to support this thesis, some details, such as the prominent scrolls on the bag held by the lowest figure, support his view or at least make a date much before 9.16.5.0.0 extremely unlikely.

Spinden suggests that Quirigua may have been founded by colonists from Copan. Although there are enough differences in style and in building practices between the two sites to make this a dubious conclusion, it seems that after 9.16.0.0.0 Quirigua did assume in this area the leadership in monumental production. Stelae T and U, which originally stood on the summit of a hilltop group, A, at some distance from the main ruins, may be earlier monuments. Although Morley mentions the carving of human figures, no photographs of the sculpture are available. Stela S, dated 9.15.15.0.0 and also located in an outlying group, is too eroded to show more than that its figure faced front. Stela H, therefore, is the earliest of the known Quirigua series. In composition it is very much like that of the later Copan monuments, representing a figure holding the ceremonial bar. Although it is carved in high relief, it does not, like the Copan group, employ oblique masses; the design curves around the sides of the stela, which remains blocklike in form. The fringed sandal of this figure is decorated with a grotesque head facing back on the heel, a design which is repeated on subsequent Quirigua monuments. In several respects, however, this monument is different from the others and it lacks their advanced formal organization. The very prominent earplugs and the shape of the face, with low and protruding cheeks, have a grotesque effect, suggesting some non-Classic influence.

#### SAN PEDRO MARTIR

(La Florida)

On the River Pasion to the northwest there are no monuments known at this time, but on the River San Pedro Martir at the site of La Florida, first visited by E. M. Shook in 1943, are two sculptured stelae, one of which, Stela 9 (fig. 61, *b*), is of the Ornate Phase. In style it is related both to the Peten and to the Usumacinta area.

Although this figure was carved in 9.15.0.0.0, its pose already has dynamic quality and even the

feathers, which also have very long tassels, are directed to the motion of the hand. These feathers, however, are not designed in a parallel row, nor are they artificially adapted to the form of the monument. They sweep naturally and pass behind the border. The design of the serpent mask, with its forward-turning nose, and the minute rendering of the borders of the wristlets and the collar, which appear to be a projecting lining rather than raised fillets, are particularly characteristic of its time. There are no distortions or grossly exaggerated elements, and the motif of the cape receives particular attention. Except for the advanced quality of the pose, which may have been developed earlier along the Usumacinta River than elsewhere, this monument is typical of its age.

#### THE USUMACINTA

(Yaxchilan, Piedras Negras, El Chicozapote)

For a site so rich in sculpture, Yaxchilan has a remarkably poor epigraphic sequence. Morley believes that this is due to the chance destruction of the glyphic records, but it is also true that a number of well preserved inscriptions at Yaxchilan contain only Calendar Round dates, which have not been placed in the Long Count. It may be that the practice of recording Initial Series was never so popular at Yaxchilan as elsewhere, and there is the further possibility that the stelae which record only Calendar Round dates are all fairly late and date from a time when the practice of carving long inscriptions was already beginning to be outmoded. In any case, it is unfortunate that the epigraphic sequence is so unsatisfactory, for Yaxchilan has distinctive styles, and some of its monuments do not readily fall into the general sequence of development established for the Peten and Copan but instead show marked relationship to sculpture of western Yucatan, where the chronology is also very uncertain. With the exception of Stela 6 and the monuments of the Early Period, all the deciphered dates fall in Katun 16. This creates a tendency for the graphs which we construct for other monuments to rise to a peak at 9.17.0.0.0, since the distribution of local traits is not known in full. For example, the mobility of pose, characteristic at Yaxchilan, may be due to the habit of presenting group compositions, particularly on carved lintels, where it becomes necessary to stress the relation of two or more figures. Possibly the figures which have a tendency to lean in a particular direction rather than to bend from the waist are

earlier, but we cannot make this distinction while there is no positive evidence in support of it.

Another such trait is the manikin sceptre. In the Peten it makes its first appearance in 9.14.0.0.0, and only after 9.15.0.0.0 becomes a common element. At Etzna, where the style has a number of qualities in common with Yaxchilan, the manikin sceptre appears in 9.12.0.0.0; it is possible that for the western part of the area the presence of the sceptre is not a valid criterion of lateness. It is very curious that the manikin sceptre does not occur either at Piedras Negras or at Copan.

Unless Yaxchilan dates can be more surely deciphered, only intensive archaeological studies, which would throw light on the history of the contacts of this city with other regions, can help to establish here a stylistic sequence, for changes in style are largely dependent on such contacts, having no necessary order of sequence in themselves.

That the stylistic sequence as it stands is very uncertain is attested by the fact that none of the graphs constructed for the stelae rises to a decided peak, except those that do so at the date 9.17.0.0.0. Some of these doubtless belong to the latter half of the Ornate Phase. In this chapter, we will deal only with Stelae 19, 15, 9, and 23, which give altogether uncertain determinations.

According to Maler's description of Yaxchilan stelae, most of them were carved on both broad faces. One face Maler designates as the "deity" side, the other the "human" side. The deity motif usually consists of the figure of "a beneficent god, distributing the good things of life to supplicants" (Maler, 1903, p. 126). Spinden interprets the motif which pours from his hands as a symbol for water; Morley refers to it as a "maniple." The gesture of these figures recalls the grain scatterers of Piedras Negras (Stelae 13 and 40) and similar figures at Ixlu. Possibly it is the same general idea, expressed at Yaxchilan with different symbols. Two figures of this type, Stelae 27 and 6, have already been discussed. On later monuments above the "beneficent god" there is usually the representation of the "sky band," which often takes the form of a double-headed serpent, and cartouches in the form of the sun and moon symbols, enclosing minor figures. This design recalls the niches of Piedras Negras and suggests that the niche figures may be another variant of the same subject. The "deity" side of Yaxchilan stelae faces the temple; the front usually presents a "warrior" type of figure, shown with a long spear.



Unless a monument is standing, only one side of it is likely to be well preserved, since the exposure of the other surface to rain and vegetation eventually effaces all traces of carving. There is a temptation in making a superficial survey of Yaxchilan sculpture, to group together the same motif, especially since, as Maler has noted, the carving of the "deity" side tends to be deeper. If we examine Stela 11, on which both faces are preserved, we note differences in rendering which have no connection with the motif portrayed, as, for instance, the cruder treatment of the featherwork on the "deity" side, the apparently more rectangular relief, and less modulation of the detail, than on the "human" representation. A careful study of the detail shows that these differences are not chronologically significant. If the carving was done by different artists or at different times, it was done in approximately the same period. Possibly the motif itself carries with it certain qualities of technique and is adapted a little differently to the changing modes. The most easily perceptible distinctions in sculpture are those pertaining to the choice of motif and to technical excellence, but these are not usually sensitive criteria of time. While the "deity" figures, as a group, present a strong contrast to the "warrior" figures, I have been unable to discover if this contrast is chronologically significant. The monuments which show no strongly marked late characteristic include a "deity" motif (Stela 6), two warriors (Stelae 19 and 15), and Stela 9, which falls in neither group.

None of these monuments shows the influence of the development characteristic of what we call the Dynamic Phase of the Late Classic Period. This may, however, mean any of three things: that the monument is earlier, that it is an original local production, or even that it postdates the period when Yaxchilan was under the influence of other Classic sites and represents the impact of some peripheral variant. Unless there is some sort of basic sequence for comparison, there are no grounds on which to form a judgment.

Stela 19 stands with Stelae 15, 18, 20, and 16 in front of Temple 41. It is broken into many pieces and only the "warrior" side of the carving is at all preserved. The design, showing a man in side view holding a serrated spear, is very unusual and the manner of its rendering is simple, direct, and stylized. The outline of the thigh is crude in comparison with the more sensitive line used on Stelae 3 and 4. There is no attempt whatever to modify details of dress in

order to form a decorative pattern, to alter and regularize their form, and to relate them to one another. This suggests that Stela 19 may be a monument of the Formative Phase, but the stylistic evidence is not entirely consistent. Stelae 18 and 20 in the same group, which show a like simplicity of rendering, nevertheless employ mannerisms which, so far as we know, first came into use at an advanced phase of the period. In the case of Stela 19 at least one element, a very high wristlet, also points to an advanced date. The type of loincloth apron worn by the figure is common in the Usumacinta area and first appears at Piedras Negras in 9.13.5.0.0. The headdress resembles the design on Stela 21 at Naranjo but is much more simple. The featherwork, arranged in a very long row that reaches down to the hips, is most unusual and its rendering gives no clue of its date. Similar very long rows of feathers are depicted on late murals at Bonampak, but on these murals there are late mannerisms of plume arrangement which Stela 19 does not show. The monument is centered on the building in front of which it stands, in itself an indication that it is the earliest of the group. Since the others are not dated, however, this fact is not very helpful. There seems to be no decisive argument for either a late or an early position for this stela.

This is also true of Stela 15, although in this case the high ornamented ankle-guards of the sandals make a date before 9.13.0.0.0 improbable. The fact that a scene of action is portrayed would elsewhere in itself set even a later limit, but at Yaxchilan, where battle scenes are common, the motif may have a longer history. The motion depicted, moreover, is very restrained and formalized, and may be an early attempt to show action.

There appears to be no stylistic objection to the Long Count positions 9.12.8.14.0 and 9.12.8.14.1 suggested by Morley for the Calendar Round dates on these two monuments. His refutation on stylistic grounds for Bowditch's preference for the position 9.17.14.4.0 for the first date, however, is unfounded. "The stylistic evidence," he writes (1937-38, 2: 433), "moreover, entirely supports the earlier reading but completely disagrees with the Bowditch reading indicating a date of execution more than a century later, and nearly fifteen years after sculpture at Yaxchilan had come to a very decadent end." This is a rash statement in view of the many inscriptions at Yaxchilan which remain undeciphered. It is evidently based on Morley's appraisal of the quality of the lintels of Structure 55, which he believes was

dedicated in 9.16.15.0.0, and Lintel 55, to which he assigns the same date. Inferior quality of carving, however, is not in itself decadence; there are on these lintels no signs of the gross exaggeration of forms and their dissolution which normally accompanies the late decline in draftsmanship. Moreover, there is every reason to believe that Stela 5, Stela 17, and the lintels of Structure 20 were carved considerably later, and that sculpture at Yaxchilan did not cease with the last decipherable date. There is a distinct possibility that the simplicity of the treatment of Stela 19 is itself a trait of decadence rather than of incomplete development.

Stela 9 is in the Ornate Classic tradition. The headdress resembles that worn by the figure of Stela A at Copan; the highly ornamental earplugs and noseplug recall the design of Stela 14 at Tikal. The design of the loincloth is also comparable to the design on Stela A at Copan. It seems to derive from the type of apron worn by the figure on the Leyden Plate, but no other examples between the very early date of this piece and 9.15.0.0.0 are known. The best criteria of the style of Stela 9 are the small ornamental snake heads which decorate the headdress, and the minute rendering of textures, as on the skirt of the figure, combined with a composition which is simple and static and a regard for the functional relationships of the objects portrayed, as for example, the depiction of the loop or slit in the apron of the loincloth, through which is passed the feathered or fringed element held in the hands of the figure. The probable range for the erection of this monument is from about 9.12.0.0.0 to 9.18.0.0.0, with 9.15.0.0.0 as the optimum date.

Stela 23 shows only the lower half of the figures and no distinctive traits except the manner of rendering textile designs which is usually associated with the Ornate Phase. This is true also of the two fragments of Stelae 8 and 30.

Of the many sculptured lintels at Yaxchilan it is difficult to judge which might fall in the Ornate Phase and which in the Dynamic. The badly eroded Lintel 4 of Structure 34 is probably one of the earliest of the sequence after Lintel 36, and may very well have been carved even in the Formative Phase. All others have either qualities of dynamic arrangement or traits usually associated with that period. Some uncertainty remains because the small size of these carvings and their two-figure composition may have led to simplifications and adaptations to the field that normally would not appear on stelae except in

the Dynamic Phase. It appears to me, however, that the stylistic uniformity of the Yaxchilan designs, particularly of the manikin sceptre motif, suggests their concentration in one period and I am inclined to question some of Morley's earlier dates. The only set of lintels which shows no specific traits that can be assigned to the Dynamic Phase is that in Structure 44 (Lintels 44, 45, 46). Even these, however, have so much freedom in the handling of the action of the poses that one may well doubt that they could have been executed as early as 9.13.0.0.0 and a somewhat later date seems more likely. Thompson's reading of the dates is therefore preferable to Morley's.

As at Yaxchilan, monuments at Piedras Negras were often sculptured on both sides, of which only one is now well preserved. There are a number of motifs, and certain mannerisms of rendering are in a measure associated with each.

Stela 2 is probably the earliest monument of the group in front of Temple J-4. It is a small monument sculptured on three sides; its principal figure resembles that of the earlier Stela 32. The relief of the carving on these two monuments is very similar and consists of sharply differentiated grades. One depth is used for the outline of the figure, another for the detail, executed in a low relief that is little more than linework, no element receiving particular stress. Nevertheless, Stela 2 is skillfully executed, with special attention paid to materials and textile design, and, in spite of its formal arrangement, functional naturalism is carefully maintained. Feathers are drawn with a natural sweeping line and are not adapted to the field but allowed to pass behind the border. In this, as in earlier periods, they are always designed either to be contained naturally within the field without distortion or to overlap the border or be obscured by it. There is also no deliberate attempt to compose the figure or to harmonize its symmetry with the direction of its gesture. The axis of the figure is vertical, and the right shoulder is not foreshortened. As the figure is placed squarely in the center of the monument, there is no stress on the gesture of the right hand; the expression of the action is singularly ineffectual, as if the person portrayed is paying no attention to what he is doing.

Stela 4 (9.13.10.0.0) shows a comparable development of relief and composition but a handling of ornament which is more formal and more ornate and which creates a definite pattern in the design. The use of two pectorals, of the very high broad belt, of feathers in the background, and of the rec-

tangulantly designed serpent-frets are features which hint at an influence from the Peten. Stela 16 at Tikal (9.14.10.0.0) is very similar in treatment. The design of the loincloth apron is a combination of the fringed type common in the Usumacinta, with the serpent-fret characteristic in the Peten. This blending of traits of different derivation is particularly common in this period, which, more than those which precede or follow, expresses the interaction of various schools. If we compare this design with the figure of Stela 34, we can perceive different degrees of formalization on the two monuments. The serpent-frets of the apron on Stela 34 are partly obscured by other ornaments and do not have the strict rectangularity of those on Stela 4, on which every element, including the ornamental head on the belt, is perfectly fitted to others. The naturalism which usually distinguishes Usumacinta monuments is here sacrificed for a formal pattern.

The figure of Stela 1 (9.13.15.0.0) is not directly comparable to the two preceding, for what has survived is the back of the monument, where probably the personage depicted is one of lesser importance. The figure is simple in composition and instead of the usual accoutrements wears a long robe of the sort worn by the minor figures on Stelae 33 and 14 and by the lesser figures on Yaxchilan lintels. The design of this robe is a local feature, but the wristlets are identical to those used at the same time at Naranjo. Stela 3 is another figure of the same type carved in 9.14.0.0.0. On both monuments the emphasis is on textile motifs and designs. There are strong contrasts of relief but definitely limited gradations. Up to this time, scrolls are little used, and the ornate development which characterizes Copan and Calakmul sculpture of about 9.15.0.0.0 does not yet show its influence.

The impact of this development is first observed on Stela 5 (9.14.5.0.0) almost simultaneously with its appearance at Copan. This design stresses the animated character of the extraneous detail. As at Copan, however, the detail is not composed in any scheme that has a unified direction; there is no effectual guide to the eye as it surveys the design. All motion contained in the scrolls is limited to the undulation of the particular form and tends to fade out toward the tip. As at Copan and Calakmul, it is a surface sparkle that is not related to the arrangement of the larger forms. The long, undulating notched forms are almost flamboyant and resemble forms of the Dynamic Phase. The graph determination ac-

tually shows a peak at 9.15.10.0.0 indicating an advanced style. The stelae which immediately follow Stela 5, namely Stelae 7, 8, 11, 9, 10, and 40, are more restrained and do not employ independent motifs and scroll forms. This is similar to the case at Naranjo, where Stela 22 (9.13.10.0.0) uses a highly evolved scroll not repeated on later sculptures. It is strange that this ornate scroll is observed at Piedras Negras and Naranjo apparently as an intrusive trait before it becomes typical at Copan in 9.14.10.0.0. Perhaps its early development is to be sought in the Peten or on the upper drainage of the Usumacinta, where very few monuments of the Formative and early Ornate Phases survive.

The next stela erected, Stela 7 (fig. 53*c*), seems in comparison almost old-fashioned. It repeats the warrior motif in virtually the same rigid form in which it was expressed on Stelae 26 and 31 some 80 years earlier. The technique and the treatment of detail, however, show a marked advance. The feet of the figure are placed at an angle, as on contemporary stelae at Copan. There is a finer gradation of planes and depth of relief than on previous sculptures; the rendering of the embroidered end of the loincloth and of the sandals with their delicate fringes is superbly realistic.

Stela 8 (9.14.15.0.0?) displays even greater virtuosity in this respect. The detail is shown in varying grades of relief. Quills of the feathers are indicated with a delicately raised line, and one can note a tendency, as yet not strongly marked, to outline motifs with a very fine raised fillet. The tongue of the serpent on the headdress of Stela 8, and also the crook at the end of the staff on both Stela 8 and Stela 7, resemble the late scrolls current after 9.16.0.0.0. Such forms just begin to appear at this time and are used in a limited range of contexts. Stela 8 has a serpent-fret type of apron; the corners of its shield are decorated with tassels in the manner of the "sun" shields of Palenque and Quirigua. It is a monument which represents an almost perfect blend of Peten and Usumacinta traits.

Stela 9, another warrior, erected in 9.15.5.0.0, is again more conservative, with fewer elements of foreign derivation. It is stylistically closer to earlier Piedras Negras monuments, and only the character of the detail, particularly of the wing elements of the headdress, reveals its advanced date.

This unusually good series of the same motif demonstrates that stylistic development cannot be conceived as progressing on a perfectly straight, un-

deviating line. Nevertheless we feel a gradual accumulation of ornamental elements available to the artist and their adaptation to one another, as well as a more variable technique as the series progresses.

On Stela 11 (fig. 52,c; 9.15.0.0.0), which repeats the motif of Stelae 25 and 6, are comparable improvements in relief and design, although this monument, like Stela 9, conservatively follows the local pattern. The lower panel is now designed on several planes, so that its main lines create a pattern with the shadows of the niche. The undulating forms in the lower left-hand corner are outlined with fillets, but this formal emphasis does not extend to the dress of the figure. Such outlining is usually an advanced trait in Maya sculpture—at Copan it does not come into vogue until after 9.16.0.0.0. The backward turn of the scrolls on the supraorbital plate of the serpent is conservative for this time when both in the Peten and at Copan the scroll is made to turn forward.

Stela 10 (9.15.10.0.0) is a new motif, showing a jaguar standing behind a sitting figure. This motif also occurs on one of the lintels at Tikal. All the upper part of the monument is eroded and most of the distinguishing stylistic traits are missing. The relief and the treatment of the detail, however, are comparable to those of other monuments of this period.

Stela 40 (9.15.15.0.0) portrays again the grain sower, in an original and quite informal composition, utilizing architectural motifs and the celestial band, as do the more conventional niche figures. On Stela 40 the figure kneels on a projecting corbel which overhangs a throne. The composition is unusually free and shows a disregard of realism in the portrayal of a bust of a figure above the throne, but no such distortions as characterize the Dynamic Phase are present, and a fine naturalism pervades the design. The ornamental development is retarded. The headdress of the lower figure is derived from local early forms, and the leaflike undulating elements on the margin are simple in outline. The artist apparently was more concerned with the originality of his arrangement and the intricate rendering of such details as the texture of the headdress than with the formal elements.

On all the sculptures, without exception, this period at Piedras Negras is distinguished by particularly fine and minute rendering, and after 9.14.0.0.0, by subtle gradations of relief. We can note also the interaction of several distinct schools: the native school of the Usumacinta and Palenque, which tends

to preserve simple forms, fluid sensitive lines, and forthright expression; the formal school of the Peten; and the ornate school of Copan. No single line of progress can be followed from monument to monument, but this variability is in itself a quality of style, and few monuments of this period are altogether free of influences from other Maya cities.

Between Yaxchilan and Piedras Negras, at the site of El Chicozapote, are four lintels carved with minor figures. Two of these, Lintels 3 and 4, suggest the style of Palenque both in costume and in pose. The figures are tall and slim; that on Lintel 4 leans slightly to one side, like the principal figure on the altar to Stela 3 at Bonampak. In contrast, Lintels 1 and 2 resemble the late lintels of Yaxchilan and exhibit traits of the Dynamic Phase. The line is free and cursive; the figure on Lintel 1 bends at the waist, resting its elbow on its knee. Stylistically these lintels are more advanced than Lintels 3 and 4, but there is no indication of a continuous or even connected development. Each pair derives its style from a distinct school, and their actual sequence depends on historical factors and on the chronological range of the Palenque style, which is not yet clearly determined. To judge, however, from the meager evidence of dates in respect to the chronological relation between the Palenque and Yaxchilan styles, it seems probable that Lintels 3 and 4 at El Chicozapote are earlier than Lintels 1 and 2.

#### PALENQUE, FINCA ENCANTO

At Palenque there is no basic series to which individual sculptures could be referred. Only one stela is known from this site. In its form, which follows the outline of the figure, it resembles the monuments of Tonina, but though the face of the figure is carved in round relief, the relief of the body is rectangular and the feet point outward in one plane. This manner is unusual for the Maya area. It recalls sculptures from the Huastec region, which, however, are not at all Maya in type.

Our knowledge of the art of Palenque is almost entirely confined to architectural ornament consisting of low-relief panels in stone and stucco. Palenque art has a strongly marked character of its own and is largely independent of the purely monumental schools. None of the graphs made on the basis of trait comparisons therefore rises to a sharp peak, and it is not easy to estimate when most of these sculptures were made.

Naturalism, simplicity of form and arrangement,

and a very sensitive line characterize the Palenque panels. A great deal of attention is given to costume, and the delicate manner of its rendering is in keeping with the period after 9.13.0.0.0, in spite of the fact that archaic mannerisms are never discarded. The three panels from the Temple of the Sun, the Temple of the Cross, and the Temple of the Foliated Cross do not show chronologically significant differences. The slimmer proportions of the figures of the Sun panel as well as its relatively simple treatment suggest that it may be the earliest of the three. The panels of the Foliated Cross show more advanced ornamental development, but the treatment of the pectoral of the minor figure is archaic. On the Cross panel the same pectoral is shown in half-view in the usual fashion of the Late Classic Period. Scrolls are simple in outline but their outer decoration of dots and tassels is associated at Copan with late sculptures such as the decoration on Temple 22.

To judge by ornamental forms, Palenque sculpture is intermediate between the first productions of the Late Classic Period and the fully mature Ornate development exemplified in the sculpture following 9.14.0.0.0 at Copan. The serpent heads retain an early form. When figures are depicted in motion they tend to be unbalanced and to lean rather abruptly from the hips instead of bending at the waist. The panel in House E of the Palace shows a figure sitting in side view but with the torso turned front. No feeling of torsion is expressed in this pose (fig. 54*b*). The piers of House C seem to be the earliest in the Palace group and those of House D the latest. Nevertheless even on the House D piers the scroll form remains simple and the serpent-frets of the aprons are inconspicuous. It is possible that at Palenque such early qualities persisted for a longer time than in the central area. In this connection one might note that Palenque apparently did not employ the uniform lunar count which appears to be associated with the Ornate Phase in the Peten. Stylistically its sculpture is also more or less independent of the trends toward elaboration and dynamic composition. It remains to be seen whether this is due to the relatively early date of the Palenque sculptures or to the site's cultural isolation from the main stream of Maya culture. In view of the survival of archaic traits in late periods in Yucatan and evidence of its connections with the lower Usumacinta area, the latter possibility should not be lightly dismissed. One might recall in this connection the similarity in pose of the Palenque Beau Relief

figure, the figure on Stela 12 of Piedras Negras, and that on the lintel from the Akatzib at Chichen Itza.

Not far from Palenque at the Finca Encanto, are two inscribed slabs said to have come from some ruins near by (Blom, 1924). The motif is clearly related to those of Palenque, but the style is unique. There is no relief, and the incision, very light, has the character of a sketch rapidly executed. Lines are not continuous but made up of overlapping segments. The figures are even taller than those at Palenque, and what is remarkable is the clear depiction of muscular structure. In Classic Maya art limbs are always drawn with a smooth, sensitive, and continuous line which stresses the silhouette rather than the anatomical structure. The El Encanto figures, in contrast, are of athletic build, with exaggerated biceps and protruding calves which suggest a preoccupation with the mechanics of anatomy almost equal to that of European art. Feet and hands, on which the Maya usually lavished attention, are carelessly treated. It would be interesting to know whether these slabs are representative of a local school with strongly individual traits or are entirely aberrant. The period of their carving is, of course, indeterminate.

#### CHIAPAS HIGHLANDS (Tonina)

In the preceding chapter were described those monuments at Tonina which have marked traits of the Formative Phase. There is a second group (T-5, T-9, T-13, T-14, T-20, and T-37), which shows more advanced traits. The forearms are held horizontally or downward toward the belt. Beaded fringes are not used on the skirts, and the fret-apron is more formally developed. The legs of the figures are straighter; there is less emphasis on the body of the figure and on the detail of its dress, but more on the architectonic composition of the monument as a whole. Thompson dates Monument T-20 at 9.18.0.0.0. There is nothing in the style of the monument to suggest such a late position, but this date may nevertheless be correct, for the whole series of Tonina monuments is too divergent from the main stream of Maya development to be judged accurately by its standards, and there are not enough dates in this region to reveal the local trends. The design of the loincloth apron is still somewhat archaic, for it is partly obscured by shell ornaments and a tassel which hangs in front of it. Monument T-9, however, clearly shows the forward-turning

supraorbital plate of the serpent, which is an indication of a fairly advanced date.

The monuments of Tonina are shaped to the form of the figure and sometimes approach the full-round technique. There are also a number of figures in full round, such as the sitting or crouching figure T-10. Statues in full round are rare in Maya art, and probably indicate some influence from the outside. Such figures as T-25, with hands crossed on the chest, belong to another sculptural style entirely, which has a wide distribution outside the area of the Classic style. They point to a non-Maya occupation of the site at some period in its history.

#### NORTHERN SITES

##### (Coba, Etzna, Santa Rosa Xtampak)

At the other extreme of the Maya area, in Yucatan, the ornate development is also not strongly represented. Some sites, however, such as Coba and Etzna continue in the Classic tradition. At Coba, the Ornate Phase is represented by Stela 20. The plain bar of the hanging ornament is now decorated with a face design; the fringe of the skirt no longer consists of beads and tassels but is attached to a braid very carefully and precisely depicted; and the nose of the ornamental serpent now turns forward. Thompson's judgment that this monument was erected between 9.13.0.0.0 and 9.17.0.0.0 is amply supported by an analysis of its traits. Stela 25 probably also belongs in this period.

About what was happening at this time in western Yucatan we know virtually nothing. Most of the variants of the Classic style found in this area seem to date from 9.16.0.0.0 or later. Many, however, have only a faint resemblance to Classic sculpture and cannot be correlated with its development.

Etzna is the only site in this region where the Classic tradition can be continuously followed from the Formative Phase to Stelae 1, 2, and 4, which represent the Ornate. Stela 1 (fig. 83,*a*) shows only the legs of the figure, standing on a recumbent captive. Its characteristics are not distinctive enough to place it accurately in time, and the execution is casual. Stela 2 (fig. 83,*b*) is another fragment, this time of the upper half of a figure holding the manikin sceptre. The Initial Series of this monument has been read as 9.15.0.0.0. The detail, though obscure, is not inconsistent with this date, but the position of the shoulders and the right elbow of the figure and the bending of its torso in the direction of the object held would normally suggest a slightly later

date. It may be that the inscription continues, and that the monument was really erected later, but it is also possible that this early use of the unsymmetrical pose at Etzna is related to the early portrayals of motion at Yaxchilan and Palenque. Stela 4 (fig. 83,*c*) is more rigid in arrangement and appears to be earlier in style.

At Santa Rosa Xtampak, Stelae 5 and 7 bear dates very late in Katun 15 (figs. 80,*b*; 86,*a*). Assuming that they were erected not long afterwards, we find again in these figures a mobility of pose that would be advanced for this period. Another sculpture that can be dated as falling at the very end of this period or at the beginning of the next is the figure carved on the jamb of a doorway of the Initial Series building at Xcalumkin (fig. 94,*c,d*). This figure, though it preserves a vertical pose, avoids rigidity in its pattern by sudden changes of direction in the position of its arms and by the diagonal placing of the staff. Such devices in arrangement were already beginning to be used near the end of this period at Calakmul. The long beaded necklace and the bar ornament worn by this figure apparently derive from the earlier sculptures at Coba. This necklace appears on a number of sculptures in western Yucatan, usually associated with other traits derived from Classic design, but none of these sculptures appear to be of early date. The Classic feeling is also strong in such monuments as Stela 6 at Sayil, Stela 4 at Uxmal, sculptured jambs and lintels at Kayal and Xculoc and columns at Xcocha. These probably are contemporary with the end of the Ornate or with the next, Dynamic, phase of Classic art. Their discussion, however, is more pertinent to the decline than to the development of the Classic tradition and they will be more fully treated in the chapter on the sculpture of the northern Maya sites.

#### THE LATE CLASSIC PERIOD

##### The Dynamic Phase (9.16.0.0.0-9.19.0.0.0)

Unsymmetrical poses. Late scroll. Long-tasseled featherwork. Exaggerated forms adapted to field and over-all composition.

By 9.15.0.0.0 the Maya artists had developed a mastery of technique and design which enabled them to shift their attention to the larger problems of composition. The conventional position of the stela figure, with its essentially axial arrangement of the body and the profile head, was artistically unsatisfactory, since it created a conflict in directions, further accentuated by the frequent use of the manikin sceptre in place of the symmetrical bar. Until this

time, the Maya had largely evaded the problem by obscuring the figure with ornament and detail, but about 9.15.0.0.0 the principles learned in the design of balanced and harmonious motifs were already being applied with increasing frequency to the composition as a whole. It is true that only the masterpieces of this age achieved a completely integrated arrangement, but many employed directional devices to guide the eye through the composition and these devices crystalized into conventions and were used sometimes without deliberate intent.

We find that when the figure faces to the right, the right shoulder is usually suppressed by a motion of the head in that direction. Sometimes the torso leans slightly forward and its unbalance may be compensated by a displacement of the hips, so that the whole composition is curvilinear rather than axial. At times it is only the line of the apron of the loincloth which slants to break the vertical axis, or merely a subtle tilting of the belt. Other elements are arranged with regard to the structural lines of the figure. Long panaches of plumes with very large tassels sweep in parallel lines and often turn abruptly following the border. At other times they are scattered, forming large arcs which direct the eye to some significant area in the design. Functional relationships between elements are ignored, and certain motifs, such as the frets of the loincloth apron, are freely exaggerated for their decorative value. As the artist's attention shifts from the intrinsic beauty of forms to their expressive qualities, their internal detail is often simplified and their lines are distorted to emphasize a particular direction. Large currents of movement characterize many sculptures of this late phase.

Another helpful feature in distinguishing sculpture of this phase is the introduction of a new type of scroll. Previously, the undulating element of a scroll ended in a sharply tapering tip turning away from the last projection or notch. Now the undulation ends in an attenuated arc, turning back and around the last projection. At first this form appears in minor contexts but later is adapted to ornate design and fills the background with mobile and restless scrolls. The stress placed on dynamic qualities often results in a cursive line which produces a distortion in the direction of the motion of the form. Static compositions continue to be used, but usually even in these one can detect late mannerisms of design and some degree of simplification of detail and disregard of its natural function.

#### THE PETEN

(Uaxactun, Tikal, Xultun, Naranjo, La Honradez, Ixkun, Chochkitam, Itzimte, Motul de San Jose, Yaxha, Calakmul)

Most of the monuments of this period at Uaxactun are destroyed, but Stela 7, though only a fragment of the original work, clearly shows its late origin in the form of the scrolls and in the manner of their use. Stela 8 is also in fragments. The photograph published by Morley shows the monument from the side and is not altogether satisfactory, but one can see the exaggerated frets of the loincloth apron which attest it to be late.

At Tikal there are no stelae of this phase except, possibly, Stela 19 (fig. 60*b*), which is carved in the same manner as Stela 20, but which stresses more clearly the essential design of the pose. The fact that the figure wears no sandals also suggests for it a later date. The carved lintels of the great temples, which probably belong in the early part of this phase, have already been mentioned in connection with the Ornate Phase, to which in general composition they properly belong, in spite of a number of late mannerisms.

Stela 4 at Xultun, although badly weathered, is without doubt a late monument. The frets of the loincloth apron not only project beyond the figure but are entirely free of the legs. The anklets are decorated with bird heads which face back; the heels of the sandals are open. The date 9.11.0.0.0 suggested for this monument by Morley is much too early; 9.17.0.0.0 or 9.18.0.0.0 would better fit the stylistic evidence. Stela 5, which seems to be a companion monument to Stela 4, is nevertheless ambiguous in style and it is possible that it also should be moved forward from the date 9.12.0.0.0 suggested for it. The upper half of the monument shows traits that are almost archaic but the design of the loincloth apron and the footgear are indubitably late. Stela 19 is too eroded to be stylistically judged, but its somewhat casual execution suggests a decadent, rather than an undeveloped, period (see p. 114).

A monument which is unquestionably very late but for which Morley suggests an earlier date is Stela 8 at Xultun. Although it is eroded, one can see that the figure does not stand vertically. Projecting frets, sandals with open heels, anklets composed of a head with three knots above it, a face motif on the loincloth with its mouth indicated by a full oval, and the fringe-and-leaf motif are all of late design.

The crudely incised captive below the figure is not an indication of the artist's inability to make a better carving, but rather a deliberately cursive indication of a minor part of the motif, and indeed suggests that the monument may very well belong in the Decadent Phase, after 9.19.0.0.0.

At Naranjo there are a number of well preserved examples of the Dynamic Phase. Such monuments as Stelae 13 and 33, however, do not differ strikingly from earlier stelae. Stela 13 duplicates in almost every detail the design on Stela 28 (fig. 62). Only a few small details, such as the straight panache of parallel plumes with long tassels on the manikin sceptre, the use of scrolls surrounded by dots on the headdress, and the forward-turning supraorbital plate of the serpent frets suggest a more advanced position. Possibly the conservative nature of its design is due to its having been copied from the earlier figure.

In almost the same way, Stela 33 parallels the motif on Stela 30 (fig. 63). The diagonally held staff, however, and the strongly marked outlines of the wristlets and collar give away its later date. The monument is not a typical one, so produces an irregular graph. The scroll form on the forehead has an almost archaic form; early traits can be observed on the serpent head decorating the headdress. The revival of early forms, as we shall see later, is not infrequent in Cycle 10. Perhaps at this time it was already beginning to occur sporadically.

Stela 19 (fig. 71, *a*) is a departure from the Naranjo school. Its style suggests influences from the Usumacinta area or possibly even from Yucatan. The nature of the scroll issuing from the headdress is somewhat reminiscent of Tajin designs, in which scroll forms abruptly change direction. This influence is also felt at Quirigua at about the same time. The two-figure arrangement on the south side recalls the bloodletting ceremonies depicted at Yaxchilan and also suggests compositions featuring a bench or throne at Oxkintok. The broad-hipped figure on the north side wears its belt low on the hips like the figures at Santa Rosa Xtampak and like such figures as those on Stelae 18 and 20 at Yaxchilan. There are prominent bands outlining the collar and wristlets; the feathers are depicted in a very artificial manner, approaching in character arrangements at Chichen Itza.

Stela 11 (already mentioned on p. 127) shows a similar rendering of parallel plumes, curving artificially along the border of the monument. This

arrangement is my principal reason for believing this monument to be later than Morley places it. In other aspects of its style, it is quite undistinguished and gives no other indication of its date.

Stela 6 is another example of a monument which, though late, shows virtually no advanced traits. Its extremely regular graph rises to a definite peak at 9.15.0.0.0. Stylistically, it belongs with the earlier group, carrying on its tradition practically unchanged. The high coefficient of the katun of its Initial Series, however, shows that it was carved after 9.16.0.0.0. Its deliberately axial arrangement, the backward-turning supraorbital plates of the serpent heads, and the beaded fringe of the skirt must all have been old-fashioned traits when this stela was carved. In only a few unimportant details does this stela show the effect of later developments. The tip of the serpent's snout turns forward. The plumes of the panache on the headdress are perfectly parallel and are arranged to fit the form of the monument. The hairline of the heads on the belt is omitted so that the earplugs appear to rest on the cheeks of the face, and on the headdress is the type of dotted scroll which always seems to be late at Naranjo. I believe that the artist of this monument tried deliberately to emulate the earlier style but could not altogether discard his later mannerisms.

It seems that at this time when the ornate style was being vigorously developed in other sites, Naranjo had a period of reaction in which older forms were being copied. Something of the sort also happens at Piedras Negras, when the warrior motif, as on Stelae 7 and 9, continues to be depicted in the traditional fashion when such monuments as Stela 5 exploit all the latest advances in design.

In 9.18.0.0.0, however, with the erection of Stela 14, Naranjo enters into a new period which suddenly discards the older traditions. The vertical axis is deliberately suppressed by hiding the right shoulder of the figure, so that the torso seems to turn in the direction of the head and makes a smooth transition between the front view of the lower portion of the body and the profile of the face. Feathers are made to fit the irregular shape of the monument, and the background is filled with scrolls which are exaggerated out of all proportion to the heads from which they issue, so that their relation to the design is not at once apparent. The rendering of the belt-heads is typically late, as are the sandals which have open heels and are decorated with a serpent head facing back.



On Stela 12 (fig. 64*b*), erected in 9.18.10.0.0, a restless motion is imparted to the whole design by the writhing forms depicted on two planes. The undulations end in sweeping arcs, and their delineation is bold and cursive. The masses of feathers arranged on simple large lines are also typical of late times, as are the horizontal arrangement of beads on the collar, the design of the wristlets and of the ornamental heads on the belt.

Stela 7 (9.19.0.0.0) again reverts to the symmetrical arrangement but repeats all the mannerisms of Stela 12. It is as if a less skillful artist tried to emulate its style but, though copying the forms, could not grasp their essential purpose. The feathers swoop in the same large arcs, but their design lacks the spontaneity and unity it has on Stela 12, for it is complicated by overlapping elements and restricted by its symmetry.

Stela 8 (fig. 64*a*) is more simply designed and its late manner is not obvious though at least equally effective. The arrangement of the featherwork is again adapted to the form of the monument and to the staff as a center of interest in the composition. The direction given to the torso by the way the fan is held and the right shoulder's being partly obscured by the nose tassel is subtle but nevertheless deliberate. The directed position is even more strongly illustrated on Stela 35, as the figure looks up to the object it is holding. The detail of this monument is obscure, but there is little doubt that the pose is late.

There are two monuments at Naranjo which I have been unable to place in time even approximately. These are Stelae 4 and 5, mentioned here only because Stela 5 has one or two traits that have not been observed earlier. The fragment of Stela 4 at first glance appears to have traits which are archaic, such as the lack of feathers in the headdress and the simple design of the staff. The position of the head and shoulders, however, seems to be like that of Stela 5, and since the two monuments face each other across the plaza, it is likely that they are of the same general period. Stela 5 also has no featherwork in its design. The figure, however, is definitely directed to the side, its right shoulder suppressed, and is wearing a type of wristlet that has been observed at Copan only after 9.16.0.0.0. These figures, like Stela 19, have rounded thighs and elements of dress not typical at Naranjo. I believe they may have something in common with the figures of Stelae 15, 18, and 20 at Yaxchilan and that the failure

to place them with any certainty is due to the lack of a basic chronological series of the school to which they belong. Morley compares the style of Stela 5 to that of Stela 24. Certainly the simplicity of the design of the two and the absence of the usual feather headdress is striking. The resemblance, however, goes no further. Stela 24 stresses the rendering of detail characteristic of its period, and virtuosity in the handling of relief. The execution of Stela 5 is casual and its relief monotonous. This is characteristic of the Formative Phase earlier than 9.13.0.0.0, but it is also common in the later periods, when draftsmanship suffered decline and detail was not rendered with so much care as before. Unless we can trace the antecedents of this style, the date of these monuments must remain uncertain.

At La Honradez the situation is much the same as at Naranjo. Stelae 6 and 7, erected probably about 9.17.0.0.0, are not conspicuously late in their manner, though the position of the figure definitely stresses an orientation of the torso to the right, and the legs of the figure of Stela 6 are not vertical.

Stelae 4 and 5 (9.18.0.0.0 and 9.18.10.0.0) are much more obviously late. The torso is again oriented to the right, and in addition the collar is strongly outlined, and the frets of the loin-cloth apron, though not altogether clear, seem to be projecting beyond the figure and are frankly not symmetrical. Stela 5 is rendered more delicately. The forward thrust of the head, the raised left elbow, the staff which is not vertical but leans to the right, are calculated to give the figure direction and soften the effect of the vertical axis. The fillets of the loin-cloth, which usually end in a fret, here project strongly and curve downward. Slender, tendril-like forms are skillfully used in the background.

The position of the figure on Stela 3 is also oriented to the right. One cannot be certain, however, about the date of Stela 1, on which the body of the figure faces front. The monument is eroded and no details can be made out.

Stelae 2 and 9 are too fragmentary to give stylistic evidence although they are clearly Late Classic.

The late monuments at Ixkun, Stelae 1 and 5, erected in 9.18.0.0.0 and 9.18.10.0.0, and Stela 4 of unknown date, again show the tendency to orient the figure to the side. The arrangement of Stelae 1 and 5 is made in panels separated by glyphic bands, which recalls arrangements at Oxkintok. The figures wear no sandals, but a tassel is placed on the instep of the foot, with no apparent means of fastening.

This casual disregard of functional considerations is an important diagnostic trait of this period and shows the direction artistic progress was taking. It is in direct contrast to the attention given in the period of about 9.13.0.0.0 to such details as the lining and fastening of the wristlets and the ties of the sandals. Earlier, though detail was less minutely depicted, functional elements such as the vertical band fastening ornaments on the headdress were shown even when the element was not well integrated with the design.

The monument at Chochkitam, Stela 1, is probably also late. There is marked lack of symmetry in the design, and the execution is bold, almost cursive. Stela 7 at La Milpa, erected in 9.17.10.0.0, illustrates the large frets characteristic of this period. It is also possible that Stela 1 at Itsimte should be included here. The date 9.15.0.0.0 suggested for it may not be too early, but the execution of this monument, not consistent and in places almost crude, is not usual at the height of the Ornate development, when excellence of technique was highly valued. The monument is aberrant in several respects: the position of the figure, the peculiar apron, and even the headdress. The serpent head on the staff derives from ornate designs current after 9.14.0.0.0, but aside from that, there is little indication of the date of the monument. We can only note that cruder treatment becomes more frequent as the Classic development draws to a close. Stela 4 also combines fine and detailed delineation, such as that on the headdress, with bold simplifications. The horizontal outlining of the collar, the rendering of the wristlets with fine, simple incised lines, are typical. The very high ankle-guards are another reliable indication that the monument is late. Both monuments may, indeed, belong in Cycle 10. Although the stelae of Itsimte run to decadent forms, there is an unusually fine example of the dynamic scroll on Altar 1, carved probably in Katun 17.

Itsimte Stela 3, mentioned also in the previous chapter, illustrates the dancing pose which is often used after 9.16.0.0.0. Another excellent example of this pose is on Stela 2 of Motul de San Jose, which depicts two dancing figures. This monument preserves a more Classic feeling than those of Itsimte. Details receive minute attention, and, in spite of the tremendous masses of featherwork in the design, its motion is formal and restrained.

Stela 13 at Yaxha is a strange monument, combining, like Stela 5 at Tikal, traits that are archaic with

late mannerisms of delineation. The wristlets and anklets are derived from a form that is first seen on the Leyden Plate. The position is stiff, and the tassel of the loincloth apron hangs between the legs of the figure. The very decisive outline of the collar, the use of dotted scrolls on the headdress, and the design of the mask on the apron show that this monument does not belong to the earlier phases of the Late Classic Period but is of advanced date. Morley's suggestion that the Calendar Round date 12 Ahau 3 Mac represents the tun ending 9.18.3.0.0 is consistent with the stylistic evidence and may be tentatively accepted, though 9.15.10.5.0 is a possible alternative.

At Calakmul, extreme forms of late qualities seem to appear earlier than at the more southern sites. Stela 57 (9.17.0.0.0), in spite of its advanced state of erosion, clearly shows the position of the figure oriented to the right. The frets of the apron, exaggerated and irregular, turn free of the leg. Stela 15, a later monument, is stiffly arranged, but it shows other late qualities, such as the late arrangement of the feathers, the scroll at the end of the bag, and the manner of depicting the tassels on the sandals, which are very large in proportion to the feet. The date 9.19.0.0.0 suggested for this stela may be correct, though in design it is more conservative than other late monuments at this site.

There are many other sculptures in the Peten that may be attributed to this phase, but most of them are in such poor state of preservation that they do not merit detailed description. There are evidences of late sculpture at Nakum, Naachtun, El Palmar, and Polol. Stela 11 at Uxul, though only a fragment, can be clearly placed in this period.

#### RIO BEC, PASION DEL CHRISTO, PECHAL

Ruppert notes a fairly clear frontier between the Peten area and the region north of and including the site of Rio Bec (Ruppert and Denison, 1943, p. 9). Stelae do occur in the northern region but more rarely than in the south. They are never associated with the typical tower structures of this region but appear at sites where architecture is distinct from that of the Peten. Unfortunately, the buildings with which they are associated are so badly in ruin that their type cannot be determined by surface inspection. The two preserved sculptured stelae at Rio Bec V, Stelae 5 and 6, appear to be in the Peten tradition and of the Dynamic Phase. Behind the figure of Stela 6 (fig. 73, *b*) runs a guilloche band suggestive of northern arrangements. Further north the monu-

ments are less clearly in the Classic style. The stela at Pasion del Christo (fig. 75,*a*) uses the guilloche band to divide the monument into two panels, an arrangement similar to those at Oxkintok and related to the mural sculptures of the Lower Temple of the Jaguars at Chichen Itza. There are also some crudely carved stelae at Pechal. The use of deep parallel grooves on Stela 1 suggests a very late period, but the ruder technique of carving may here be a provincial trait, since monuments in this region are altogether rare.

#### COPAN, QUIRIGUA

In the southwest, at Copan and Quirigua, where the full-front position of the figure did not present the same problem in composition as the low-relief profile view, the manipulation of large elements is less conspicuous than in the Peten. Nevertheless, attention shifts from virtuosity of technique and the more universal qualities of beauty of forms, to those qualities which are peculiar and expressive and which are adapted to the context in which the form is used. The treatment is more bold and arbitrary, with a tendency to stress a monumental, architectonic effect.

Stelae M and N at Copan, carved in 9.16.5.0.0 and 9.16.10.0.0, follow the tradition of the previous group, but on Stela N there is already a marked tendency to outline elements with a raised fillet and to simplify detail, such as that of the serpent heads, giving them a formal, almost architectural feeling.

This stela is the latest at Copan. Some students support Spinden and Morley in the belief that Stelae H, 4, F, and C were erected after Stela N, but the stylistic evidence in support of this thesis is based entirely on the assumption of a uniform progression of style, which is projected arbitrarily beyond the dated series without regard to the stylistic trends revealed in later sculpture. All the stelae are equally static in composition. All stress beautiful detail, particularly in articles of costume. The late scroll does not appear, nor any other mannerisms associated with the late period.

The small monument, Stela 11, is probably later than any of the plaza stelae. It was evidently not a stela but a roughly cylindrical column, for the feet of the figure are missing and must have been carved on another stone. The figure represents a personage whose headdress and features are like those of the manikin and of the heads sometimes depicted in the jaws of the serpent of the ceremonial bar. A large

scroll issues from the forehead; others are placed on the head and above the ear. The raised outline of the large scroll indicates that it is late. The date 9.17.5.0.0 suggested by Morley is altogether appropriate, although there is no evidence in the inscription that the 6 or 7 Ahau recorded actually refers to this hotun. Since the month position is not expressed, it is possible that the day refers to the name of a katun, and in this case, the cycle end, 10.0.0.0.0, would be a good interpretation of its position. Being of particular importance, this day could be prophetic, and since the monument is not a stela, there is no strong reason to regard it as contemporaneous.

Sculptural activity did not cease at Copan after 9.16.10.0.0 but was confined largely to architectural decoration, although altars may have been substituted to perform the function of stelae. The sculptures known as Altars G and O are probably of the post-stela period. These are not altars in the usual sense of the word. They are carved pieces of peculiar shape, apparently designed to be connected or to form part of some larger construction, in which wooden blocks or beams may have been used. Morley (1920, p. 367) mentions the dates 9.16.15.0.0, 9.17.0.0.0, and 9.18.5.0.0 in connection with Altar G, and although the Long Count position of these dates is doubtful, the style of the carving confirms his estimate. The heavy outlines of the scrolls show that the altar is later than the stelae. On Altar O there is also a grotesque face depicted on the nose of the serpent, like the faces one sees on Stela 10 at Seibal, Stela 12 at Naranjo, and other very late monuments.

The date 6 Caban 10 Mol was important in Copan after 9.16.10.0.0 and is repeatedly recorded. Of the four altars portraying seated figures (Altars L, Q, T, U) the last three all mention it. Altar L is a little different in style and may be earlier than the others, which have no conspicuously late traits but show a sophisticated handling of the sitting pose and tend to emphasize the horizontal outlines on wristlets. The beautiful, ornate rendering which characterized the stelae is no longer in evidence. Even scrolls are often depicted in an offhand, cursive manner. One scroll form, from Altar Q, the most ambitious of these monuments, resembles the simple early forms, which tend to fold sharply and arbitrarily. We have noted this happening at Naranjo after 9.17.0.0.0; it may be an instance of that tendency to return to archaic forms which we shall note again in Cycle 10. It is often difficult to distinguish a cursive form from the earlier poorly developed types, however, and the

resemblance in this case could easily occur by chance.

In architectural sculpture one can also observe the same tendency toward emphasis, simplification, and more expressive and monumental treatment of natural forms. The exquisite figures associated with Structure 22 have the same quality of delicate design as do the stelae, and there is evidence that this building was designed before 9.17.0.0.0, for another small structure abutting it is inscribed with this date. Nevertheless, it was probably built after, or only very shortly before, the end of the stelae sequence. Around its inner doorway is an elaborate carving, which in part resembles the double-headed monster on the niche figures at Piedras Negras. Above this motif is a row of S-shaped scrolls with human or anthropomorphic figures. Such S-forms seem to be a late feature in Maya design. They occur on some Yaxchilan lintels and resemble the forms surrounded by dots used with minor figures on some Cycle 10 monuments (e.g., Stela 4 at Ucanal). The wristlets of the figures are made up of both vertical and horizontal elements, a type that occurs on Structure 11 but not on the stelae. These features preclude a date much earlier than 9.17.0.0.0.

It is an interesting question, whether the use of the serpent façade, which is an outstanding feature in the architecture of the Rio Bec region, where very few monuments are reported, has anything to do with the abandonment of the practice of erecting stelae at Copan. Unfortunately we cannot trace this motif to its beginnings, nor even date its occurrences in Campeche, but it is striking that in both cases where it is known, stelae did not seem to play a major part in the ceremonial complex, a fact which suggests that it was connected with a different set of religious practices.

Structure 11 also uses the serpent-mouth doorway. It is probably a later building than Structure 22, for a date almost three years later than 9.17.0.0.0 is inscribed on one of its jambs. Its sculpture is more boldly executed than that of Structure 22. The faces have sharper features with more aquiline noses, and the colossal figures show a predilection for dramatic and exaggerated effects. Scrolls are again outlined with raised fillets.

The total absence of the typical dynamic scroll at Copan is difficult to explain. This scroll occurs in the Usumacinta region as early as 9.16.10.0.0, and shortly after this it appears also at Quirigua, but there are no known examples of it at Copan. Perhaps,

then, even architectural sculpture does not continue here long after 9.17.0.0.0. Moreover, there is little evidence either of the development of mobile, flamboyant forms, or of the sort of degenerate simplifications which we observe in the Peten and at Calakmul.

Unlike the stelae at Copan, the Quirigua monuments erected between 9.16.10.0.0 and 9.18.15.0.0 are designed on a single plane. High relief is used in combination with low detail, but only rarely are oblique masses introduced. The raised outlines noted at Copan are also found here; the dynamic scroll is first used on Stela F in 9.16.10.0.0 and becomes progressively more mobile and more elaborate.

There is a peculiar quality of some of the Quirigua scroll designs which vaguely recalls the decoration of yokes found in the Totonac region, and the panels of the ball courts at Tajin (fig. 12, *d'*). This type of design is characterized by abrupt changes of direction in the outline of forms, by the use of interlaced elements, and by features of internal decoration of scrolls not typical of pure Maya forms. A striking example of this style of decoration is the lower panel of Stela E, which uses superimposed heads, with the headdress of one serving as the mouth of the next, and in which the motifs are almost entirely obscured by the decorative pattern. The rounded, slightly notched forms containing an element shaped like a hook, which occur on the altar of Zoomorph O, also belong to this decorative complex. We have noted also a similar quality in the scroll under the headdress on Stela 19 at Naranjo, erected in 9.17.10.0.0, at about the same time as the Quirigua monuments. The influence cannot be definitely identified, but some contact with another highly developed contemporary style is strongly indicated by these peculiarities.

Another aberrant style at Quirigua is represented by Altar L. This altar shows no dynamic qualities of composition and might well be classed with monuments of the Formative Phase were it not for the peculiar technique of its carving and particularly the strange glyphic style which resembles that of the Puuc. The manner of drawing the feathers also resembles more closely the decadent than the formative types. The archaism of this piece is therefore strongly suspect and it cannot be placed until more examples of its type are discovered and related to the sequence.

The known Quirigua sequence covers a period of almost three katuns—from 9.16.0.0.0 to 9.18.15.0.0—

but preserves a uniform style and, unaffected by any trends of decadence, loses none of its classic regard for detail. There is a definite tendency, however, toward greater elaboration, and toward the use of dynamic forms and arrangements as, for instance, of the dancing figures on the altars of Zoomorphs O and P. The designs of these altars and the zoomorphs are carved in the same manner as are the scrolls of Stela 12 at Naranjo (9.18.10.0.0), on which two sets of scrolls overlap and are carved on different planes. Thus, the eye follows simultaneously the interplay of two or more patterns. Scrolls of the late type become progressively more elaborate and are more prominently used on the later monuments at Quirigua, but the cursive qualities noted in the Peten are absent, and high standards of draftsmanship are maintained to the end. The sequence of the Dynamic Phase includes Stelae A, C, D, E, F, I, J, and K; Zoomorphs B, O, and P, the latter with magnificently carved altars; and the round Altars Q and R.

SAN PEDRO MARTIR AND LA PASION

(La Florida, El Caribe, Aguas Calientes,  
La Amelia, Cancuen, Seibal)

Along the San Pedro and La Pasion we find again an area of low-relief sculpture. At La Florida a comparison of Stela 7 (fig. 61, *c*), erected in 9.16.15.0.0, with the somewhat earlier Stela 9 (9.15.0.0.0; fig. 61, *b*) demonstrates the typical trend of this period. The figure of Stela 7, like that of Stela 9, is definitely oriented to the right. Its execution is more casual; textures and textile motifs are less clearly stressed. On the other hand, we note stronger outlines on the collar and wristlets, and the arrangement of the featherwork shows an artificial rectangularity which adapts it to the decorative field. The nose of the headdress mask turns more sharply up and ends in an arc rather than in an undulation. There can be little question that the draftsmanship and quality of rendering is finer on the earlier monument, but that the later expresses more clearly the formal pattern of its all-over composition.

Both these monuments conform to the Classic Peten school, but Stelae 1 and 2 at El Caribe (fig. 66, *a, b*) are more typical of the Usumacinta and also seem to be related to the sculpture of western Yucatan. The caplike headdress on the figure of Stela 2 resembles that on Stela 21 at Oxkintok; the legs are placed slightly apart with the tassel of the loincloth adapted to the space between them. This mannerism, in more exaggerated form, is typical of the monu-

ments of Etzna and Santa Rosa Xtampak. The execution of the El Caribe monuments is simple, without the flourishes of scrollwork and elaborate symbolic forms. Their late Dynamic Phase position is clearly revealed in the unsymmetrical pose of the figures and, on Stela 1, in the long sweep of feathers terminating in very long tassels.

Stela 1 at Aguas Calientes is very similar. Again, the torso is partly turned and leaning in the direction the figure is facing. The tassels of the feathers are very long, and the serpents are depicted with the late form of the scroll. The wristlets are trimmed with long plumes, a feature that may be derived from such winged figures as are found at Oxkintok and, apparently in a much earlier period, on pottery vessels at Kaminaljuyu. On its knees the figure wears large pads, which usually denote a ball-player.

The figure at La Amelia (fig. 66, *c*) also wears a pad on its right knee. Its style is more flamboyant, the plumes sweep in large masses ending with very long tassels. The pose is that of a dancer, and though the motion is restrained it has a natural grace seldom achieved by a Maya artist. The date of this sculpture is unknown, but it is fairly certain that it was carved after 9.16.0.0.0 and before the end of the cycle.

Stelae 1 and 2 at Cancuen are other excellent examples of the late style, which has suffered no decadent influences. In costume, the figure of Stela 2 resembles Stela 2 at Naranjo. Its late characteristics are not conspicuous, but a number of minor details are significant: the large scroll terminating the bag, the use of the late form of the curve on the textile design of the apron, and particularly the very high ankle-guards of the sandals, decorated with the face of Tlaloc. Stela 1 introduces into its design the S-shaped scroll surrounded by dots, which is also found at Ixlu in Cycle 10. The late scroll is used, the horizontal bands of the collar are stressed, and the ceremonial bar is held in a manner observed also on late stelae at Seibal.

Most of the monuments known from the latter site belong to the period of Cycle 10, but Stela 7 and its sister monument Stela 5 were probably both erected about 9.18.10.0.0. Both represent ball-players, and on both the pose is directed to one side by the slight twisting of the torso and the arrangement of the arms. There are typical long plumes with long tassels, and the high wristlets made up of horizontal bands of fringe are like those worn by the figures at El Caribe.

It is striking how often elements associated with

the costume of ball-players occur in this small group of sculptures. This may be an influence from the Guatemala highlands to which this area is fairly accessible, for in the highlands, particularly in late periods, ball courts seem to have played an even more important role in the ceremonial life of the people than they did in central Peten or lower on the Usumacinta.

#### THE USUMACINTA

(Yaxchilan, Bonampak, Jonuta, Morales,  
Piedras Negras, La Mar, El Cayo)

Late sculpture of Yaxchilan is well represented by stelae and sculptured lintels. Since many of these monuments are not well dated, however, some included in this group may belong to the period immediately preceding.

Stela 11, which features the date 9.16.1.0.0, was found standing and consequently is excellently preserved on both sides. It is still largely in the Ornate tradition, and its "human" side especially, stresses detail, line, and technique rather than motion in composition. The figure on the "deity" face is definitely oriented to the side, and its execution is more casual.

Stela 1, a "grain scatterer" or "beneficent god" composition, utilizes the late curve in the minor scrolls of its design, as well as the usual ornate forms of the serpent head. Other examples of this motif are Stelae 3 (fig. 67), 4, and 7. All are broken, with only the lower half of the figures well preserved. The relief is low and has exceptionally delicate detail. These stelae show no dynamic qualities and may have been carved during the Ornate Phase, but the wristlets and sandals depicted on Stela 4 and the scrolls on Stela 3 seem to be of late type and a date between 9.16.0.0.0 and 19.18.0.0.0 seems most probable. Stela 10 has been tentatively dated 9.16.15.0.0, but the stylistic indications of its date are ambiguous. The rendering of its "human" side is bold and simple. The head of the figure is small and the thighs are rounded. This is something like the manner of rendering on Stelae 13, 18, and 20. We do not know when these stelae were carved, but they do not seem to be early. The outlined scroll on the bag of Stela 18, the manner of depicting wristlets and anklets with deliberately simplified lines on all three monuments, the unbalanced position of the figures, and on Stela 20 the mass treatment of featherwork, sweeping upward, all suggest that these sculptures

followed, or at any rate did not precede, the apogee of the Ornate development. The pointed shape of Stela 20 (fig. 74), rare in the Classic area, suggests a connection with the styles of Santa Rosa Xtampak and Sayil. Stelae 18 and 20 use an aberrant manner of recording the month coefficient which also occurs in Yucatan and survived into historic times. Even though we do not know that all these aberrant traits stemmed from the same source, we may speculate that their infiltration may have been facilitated by the breaking up of that Period of Uniformity which Teeple has observed in the inscriptions. The fact that it becomes increasingly difficult to follow the Classic development in Yucatan during the Period of Uniformity suggests that even then there were disturbances in the north, which may have caused the protective consolidation of the southern region, and that at a later time the weakening of this consolidation opened the area to renewed influences from the outside, particularly from the north. Thus we observe such traits as paneled arrangements, which are rare, if they exist at all, in the south during the Ornate Phase, influencing the styles of this area (e.g., Stela 1 at Ixkun and Stela 3 at Seibal) during the later periods. This remains a mere speculation so long as it is based on a few stylistic observations, and evidence of the changing relations between different parts of the Maya area should be sought in other manifestations of culture.

Stela 16 at Yaxchilan, which stands in the same group as Stelae 18 and 20, resembles some of the lintels, particularly Lintel 9, though it is less excellently carved. In placing this monument in the second quarter of Baktun 9, Morley appears to rely strongly on this inferiority of execution as a criterion of an early date. When he lists such traits as the pose of the figure with its torso turned to the left and the wearing of the shield on the wrist, he is apparently unaware that there are no examples of these traits that can be definitely dated before 9.15.0.0.0, whereas the indifferent quality of the carving is a quality that occurs often in late times. Strictly, the torso of the figure is not in profile, as Morley states, but it speaks well for the art of the Maya that they were able to produce the illusion of a side position by the mere tilting and shifting forward of the head and shoulders to direct the eye of the observer to one side. Although this monument does not produce a clear graph indicating its chronological position, perhaps because the costume of the figure is local in character, the pose alone is strong evidence that it

was erected certainly not long before 9.16.0.0.0 and more probably after.

Stelae 5 and 17 are very clearly later in style than the dates 9.13.0.0.0 and 9.13.10.0.0 which Morley suggests for them. Possibly his judgment is influenced by the association of Stela 17 with Structure 44, which has two Initial Series recording dates of Katun 12. The style of the lintels of this building is extremely naturalistic, with exceptionally well executed detail which suggests the Ornate Phase. The date 9.13.0.0.0 can therefore be correct for this structure, though Thompson's interpretation of the inscription places it somewhat later. The original position of Stela 17 in respect to the building is unknown, and the presence in the same group of the early monument Stela 14 shows that mere proximity is not a fair indication of contemporaneity. Morley's estimate of the date of Stela 5 depends to a certain extent on its stylistic similarity to Stela 17, in which I believe he is not mistaken. A study of the detail and arrangement of the designs shows, however, that both monuments are unquestionably much later than 9.13.0.0.0. Again the strongest indication of this is the directed position of the figures. The feather-work, too, sweeping and long-tasseled and, in the case of Stela 17, making a characteristic angular turn, is unmistakably late in its rendering.

Most of the sculptured lintels at Yaxchilan seem to be of advanced date. The only reasonably well deciphered dates are 9.16.5.0.0 for Structures 33 and 54, and 9.16.15.0.0 for Structure 55.

Inside Structure 33 was found a statue of a seated human figure in full round. This is a unique piece of sculpture for the Classic area, though seated figures were also carved in the region of Tonina. The treatment of the Yaxchilan figure, however, is entirely Classic. In spite of the late date of the building, the style of the statue is consistent with the earlier Ornate Phase. Perhaps, however, this is merely because the full-round technique made manipulation of forms more difficult for the artist and its perfectly symmetrical pose inhibited the use of dynamic devices. The trait graphs constructed for Structures 33, 54, and 55 give the expected dates as 9.19.0.0.0, 9.16.10.0.0 and 9.18.0.0.0 plus or minus 2 katuns. These estimates are slightly later than the deciphered dates. Structures 1, 2, 13, 16, 21, 23, and 42 all seem to be best placed at 9.16.10.0.0 or 9.17.0.0.0. The graphs, however, may be somewhat distorted because the known dates of the Great Period at Yaxchilan all fall in Katun 16 and, to some extent, also

because the composition of the lintels involves two figures and may have led to an earlier development here of directional devices which only later were applied to stela figures. Nevertheless it seems unlikely that any of the lintels of the buildings mentioned were carved before 9.14.0.0.0, and it is even more probable that all are considerably later. Only Structures 12, 20, and 44 give different results. Structure 12 is clearly the earliest. Structure 44 may have been erected as early as 9.13.0.0.0. The beautiful rendering of its lintels, with its stress on textile design, is characteristic of the Ornate Phase. The three-quarters view of the shoulders of the figure on Lintel 46 seems, nevertheless, extremely advanced for this date, and a position of about 9.15.10.0.0 would be more consistent with the observable stylistic trends.

There is no question that the lintels of Structure 20 are among the latest carved at Yaxchilan. These lintels utilize the dynamic scroll in a cursive manner which argues long familiarity with the form and produces an effect of restless motion. The figures wear no sandals; the execution is bold, almost careless. The figure on Lintel 12 resembles that on Stela 5, particularly in the way the feathers are arranged. Lintel 55 of Structure 88 also expresses motion and restlessness in its design and is also undoubtedly of very advanced date.

The stelae and the later lintels of Bonampak are so like the monuments of Yaxchilan that they can be considered as examples of the same school. The stelae are clearly of the period after 9.15.0.0.0. They are beautifully executed and show no cursive traits, but late characteristics are predominant, particularly on the magnificent Stela 1 (fig. 68) which makes use of the late scroll form in the design of its base panel. Stela 2 (fig. 69,*a*) can be dated with reasonable certainty as having been erected in 9.17.15.0.0. Stela 3 (fig. 69,*c*) may be somewhat earlier but is closely similar in style. A remarkable feature of this monument is the depiction of what appears to be a spearthrower in the form of a sceptre. The only other monument in the southern Maya area on which a spearthrower appears is the very early Stela 5 at Uaxactun.

The lintels of the building decorated with murals depict scenes of battle (fig. 70,*a*). Plumage which flows backward in deliberate straight lines, and long tassels indicate at once a late date for this structure. Unfortunately the Initial Series on the now famous paintings inside is too blurred to make out whether

its *katun* coefficient is 11, 13, 16, or 18. Some of the figures portrayed are dressed in ceremonial robes such as are worn by the figures on stelae; from these it is apparent that the paintings are of the same general period as the lintels, probably somewhere between 9.16.0.0.0 and the end of the cycle. They do not show the cursive tendencies of the lintels of Temple 20 at Yaxchilan, but combine the grace of a dynamic composition, excellently illustrated in the unsymmetrical pose of the central figure, with fine regard for precise form, which ranks them among the masterpieces of Maya art.

In the National Museum of Mexico is a fragment of sculpture reputed to be from Jonuta, which, to judge from the skillful handling of the pose of the figure, combined with its superb rendering, is undoubtedly of this period. Another relief from this region (fig. 69, *b*), photographed by Mr. Hasso von Winning, illustrates particularly clearly the form of the dynamic scroll, not yet subjected to the cursive trend and combining the finest qualities of both the Ornate and the Dynamic Phases. Farther to the north, at Moral (or Morales), Stela 1, erected in 9.16.5.0.0, is also a typical example. The back of the monument depicts two figures in action, and the late scroll used on the side is almost a replica of the scroll on the base panel of the Jonuta carving.

Stela 3 at Morales is another good example of the dynamic pose. It is notable that the figure carries a rectangular shield like the figures at Piedras Negras. The corner decoration of tassels recalls particularly Piedras Negras Stela 8 (9.14.15.0.0).

At Piedras Negras, the change from ornate to dynamic compositions, although presaged by such original monuments as Stela 40, actually takes place about 9.17.0.0.0. Stela 14, which Thompson believes was erected in 9.16.15.0.0, is still in the Ornate tradition. Like Stela B at Copan, it uses architectural mask motifs on the sides of the niche in which the figure sits. The use of the raised fillet may be noted on these masks, but the stress is on the modulation of the relief and on textural effects, which is typical of the Ornate Phase. Morley originally placed this monument in 9.18.10.0.0, but its style lacks truly dynamic qualities and conforms better with Thompson's suggestion for an earlier date. The next monument, Stela 13 (fig. 70, *b*; 9.17.0.0.0), clearly shows dynamic qualities, both in the pose of the figure and in the very long sweep of feathers, which is an integral part of the whole arrangement. Even Stela 15, which is a front view figure in high, round relief

and therefore not well adapted to dynamic design, shows in the bold curve of the now badly eroded feathers of the headdress the same tendency to compose all important elements in reference to a single unified scheme of design.

Such compositions as Stela 12 (fig. 70, *c*) and Lintel 3 go even farther in developing a unified group composition. Lintel 1 probably also belongs to this group. Particularly notable in these sculptures is the dynamic balance of the seated figures. On Lintel 3 the weight of the shoulders is supported by the stiffened arm which rests with the hand on the edge of the throne. One may contrast this pose with the leaning figure on the early Bonampak altar (fig. 47, *a*), which shows no regard for the distribution of mass and weight, or with the similar figure on Lintel 7 at Piedras Negras. Strong fillet outlines are used on the back of the throne on Lintel 3. They appear also on the back of Throne 1, where one may observe the use of the beveled surface, a refinement characteristic of the Dynamic Phase and also used sometimes in the rendering of featherwork. Among other miscellaneous sculptures from Piedras Negras is Miscellaneous Sculptured Stone 16 and a ball-court panel from Structure K-6 showing two figures in action. The first shows no clearly defined late characteristics, but the pose of its figure suggests the Dynamic Phase. The second is really an incised drawing rather than a sculpture. Its unusual simplicity for a Maya design makes one wonder if more detail were not added by painting. The dynamic poses of the figures leave little room for doubt of its period.

Another excellent example of the dynamic pose is the figure on Stela 1 at La Mar. The rendering is very simple, with touches of extremely fine detail. There is no deliberate distortion or exaggeration, but the studied balance of the pose dominates the design. Stela 2 (fig. 73, *a*) at the same site shows the dancing pose popular in this period. The arrangement of two groups of figures, one over the other, is unusual and may be due to an influence from Yucatan. The strong outlines of the wristlets and the beveled rendering of the feathers are other late traits.

Stela 1 at El Cayo is almost a replica of Stela 13 at Piedras Negras and is undoubtedly of the same period. Stela 2 shows dynamic qualities less clearly and could be earlier. The sitting pose is not as deliberately balanced as on Stela 1 at La Mar, but is of the same general type. Lintel 1 portrays a figure with



a very unusual three-quarters view of the shoulders. The extremely long feathers with exaggerated tassels identify it as a late monument.

The late Usumacinta school of sculpture is probably the finest that the Maya ever produced. Although its main regard was for subtly suggested motion and dynamic balance of forms, it retained a conservative predilection for natural forms and sensitive, regular lines. Moreover, it was never violent in its expression or too intricate and ornate in its design as was the later sculpture of Quirigua, exemplified by the dancing figures on the zoomorph altars. Whether the development would have reached new heights if it had been permitted to continue, or if this region, too, would eventually have sacrificed its Classic excellence for the sake of ruder but more vigorous expression, we do not know, for so far no examples of Cycle 10 sculpture have been discovered in this area. The cursive quality in the rendering of the lintels of Structure 20 at Yaxchilan, however, is a hint that the dissolution of the Classic mode was a general trend that would have invaded this region if a more drastic catastrophe had not cut off sculptural activity entirely.

#### PALENQUE

It was already mentioned that the sculpture of Palenque does not express the later trends of the Maya development as clearly as does that of the central area. Nevertheless, the stucco decoration of House D of the palace group has some late traits and a carved rectangular panel (Kelemen, 1943, pl. 81a) shows a figure very skillfully composed along dynamic lines. It is to be expected that on the fringes of the Maya area, the central development should be less clearly defined, especially since contact between various regions may not have been maintained after the Period of Uniformity.

#### CHIAPAS HIGHLANDS

(Tonina, Santa Elena Poco Uinic,  
Chinkultic, Tenam)

At Tonina Monument T-20 (p. 137), dated from its inscription at 9.18.0.0.0, seems to show no late qualities. The head, however, is missing and the design is so simple that there are not many traits to be compared. In the same region, low-relief sculpture often exhibits late qualities. Stela 1 at Santa Elena Poco Uinic, for example, depicts long-tasseled feathers that denote the Dynamic Phase. This figure, like Stela 3 at Morales, holds a small rectangular

shield, such as was used at Piedras Negras in earlier times. The late Yucatecan form of shield, with a hanging below it, occurs also on Stela 9 at Chinkultic (fig. 75, *b*), which shows a figure with an enormous headdress and recalls the designs on Stelae 11 and 14 at Uxmal. No very late traits appear on this sculpture but its late connections with Uxmal preclude an earlier date. Stelae 7 and 8 at Chinkultic and Stela 1 at Tenam are also probably of the Dynamic Phase. These sculptures do not achieve the excellence of the Usumacinta schools. The late scroll and the flamboyant qualities are absent, but poses are not so rigidly vertical as that of the figure at Santo Ton, and plumes, though not as freely drawn as in more developed styles, have a certain deliberate artificiality.

#### COMALCALCO

No Maya remains have been reported from the valley of the Grijalva River, except where it flows into the open coastal plain of Tabasco. Here at the site of Comalcalco are vaulted temples and a tomb with stucco figures in low relief on its walls (Blom and La Farge, 1926-27, 1:115-30). The style resembles that at Palenque but has also a quality that distinguishes it from other Classic styles. This quality is expressed in the pose of the figures, in the simplicity of their costume, in the pronounced bridge of the brows, and particularly in the rendering of the feet, which are disproportionately small. These features may be identified with the "Quality X," which seems to be characteristic of a large group of sculptures in western Yucatan (see p. 156). The column from Chilib particularly resembles the Comalcalco figures (fig. 100, *b*). Direct trade contact or perhaps a common influence from some outside source may account for these resemblances. The period of neither of the schools is known, but the dancing pose of one of the Comalcalco figures and the form of the wristlet of another suggest that they are not earlier than the Dynamic Phase.

#### DOUBTFUL AND ERODED LATE MONUMENTS

A large number of monuments that have not been mentioned in this discussion can nevertheless be placed with some confidence in the Late Classic tradition, which in its mature and undegenerate form can be said to last from 9.11.0.0.0 to 10.2.0.0.0. The position of the principal figure, the typical arrangement of feathers on the headdress, and the footgear are the main criteria of this period. Other

surviving details may furnish valuable clues but details are seldom individually well preserved. Stela 1 at Xultun, the stelae at Topoxte, Stelae E and R at Pusilha, Stela 1 at Los Higos, Stela 1 at Yaltitud, Stela 4 at Chinkultic, and Stela 2 at Tenam are examples of sculptures which are clearly in the Late Classic tradition but too fragmentary or too eroded to merit detailed discussion.

#### NORTHERN SITES

The progress of stylistic development in Yucatan remains difficult to follow after 9.16.0.0.0. At Etzna are a number of monuments, such as Stela 7, which are clearly in the Classic tradition and show dynamic poses, but they are more crudely carved than monuments of the same period in the south. Stela 1 at Dzilam, though only a fragment, shows qualities characteristic of the Dynamic Phase, but most Yucatecan styles appear to be strongly diluted by foreign influences or local traditions, and since there is no sequence of dates which can be followed, the interrelation of the various trends can only be conjectured. It is convenient, therefore, to defer the discussion of the survival of the Classic tradition in Yucatan to the chapter dealing specifically with the northern and very largely non-Classic sites, where different schools are discussed in relation to each other. It is pertinent to note here only that the divergence of the Yucatecan styles appears to date back to the Ornate Phase, and that the variety of schools indicates a course of development quite different from the uninterrupted progress that can be followed in the southern area.

#### THE LATE CLASSIC PERIOD

##### The Decadent Phase (9.19.0.0.0-10.3.0.0.0)

Flamboyant scrolls. Exaggerated proportions. Simplified rendering. Irregular line.

Immediately after 9.18.10.0.0 there is a sudden fall in the incidence of dated monuments. At many sites, such as Piedras Negras and Copan, there are no monuments which can be attributed to a later period, and sculptural activity seems to have ceased abruptly. In the Peten and in the region of La Pasion, however, are a number of stelae inscribed with Cycle 10 dates, and it may be that the abandonment of the Initial Series notation, together with the infiltration of outside influences, prevents us from identifying others erected at this time. There is no doubt that the great period of Maya art had come to a close,

and that the trends of the times are in the nature of a degeneration.

Most of the monuments that can be definitely dated still preserve the standards of draftsmanship of the Classic Period, but in others we can already detect tendencies toward ruder and more cursive delineation and toward gross exaggeration and distortion of forms. Some also show a revival of early, simpler forms, a trend already noted in sporadic occurrences in the previous period. There are also a number of monuments which cannot be dated but can be placed in this period with reasonable certainty because their style reveals familiarity with late conventions, even as it diverges from the Classic mode. Although dates beyond the epigraphic series must be conjectural, it may be that the degree of divergence and of deterioration in the quality of draftsmanship and technique is a fair measure of lateness.

#### THE PETEN

(Tikal, Ixlu, Ucanal, Xultun, Naranjo, Xmakabatun, Calakmul, La Muñeca, Oxpemul, Benque Viejo, Flores, El Palmar, Nakum, Tayasal)

Stela 11 at Tikal, erected in 10.2.0.0.0, preserves to some extent the classic formality of the previous period. The long tassels of the plumes are a familiar indication of a late date. There is also a disregard of realism in the upward sweep of the feathers at the end of the apron, which in normal position would drag on the ground. The dot-outlined S-curve is used as an independent motif, as on the late Stela 1 at Cancuen. The strap over the instep, fastening the tassel of the sandal, is another reliable indication of a very late date.

Stelae 1 and 2 at Ixlu and Stela 4 at Ucanal (fig. 76,a) also use the dot-outlined S-scroll. They are classic in their neat draftsmanship, but certain minor elements are probably of foreign derivation. The band worn around the head on the minor figure on the Ucanal monument suggests Yucatecan designs; the use of small figures in the air recalls the winged figures on Stela 2 at Uxmal. The rectangular cartouche of two of the glyphs is non-Maya. Earplugs are square, and featherwork is typically late in arrangement. The form of the monuments themselves is irregular and very strongly wedge-shaped.

Morley places Stelae 2 and 3 at Ucanal also in Cycle 10, but to judge by stylistic standards these monuments might be considerably earlier. Both are badly eroded, especially Stela 2, on which the sur-

face has completely disappeared. The figure stands in a slightly unsymmetrical pose, but there is nothing else to indicate a very late date; it is very different both in general shape and in composition from Stela 4 which was erected in Cycle 10. Stela 3 also shows a conventional Maya figure, and though the scrollwork and the feather arrangement indicate a fairly advanced date, the only exaggerated or flamboyant feature is the very large tassel of the sandal. It appears to me to be a monument of the Dynamic Phase, probably earlier than Stela 4.

The Ucanal and Ixlu monuments do not have the cursive qualities of draftsmanship which were beginning to transform the Classic style even before this time. Stelae 3 and 10 at Xultun illustrate more clearly the process of degeneration (fig. 76, *b, c*). The upper jaws and snouts of the serpents on the head-dresses are drawn with an irregular line, filling the upper corner of the panel with restless motion and so distorting the form of the motif that it is scarcely recognizable. The serpent-frets are very prominent, irregular, and unsymmetrical. On Stela 3 is an ornament on the right side of the belt which is omitted on the left where it would interfere with the motif of the manikin. Collars and other ornaments are boldly outlined with fillets; lines have the quality of deep grooves. Stela 10, the later of the two and the last example of a sculptured human figure in our series of dated monuments, shows the more cursive qualities and the more ruthless simplifications. The earplugs are square. The heads decorating the belt have neither hair nor earplug indication and are outlined with a deep groove. The feathers are treated as a single mass, with bold simple lines separating the individual feathers. Both figures stand on a band of hieroglyphs, rectangular in outline and crudely indicated. These glyphs do not form an inscription but repeat the same symbol as a decorative motif. A similar use of ornamental glyphs is found on late pottery, particularly on Fine Orange wares.

At Naranjo, Stela 32 (9.19.10.0.0) develops to even greater heights of flamboyance and ornateness the style exemplified in Stela 12. The figure is completely destroyed, but the snake head and the scrolls carved on two planes emphasize the late curve, which is the dominant theme of the design. The draftsmanship is superb, but the line is bold and restless. This type of line and curve is used also on Stela 9 (fig. 71, *b*). Erosion has obscured its detail, but the general contours of the forms are unmistakable. Spinden correctly places this monument late in

the series, but Morley disagrees, suggesting the date 9.10.10.0.0. This is a clear case in which an examination of the character of the scrolls alone is sufficient to rule out the earlier position. Moreover, the long plumage with exaggerated tassels, the use of the S-scroll in the background, the flamboyant design of the serpent head, the very high ankle-guards, and the projecting frets, are all late traits, whose simultaneous use probably would not occur except in the very late period, certainly not before 9.17.0.0.0. This stela also uses a panel type of composition, presenting a scene above the figure, a composition with a throne which recalls some of the Oxkintok designs. It is very strongly wedge-shaped, like the Cycle 10 stelae at Ixlu, and the probability is that it also was carved in this cycle.

Although no dates can be deciphered on Stelae 3 and 4 at Xmakabatun, there can be very little question that these, too, are very late examples of Maya sculpture. The enormously exaggerated frets, the pose of the figure on Stela 4, and the simplified detail presented with bold lines are characteristic of the dissolution of the classical tradition. Technique, form, and line are all sacrificed to a bold, almost rude, but expressive presentation of the subject, which, with its deliberate disregard of natural form, cannot be mistaken for mere ineptitude of the artist.

At Calakmul there are other examples of this late disregard of realism. One sees it on Stela 65 (fig. 79, *d*) in the extremely long tassels of the sandals held by a strap around the instep. The ankle-guards are very high. The pose is rigid and indistinguishable from the typical pose at the beginning of the Late Classic Period, but the wearing of the shield on the wrist is a later trait.

Denison (Ruppert and Denison, 1943, p. 115) considers the carving "exquisite" and notes "meticulous attention to detail." One who compares this monument with the stelae of the Ornate Phase such as Stela 51 (fig. 56) or Stela 54 cannot fail to see that finer textures are neglected and that forms are simple and rigid, and one wonders if such phrases when used by archaeologists are not sometimes more in the nature of expressions of approval than of serious observation. Stela 84 (fig. 79, *d*) has an even more simplified rendering, and probably also is a monument of the period of decline. Stela 17 (fig. 79, *b*), in contrast, is flamboyant and uses the writhing forms characteristic of this type of design. The forms, however, are cursive and irregular. The figure sways from the vertical even more noticeably than

the figure of Stela 10 at Xultun, and the fillets of the apron project beyond the figure and curve downward instead of ending in frets. What was probably the final stage of degeneration is reached in Stela 50 (fig. 79,e). The delineation of the figure is nothing short of crude. The belt-head ornament is no more than a circle with roughly indicated features. The proportions of the body are grossly distorted. This figure, like the latest figures at Xultun, stands on a row of carelessly drawn glyphs. It is interesting to note that the sandals are no longer of a Maya type, but are decorated with a puff, as are those of the Toltec Period at Chichen Itza and of the Cycle 10 stela at Comitan. If we are right in placing these monuments very late in the sculptural sequence, it would seem that at Calakmul, and probably everywhere in northern Peten, civilization was not suddenly destroyed at the very zenith of its development, as it seems to have been at Copan and at Piedras Negras, but that it suffered a progressive though possibly rapid deterioration before it was finally extinguished. Stela 91 (fig. 79,f) is entirely aberrant. It is a very small monument and crude in its execution. One cannot be certain, however, that it is truly decadent.

Stela 13 at La Muneca, dated 10.2.10.0.0, is too eroded to show more than the characteristic large frets, but Stela 5 (fig. 78,c), for which Denison suggests the date 9.17.10.0.0, is almost certainly another example of the degenerate ornate style. Although Denison's estimate is not entirely improbable, the epigraphic evidence would also fit the date 10.3.10.0.0, which I believe deserves serious consideration. The immense scrolls are a very late mannerism, and their form is not characteristic of the Classic Period. The three-part scroll in the upper right corner recalls very early designs and at the same time is like the forms of Santa Rosa Xtampak and of the Toltec Period at Chichen Itza (fig. 12,r',x'). The belt ornament is a circle with crude facial features. Although degenerative changes began as early perhaps as 9.17.10.0.0, the advanced divergence of this design from the Classic mode suggests a later date.

Stela 15 at Oxpemul (fig. 79,c) is another very crude figure, like Stela 50 at Calakmul. The use of wide, deep grooves indicating the featherwork recalls Stela 10 at Xultun. Sculpture at this site never achieved great excellence, but the decadent nature of this monument almost certainly indicates a period of decline rather than mere technical inferiority.

The figure on Stela 1 at Benque Viejo, which Morley places in 10.1.0.0.0, though classic in character, has a peculiar arrangement of featherwork, which is the only detail well preserved. The feathers of the panache attached to the headdress are depicted with parallel lines in the usual manner of the Dynamic Phase. Behind the figure, in the background, the feathers are shown overlapping as in the Formative Phase of the Late Classic Period, but with the raised shaft of the Ornate Phase. Moreover, the barbs of each feather are indicated with fine incised lines. The simultaneous depiction of two motifs on different planes is, of course, a late feature observed at Quirigua, but the arrangement is also somewhat reminiscent of the twin figures at El Baul and El Pantaleon, in the department of Esquintla on the Pacific slope. On these sculptures, too, the barbs of feathers are indicated. One might question (because of the minute rendering of the detail) a very late date for this sculpture, but its position in very early Cycle 10 is not altogether improbable.

At Flores the monuments are badly eroded, but what can be seen on Stela 1 indicates a very advanced date. The stela is strongly wedge-shaped, like the stelae of Ucanal and Ixlu; the composition is unusual, presenting a seated figure in the upturned jaws of a serpent whose body forms an important feature of the design. In spite of erosion, the cursive quality of line is conspicuous.

Stela 14 at El Palmar is badly eroded but the enormous tassels of the plumes clearly show its late date. The rendering of Stela D at Nakum and of Stela 1 at Tayasal is also typically decadent.

#### SEIBAL

At the site of Seibal, in the upper drainage of the Usumacinta, Cycle 10 monuments reflect much the same process of abrupt decline. Stelae 8, 9, 10 (fig. 77), and 11, all recording the date 10.1.0.0.0, employ the late scroll, the long sweeping plumage, and many other typically late mannerisms, including the band worn around the head which has been noted on Ixlu designs.

Stela 1 (fig. 78,b), erected a katun later, is clearly decadent. The scrolls and plumage are late in type. The belt ornament is simplified and has neither ear-plug nor knot element. The position of the feet and legs is precisely that used centuries before in Cycle 8; the sandals have a low strap over the instep and resemble those of the Toltec Period. The naturalistic representation of the serpent is also like those of

Chichen Itza. It is obvious that the early position and the sandal type are not survivals of early traits in this area, but were reintroduced from some foreign source. The influence was accompanied by a technical and artistic decline.

Stelae 2 and 3 are undated but probably also belong somewhere in this period. Stela 2 is a figure in high, round relief. It wears a mask and a curious headdress with a representation of a skull as its central motif. The sandals are of a type worn at Chichen Itza, the anklets and wristlets have strong horizontal outlines, the scroll form is late. Stela 3 is composed in three panels. The top panel shows two figures with Tlaloc faces and, above them, two glyphs in rectangular cartouches. As the coefficients of these glyphs are 7 and 5, it has been suggested that they may represent the names of two consecutive katuns, but this seems unlikely. The interior detail seems to be the same on both and resembles the form of the Mexican day sign Cipactli, the first of the day series, which corresponds to Imix in the Maya count. In the lowest panel is a figure with a bird beak. The foreign admixture is here even clearer than on the other monuments.

CHIAPAS HIGHLANDS  
(Chinkultik, Comitán)

There are no examples of Cycle 10 monuments from the lower Usumacinta region, but far up in the Chiapas highlands stelae were still being erected. Morley suggests the Period Ending 10.0.15.0.0 for Stela 1 at Chinkultik. This monument, in very low relief, is broken and somewhat eroded. One cannot distinguish any clearly late traits, except the distorted proportions of the figure. The stylistic position of this monument is very doubtful. Thompson reads the date as 9.17.0.0.0. Another monument, however, Stela 1 at Comitán, is clearly of the Decadent Phase. There is almost no modulation in the relief; the sculptor relied strongly on simple incised lines on a raised surface to show not only the detail, but even parts of the figure itself. The pose is not symmetrical or axial; the manner of placing the right elbow very close to the body to produce the effect of a three-quarters view may also be observed on the late Xmakabatun Stela 3. The costume of the figure is simplified. Its sandals lack ankle-guards and are decorated with puffs, like Toltec sandals at Chichen Itza.

Strictly speaking, neither this monument nor some of the others that have been mentioned here, such as Stela 50 at Calakmul, Stela 3 at Seibal, or Stela 15 at Oxpemul, can be grouped in the Classic series. They are as far divergent from the Classic mode as the late sculpture of Chichen Itza and of the Puuc region in Yucatan. By relating them to such late sculptures as Stela 10 at Xultun, we can surmise, however, that they followed the Classic sequence and were not merely sporadic occurrences of ruder types. If this conclusion is correct, it makes suspect the theory that the Maya civilization perished entirely from internal causes, and that its decline was unaccompanied by foreign infiltration. The very late introduction of the Mexican type of sandal, particularly, argues the presence in this area of some foreign group. We have, unfortunately, no measure of the duration of the degenerative process in Classic Maya art, for the practice of recording Initial Series is so intimately connected with the Classic mode of sculpture that the monuments which diverge from the classic style are difficult to date. Truly decadent monuments are rare, however, and it seems unlikely that stelae were erected long after 10.2.0.0.0, when degenerative trends seem to have gained their highest momentum.

As we close the discussion of the Classic series it may be well to emphasize again that the trends which are manifest in a large sequence of material never appear with equal intensity on all monuments of the same date. Each monument expresses the current and past modes in varying proportions and even if one were able to classify all according to the position they would have in an ideal, smooth series, we would still have to scatter the groups into adjacent phases in order to approximate the character of the actual development. Thus the estimated range of even the typical and best preserved monuments generally overlaps the chronological span of at least two phases. It is particularly important to remember this fact in attempting to construct stylistic sequences where no dated series exists. The stylistic sequence should be regarded as an arbitrarily simplified scheme which at no point can express the true cross section of development. The divisions of time we designate for a given phase are merely foci about which the monuments of that phase have the largest concentration. The phases in fact have a longer duration and overlap each other.

## The Sculpture of the Northern Maya Sites

There has been a strong reluctance on the part of specialists in Maya epigraphy to assign early dates to monuments on the periphery of the Classic area. Known Cycle 8 inscriptions are confined to a limited region in northeastern Peten, from which the inference has been drawn that the practice of erecting and carving monuments also originated in this center and spread gradually in all directions at the beginning of Cycle 9. Stylistic observations do not support this theory. There are a number of monuments on the periphery and outside the Classic area which seem to have no direct connection with stelae erected in Cycle 9 but which clearly show affiliation with the earlier Cycle 8 group. In the light of the current theory, one can explain this affiliation only by disassociating the stela cult from its artistic style. It seems improbable, however, that the practice of carving large monuments, which involves considerable training and skill, could be transmitted without leaving perceptible traces on the artistic style. If it can be shown that the peripheral resemblances to the Cycle 8 style are not merely fortuitous, present beliefs will require some revision to take into account a wider distribution of monumental carving in Cycle 8 than is indicated by the Initial Series readings.

### THE CAVE AT LOLTUN

Among these peripheral sculptures showing early traits is a low-relief carving of a human figure at what is known as the Hunacab mouth of the cave at Loltun, Yucatan (fig. 38, *b*). This figure is carved on rock, but the subject of the carving—a human figure and hieroglyphs—can be considered a monumental subject. It has been commonly regarded not as early but as representative of the art of some late non-Maya intruders. The glyphs are not clear on the available photographs. The fact that there are in this figure some striking similarities to the early style of Uaxactun has not received, apparently, much serious consideration. Early traits reappear in Yucatan in the late styles of the Puuc and of Chichen Itza, and it is not surprising that the unique character of this carving has escaped attention. The early traits which it exhibits are not the same that survive in late sculpture. Moreover, in late sculpture early

traits are usually modified by specific adaptations to late mannerisms of the Classic style, and are often found in combination with traits of later origin. On the Loltun carving there are no late adaptations, and although this is not proof that it is contemporary with early Maya forms, I think one may conclude that the style of which it is representative and the style of Cycle 8 in the Peten have a common horizon. If we postulate that the Loltun carving is the work of late intruders in Yucatan, we must also postulate a distant locale where early traits could survive in isolation from the later developments, not only of the central area but also of other recognized styles.

Outside of the Maya area the monument which most closely resembles the Loltun carving is a stela at San Isidro Piedra Parada, on the Pacific slope of the Guatemala highlands (fig. 109, *b*). The two figures have the same ambiguous element worn under the chin, the same early type of chain from which is suspended an ornament behind the figure. As will be shown in a later section, the Piedra Parada stela, together with the monuments at Izapa and other sites near the Pacific coast, constitute a style whose ancient origin is difficult to dispute, for all the traits common to it and to the Classic Maya are early in the Maya sequence. This does not set a limit to the persistence of these traits in the Izapa style, but it is probably safe to assume that in general the trend of its development was divergent from the Classic. If this is admitted, the traits which link the Loltun carving with the Cycle 8 stelae are valid points of argument for its antiquity.

The feet of the Loltun figure are eroded, but it is clear that they pointed in one direction and were placed one behind the other without overlapping. The knees are apart; the hips in quasi-three-quarters view, with the near hip in side view and the other thrust forward; the shoulders are turned squarely front, with no attempt to suggest a turning to the side or a bending forward, either by suppressing one of the shoulders or by the placing of the arms. This pose is consistent with the Cycle 8 style of the Maya, but since it also occurs sporadically in later periods, its evidence is not decisive.

The relief is low and flat, and has little modeling

or gradation. The graphic style is direct and all elements are presented with equal clarity and equal elaboration: subordinate detail and texture are not emphasized. There are no extended tapering forms. No feathers can be distinguished in the design of the headdress, which closely frames the face and is fastened under the chin with the same type of ornament as on the stela at San Isidro. This ornament probably corresponds to the Early Maya mask ornament which fastens the headdress (fig. 17, *b-i*). The earplug is particularly significant. It is plain, conspicuously large, and deeply indented, altogether like those of Uaxactun monuments in Cycle 8. Earplugs of this type are not observed on the Izapa monuments or in later periods in Yucatan. The grotesque head ornamenting the belt has the same type of earplug; from below this head hangs an ornament which is turned in front view and projects strongly from the figure in the same manner as does the apron of the loincloth on Stela 12 at Xultun. The design of this ornament is almost a replica of the design of the loincloth apron on Stela 10 at Uaxactun (fig. 26, *c,d*). Though the exact date of the latter monument is unknown, its Cycle 8 position has never been questioned. The belt of the Loltun figure is decorated with a prominent oval element. From it hangs a chain of typical early design, presumably attached to an element which hangs behind the legs of the figure but which is not entirely clear. There are no motifs or qualities in this carving which are exclusively late; a graph of its traits (fig. 6, *e*) is just as indicative of an early date as those of the Classic Cycle 8 monuments. Even more significant is the fact that this carving is the only known example of its type in Yucatan, and that it cannot be related to any of the late schools in this region. The possibility that it is an isolated foreign intrusion cannot be dismissed entirely, but in view of its connections with Uaxactun as well as with the Pacific coast, a more satisfactory explanation is that it represents an early occupation whose traces have largely disappeared. A theory of such an occupation by a people of high culture has been suggested already by Brainerd (1942, p. 256) and Andrews (1942, p. 257) on the basis of their study of architecture and pottery. It is not yet unreservedly accepted by all students of Maya culture and awaits further investigation.

Whether or not the Loltun carving is Maya remains uncertain. The hieroglyphs do not show up clearly on the available photographs. The design of the head on the belt of the figure seems to portray

a gouged-out eye, a motif which occurs on the Pacific slope, but not in the group of carvings which we have cited as having early connections. This somewhat uncertainly identified trait, however, is the only one which points to a foreign culture. Recently another example of it has been found by Brainerd at Dzibilnocac. The significance of the term "Maya" when projected to early periods, depends largely on our conceptual reconstruction of the cultural frontiers of that time. Very probably the style we recognize as Classic Maya had not become distinctly differentiated from related groups until the end of Cycle 8, and this may be true of other cultural features. The distinctions based largely on the Classic Period probably do not hold for very early dates, and until more is known about the distribution of cultures in pre-Classic periods, it is better, perhaps, not to associate specific remains with ethnic groups of later times.

#### CLASSIC AND NON-CLASSIC TRAITS IN YUCATAN

With the discovery of an Initial Series at Oxkinok (Shook, 1940; Pollock, 1940, p. 266) recording a date in Katun 2, the occupation of Yucatan by the Maya in Early Classic times was firmly established, leaving in question only its extent and concentration. Stela 4 at this site, a fragment showing the legs of a figure in typical early position, remains, however, the only monument which, on the basis of style, can be attributed to this period. Perhaps regional peculiarities prevent the recognition of others which will be made possible by future stratigraphic studies or additional discoveries of early dates. At present, in spite of definite indications of its existence, the Early Classic Period of sculpture in Yucatan remains virtually unknown.

Stela 1 at Tulum, dated 9.6.10.0.0, at a time when in the central area there is a hiatus in the monumental sequence, is better classed with the Formative Phase of the Late Classic Period. Its style is related to that of the Leyden Plate in about the same way as is that of the earliest stelae at Copan. Somewhat more loosely, the long skirt worn by the figure links it with the figures at Coba.

The latter, Stelae 1, 2, 3, 4, 5, and 6, together with Stelae 18 and 19 at Etzna and Stela 1 at Jaina, all of the Formative Phase, have already been described (see p. 122). They are located in widely separated sites on the periphery of the northern area and represent different schools, which in this period show no evidence of contact with one another. All, how-

ever, are purely Classic and embody traits which in subsequent periods become widely distributed throughout the Maya area. From the interior of the peninsula there is no material which can be correlated with the Formative Phase. Although there is every reason to expect sculpture of this period at Oxkintok, the monuments which are related to the schools of Coba and Etzna, as, for example, the lintel of Structure 3C7, are probably later. Possibly Stelae 14 and 24 represent an independent local style, but the fact that they do not record Initial Series in itself creates a doubt that these monuments are early. Their style is very simple and therefore offers few details for comparison. The entire Puuc area, the best known region of Yucatan, reveals no group of sculpture that can be referred to an early date. Probably this region was only sparsely occupied at this time. Nevertheless, it is only recently that the researches of Pollock, Brainerd, and Andrews have shown an intensive occupation of Yucatan before the period represented by the architecture of the Puuc, and the lack of sculptural material of the earlier periods may be due to our ignorance of the less spectacular earlier sites. It should be recalled that the Formative Phase in the Peten is also very thinly represented.

The later history of Yucatecan art is complicated by the introduction of non-Classic traits into sculpture and by the existence of schools of what appears to be foreign inspiration with influences of varying degree from the nuclear Classic mode. Here we deal, not with an integrated development, as in the central area, but with the abrupt impacts of very different artistic schools and possibly also of different cultures.

Under such circumstances, the artistic sequence in each locality is extraordinarily dependent on historical events, and cannot be conceived as a "development" which can be inferred from morphological studies. No more is attempted in this chapter than a discussion of the relation of various monuments to the Classic style of the Initial Series period. The tentative sequences constructed for convenience of the discussion are largely conjectural, and, resting as they do to a large extent on current theories relative to the history of Yucatan, they will be subject to revision if these theories prove incorrect.

The following outline, which anticipates its discussion, rests on the proposition that at the beginning of the Late Classic Period the principal schools of Yucatan were basically Classic in style and that

the later introduction of non-Classic traits was responsible for the diversity of schools we actually find. If, subsequently, some of the components designated as non-Classic or non-Maya prove to be native to Yucatan, a rearrangement of our present concepts would become necessary.

The schools of Yucatan which can be recognized as basically Classic and which are associated with legible dates are the following:

*Coba Classic* (fig. 94,c): Characterized by a single figure arrangement. Serpent-mask headdress. Fringed ankle-guard. Long necklace with bar ornament.

*Etzna Classic* (fig. 80,a): Single figure arrangement, the use of the manikin sceptre and the flint (?) of characteristic form held in the hand. Serpent-mask headdress. Sandals with fringed ankle-guard, etc.

*Jaina Classic* (?) (fig. 45,c): Panel arrangement (with principal figure predominant). Glyphic or sky-symbol bands. Winged figure. (The last may be a non-Maya component.)

*Santa Rosa Classic* (fig. 80,b): Single figure arrangement, simple dress elements, archaic scrolls and treatment of feathers.

It is not always possible to say whether the non-Classic monuments are the source of influences in mixed schools or are themselves the end result of gradual transforming tendencies. Apparently the non-Classic features do not all stem from a single source, and their own interaction complicates the situation and makes it difficult to reconstruct the original complexes of traits. In the following list are cited some recurring non-Classic features. Their arrangement, however, does not imply any chronological or source relationship.

*Decadence* (fig. 81,a,b): Usually observed on single figures of basically Santa Rosa Classic type. Irregular, often imperfectly outlined forms. Cursive line. Little or no modeling, with minor detail indicated by light lines, and stressed forms by grooves. Often marked anatomical distortion.

*Quality X* (fig. 81,c,d): Figure distortion of peculiar type, with simplified anatomical contours and dress. Feet tend to be disproportionately small and outlined without detail; hands often are inaccurately drawn; limbs are crossed in an artificial manner; and brow ridges are prominent. This may be another aspect of decadence, but there are indications that it is a distinct stylistic strain deriving from some as yet not clearly identified provincial school or schools.

*Geometric simplification* (fig. 104,a): Artificial, rigid arrangements. Forms of extreme regularity, and a tendency to emphasize straight lines rather than curves.

*Scenic arrangements* (fig. 87,a): Small figures, with no one figure clearly predominant. Paneled arrangements, with or without glyphic bands.



*Non-Classic motifs:*

Winged figures (associated with the Classic school at Jaina).

"Maya" figures of Chichen Itza type (figs. 88,*a*; 107,*a*): Sandals lacking ankle-guard. Long rectangular shields. Tubular noseplugs. High laced or spirally wound gaiters.

Toltec figures (fig. 107,*b*): Round "shield" worn on back. Bird pectoral. Pointed headdress. Atlatl and darts. Slipper worn on one foot. "Button" noseplug.

Figures with depressed disk (fig. 102,*f,g*).

Small figures dressed in feathered or quilted garment (fig. 97,*b*).

Phallic, death, and female figures.

Most of the sculpture of Yucatan shows one or another of these non-Classic features. Nevertheless, a formal classification of the material is not attempted because the identity of specific stylistic strains is not sufficiently clear. The discussion proceeds according to region, its monumental sculpture considered first, followed by its architectural sculpture.

## QUINTANA ROO

(Tulum, Cozumel, Coba)

The eastern half of the Yucatan Peninsula, known as the Territory of Quintana Roo, is still only sketchily explored. The monumental sculpture which we have from this region is concentrated near the sites of Coba and Tulum and on the Island of Cozumel. At Tulum, Stela 1 (fig. 41,*c*) and Stela 2 seem to represent the extremes of a development the greater part of which is missing. Stela 1, erected in 9.6.10.0.0, bears about the same relationship to Early Maya sculpture as do the first monuments of Copan. It may be considered also an early variant of the Coba school, which flourished 60 years later. Stela 2, on the other hand, is almost without doubt a very late monument. It is crudely carved, and the position of the figure—left elbow raised and the right held close to the body—probably derives from the Decadent Phase of the Maya tradition. Moreover, the decorated border, composed of rectangular elements with a pit in the center, recalls designs on Fine Orange pottery of Brainerd's Type X (Brainerd, 1941). The bold crudity of the technique and the disregard of realistic effect are degenerate rather than primitive, and seem to indicate a style in the last stages of dissolution. Stela 3 is little more than a fragment, of whose date it is impossible to judge.

These are the only known stela figures from the north coastal region, and the hiatus between them is only partially filled by the sequence at Coba. There

is a carving in the Merida Museum which is reported to have come from the Island of Cozumel (Lothrop, 1924, fig. 21), but I am inclined to question not only its provenience but also its designation as a stela. Its proportions and very regular shape suggest that it is a door jamb, and its resemblance to a column in the Merida Museum said to have come from Chilib, Campeche (fig. 100,*b*), is so striking that it is difficult not to conclude that both sculptures are from the same region if not from the same site. The indication of brows, a very unusual feature in Maya sculpture, and the identical quality of line used to depict the legs and the hands of the figures can scarcely be chance resemblances. Since sculptured jambs and columns are common forms in the west, it seems likely that there has been an error in the assignment of the Cozumel monument.

The architectural sculpture of the east coast, in contrast to the monuments, shows many foreign traits. The stucco diving gods wear sandals of Mexican type. A chacmool statue at the site of Chacmool is another link with Chichen Itza and the Toltec influence. Finally, on the Island of Cozumel at San Miguel is a sculptured column of which Holmes publishes a photograph (Holmes, 1895-97, pl. IV; Lothrop, 1924, fig. 165). The crudely carved female figure shows no relation to the Classic Maya style or its motifs, but resembles such figures as that from the Uloa Valley illustrated by Gordon (1898, fig. 4). At present there seems to be no way to determine whether the San Miguel figure is the work of a local cult or of ruder immigrants. This is likewise true of the rude sculptures of Telantunich in the interior, discussed by Andrews (1939), which also seem to have connections with southeastern non-Maya regions.

As on the coast, there are foreign influences in the architecture of Coba. The monumental sequence, however, is purely Classic except for Stelae 13 and 17, which are carved in a very simple, rather unsophisticated style which Charlot regards as archaic (Thompson, Pollock, and Charlot, 1932, p. 163). The style of these sculptures, however, is very different from that of Early Classic schools and, if Charlot is correct, must represent a local variant independent of the development in the Peten. The remainder of the Coba sequence seems to be concentrated at the end of the Formative Phase, with Stela 20 carrying it forward into the Ornate. The Dynamic and the Decadent Phases are not represented at Coba, but a fragment of a stela at Dzilam, Stela 1

(fig. 82,f), is so similar that it can be regarded as an extension of the Coba school. Thompson accepts this as evidence of contemporaneity and suggests the reading 9.12.11.12.9 7 Muluc 2 Kayab for the date on the Dzilam monument. In my opinion, it is considerably later than the Coba series. The row of hieroglyphs on which the figure stands, its boldly outlined anklets, and the heavily outlined scroll carved on receding planes in the background, are evidences of a date not earlier than the Dynamic Phase. A date two (or even three) calendar rounds later than the one suggested would be more in accord with the course of development observed in the southern sites.

NORTH CENTRAL YUCATAN  
(Dzilam, Ichmul)

There is another small monument from Dzilam (Stela 2, fig. 82,e) which is now in the Merida Museum. It is carved with less care than Stela 1. The figure holds a manikin sceptre; its costume is more like those at Etzna and in the Peten than those of the Coba monuments. Gann (1934, p. 167), apparently referring to this stela, mentions an Initial Series, but I believe this is an error. On the side there is the record of a Calendar Round date only, which reads 6 Ahau 8 ?. The manner in which the manikin sceptre, the headdress, and particularly the plumes fit the shape outlined by the border suggests a late date. The influence of some non-Classic strain or trend, which we have called Quality X, is felt in the rendering of the feet, which is typical in Yucatan. The date which suggests itself is 10.0.10.0.0 6 Ahau 8 Pop, but the month sign does not resemble known forms of Pop, and there is no indication that the date is a Period Ending.

The only other pieces of Classic sculpture from this area are two companion panels from Ichmul representing a game of ball. It is rather difficult to estimate the date of these panels since they present figures of specialized type, but one might refer them to the last half of the Late Classic Period on the basis of the headdress designs (fig. 82,a,b).

WESTERN YUCATAN AND CAMPECHE STELAE  
(Etzna, Santa Rosa Xtampak, Jaina, Oxkintok,  
Yaxcopoil, Sayil, Keucic, Uxmal,  
Dzibilchaltun, Mayapan)

Of the sites in the western half of the Yucatan Peninsula, Etzna has by far the best series of Classic monuments. Beginning with Stelae 18 and 19

(fig. 46,a,b) at the very end of the Formative Phase, this series continues with Stelae 2 (9.15.0.0.0?), 4, 5 (9.18.0.0.0?), 1 and 7 (figs. 83,a-d; 80,a). In general, the stylistic development seems to be that which has been outlined for the Classic area, but the scroll form is not often used, and both technique and ornamental forms lack the perfection they achieve in the sites along the Usumacinta. On the other hand, the strongly directed position of the figure on Stela 2 is in advance of the date indicated by the inscription. Unfortunately, we are not altogether certain that this date is correct. Stelae 1 and 7 evidence certain stylistic peculiarities probably related to Quality X. Neither monument bears a date, but the composition of the figure on Stela 7 places it with little doubt in a period not earlier than the Dynamic Phase.

Quality X appears even more strongly in the sculpture known as Stela 6 (fig. 83,e). I have some doubt that this is a stela, since its form resembles that of a jamb or panel and the sculpture extends almost to the bottom of the stone. The vehemence of the pose of the figure is foreign to the Classic tradition, and the unnatural way in which the left foot is crossed over the right leg recalls the poses of the figures on Stela 19 at Oxkintok. The Etzna figure is apparently a ball-player. He wears a knee-guard, one knee resting on a bench with a sloping face and horizontal top. Above the bench is a round form that may represent a ball-court ring. There is known to be a ball court at Etzna with a flat-topped bench and a vertical playing wall, but no rings have been reported. The section is similar to that of the Great Ball Court at Chichen Itza, but Ruz (1945), on the basis of ceramic evidence, places it in Late Classic times, so there is no evidence that Stela 6, which depicts such a ball court, was carved in post-Classic times. Nevertheless, its association with an unusual architectural type tends to confirm the identity of Quality X as a distinct stylistic variant.

Anatomical distortion is also illustrated by Stela 12 (fig. 81,b); this seems to have no clear relation to Quality X, but is similar to Classic decadent mannerisms. The pose is mobile and the line free. Simple incision is substituted for modeled forms. In the rendering of the feathers, the forms are not outlined precisely, but their direction and arrangement are indicated by incised lines. Although the body of the figure is now largely eroded away, one can see that bodily contours receive the same casual treatment. Like Stela 2 at Tulum, this is probably an ex-

ample of the decadence of the Maya tradition, or perhaps even an attempt at its revival by a people long under the domination of an alien culture.

That some non-Classic culture did supersede or for a time dominate the Classic at Etzna is amply evidenced by the character of the remaining monuments. Stelae 8 and 9 (fig. 84,*a,b*) introduce a new motif and a new arrangement, for which there is no precedent in Maya sculpture. Much of the detail, however, remains Classic, though with a tendency to revive early forms. The feet of the figures point in one direction; the snouts of the serpents turn backwards. The serpent heads, however, are carefully adapted to the space they fill and so betray the Late Period of the carving. The manner of depicting feathers with long parallel grooves also indicates a very advanced date. 9.19.0.0.0, the date suggested by Thompson for Stela 9, is therefore probably correct.

Stelae 15 and 16 (fig. 84,*c,d*) have very little in common with the Classic style. They are composed in panels presenting scenes of action and are more closely allied to the Toltec school of Chichen Itza than to Classic sculpture. The principal figure on Stela 15 portrays a warrior wearing sandals without the Late Classic ankle-guard, and carrying a long, rectangular shield with a tuft of feathers hanging below it. This portrayal is similar to the figures identified by Tozzer (1930) as Maya in the sculpture of Chichen Itza, but quite different from the figures on Classic monuments. Although the block arrangement of the hieroglyphs indicates that they are probably Maya, it is difficult to conceive this style as merely a regional development, and one is led to postulate, if not an intrusive culture, at least preponderantly strong influences from some outside source. The figures on Stela 16 (fig. 84,*d*) even more closely resemble those of the Toltec school; the treatment of feathers on this stela is almost identical to that on the upper panels of the Temple of the Warriors at Chichen Itza. This monument has no inscription. So far as we know, there is no architectural or ceramic evidence of the occupation of Etzna by the Toltec, but apparently they or perhaps precursors of theirs at some period profoundly influenced the monumental style. It can hardly be a mistake to assign these sculptures to a post-Classic period, particularly if we conceive the periods as to some extent overlapping, so that the dates of transition might vary for different regions and sites.

Unlike the stelae at Etzna, the monuments at Santa

Rosa Xtampak show no distinct intrusive features but what appears to be a gradual transition from Classic types to decadent types such as Etzna Stela 12. The Santa Rosa group is representative of a school to which also belong most of the monuments at Sayil, and which is probably related to the Classic through monuments such as Stela 20 at Yaxchilan. The two Initial Series at Santa Rosa (on Stelae 5 and 7) fall late in Katun 15, and since the inscriptions are brief it is probably safe to assume that they were carved about 9.16.0.0.0. (The katun coefficient on Stela 7 looks to me more like 16 than 15, but here I accede to the opinions of Morley [1937-38, 4: 371] and Thompson.) Stela 5 (fig. 80,*b*) is a beautifully executed figure and, except for minor peculiarities of costume, may well be placed in the Classic Ornate Phase. The naturalism and grace of the figure, and the long fringed end of the loincloth suggest its relation to Usumacinta schools. The figure of Stela 7 (fig. 86,*a*), less excellently rendered, shows nevertheless, greater mobility. Stela 2 (fig. 85,*a*) is another example of this style. The pose and the type of earplug are late, however, whereas the scrolls resemble archaic Classic types. In Yucatan archaic types of scrolls are found in association with late architectural remains and not infrequently on Toltec sculpture. It is not clear whether such forms survive continuously in this area or are reintroduced in late times, but it may be significant that they are not conspicuous on the monuments which can be dated and that archaic (or perhaps one should say "archaistic") traits are not infrequently found, not only in Yucatan but also in the southern area in combination with traits that appear to be decadent.

On Stelae 3 and 8 at Santa Rosa the archaic quality of the scrolls is even more conspicuous, although they are modified and adapted to the field of the design. Neither of these monuments has an Initial Series. On Stela 8 (fig. 85,*b*) the only calendrical glyph seems to be a record of a day 7?, and on Stela 3 (fig. 85,*d*), 1 Ahau. In view of the custom of naming katuns by their tzolkin date, it seems probable, since these days are not followed by a month notation, that they are names of katuns, in which case their best positions would be 10.0.0.0.0 7 Ahau 18 Zip, and 10.3.0.0.0 1 Ahau 3 Yaxkin. Dates 13 katuns earlier would be unlikely, but 9.16.10.0.0 1 Ahau 3 Zip and 9.16.15.0.0 7 Ahau 18 Pop remain possible alternatives. The strong outlining of the collar and anklets, and the treatment of the wristlets on Stela 8 indicate a late period, but the choice of the proper

chronological position for this monument depends largely on our judgment of the significance of the modified scroll forms, which are different from those we find in the southern sites.

Stela 3 also shows archaistic tendencies: the simple scroll form, the wristlets without finishing details, and the rendering of the feathers by oblique planes with one projecting edge. Its strongly directed pose, however, and the round collar ornaments suggest a late date, as does the fitting of the elements to the field, particularly the design of the tassel of the loin-cloth, which follows the outline of the leg. The pointed shape of the monument resembles that of Stela 20 at Yaxchilan, and of a number of monuments at Sayil; the feathers attached to the arms of the figure link it with the styles of Oxkintok and Jaina. Stela 4 at Santa Rosa is also pointed and, though undistinguished in style, may be classed with this second group of monuments, which are somewhat less Classic in feeling than Stelae 5 and 7 but still very closely related to them.

Stela 1 (fig. 86,*b*), though apparently directly related to the other monuments, is distinguished from them by the marked decadence of its rendering. The dancing pose, the cursive line, and the mere suggestion of detail by light incision evidence a declining tradition. The lines serve not so much to outline forms as to indicate their essential direction. Thus, for example, the contour of the left arm is grossly inaccurate, but effective in giving the torso of the figure a turn to the right. In the same way, the lines indicating the plumes only approximately indicate their position. This artistic method is in a sense comparable to the modern preference for abstraction in that it tends to ignore representative form. The simplicity of its technique should not be confused with mere ineptitude on the part of the artist, though the two may be sometimes difficult to distinguish.

The region known as the Puuc lies north of Etzna and Santa Rosa Xtampak. Pollock (1940) makes a distinction between the Puuc proper, including such sites as Labna, Sayil, and Kabah, and the region to the west, adjacent to the railroad connecting Merida with Campeche. There is also a narrow coastal region, which is not well known archaeologically but which may be culturally distinct. The only site from the coast from which monumental sculpture is reported is the Island of Jaina. Stela 1 at this site (fig. 45,*c*) can be dated with reasonable certainty in 9.11.0.0.0. Although the Initial Series is destroyed, its

terminal date combined with Glyph G leaves no room for doubt that it recorded this katun. The composition is presented in three panels, which is, so far as we know, a unique arrangement for this period. Nevertheless, one figure clearly holds the center of interest and scenic qualities are not stressed as on the sculptures at Oxkintok, which probably are much later. The casual manner of the rendering and the disregard of perfect symmetry are also surprising in a sculpture of such an early date. The details, however, are purely Classic and on examination fail to reveal anything inconsistent with the Formative Phase. In fact, the continuous fangs of the serpents and the slightly tilted wing elements on the headdresses tend to confirm it. The main figure wears a headdress which is also seen on Lintel 2 at Piedras Negras (9.11.15.0.0); the rendering of its feet resembles that on Stela 34, Piedras Negras (9.11.0.0.0), even to the division of the tassel on the sandal (fig. 45,*b*). One is forced to conclude that the panel arrangement, invariably late in the Classic area, had its beginning locally in western Yucatan during the Formative Phase.

Morley speaks of two fragments of another monument at Jaina, but these do not appear to belong to the same stela. Both are composed in panels but unlike Stela 1, on which the panels are not clearly defined by borders, they have their panels separated by wide bands, in one case presenting a sky-band serpent, in the other a row of hieroglyphs outlined by a fillet. The latter (fig. 82,*d*) is a badly eroded piece, showing parts of two figures. It seems to be Classic in style but is too badly eroded to be placed in time. The other piece (fig. 82,*c*) shows a seated figure with wings attached to its arms. Below are two figures holding bags, with a row of hieroglyphs between them. The winged figure and the central row of hieroglyphs both recall the art of Kaminaljuyu in its Esperanza Phase. The manner of presenting the motifs, however, is very different in the two schools. The strongly directed pose of the two lower figures on the Jaina fragment suggests that its date is considerably later than that of Stela 1. Unfortunately, much of the detail is missing.

All three monuments at Jaina, in spite of their paneled arrangement and their use of motifs rare in Maya art, seem to be essentially in the Classic style. The paneled arrangements at Oxkintok, on the other hand, although they may derive their arrangement from this style, are basically non-Classic in conception. At this site the Classic mode is rep-

resented chiefly by single figures such as those of Stelae 4, 14, 18, 20, 24, and 26. Most of these monuments, however, show local peculiarities. Stela 4 (fig. 86,*e*) has already been mentioned as probably belonging to the Early Period. The pose of the Stela 14 figure (fig. 86,*g*), with its diminutive legs, is very unusual, but in the placing of the arms it resembles Stela 24 (fig. 86,*d*) as well as certain monuments at Piedras Negras. The rendering of the detail is very simple and there are no mannerisms which can be identified as late, but the very small size of the stelae and the use of grooves suggests that they may not be as early as they appear.

Stela 20 (fig. 86,*f*) is more clearly in the Classic tradition, probably of the Dynamic Phase, for the figure, of which only the legs remain, does not stand in a strictly vertical pose. There is a rectangular shield held obliquely, as on Stela 2 at Naranjo, and the cut of the apron is also similar on these two monuments. On the lower panel of Stela 20 (Oxkintok) there are some small hieroglyphs and one larger glyph which seems to have a coefficient of 2, now partially destroyed by a deep pit in the stone. If this is 2 Ahau, it probably represents the Katun 9.16.0.0.0, which would be an appropriate date for this sculpture.

Stela 26 (fig. 81,*d*) is a battle scene arrangement, very much like the motif portrayed on the back of Stela 1 at Morales (9.16.5.0.0). The principal figure holds an axe, a very common motif in Yucatan and an occasional one on Classic sculpture, e.g. on Stela 9 at Oxpemul (9.16.0.0.0). This monument, however, shows the type of distortion noted on Stela 6 at Etzna and designated as Quality X.

The same manner of rendering is associated with some of the paneled stelae. These all represent a departure from the Classic emphasis on the single-figure motif and portray instead scenes in which actions rather than persons are stressed. Only one of these monuments has an inscription giving a clue to its date. This monument, Oxkintok Stela 3 (fig. 87,*a*), now in the Merida Museum, has a decorated border; its panels are separated by outlined glyphic bands. In this it resembles one of the fragments from Jaina. Its arrangement is less Classic in having no definite focus of interest held by an outstanding figure. The costuming of the figures shows no specific foreign features and gives no clear indication of its period. In the last row of hieroglyphs, however, is a date which is a day Ahau with a coefficient best read as 5. This is followed by a kin sign and the

month position 2 Kayab. The use of the month position one less than the expected number for the corresponding day is a common occurrence in Yucatan and dates back to 9.12.0.0.0 at Etzna. There is nothing to indicate the Long Count position of this date except the fact that it stands near the end of the inscription which contains other calendrical glyphs, and for this reason may mark the end of a period to which the other dates should be referred. If this is true, its position is almost certainly 10.1.0.0.0 5 Ahau 2 Kayab (or 3 Kayab in the Peten notation). There is nothing in the style of this monument inconsistent with this date, though it must be admitted that there is also very little confirmation, except the decorated border which seems to be a late feature in the Classic style.

Stela 2 (fig. 87,*c*), a fragment of another scenic arrangement, does show traits which can be tied up with the latter half of the Late Classic sequence, namely, a strongly outlined collar and a deliberate arrangement of the plumage to follow the form of the monument. Like Stela 3, it portrays only small figures in various poses of action.

The fragments Stelae 10, 19, and 25 are similar in composition. Stela 19 (fig. 81,*c*) illustrates very clearly the manner of distortion associated with the X quality. Stelae 10 (fig. 88,*c*) and 25 (fig. 87,*b*) in addition employ the twisted-rope border, which is frequently used in the Puuc and also distinguishes Stelae 9 (fig. 87,*d*) and 21 (fig. 88,*a*). It is a pity that the inscription on Stela 21 has not been satisfactorily deciphered. It appears to be an incomplete Initial Series with a katun coefficient of 1, but no reading in Cycles 9 or 10 entirely fulfills its requirements. On the other side is a record of 4 Ahau, a day also recorded on Stela 9, a monument of the same type. There is also on Stela 9 a glyph with a coefficient of 7 (possibly 12) that may record the month position of the Ahau, though it resembles none of the known month forms. If the 4 Ahau is a katun end, it can only be 9.15.0.0.0 or 10.8.0.0.0. Either of these dates is possible; which is better depends very largely on the particular reconstruction of Yucatan history that one is disposed to follow. Another date which could be considered is the lahuntun ending 10.1.10.0.0 4 Ahau 13 Kankin. The fact that Stela 21 has an Initial Series with a coefficient of 1, and also the fact that the date of Stela 3 is best read as 10.1.0.0.0, favor the latter interpretation, but there is no precedent for the recording of a lahuntun date by its tzolkin position only.

The style of these monuments is too divergent from the Classic to permit us to correlate them with the sequence of the nuclear development. There are some considerations which tend to place these sculptures in a period preceding the extreme decadence of the Classic style. One, of course, is the presence of hieroglyphs and even of Initial Series. Another is the manner of rendering featherwork with overlapping planes, as at Santa Rosa Xtampak, rather than in the cursive manner of Sayil. Finally there is the graceful naturalism of the figures and the care given to the presentation of detail. On the other hand, if we consider the violent action poses on Stela 9, the influence of Quality X apparent in the seated figure on Stela 21, and the introduction of motifs which point directly to the sculpture of the Great Ball Court at Chichen Itza, we may regard the style as a combination of several late stylistic strains transitional to the Toltec style.

Stelae 11 and 12 at Oxkintok (fig. 88,*d,b*) have no apparent relation to the Classic style. They too present the subject in scenic panels but use hieroglyphs only in a minor way, scattering them in the design somewhat in the manner of the Zapotec, rather than aligning them in the Maya manner. Stela 11 has a cursive style which resembles that of the tall carved altars at Kabah and Labna (fig. 93). The figures on Stela 12 are more rigid. Their poses recall the archaic pose but lack the balance that distinguishes early figures. The costume of the warrior, with his face encircled in a zoomorphic mask, can be compared to figures from Tula, Hidalgo, and from Chichen Itza. Although this monument cannot be identified with the Toltec style of carving, it is much more probably a product of very late foreign influences than an early or crude local type.

Similar to Stela 11 at Oxkintok are Stelae 1 and 2 at Yaxcopoil (fig. 88,*e,f*). Stela 2 represents the guilloche as two intertwining snakes forming a division between panels. The figures are again very like those on Puuc altars. The position of the Stela 1 figure, standing astride with the tassel of the loin-cloth fitted to the space between the legs, seems related to that of Stela 15 at Etzna, and a number of details such as the non-Classic design of sandals and the long hanging under the shield tend to indicate either a decadent, post-Classic period or a culture independent of Classic tradition.

The paneled style is also represented at Sayil by Stelae 2 and 7 (fig. 90,*a,b*), which, however, are badly broken and eroded. We do not know whether

these monuments are later or earlier than—or, for that matter, contemporary with—the single-figure arrangements at this site, but there is reason to believe that the two types of arrangement may overlap. The single figures are purely Maya in conception. They have a great deal in common with the figures at Santa Rosa Xtampak, but their artistic style shows a stronger trend of decadence.

Disregarding Stelae 2 and 7, we can place the Sayil monuments in a sequence showing a progressive inattention to realistic portrayal and natural contour, and an increasingly simple technique. There is no guarantee, of course, that such an arrangement would accurately reflect the chronological sequence, but in view of the sort of monument we know was erected at Santa Rosa in 9.16.0.0.0 and the course of development in the Classic series after that time, it seems probable that in general the “decadent” monuments are later.

Stela 1 at Sayil is too eroded to give clear evidence of its style, but Stela 6 (fig. 80,*c*) is clearly similar to the stelae of Santa Rosa. If I am right in discerning a rather battered 9 Ahau at the beginning of its inscription, it might be placed tentatively at 9.19.0.0.0. The figure is smaller than one would expect on a monument of this size, a large part of the top being left entirely blank. The reduction of the figure and the use of a band of hieroglyphs along the top may be due to the influence of the Oxkintok panel arrangement school, which might indicate that the two schools were at least in part contemporaneous. The mobile pose of the figure on Stela 6 and the somewhat affected arrangement of the feathers mark it as a monument of the Dynamic Phase.

The rendering of Stela 3 (fig. 89,*a*) is more suggestive of the Decadent manner in Classic art. The scattered plumes with large tassels are deliberately placed but careless in line and contour. One plume exactly outlines a fan of shorter feathers, leaving an even deep groove between the two elements. This deep grooving, combined with fainter incision for fine detail, is characteristic of very late Maya sculpture. It is also conspicuous on Stela 5 (fig. 89,*b*), and I believe both monuments can be referred to early Cycle 10. The figure of Stela 5 holds a manikin sceptre and is altogether a Classic motif. However, the way in which the long end of the breechcloth is deflected to one side and made to pass behind the leg of the figure is exactly the manner used on the upper dancing figure of Stela 9 at Oxkintok, and the

same rope border appears on both the monuments.

Stela 4 (fig. 81,*a*) also uses the rope motif, as a band on which the figure stands. Its style is a good example of extreme decadence, in which the subject is almost lost in a very freely conceived and roughly executed pattern. This monument can be classed with Stela 2 at Tulum, Stela 12 at Etzna, and Stela 1 at Santa Rosa as representing the final corruption of the Maya style. Other stelae that may be included in this group are two monuments from Pich Corralche, near Tabi, although they retain a little more of a relief technique and employ archaistic forms.

The decadent monuments, in spite of their careless technique, are by no means rude in conception, and it must be emphasized that most of the motifs they employ stem directly from the Classic style. An entirely different approach is represented by Stela 9 at Sayil (fig. 90,*d*), a phallic figure, which stresses the subject rather than the graphic pattern. Another such monument is Stela 1 at Keuic (fig. 90,*c*), which represents a skeleton. These have no relation whatever to the Classic style. They completely ignore its traditionally elaborate and probably highly abstract symbolism and deal forthrightly with basic concepts of death and procreation. The pointed form of the Keuic monument indicates that it is probably at least contemporary with or later than the monuments of Sayil. There are also other and more cogent reasons for rejecting the idea that such crude sculptures are early or undeveloped works of art. There is every indication that the stela cult began in a highly developed society, when symbolism and ideology were complex and abstract. Early artistic forms are vital and capable of development, and have strong stylistic conventions. It is difficult, on the other hand, to find in such crude sculptures as Stela 9 at Sayil or the stela from Keuic an aim beyond that of representing a subject. They are primarily utilitarian objects of religious ceremony. The head of the Keuic skelton is hollow, perhaps for the insertion of a real skull. In itself, the attachment of other materials to stone sculpture is not an uncommon practice even in Classic art. Godfrey (1940) suggests that at Piedras Negras it was largely abandoned with the development of polychrome painting, but sporadic examples of it can be found in all periods. The use of an object such as the skull, however, implies an aim quite different from that of the embellishment of a work of art by contrasting colors and textures. Practices of this sort suggest rather an indifference to artistic effect and a

concentration on the symbolic value of the object itself. In this connection a platform recently uncovered by A. L. Smith (1945) at Chälchitan and having oval or crescent-shaped depressions in its thick coat of plaster, suggests to me a similar practice, related to the design of the Tzompantli of Chichen Itza. The Keuic monument and the phallic stela at Sayil, therefore, seem to have no relation to the Maya stela cult, except in the form of the stone. Andrews is probably correct in suggesting a connection between the Sayil monument and the sculpture of Telantunich and Pustunich. The type, however, remains vaguely defined, and it is clear that all these sculptures are the work of marginal groups of people, a proletariat within or on the periphery of the Maya civilization, not sharing in its higher intellectual achievements but taking up the former functions of the leading intellectual groups when their authority declined.

There are no sculptured stelae reported from Labna and Kabah, but since the Sayil monuments are placed apart from the main group of ruins, one may expect that future exploration may uncover in the Puuc area many stelae now lost in the thick bush which covers the country. At Uxmal the monuments are also grouped together on a platform apart from the principal buildings. Some of these monuments resemble those of Sayil, but we do not find here the extreme decadence that characterizes the Sayil series. Instead, there is an admixture of non-Classic, possibly Mexican, traits.

Stela 4 (fig. 91,*a*) is a monument of the same school as Stela 6 at Sayil. Both reduce the size of the figure. Both show mobile poses and simple costuming, and the designs below the figures also look similar. The last calendrical glyph on the Uxmal inscription has a coefficient of 11 and may be the day Ahau. If so, it probably records the katun ending 9.18.0.0.0, one katun earlier than the date suggested for Stela 6 at Sayil.

Stelae 2 and 3 (figs. 91,*b*; 80,*d*) are a pair presenting exactly the same subject, in a similar manner. The knee-length necklace links them with the style of Coba. The manikin sceptre and bag are familiar Classic motifs; the winged figures point to a connection with Jaina and Oxkintok. The long sweeping plumes on both monuments and the dancing pose on Stela 2 indicate that these sculptures are not earlier than the Dynamic Phase of the Late Classic era; the arrangement of the small flying figure on Stela 2 recalls the compositions of Cycle 10 stelae at Ixlu

and Ucanal. The best chronological position, therefore, is at the end of Cycle 9 or at the very beginning of Cycle 10.

A different motif is presented on Stelae 11 and 14 (fig. 92, *a, b*). Its Classic connections are not with the north but with the south. On both monuments the conspicuous feature is a tremendous headdress composed of several horizontal superimposed rows of plumes. Each figure holds a bag and a hatchet. The belts, of the standard Maya type decorated with three heads, are most commonly worn in the Peten and at Copan and Quirigua, but are rarely seen in Yucatan though one occurs on the lintel at Halakal in Katun 2 of Cycle 10. The wristlets and earplugs are of a type particularly common at Yaxchilan. Stela 11 is a purely Classic arrangement, stressing the main figure and its elaborate costuming. The composition is static; one would be tempted to class this monument as one of the Ornate Phase, were it not for the figures in the upper panel, which, eroded as they are, still give an impression of being in attitudes of violent motion.

Stela 14, in contrast to Stela 11, shows strong non-Classic influences. In so far as it resembles Classic figures, it shows detail consistent with the Dynamic Phase. The collars are strongly outlined, for example, and the small ornamental heads on the belt of the main figure have simple round earplugs placed low on the cheek. The non-Classic details are of the type we find at Chichen Itza. It is true that the sandal, which I designate as "Mexican," occurs also in Chiapas on late monuments, and both the headdress with the exaggerated horizontal element and the round shield with a flaring element hanging below it occur also on Stela 9 at Chinkultik, but the fringed spearthrower held by the minor figure is a motif associated in the Maya area exclusively with the Toltec sculpture of Chichen Itza. The device on the shield is the same as that on the shields of the Temple of the Jaguars; the protruding lips of the minor figures look like the lips of Eecatl. This monument tends to suggest a direct transition from the Classic style in its full flower to the Toltec style of Chichen Itza. The decadent stelae of Sayil and Pich Corralche cannot be considered as representing a transitional phase intervening between the Classic style and the Toltec. We must conclude, therefore, either that the decadent trends were localized or that foreign influences overlap the Classic sequence. The first hint of exotic influence as early as 9.17.10.0.0 in the Peten and the use of a Mexican type of sandal at Comitán

in 10.2.5.0.0 and at Calakmul in the Decadent Phase suggest that this was in fact the case and that there was intensified contact with outside groups before 10.8.0.0.0, which has been postulated as the date of the Toltec invasion.

The monuments of Dzibilchaltun and of Mayapan add little to the Yucatan series, since most of them are almost entirely eroded. Nevertheless, we may observe that the stelae of Dzibilchaltun are probably Classic, because they feature a single figure, in a pose that tends to be static, whereas the Mayapan monuments use a scenic arrangement. Stela 1 of Mayapan (fig. 90, *f*) is reasonably well preserved and is carved in a style more suggestive of Mexican codices than of the Classic Maya figures. Above the figures is a large panel divided into glyph blocks, which, however, show no sign of ever having been carved with characters. Underneath is a band of moldings. This also occurs on other stelae at this site and is probably borrowed from architectural ornament. A small hieroglyph with a coefficient of 10 appears in the figure panel. This manner of placing glyphs in the design, rather than in blocks aligned with the border, is reminiscent of the manner of carving at Monte Alban; it occurs also on Stela 12 at Oxkintok, a monument which has almost no stylistic connection with the Classic style. The glyph on the Mayapan stela has been interpreted as 10 Ahau, and the date suggested for it by Morley is 10.18.0.0.0 10 Ahau 3 Tzec. For Stelae 5 and 6 Morley gives the dates 11.1.0.0.0 and 11.3.0.0.0, based on records of 4 Ahau and 13 Ahau. The interpretations doubtless rest on the 11.16.0.0.0 correlation and a historical reconstruction which makes Mayapan the last flourishing city in Yucatan. We do not know, however, if the monuments are associated with the latest architecture at this site, or how early it was originally settled. Dates one calendar round earlier (10.5.0.0.0, 10.8.0.0.0, and 10.10.0.0.0) are not at all improbable and perhaps even 9.15.0.0.0 and 9.17.0.0.0 should not be ruled out for Stelae 5 and 6, since, unlike Stela 1, they have inscriptions of some length and since the style of their carving is unknown.

If Stela 3 at Oxkintok was in fact carved in 10.1.0.0.0, then 10.5.0.0.0 would be an appropriate date for Stela 1 at Mayapan, for the arrangements of the figures on the monuments are not dissimilar, and the motif used on the border of the one is repeated as a band on the other. This band also occurs on jambs at Kabah and on the decadent jambs at



Kayal. Although the Mayapan monument has very much less relation to the Classic style, there is no reason to think that the two are separated by a vast span of time, especially since there is no body of sculpture which can be fitted conveniently into such a hiatus, except perhaps the sculpture of Chichen Itza, and this does not include figure arrangements on monuments. Whether the 4 Ahau recorded at Mayapan on Stela 5, however, is the same 4 Ahau which appears at Oxkintok must be determined by archaeological or epigraphic evidence, for in this case the inscription is all that remains. Finally, there is a monument in the National Museum of Mexico which Blom (Blom and La Farge, 1926-27, vol. 1, fig. 10) describes as being in the Usumacinta style, but which I believe is related to Yucatan in its manner of depicting the tassel of the loincloth and in its decadent presentation of detail.

#### MISCELLANEOUS PUUC SCULPTURE

Although there are no sculptured stelae at Kabah and Labna, there are a number of so-called "column" altars, shaped like tall drums with a slightly greater diameter at the top than at the bottom. They are often carved with figures in low relief (fig. 93). Scenes of action predominate, and there is a variety of pose, probably because the action had to be adapted to a restricted field. The winged figure occurs on one of these altars; on another, the face of the figure is encircled by a zoomorphic mask. The style is perhaps a cruder, decadent version of the scenic style of Oxkintok, very much like that of the two monuments at Yaxcopoil.

There are also scattered through the Puuc a number of miscellaneous pieces of sculpture, among them a sizable figure with a snake draped around its neck (Kabah), two figures carrying a deer (Tabi), and many small statues carved in the round, probably used in architectural ornament. These I have not attempted to classify, as they seem to have little to do with the Classic stela cult. Sculptured columns of buildings, however, and low-relief panels on jambs and lintels are often carved with motifs that can be compared with designs on monuments. These merit a brief discussion.

#### THE CLASSIC MOTIF IN ARCHITECTURAL SCULPTURE (Santa Rosa Xtampak, Kayal, Xcocha, Xcalumkin, Cansache, Kanki, Kabah)

Five distinct types of buildings employ such motifs: the Chenes type, of which only one example

is known to use the monumental motif; the sculptured columns type of building, which is common in the Puuc and resembles other Puuc buildings in construction; the ornate Puuc type, with three-member moldings and ornament carved before assemblage; a type which combines Chenes motifs with Puuc type of construction; and finally, the Toltec type of Chichen Itza, characterized by a sloping member at the base of building walls.

The Chenes example is the palace at Santa Rosa Xtampak, which has two panels set into its wells (fig. 94, *a, b*). These panels must have been carved originally on the walls of some earlier structure, later dismantled, for as they are assembled in their present position some of the stones are out of place. This does not necessarily mean, however, that they antedate the architectural style. Sculpture in low relief executed directly on a masonry wall rather than on a single slab is rare in the Maya area. The glyphic jambs of Structure 11 at Copan are carved in this way, and it is interesting to note that this building has also a serpent-mouth doorway, which links its style to that of the Chenes. Other examples occur at Chichen Itza in the Temple of the Wall Panels and in the Temples of the Chacmool and of the Xtoloc Cenote. This peculiarity of technique may have originated as an adaptation to architecture of the Chenes type. There is some reason to suspect that the carvings comprising the Santa Rosa panels are not all contemporaneous. The north panel presents a purely Classic motif, with a figure holding a shield and a manikin sceptre. There are also several minor figures, among them dwarfs, like those which appear on stelae. The detail is carefully rendered but shows local peculiarities, such as the treatment of the feathers as overlapping planes, and the omission of the contour of the torso between the collar and the ornament worn on the back. This ornament, in the form of a shield, and the simple design of the loincloth suggest a connection with Yaxchilan monuments, for example, the figure on the "human" side of Stela 11. The south panel is less directly related to Classic stelae and may be, at least in part, a later work. The foot of the figure on the right resembles in treatment the feet of the manikin figures on the lintels of Structure 4B1 at Sayil (fig. 102). Although they present different motifs, the Santa Rosa panels show about the same quality and degree of deviation from the Classic manner as do the monuments of this site, and it is probably safe to conclude that they were carved within a period be-

ginning about 9.15.0.0.0, when divergent trends were not strongly in evidence, and running through the first quarter of Cycle 10.

The stylistic strain that has been designated as Santa Rosa Classic because it is most clearly expressed on monuments at this site, can also be recognized in low-relief sculptured columns and panels. One excellent example of this school is a panel from Kayal now in the Campeche Museum (fig. 99*b*). Others are the sculptured columns from the Valley group and from the roof-crest buildings at Xcocha (fig. 99*d,e*). These carvings show the figure in a restrained dancing pose characteristic of the Classic Dynamic Phase. Detail tends to be simple but regular in form, space areas are well filled, and a decoration of pairs of dots is often used along the edge of a form. This may derive from scroll forms of Palenque; in the Puuc it is specifically associated with sculptures affiliated with those of Santa Rosa and Sayil. A minor but significant detail which may serve to confirm our estimate that these Xcocha and Kayal sculptures date from the last quarter of Cycle 9 is the form of the wristlet on the Kayal panel. It is virtually a replica of the form used in architectural sculpture of Copan which probably dates from about 9.17.0.0.0 and which has relation to the Chenes architectural motif in its use of serpent-mouth doorways. This type of wristlet also occurs on the undated Stela 5 at Naranjo.

A clear example of the decadent aspect of the Santa Rosa motif is furnished by a pair of panels from Kayal set into the walls of a church (fig. 99*c*). The rendering of the legs of the figures takes no account of bone structure and depicts the form in one sweeping line. The tall ankle-guards are characteristic of Cycle 10. On the other hand, there is apparently a return to archaic forms expressed in the use of the rope hanging in front of the loincloth apron. Below the figure is a band which recalls the band used at Kabah and on Stela 1 at Mayapan. Although there is no dated series for comparison, from all appearances one may judge that these panels represent a later and corrupt form of the motif of the Campeche Museum panel.

Buildings with sculptured columns can be even more directly dated at Xcalumkin. Here the sculptural motif apparently derives from the school of Coba rather than from the school of Santa Rosa. It pictures a Classic headdress, sandals with ankle-guards, and a long necklace from which hangs a bar

ornament. In these western examples, the beads of the necklace are round.

The jamb of the Initial Series Building (fig. 94*c*) is an excellent example of such a figure, which by stylistic criteria might be placed early in the Dynamic Phase of the Classic series. The pose is static, but the axial arrangement is deliberately modified by the diagonally held staff and the raised left elbow. The heels of the sandals are open. Influences from the Usumacinta can be seen in the design of the apron of the loincloth. The element under the chin, maybe a vestigial form of a serpent's lower jaw, is like that on Stela 3 at Bonampak and on Stelae 2 and 3 at Uxmal, the latter of which also depict the Coba necklace.

In this report, Thompson's method of reading dates in Yucatan is provisionally accepted, in part because it offers by far the best interpretation that has been advanced for dates at Chichen Itza and also because it is not contradicted by either archaeological or stylistic evidence. It also permits a consistent interpretation of the Initial Series date at Xcalumkin, which is read as 9.15.12.6.9 7 Muluc 1 Kankin, falling in the 13th tun of Katun 2 Ahau. This date, only a few years earlier than the Dynamic Phase, is entirely congruent with the style of the figure on the jamb.

In the South Building of the Glyphic Group appears the record of a Tun 17 falling in 4 Ahau, and of a Tun 2 in 2 Ahau. The North Building records a tun in Katun 13 Ahau, which is doubtless the following katun. Although these dates cannot be placed in the Long Count, their record in buildings similar to that of the Initial Series makes positions other than 9.16.0.0.0 and 9.17.0.0.0 for the katuns highly improbable. They indicate the earliest dates which we can ascribe to the buildings and, since there is no large span of time involved, they are probably close to the actual time when the buildings were constructed.

The jambs show figures in dancing pose, in a rendering somewhat more crude than that of the Initial Series Building figure (figs. 94*e,f,g*; 95*a,b*). The long necklace is shortened so that the bar ornament hangs only a little below waist level—a trait which is archaic for this period—but the design of the bar ornament on the South Structure, modified to resemble the medallion pectoral, is probably late. The small seated figures on the panels of this building recall the enthroned figures at Oxkintok (fig. 95*e,f*).

All the figures of the Glyphic Group tend somewhat toward decadent design and indicate that there was a considerable degree of provincial corruption of the Classic school in this area even before the end of the Dynamic Phase.

The Column from Cansacbe (fig. 99,*a*) is probably of the same period, if not earlier than these figures. The staff again is held diagonally and the bead necklace is shortened. The headdress of superimposed masks is a characteristic Late Classic trait originating in the Formative Phase.

Probably somewhat later but of the same general period is a lintel from Kan̄ki (fig. 95,*g*). The dancing pose, the bar ornament of modified form, the diagonally held staff, and particularly the adaptation of the design of the headdress to the corner of the rectangular field are evidences of advanced dynamic tendencies.

The extreme decadence one finds in Sayil sculpture is never associated with the Coba necklace motif. Nevertheless a late version of it can be recognized on Stela 2 at Uxmal, and another which can be referred to the end of the Dynamic Phase or to early Cycle 10 occurs on the wooden lintel from Kabah illustrated by Catherwood (Stephens, 1843, 1: 405). The building in which this lintel was found is of a different style from those associated with the motif at Xcalumkin, though of similar construction. It employs three-member moldings and carved stone elements of ornament typical of the Puuc. Unlike previously mentioned sculptures, this lintel reflects the Ornate development of the Classic era as well as the exaggeration of forms which it later undergoes. At least four bar ornaments are attached to the necklace, and the tassels of the elaborately arranged plumes are enormous. Its date is probably not earlier than 9.18.0.0 and possibly falls in Cycle 10.

It has been noted that the Classic notched scroll does not appear in the sculpture of Yucatan. When scrolls are used they are simple in outline and often resemble archaic forms. One sees a conspicuous example of this on the Palace at Sayil (fig. 11,*l'*), a building of standard Puuc type. At Kabah, however, several fragments from masks show the late notched scroll with a long tip curving back toward a projection. There may be some significance in the fact that these scrolls came from a type of structure which combines the serpent-mouth doorway with typical Puuc techniques of masonry and carving. Apparently this form is transmitted from the Clas-

sic area via the Chenes toward the end of the Classic Period.

In the strongly Classic architectural sculptures of Yucatan, there are none which can be clearly attributed to a date prior to 9.16.0.0. If such sculptures as the column from Acanmul (fig. 100,*c*) and that from the Glyphic Band Building at Xcocha (fig. 100,*a*), which do not clearly exhibit Dynamic qualities, belong in an earlier period, stylistic proof is lacking. The rigidity of the figure is not sufficient evidence of a pre-Dynamic date; in the case of the Xcocha figure there is some suggestion of the influence of Quality X for which also there is no evidence of an early date.

#### QUALITY X IN ARCHITECTURAL SCULPTURE (Chilib, Maxcanu, Yaxcopoil)

The relation of Classic types to local or foreign concepts is not entirely clear. The column from Chilib (fig. 100,*b*), that from Maxcanu (fig. 100,*f*), and another with its jamb from Yaxcopoil (fig. 100,*d,e*) can be placed in a group which expresses an independent stylistic type, possibly identified with, or at any rate allied to, the Quality X we recognize in certain trends of distortion on stelae. Elements of costume are very simple; details, such as the ankle-guards of the sandals, are modifications of the Classic form. The Yaxcopoil and Maxcanu examples unfortunately show only the lower part of the figure. The Chilib example, however, has a very distinctive rendering of the head and shoulders. The simple outline of the legs with no change of direction at the knee seems to be typical of these sculptures. I am inclined to regard them as examples of a native school which influenced Classic forms rather than an end development of a divergent trend originating in some offshoot of the Classic style, such as the decadent development at Sayil.

#### HIGH-RELIEF COLUMNS (Oxkintok, Xcochkax, Dsecilna, San Pedro Dzitbalche)

Another non-Classic type is represented in high-relief sculptured columns at Oxkintok, Xcochkax, Dsecilna, and San Pedro Dzitbalche. This type at Oxkintok (figs. 96,*f,g*; 97) occurs in the same building as a lintel depicting a figure with the long Coba-Xcalumkin necklace and a panel also of purely Classic type (fig. 96,*d,e*). These, however, are in a different part of the building and one cannot be en-

tirely certain that they are contemporary to the columns. Neither of the panels shows dynamic qualities; the rounded rendering of the feathers on the smaller figure recalls the technique used at Naranjo in 9.14.0.0.0, suggesting that they may date from the Ornate Phase. Nevertheless, the omission of ear-plugs on the head ornament of the belt and, on the lintel, the parallel placing of tubular beads may be interpreted as signs of later date. It is difficult to judge if such details are significant or if they are merely simplifications owing to the small size of the carvings.

The columns present types of figures never depicted on monuments and probably foreign to the stela cult of the Maya. These figures include a small potbellied individual with a puffy infantile face, dressed in a closely fitted garment of feathered or quilted material and wearing on his chest the sign of an open hand (fig. 97,*d*). This personality also appears as a small atlantean at Xculoc (fig. 95,*i*). In the Oxkintok version, his hands are at the sides, but in one he holds a star-shaped club also carried by atlantean figures at Chichen Itza. Another of the column figures has a depressed disk on his chest; a third has a round negroid face with protruding lips. Maya elements, such as the mask and the leaf-and-fringe design, are not lacking in the costumes of the figures but they tend to be simplified into geometric forms and, as on Stela 9 at Etzna, are combined with exotic concepts. The source of these concepts and their date are unknown, but it is possible that the Oxkintok figures and Stela 9 at Etzna are products of the same period, although the motifs expressed have no apparent connection.

At Xcochcax there is a very similar figure standing on a skull (fig. 98,*d*). Its slightly bent legs tend to suggest the position of the figure on Stela 8 at Etzna on which the limbs are also carved in high relief, but this is merely a suggestive observation that may have no real significance. The high-relief columns at San Pedro are associated with a jamb in low relief which has simple and naturalistic rendering but body outlines distinguishing it from the Classic. The hanging below the shield is a non-Classic trait often found on late sculpture in Yucatan. The Dzecilna columns repeat apparently the two personalities of the central doorway at Oxkintok. Here the depressed disk appears on the stomach of the figure dressed in the feathered tights. Such figures clearly suggest a mixture of the Classic Maya with some other culture as yet unidentified.

#### MIXED AND DECADENT TYPES (Xculoc, Sayil)

Another building which, like Structure 3C7 at Oxkintok, contains both Classic and non-Classic sculpture, is the sculptured columns building at Xculoc (fig. 101). Again it is the lintels which have a Classic character, this time related not to the Xcalumkin motif but to the Santa Rosa School. The columns combine traits both non-Classic and decadent. Deep-grooved parallel lines are used to depict feathers. The smooth curve outlining the legs suggests an influence from the school of Chilich and Maxcanu, and the depressed disks show a relation to the columns of Oxkintok. One might surmise from the eclectic character of this style that it is very late. The lintels show none of these divergent traits, and the contrast extends even to the style of the glyphs carved on them. These glyphs are regular and form distinct blocks. On the capitals below, the lines are more cursive and the glyphs tend to run together. It is possible that the lintels were re-used in this structure and were carved earlier than the columns.

In the same style, but even more strongly expressive of the decadent quality of its monuments, is the sculpture of Structure 4B1 at Sayil (fig. 102). The treatment of the dancing figure is very much like that on the decadent jamb from Kayal, and archaistic traits are again conspicuous, as in the figure positions and in the treatment of the skirt fringe. The depressed disk on the chest is apparently intrusive in this style. The relation of the lintel design to sculptures at Santa Rosa Xtampak, particularly to the design of the south panel of the Palace and to Stela 3, is quite clear. The motif on the face of these lintels, a mask with long fillets drooping from the eyes, can also be observed on Stela 7 at Yaxchilan and on the base panels of the columns in the Lower Temple of the Jaguars at Chichen Itza. Structure 4B1, therefore, like the building at Xculoc, has widespread connections and evidences an eclectic style. Its relation to monuments that are believed to be late suggests for it also an advanced date.

#### OTHER NON-CLASSIC SCULPTURES

(Halal, Ichmac, Huntichmul, Xcupaloma, Muluch Seca, Calkini, Labna, Temax)

So far as one can judge, the cursive tendency of decadent sculptures and the tendency toward patterned, geometrical arrangements, though they pro-

duce contrasting effects, are not in fact opposite developments but more or less contemporary manifestations of a general trend away from naturalistic representations and toward the exaggeration of stylistic mannerisms irrelevant to the subject. The geometrically patterned type is well represented by a lintel and a jamb from Halal (fig. 104, *a, b*). On the lintel the pose is archaic and the sandals are of Mexican type. The headdress is like that of Stela 5 at Etzna (9.18.0.0.0?) and that of the Initial Series Building jamb at Xcalumkin. The treatment of the feathers combines the inclined plane with parallel grooving. The jamb is an example of the Maya type of figure at Chichen Itza. It has a circle around the eye and a straight bar noseplug. The features of the face are sharp, the nose is straight, the chin pointed; there seems to be no head deformation. There is close analogy between this figure and that of the warrior on Stela 21 at Oxkintok, with the difference that the former uses a rigid pattern in its design. The striding position of the figure, like that of Stela 1 at Yaxcopoil and of Stela 15 at Etzna, the prominent use of grooves in the technique and very long tassels on the feathers almost certainly point to a very late, possibly post-Classic date.

Fragments from Ichmac (fig. 103, *c, d*) and a small panel from Maxcanu (fig. 103, *e*) show the same tendency of geometric arrangement and the use of grooves in rendering. The head of the figure from Ichmac, however, shows a Classic type of personage. One might perhaps hazard the guess that these fragments can be referred to Cycle 10.

The lintel from Huntichmul (fig. 104, *d*) is difficult to relate to any of the known schools of Yucatan. The figure wears a circle around its eye, but in other respects I should judge it to be a provincial version of the Classic style rather than a work of one of the local schools and can offer no opinion on its date.

Such lintels as that from the Xcupaloma group at Oxkintok (fig. 98, *a, b*), the panel from Muluch Seca (fig. 104, *c*), figures from Temax (fig. 105, *c*), and the columns of Calkini (fig. 105, *a, b*) have little apparent relation to the Classic style. They may be, as I suspect, very late corrupt forms, but it is also possible that they are merely provincial variants. Except for the Xcupaloma lintel, which uses the grooving technique, they have no stylistic distinction and it is doubtful that they can be referred to specific schools.

Finally, there are small winged figures sculptured

on panels at Labna (fig. 93, *f, g, h*), also rather rudely carved and apparently related to the altars there and at Kabah, and three column figures from Mayapan (fig. 105, *d-f*), which may be related to those of Oxkintok, but which show more severe architectural treatment. One is a warrior and one a woman. This is the only known use of the female figure in this area. It will be recalled that another occurs on the Island of Cozumel.

#### TRANSITION TO TOLTEC MOTIFS

##### (Kabah)

The relation of the style of the altars to the larger sculptures at Kabah is not clear. In the latter, there is no trace of decadence; a direct transition from Classic to Toltec forms seems to be clearly expressed in the wooden lintel already discussed on page 167 and on the two sets of sculptured jambs. The latter, like the lintels, come from the ornate Puuc type of building which employs three-member moldings and carved stone elements of ornament. From their design it is clear that they belong to the same school as Stelae 3, 9, and 21 at Oxkintok. The jambs of Structure 2A<sub>3</sub> present Maya figures of the Chichen Itza type with high, interlaced leggings, tubular noseplug, and a club set with several blades. Although the costumes differ from that on the Classic wooden lintel, the arrangement of featherwork is very similar on the two, and there is a copious use of long tasseled plumes. Below the figure is a row of glyphs and a band similar to the border of Stela 3 at Oxkintok and to the bands on the decadent Kayal jambs and on Stela 1 at Mayapan.

The paneled arrangement of the jambs of the Codz Poop is precisely that of the Oxkintok stelae (fig. 103, *a, b*). This time, the figures are not merely non-Classic but even possibly Toltec. The typical headdress, pectoral, and "button" noseplug do not appear, but the battle scenes show the use of darts and spearthrower; one of the figures wears a single slipper, an element of costume that occurs both at Tula and at Chichen Itza on ball-court sculptures, and is never seen on Maya figures. The sleeveless jacket occurs at Yaxchilan and on gold work from the Chichen Itza Cenote. The rendering of the featherwork resembles that of Santa Rosa, and the heavily outlined masks and scrolls in the background are related to those of Stela 1 at Dzilam.

Thus it appears that there is a continuous series extending from stelae of the Formative Phase at Coba through Coba Stela 20 and later sculptures at

Xcalumkin which develop the motif, then through what are probably Cycle 10 monuments—Stelae 4 and 2 at Uxmal, Stela 1 at Dzilam, and the Kabah lintel—to the introduction of Toltec traits on Stela 14 at Uxmal and on the Kabah jambs. It is not altogether clear, however, how Structure 3C7 at Oxkintok fits into the series. Moreover, it does not explain the influence of Quality X and excludes also the decadent forms of the Santa Rosa-Sayil School, which, according to architectural and ceramic evidence should precede the arrival of the Toltec. The decadent style of Sayil appears to absorb influences from the non-Classic modes of Oxkintok and cannot be in its entirety earlier. If we date these influences from about the time a new mode appears at Etzna (9.19.0.0.0) the Sayil series should probably be placed at the turn of the cycle and in the years immediately following. It is particularly unfortunate that the dates of the Kabah jambs are not placed in the Long Count and that we cannot estimate if Toltec influences, localized at Kabah and Uxmal, overlapped in time with the decadent forms at Sayil. It is possible that Toltec immigrants were in the country for some time before they established themselves as a dominant group at Chichen Itza or that they were settled for a time in some peripheral location where they were in contact with the people of Yucatan.

#### HALAKAL AND MAYA CHICHEN ITZA

In the immediate vicinity of Chichen Itza, there are very few examples of sculpture of the pre-Toltec era, and one cannot define here a specific school. The lintels from the Akatzib and from the trough of the Hacienda present the same motif of a figure sitting in front of a flaring vessel. The position is something like that of the figure on Stela 12 at Piedras Negras (9.18.5.0.0) without, however, its natural grace and sensitive quality of line. The trough lintel is the cruder of the two, but both show a simple technique and simple costuming. The sandals appear to have no ankle-guard. Thompson gives 10.2.0.0.0 and 10.3.0.0.0 as the dates of these lintels.

A lintel from Halakal he dates somewhat more uncertainly also in 10.3.0.0.0. This lintel presents three figures of the "Chichen Itza Maya" type with long laced leggings but with many articles of dress of Classic type. The treatment of the three heads on the belt of the central figure and other imperfectly drawn forms reveal the trend of decadence more strongly expressed than on the monuments at Kabah

and Uxmal which show Toltec influence. One notable feature is the form of the shield, like those of the Formative Phase at Piedras Negras. Similar shields are sometimes depicted in later Toltec sculpture.

The three figures on the Halakal lintel are of equal size, and no stress is placed on the central figure. From this it is only a step to the processional arrangements of the Toltec Period. This lintel is neither Classic nor Toltec and must be classed as a transitional local form. As we have seen, non-Classic transitional types can be identified also at Oxkintok, Kabah, and Uxmal. Apparently the development in these sites includes other than purely Classic factors. Correlation with other archaeological remains may perhaps throw some light on the nature of the non-Classic influences.

#### TOLTEC SCULPTURE AT CHICHEN ITZA

The carving of the Toltec inaugurates a new era in art, in which emphasis is conspicuously shifted from the presentation of individual figures to group arrangements and portrayals of events. It is primarily secular and dramatic. In style it is so closely allied to that of Tula, Hidalgo, that it is better studied as a variant of that style than as a late Maya school. It is mentioned in this report only to note its relation to the local styles and is not here considered as part of the Maya development.

The settling of the Toltec at Chichen Itza is placed by Thompson in 10.8.0.0.0. He rejects the date in Katun 2 Ahau (10.9.0.0.0) carved on a column of the High Priest's Grave, as a re-used inscription. Although the association of Maya dates with Toltec architecture is rare, it is not entirely unprecedented. The Temple of the Hieroglyphic Jambs also has a Maya inscription. Maya writing survived in the form of codices up to the time that Bishop Landa copied signs in his book, and there does not seem to be strong reason to doubt its contemporaneity when it appears on Toltec buildings. The date on the High Priest's Grave column appears to be an integral part of its design and I believe it should be provisionally accepted as the best evidence we have of the date of this building. The beginning of the Toltec Period can thus be placed as falling somewhere between 10.3.0.0.0, the date of the lintels, and about 10.8.0.0.0. If the High Priest's Grave appears to be later than other Toltec buildings, it might be desirable to move Thompson's estimate of the beginning of the Toltec Period back to about 10.5.0.0.0 or 10.4.0.0.0. From the point of

view of style, this would account for the close interrelation of Late Classic and Toltec forms at Kabah.

Tozzer (1930) has suggested that the Great Ball Court of Chichen Itza is one of the earlier structures undertaken by the Toltec, celebrating their victory over the Maya and their peaceful entrance into the city. There seems to be no clear archaeological evidence to support this conclusion, but certainly the sculpture associated with this structure, particularly the sculpture in the Lower Temple of the Jaguars, is more clearly related to that of the Classic Maya and to the school of Oxkintok and Kabah than any other major work in the city. It is true that most of the figures that Tozzer designates as Maya are dressed differently from the figures on Classic monuments, but at least two are very like the stela figures. These are a little to the right of center on the west wall in the second row, and are distinguished from the others by the typical mask headdress of the Maya, with attached wing and plumes. The hieroglyph associated with them is different from other Toltec signs, but it must be admitted that it resembles signs used by the Zapotec more than it does the Maya glyphs. A little to the left of these figures is one wearing a headdress with a prominent projecting band made up of square elements. The same headdress is also worn by the figures on the wooden lintel inside the upper building. Similar headdresses are depicted on a number of Classic stelae in Cycle 10 (see Stelae 8 and 9 Seibal, 4 Ucanal, 2 Ixlu). It seems an inescapable conclusion that some contact, however tenuous, must have existed between the Toltec and the Classic people in the last phases of the latter's history. By far the majority of the Maya figures represented, however, bear a resemblance not to the Classic Maya, but to those figures at Oxkintok and Kabah in which we have noted traits distinct from the Classic. This local variant is particularly clearly exemplified in Stela 21 at Oxkintok, and the use of the guilloche border both on this monument and in the Jaguar Temple links the two styles closely together.

The presentation of the subject in the Lower Temple of the Jaguars as a narrative is probably due to the fact that it replaces in function the painted mural, of which we have examples at Uaxactun and at Bonampak and which are clearly distinguished from Classic monuments by their emphasis on description and narrative rather than on a symbolic representation of a philosophic conception. This no doubt had some influence on the artistic style, but

I am not certain that it can account for the lack of consistency in the delineation of similar forms, perhaps the most conspicuous quality of all the sculpture associated with the ball court. This is best exemplified in the form of scrolls, which represent speech scrolls, and whose artistic function seems to be to fill the blank areas in the design. There is no set pattern in the construction of these scrolls, nor is there a clearly dominant rhythm of curvature in their outline. Some forms are regular, others are almost cursive, some evenly rounded, and some with the squarish turns dominant in Classic art. There are tapered forms and undulating forms ending in a scroll, forms with interior decoration only, forms with attached decorative elements, and even an example of the early winged type. One interesting form seems to derive from the late scroll of the Maya in which the tip curves around an inner projection, but the dynamic quality of this form is lost in its Toltec version, in which the tip is tightly curled (see fig. 12, v'). The long tasseled plumes are doubtless also derived from late Maya representations, but here, too, the Toltec lose the effectiveness of the arrangement. Instead of being judiciously scattered or artificially adapted to stress lines the artist wanted to emphasize, the plumes are presented *en masse* or simply fitted into the space available. Although the sculpture of the Ball Court is technically superior to most at Chichen Itza, it appears to be less self-consistent and therefore less effective than more crudely but more vigorously executed work, such as that of the Temple of the Warriors. It is clearly eclectic and imperfectly integrated in style.

In spite of its secular and narrative character, art at Chichen Itza was almost as stringently limited as the art of the Classic Maya in the type of composition it employed. Doubtless this was because it was adapted to rigidly fixed architectural forms. Two types of motif heavily predominate: one, the procession arrangement, used chiefly on benches and altars and providing a long field; the other, the single figures carved on columns with minor panels above and below the figure. This also must be regarded as a group arrangement, especially when it is adapted to a colonnade, for a specific effect is gained by its repetition. Probably the very amount of sculpture sometimes involved in a single project determined its quality and to some degree its style. Forms are simpler and less regular than in Classic art. There is some evidence that the artist relied on painting to correct and fill out detail. One of the

distinguishing mannerisms of Toltec sculpture is its tendency to project scrolls and other elements from the border to fill spaces left vacant by the figure, which saved the trouble of adjusting the design precisely to its field. Chichen Itza art thus often gives the impression of something executed rapidly and vigorously with forthright and not too subtle intention.

Whether or not this last quality was progressive we cannot tell without a basic sequence, which Chichen Itza does not supply. The Temple of the Chacmool and the Temple of the Warriors, superimposed on it, show no striking differences in style. Perhaps such work as on the sculptured jambs of the Mercado (fig. 107,*c*), in which the figures, although dressed in capes, headdresses, and sandals, wear no loincloth and are very crudely executed, is later and more decadent than the work on the Ball Court. This, however, would seem a very tenuous basis on which to attempt to construct a sequence.

The panels of the Temple of the Wall Panels, the slab and panel found in the Temple of the Xtoloc

Cenote (fig. 108,*c*), and one in the Temple of the Chacmool seem to represent a distinct variant of the Toltec style. Their composition is made up of small human figures, plants, animals, objects, and even houses scattered almost haphazardly over the field. They seem to relate a myth of some sort, rather than to commemorate an event, and they suggest a codex style. A similar stone found covering a cist in the Temple of the Wall Panels has an interesting border which uses the same motif as the pyramid at Xochicalco, a motif that also appears on pottery from Isla de Sacrificios.

There are also at Chichen Itza many specialized forms of sculpture, such as serpent columns, atlantean supports, chacmoos, and banner-holders. It is doubtful that the monumental style of the Maya could have had any perceptible influence on these forms, which apparently have their source in Mexico and are best studied in relation to other forms of their type. They serve, however, to emphasize the profound difference between the culture of the people of Chichen Itza and that of the Classic Maya.



## Monuments Outside the Maya Area

When we regard the culture of Chichen Itza as a variant of Maya culture, rather than as an offshoot of the Toltec, we are relying chiefly on the continuity of important architectural forms, such as the masonry vault, and on the assumption that the Maya language was spoken continuously in the area. Undoubtedly in the period in which it flourished in Yucatan it was a dominant influence among Maya-speaking peoples. If we conceive the Maya culture, however, as an entity in its historical perspective, that is, as a tradition different in kind from other traditions, highly selective, and imposing a certain pattern of development, we cannot but feel that the Toltec Period is a new era, and that, like a compound, the culture resulting from the fusion of Toltec and Maya elements was a product quite unlike either of its components. It will not be surprising if, as we come to know more about ancient cultures, we find contemporary Maya and non-Maya civilizations having a closer affinity than the late Yucatan and the Classic traditions.

The fact that the Toltec of Chichen Itza did not set up stelae at once distinguishes them from the Classic Maya, for this custom was doubtless an integral part of an important religious complex. Monuments, however, are not confined to the Maya area, and even when we consider only those that can be classed as stelae, we find they have a wide distribution in Mesoamerica. Moreover, some of the monuments are so similar in style to Classic Maya sculptures that, were they found within the area in which Maya inscriptions also occur, we would undoubtedly accept them as examples of the Classic style.

Perhaps the most important are styles which employ series of numbers similar to the Maya Initial Series but without the accompanying period glyphs. There has been much discussion as to whether such numbers can be read as Initial Series beginning with the same 4 Ahau 8 Cumhu which started the Maya count. This view is opposed largely because it seems incredible that stelae with Initial Series could have been erected outside the Maya area two centuries, as some dates indicate, before they appear in the Peten, for the distribution of glyphic Initial Series seems to show their origin and diffusion from this center.

Since the Classic sequence does not extend back into Cycle 7 and since broad allowances must be made also for distance and for difference in historical circumstances, direct comparison of these monuments with the Classic cannot settle the issue. Thompson (1941, pp. 21-34), in his paper dealing with non-Maya inscriptions, makes stylistic observations and arrives at a conclusion exactly opposite to that to which my own observations lead me. In this paper, he places the monuments with number-series inscriptions on the same horizon as the sculpture of Santa Lucia Cotzumalhuapa and the sculpture of Toltec-dominated Chichen Itza. Later, however, after some archaeological investigations in the area near Santa Lucia Cotzumalhuapa, he changed his opinion and placed the Cotzumalhuapa school on a pre-Toltec horizon. Moreover, although in one place he states that Monument 1 at El Baul, which has a bar-and-dot number series, was erected "not earlier than the phase in which Cotzumalhuapan sculpture flourished," he notes its relation to Izapan sculpture and states (1948, p. 51), "one might hazard that Izapan influences appeared at El Baul during the San Francisco [previous] phase, and at that time the site may have been Maya." Thompson does not mention what bearing this may have on his views concerning sculptures with similar inscriptions in Vera Cruz, as expressed in his earlier paper.

### CERRO DE LAS MESAS

At Cerro de las Mesas, Vera Cruz, far removed from the Maya area, there are two legible inscriptions which have a column of numbers followed by a sign with a coefficient. If we regard these as Initial Series, that on Stela 6 can be read as 9.1.12.14.10 1 (Oc), and that on Stela 8 as 9.4.18.16.8 9 (Lamat). The day signs are without a cartouche and do not closely resemble Maya forms. The first, however, is an animal head which may be the form of Oc; the second, a geometric form something like Lamat. It is important to note that both series, if read as Initial Series, are calculated from the day number 4 of what would probably be the day Ahau, or a corresponding form in the calendar used. Thompson does not accept these as Initial Series, pointing out that not

all the numbers are clear. In his paper, however, he treats only with Stela 6, being apparently unaware of the inscription on Stela 8 and its confirmatory evidence. Only the discovery of more inscriptions of this type would show if such series have a common starting point.

The Cerro de las Mesas figures stand in profile with feet apart and pointing in one direction and the knees not overlapping. The hips are in side view and the line of the leg is not vertical, which puts the figure in a striding position more like that of Stela 5 at Uaxactun than of any other Maya monument. This position, however, also occurs in later times at Chichen Itza and in Mexico. The figure on Stela 6 wears a mask headdress but no plumes. This headdress turns downward at the back, so that the back of the neck is hidden. On Stela 8 the headdress seems to fasten under the chin with a strap. The resemblance of the skirt, the belt, and the apron of the loincloth to Maya designs of the same features is very striking; this is important, not only because it is uncommon in Mexico, but also because if it derives from the Maya, it should give us some clue as to the period in which contact took place. One of the important points to note is that although the figures stand in profile, the aprons attached to the belt in front are shown in full front view. This was also the manner used by the Maya before the Late Classic Period. These aprons have fillets which at the bottom turn into scrolls resembling the fret motif of the Maya, but, if copied, they were obviously copied before the fret developed its final conspicuous form. Instead of serpent-head representations at the side, there is a purely geometric design. There is a geometric design also on the face of the apron, the lower half of which resembles somewhat the mask motif used by the Maya. The skirt is finished with a fringe. Although the band above is plain, the large tassels of the fringe suggest an early period. A single "shell" hanging from the belt is typical of Classic Maya design of all periods. The figures wear no sandals. In Late Classic art this is an indication of the late Dynamic Phase, but at least in one instance it occurs on a monument which is probably early (Stela 20 at Kultun). The wristlets and anklets of Stela 6 are simple horizontal bands with beads projecting at the sides, but the anklets of Stela 8 are very much like the anklets of the Formative Phase at Copan. Elsewhere I have suggested that the earlier Copan style does not derive from the early Cycle 9 group at Tikal, which at present forms

the bulk of our material from this period, but that it is related to the sculpture of the Peten through earlier styles. I believe that this is probably true also of the Cerro de las Mesas sculptures, and that the similarities to Copan forms of the Formative Phase do not indicate a direct relationship. Before leaving the matter, we might mention that the tall single columns of glyphs recall the arrangement on Stelae 13 and 17 at Coba, which I have been unable to place in the stylistic series. These observations on the two dated Vera Cruz stelae are indecisive, but they offer no contradiction to the early dates inscribed, and I am inclined to concur with Stirling in accepting these dates until some positive evidence can be found that their decipherment follows another pattern. Stelae 3 and 14, which are in the same style, are even more like early Maya monuments, particularly in the manner of placing the feet. Stela 5, however, is less so. This is the stela that most closely resembles the Chapultepec monument, which Thompson identifies as a representation of Eecatl and therefore considers to be late. Stela 10 also probably belongs with this group, and I would be inclined to include with it Stela 9, although Stirling assigns it to a later period.

In contrast to this group, Stelae 4 and 11 show a style more clearly allied to the Late than to the Early Classic. Stirling points out the similarity between Stela 4 and a monument at Santa Lucia Cotzumalhuapa. These figures also resemble Stela 1 at Yaltitun, which, though badly eroded, still shows the outline of a typical Late Classic headdress, with its formally arranged plumes. The bag on both monuments shows two knotted elements, a Late Classic trait, and the fan on Stela 4 recalls the fan held by the figure on Stela 8 at Naranjo. The glyph on this monument has an almost rectangular cartouche, a form, apparently intrusive, that occurs on very late monuments in the Maya area (Stelae 3 Seibal, 4 Ucanal).

There is hardly a question that at Cerro de las Mesas there are at least two distinct styles of sculpture: one related to Classic Maya sculpture through its Early Period, and another showing contact during the Late Classic era. The simplest interpretation would be that the latter succeeds the former and that they roughly correspond to the major periods of Maya art.

#### EL BAUL, SANTA LUCIA COTZUMALHUAPA

A similar situation exists at El Baul, where most of the sculpture is of the Santa Lucia style, but

where Stela 1, the Herrera monument, is an exception. This stela (fig. 110, *a*) has a bar-and-dot number series which begins with the number 7, and if Lehmann's reading (1936-39, p. 186) is accepted, it was erected two centuries before similar monuments first appear in the Peten. I do not propose to discuss here the credibility of this suggestion, since we do not know enough about the early history of the Maya or of other peoples to make a valid judgment at this time.

Direct stylistic evidence for the period of the design is also indecisive, but its relation to the style at Izapa and at San Isidro Piedra Parada suggests a fairly early date. The figure stands on a band which, although almost entirely eroded away, still shows a diagonal element like that on Stela 1 at Uolantun, a Cycle 8 monument. The feet and knees of the figure are apart but the torso shows a slight inclination, and the right elbow is held close to the body, a trait usually associated with late periods. However, Stela 5 at Uaxactun also shows the feeling of a directional stress, and although it is rare in early art, I believe the effect was sometimes produced fortuitously in early times. In fact, there is some evidence that in Cycle 8, before Maya art acquired its rigid pattern, figures were more freely designed. The headdress fastening looks early, and is almost identical to that on Stela 8 at Cerro de las Mesas. The back of the neck is covered, and there are no plumes. In its hand the figure holds a short staff ending in a wavy blade. A similar blade is set into the staff on Stela 9 at Tikal (9.2.0.0.0). The relief as a whole, showing little modeling and almost no variations of technique in the presentation of detail, also seems to be consistent with an early date. Above the figure are an obscure motif of scrolls, a human head, and other elements. There is a suggestion in this design of sculptures at Monte Alban, in the Zapotec region. The scrolls tend to have even curvature and do not merge or decrease their width as they come together at the stem. The very fact that this monument is the only one of its type at the site, where most of the sculpture is of the Santa Lucia style, suggests that it is an early survival, and although we may reject its very early position suggested by the inscription, I believe it is fairly safe to infer that it represents a period which preceded that of Santa Lucia sculpture.

The Santa Lucia style is represented by 13 stelae and numerous other sculptures in the region near Santa Lucia Cotzumalhuapa. It includes sculptures

in the round as well as low-relief panels and carvings on large boulders. It is a style which has marked peculiarities, and as we attempt to correlate it with the Maya sequence, we find combined traits from the whole range of Classic sculpture as well as some similarities to the Toltec Period at Chichen Itza. Since there is no evidence of the presence of the cult of Quetzalcoatl, Thompson now places this style in a period preceding the Toltec domination of Yucatan. There is enough variety, however, in this material to suggest that it may cover a period of considerable duration.

The stelae, nevertheless, have a uniform style and all probably belong to one period. The manner of turning the feet into the plane of the carving distinguishes them from monuments of other known styles. In other respects the position of the figures resembles early positions in the Maya series, and there is a remarkable parallel between the poses shown on Stelae 2, 3, 4, 5, 6, and 8 at Santa Lucia, and that of Stela 12 at Xultun. In both cases the figure raises its hand to a deity above it; one hand is covered with a sort of glove that in the Santa Lucia sculptures sometimes has the form of a human face. The head of the Santa Lucia figure, however, is thrown up toward the deity, whereas the Xultun figure gazes straight ahead.

The resemblance of these stelae to Early Maya does not extend to the detail or the character of the relief, which is that of the Late Classic Period. If one glances back at Stela 1 at El Baul, the difference is very striking. There is strong contrast in the Santa Lucia sculptures between the outline of forms and their elaboration. A feeling of textures is created by contrasting plain and finely decorated areas, which the El Baul monument does not show. For example, one might note the treatment of the fringe of the skirt, which at Santa Lucia is made up of minute elements and uses the plaited border characteristic of the Ornate Phase of Classic sculpture. There is textural treatment of other elements, too, including a tendency to use closely spaced parallel lines to depict hair. As at Piedras Negras and Quirigua, there is a combination of round relief, used for faces in front view, and low relief in the rest of the design. This gives an accent to the deity and creates a strong focus of interest. The relief on Stela 7 is particularly well developed, showing a fine gradation of principal and minor lines, textures, and accents. The deity wears a beaded collar and cufflike beaded wristlets. Its bust is shown within the mouth

of a serpent, and the design of the serpent is elaborated by scrolls. These scrolls, unlike those of the Herrera stela, have the typical rhythmic curvature of the developed Maya scroll, and a decorative line which stresses the outline. (On early designs, it is the inner curve which is raised and is of uniform width.) The supraorbital plate of the serpent is outlined by a raised fillet; the fillet is also used on the jaw of the serpent to stress the form outline. All these minor details show that although Santa Lucia sculpture developed independently from the Classic Maya, retaining an archaic position of the figure and modifying it by its own peculiar mannerisms, the real technical and aesthetic advances of the Classic development did not fail to have their effect on the work of the southern masters.

Two particularly interesting sculptures in high relief are the twin busts at El Baul and at Pantaleon. The turbanlike headdress and the use of the knot motif are both common in Late Classic art; the formal, long-tasseled panache suggests a late phase. Headdresses of the type on Monuments 20 and 21 at Santa Lucia occur also at Copan and Chichen Itza, and on Monument 20 we see again the long-tasseled panache which suggests that these sculptures are late. It seems very likely, therefore, that the Santa Lucia style rose to its highest development during the Late Classic Period, as Thompson now believes. Whether or not it survived into the period of Toltec domination must be determined by other means than stylistic comparison, for we have no evidence, so far, that the Toltec influence ever penetrated into this region.

We thus have two independent cases in which a style associated with number series seems to precede a later type that we can correlate with the Late Classic Period. It is fairly apparent that the number series cannot represent a late corruption of the Maya count. They may precede or may be contemporary with early Maya inscriptions, but in any case they clearly show that the Maya development was not a unique and independent growth starting from small beginnings in an isolated corner of the Peten, but only one of the branches of a larger system.

#### SANTA MARGARITA, SAN ISIDRO PIEDRA PARADA

About halfway between Santa Lucia and Izapa is the finca Santa Margarita, where there is another monument with a number series, unfortunately now eroded except for the initial glyph (which resembles the Maya Introducing Glyph), and the first num-

ber: 7 (fig. 109,*a*). The form of the monument, with indentations on the side, is very unusual. The arrangement of two figures flanking a vertical column of glyphs recalls some of the sculptures at Kaminaljuyu and the early altar at Polol. One figure is entirely eroded but the other, preserved to just below waist level, shows a costume related to the earliest costumes of the Maya. It is, of course, true, as Thompson points out, that the chainlike hanging from the belt does survive and is sporadically depicted on Maya sculptures through almost all of the Late Classic Period, but it is characteristic of Cycle 8 and, although it cannot be used alone to determine a date, does give strong confirmatory evidence, especially if its form is taken into consideration. The form, in this case, is not identical to the early Maya forms but it is much closer to them than to late forms. There is only one large link between two round elements, in contrast, for example, to the fairly late Palenque chain which is made up of small elements, or to the late forms at Naranjo and Tikal which employ groups of knots and a cable motif (see fig. 23,*t-y*). There are also other features to be considered: the fanlike hanging under the headdress which covers the neck, the element under the chin which probably fastens the headdress, and above all the construction of the scrolls in the upper motif. They tend to be of even curvature and are formed of curling raised fillets with an added slightly lower band, like the wing appendages of early Maya scrolls. The fillet, as it is used in this scroll, is not an outline but the body of the form. The motif is obscure but resembles that of the El Baul monument. Relief is simple, and although there is much decorative detail, there is no attempt to stress major outlines of forms beyond those of the individual figures. There is little gradation in modeling and no textural effects.

This is true again of the monument at San Isidro Piedra Parada, not far from Santa Margarita (fig. 109,*b*). This monument is almost triangular and presents a single figure. Like the figure at El Baul, it stands on a band which has diagonal elements in its design, and there is a motif above the figure. The chain element is exactly like that on the stela at Santa Margarita. The left arm is sharply bent at the elbow and the fingers of the hand are curled as on early Maya monuments. The back of the neck is obscured by the headdress; a masklike element is over the lower part of the face as on Stela 5 at Cerro de las Mesas and the Chapultepec stone. In this design it

looks somewhat like a representation of an owl, but in this I may be mistaken. The belt is decorated with a round or oval element with a pit in the center, like early Maya belts; the scrolls, which tend to have a more rhythmic curvature than those on the Santa Margarita stela, still stress the inner outline and the winglike appendage. This monument also has some traits in common with the carving at Lotun, for instance, the element which covers the chin, and the grotesque head on the front of the belt.

#### IZAPA

The stelae at Izapa are not directly comparable to the Maya sequence, for they seldom feature a human figure; when they do so, as on Stela 4, they tend to show it in action. Symbolic, geometric, and zoomorphic motifs play a major role. Some monuments present scenic arrangements. Many designs show a strong resemblance to sculpture at La Venta; some reflect a connection with Monte Alban. Since neither of these styles has been successfully correlated with that of the Maya, and their internal sequences are virtually unknown, they offer little help in dating Izapa monuments. There is enough variation to suggest that the style covers a period of some duration. Nevertheless, it shows no relation to the Late Classic development of the Maya. If these are contemporary sculptures, the development of the two styles must have been widely divergent. On the other hand, traits similar to those of the Maya Early Period are fairly common. Where there is nothing, however, to indicate what direction progress took, and what traits represent later developments, one cannot be sure that similarity to early forms indicates antiquity, for some early traits doubtless survived and were adapted to others of later origin. On Stela 4 (fig. 110, *b*), there is an early type of plume indication which uses overlapping planes and a line near one edge of each feather. This type appears at Piedras Negras in the Formative Phase and at Chinkultic on a ball-court marker with a date in Katun 7. It may well have reached the Maya area from the Pacific region. In the upper design on Stela 4, a rectangular fret is treated with a winglike appendage like the early scrolls. In the lower scroll, a decorative line is used on the inner curve. The apron of the loincloth is turned forward, although the figure is striding in one direction. It appears to me, therefore, that Stela 4 is representative of a style that goes back to the Early Period, but I find it difficult to judge whether its peculiarities are due to a period of

independent evolution or are the result of local taste.

Stela 3 is another monument which shows very strong early traits. The treatment of the serpent's fang, which is a continuous fillet interrupted only by a simple projecting molar and which ends in two small scrolls so characteristic of early Maya art, is extremely suggestive of antiquity. At the right, is a form very much like a late scroll with a projection on an inner curve. I am inclined to think, however, that this resemblance is of the same order as the resemblance between the late scroll (fig. 12, *v-y*) and the early serpent's tongue (fig. 13, *t-u*) and that it has no direct relation to the Dynamic Phase of Classic art. The manner of composing forms of elements of constant width and approximately equal importance, with no indication of interior detail, is the main basis of my conviction that the piece is early. Stela 2 has somewhat more advanced qualities in this respect, and Stela 1 uses textural effects to a considerable degree, but neither of these monuments appears to be related to the Classic style. If there was any interchange of traits between the Izapa and the Maya styles, it could have taken place only in the Early Period.

#### CHOCOLA

A unique piece from the Pacific slope region of Guatemala is a bas-relief from Chocola, now in the University of Pennsylvania Museum (fig. 109, *d*). This piece, unlike the monuments with number series, the Piedra Parada stela, or the stelae of Izapa, shows a combination of traits common in Maya art in the Early Period with traits characteristic of later phases. The position of the figure is early, as is the encirclement of the face by the headdress. Plumes are depicted by tilted planes; the design on the belt is a conspicuous circle or oval. Nevertheless, fine lines are used to produce textural effects, and a fillet outline stresses the scroll of the supraorbital plate of the serpent head which forms the headdress. The scroll motif on the background of crosshatching which is shown within this supraorbital plate is identical to that used on the headdress of the figure on Stela 1 at Piedras Negras (9.13.15.0.0). The Chocola sculpture therefore appears to be transitional and could be placed near the end of the Early Classic Period or at the beginning of the Late.

#### KAMINALJUYU

Other sculptures which show connection with the Early Maya schools are those of Kaminaljuyu. The

best preserved are two altars on which is a central panel of hieroglyphs with a figure on each side. One of the altars (fig. 109,c) is broken just beyond the glyphic panel, so that the right figure is missing, but its arrangement is nevertheless clear. The remaining figure is well preserved. Although no articles of its dress are directly comparable to early Maya designs, it gives the impression of being an early work. There is a prominent scroll composed of two simple balanced scrolls from which issues an undulating element of irregular form. The earplug is simple also, with a deep pit in the center. The ornament on the front of the belt is turned in front view. The fringe of the skirt is composed of large distinct elements. On the second altar the figures are kneeling, but we know little more of their design, since the detail is entirely eroded. This altar is definitely associated with the Esperanza Phase, and it is highly probable that both are contemporary with the Early Classic Period. On other fragments from Kaminaljuyu are scrolls of early type and serpent heads showing early characteristics. There are no complete stelae, but two of the fragments may have been parts of free-standing monuments. It seems clear that there was at Kaminaljuyu a period when sculpture not unlike that of the Early Period Maya was being produced.

A particularly interesting piece from this site is a fragment of silhouette relief, which Kidder publishes together with two similar pieces, one of which is from western Guatemala (Kidder, Jennings, and Shook, 1946, fig. 141). The piece of unknown provenance shows early traits very clearly, particularly in the design of the sandal, which has a low strap inserted into a loop. The turning of the apron of the loincloth into full front view and the fastening of the headdress are other traits suggestive of an early date. The figure, however, wears a pectoral of late type, and fillets outline some elements, though they do not appear on the scrolls, the collar, and other motifs on which they are used in late Maya sculpture. The technique of carving seems highly developed, employing, as it does, slightly concave and oblique surfaces in the depiction of scrolls, and very fine lines to indicate detail. This piece, therefore, like the Chocoma relief, may represent either a highly developed stage of an early style, or one in which archaic traits survive. Both are small sculptures and may derive their peculiarities of technique from the lapidary arts. We know that silhouette carving goes back at Kaminaljuyu to the Esperanza Phase, but the chronological range and the stylistic variations

of these smaller sculptures have not been adequately studied.

#### LATE STYLES RELATED TO THE MAYA

Outside the Maya area, similarities are stronger to the Maya Early Period than to the Late. Such styles as that of Santa Lucia Cotzumalhuapa and the later style at Cerro de las Mesas have well developed characteristics of their own which obscure any relation they may have to Maya forms. A few scattered sculptures, however, reproduce fairly closely the Maya stela figure. The most notable is a monument found in the debris of the Pyramid of the Niches at Tajin, Vera Cruz (fig. 110,d). It surely derives its inspiration from Maya designs, and its treatment of textures and detail suggests that it is of the Late Classic Period. The stone from Miacatlan (Seler, 1902-23, vol. 2, no. 2, fig. 64) has already been mentioned as showing a strong similarity to Piedras Negras motifs. Such isolated examples, unfortunately, will remain of dubious significance until their context and their relation to local styles are clarified.

The figures on the Pyramid of Xochicalco are without doubt very late in relation to the span of the Classic style and may even be post-Classic. The long parallel plumes and the conspicuous fillet outlines of the wristlets, anklets, and collars are clearly indicative of a late date. The rectangular shield with a long fringe and hanging of feathers below it is suggestive of the designs used in Yucatan just prior to the Toltec Period there. The design of the serpent and of the speech scrolls is, in fact, suggestive of Toltec Period designs at Chichen Itza.

Another sculpture that may be related to remains in Yucatan is the stela at the station of Tonalá, near the Pacific coast of Chiapas. The arrangement of the design, a figure standing above a mask, is strongly suggestive of Maya designs; the pose of the figure and its footgear are similar to what one finds on the latest Maya sculptures of the Puuc. There are other monuments described from the vicinity of Tonalá, but these are difficult to relate to the Classic style.

Until we know more about the styles to which these individual monuments belong, it is impossible to separate their typical traits from incidental mannerisms and influences, and these observations do little more than raise the hope that future explorations will produce the material needed to define specific styles and correlate their trend of develop-

ment with those of the Maya. Because only Maya monuments give a definite epigraphically dated series, studies sufficient to establish sequences in other regions would require far more intensive excavations than have yet been undertaken. The frequent failure to associate sculptural remains with ceramic and architectural sequences has discouraged attempts in this direction, but it is to be hoped that data will gradually accumulate, and that the interaction of the patterns of progress of distinct but related cultures can then be seen reflected in their styles of art.

## Conclusions

The rich and varied artistic forms which above all else distinguish the high civilizations of ancient America impart to them an eloquence that the ruder surrounding cultures do not possess. It is natural that they should create the widest and most intense interest, and it is unfortunate that there have been few attempts to make a systematic study of the manner in which their stylistic peculiarities develop. It is a difficult problem. The varieties of expression even in a single medium are many. They are not readily described in precise terms, for their interrelations are subtle and complex. There are many approaches that could be devised for tackling the problem. Much might be said for and against the taxonomic method. Certainly a classificatory system, however arbitrary, which would include all Mesoamerican art forms would permit a more efficient use of the material by students. Other approaches may include intensive and exhaustive syntheses of our knowledge of small segments of material. This study, however, employs methods that are neither comprehensive nor exhaustive. It begins with a small core of material chronologically arranged, in which we attempt to find and define a few changes, some progressive, some perhaps accidental. The history of Classic Maya sculpture is reviewed in relation to these changes only, and from a very limited point of view. I have tried to show these changes reflected in material of different but related cultures, but as the scope of the study was expanded, the reflection was quickly obscured. Other trends and conflicting forces of historical circumstances overshadow whatever influence the developing Maya pattern had on other styles, especially when this pattern is defined by a few faintly perceptible tendencies.

Direct conclusions and dramatic results must not be expected from an approach of such limited scope. Whatever it may suggest is tentative and must be correlated with other types of interpretation, before it can become part of a historic reconstruction. Perhaps the most it can do is to suggest avenues for future studies which may eventually clarify our ideas about styles and help us to trace the course of their development.

Within the Classic style, however, a certain coherence of development, perhaps not entirely free of outside influences but surely selective of them, is clearly revealed. This development has an inherently dramatic structure, in which the tendency to more complex organization of the pattern is followed by the opposite trend of disintegration.

The progress of the Early Period is not clear, because there is not sufficient well-preserved material. We can only observe that the earlier productions seem to have greater variability and less rigidity of pattern than those of early Cycle 9, toward the close of the period. Compared to the art of the Late Classic Period, the Early is more strongly preoccupied with the religious subject and with relatively simple arrangements of explicitly symbolic forms. The stress is placed on those aspects of the form which identify it either as an object or as a symbol and differentiate it from other objects and symbols. Thus, something of flat shape is always depicted in front view, since in side view it is less easily distinguishable from other flat objects that may have different function and meaning. We, who are trained to observe visual effects in space, find this manner of presentation disturbing when it conflicts with the "natural" position of the object. Our expectation is to see things in perspective and to have all parts of a picture presented as if seen from one, and only one, fixed point of view. The symbolic relation of objects to the religious theme, which mainly interested the early artist, is unknown to us and fails to distract our attention from the transposition of the visual plane.

As the development progresses into the Late Classic Period, there is closer accord between the objectives of the Maya artist and the modern observer, evidenced by more frequently expressed appreciation for productions of this period. The attention of the artist is partly shifted from the frame of reference contained in the religious theme, to a wider field in which objects are regarded not only as symbols but also as interesting "natural" phenomena, regardless of their formal connotation. It is no longer enough to depict them in such a way that they can be readily identified and related to the expressed



motif. The artist's attitude is more detached from the religious content of his work. It is more intellectual and analytical, concerned with detail and with the expression of those qualities of objects which have no immediate relation to their symbolic value, but which function in the sphere of their physical and emotive effects in actuality. For example, subtle refinements in the outline of a human figure add little to the vividness of its conception as a spiritual entity, whether priest or god, but are of interest to the person who is at the same time acutely conscious of man as an organism composed of soft flesh and hard bone, and differing from random arrangements of matter and from rigid ideal forms. This analytical trend, however, is not entirely concerned with material aspects. Throughout the period of the Ornate Phase, there is progressive elaboration of artificial rhythmic modulations in line and in relief superimposed on the conception of objects as merely physical entities. These modulations, by what is sometimes referred to as "kinesthetic effect," act as overtones in the design, maintaining alertness in the observer by the slight muscular stresses they engender. The awareness of the metaphor between form (without regard to subject) and the emotions led to attempts to develop rhythmically regular, "perfect" forms based on regularities observed in and abstracted from nature, such as the universal laws of gravity, balance, and motion. Such laws are expressed in art long before science is aware that they exist.

The change from static to dynamic composition amplifies the kinesthetic effect by transferring it from detail to larger areas or to the design as a whole. In the process, minor forms are distorted and acquire a quality of unbalance which causes in the observer a feeling of faint stress or tension, directing his attention along certain lines and giving the suggestion of motion. This dynamic metaphor is made more explicit by the exaggeration of contrast in the proportions inherent in forms. Plumes, because they are long, are made longer, and their direction is deliberately chosen. Sometimes they are scattered as under the effect of wind. Sometimes they undergo sudden changes of direction as they approach the confining margin of the field. What are usually called the "finest," the most "highly developed" examples of Maya art are those which contain the broadest field of reference and achieve a balance between expression of religious or thematic reference, the analogy to our perception of objects

in space, and the emotional effect of forms in themselves. Those sculptures are also the most admired which draw attention both to detail and to the design as a whole. The over-intricacy and lack of emphasis in some Maya sculptures, particularly those of Quirigua, have been often criticised and cited as a "baroque" trait. The effect is in fact confusing and poses an obstacle to the recognition of meaningful forms, but it should be remembered that these designs were probably painted, and that the use of polychrome would differentiate the individual forms and make them immediately perceptible to the eye. The intricacy of the design, when it is adequately organized, only heightens its potentiality for satisfying varying interests and of being apprehended simultaneously in different ways and from different points of view. The creation of such "order in complexity," particularly during the Dynamic Phase of Maya art, should be recognized as one of the great intellectual achievements of mankind.

In this light, the subsequent development in what I call the Phase of Decadence appears to be truly a retrogression. We cannot judge of the spiritual effect of religious suggestion in the design until we understand thoroughly its symbols, but it is easy to perceive that the frame of reference to normal physical effects is neglected. There is little similarity between the forms as they are portrayed and as they are seen under ordinary normal conditions, when we are manipulating them as physical objects. The tassels on the sandals of a figure may be so large that when we imagine the figure in motion we cannot but see them getting underfoot, which would spoil the artistic effect for persons whose thoughts are oriented to the material aspects of the figure portrayed (see fig. 79, *a*). The materialistic consideration is sacrificed to a more explicit expression of the two-dimensional pattern. An interest in detail is also often excluded in late sculpture, as forms are ruthlessly simplified. When these exclusions are resorted to for the sake of isolating and stressing contrasts and repetitions of lines and forms charged with emotional metaphor, which may, for example, produce an effect of restless but regulated motion, there remains an aesthetic enjoyment of a somewhat limited scope. In many of the latest productions, however, even such individual exaggerations and simplifications appear to have become a matter of convention and it is difficult to apprehend the explicit "meaning" of these very decadent forms. Apparently the frame of reference is shifted to a re-

stricted field defining an attitude which is not universal and which few of us share with the sculptors of that age.

Although here described as an independent process, the development of an art cannot be fully understood except in its total cultural context. To the Maya archaeologist it may be disappointing that very little has been said in this report concerning the specific symbols used and their possible interpretations. This is not because the influence of formal ideology on the form of expression is deemed unimportant, but because the reconstruction of this ideology is in itself a complex field of study which cannot be lightly undertaken. Nor has it yet produced results so decisive that they can be applied without inviting controversy on many points. Moreover, concentration on the explicit meaning of symbols tends to obscure the fact that the same symbol may be variously construed by its beholders, and that its formal meaning is often secondary to its wider emotive associations, and at times even to its purely decorative function.

The shift in interest from spiritual to physical properties; and from communal emotions evoked by formal symbolism to more personal, detailed, and intellectual observations cannot be inferred from the symbols per se. The same symbol with the same "meaning" has a different set of associations for the farmer and for the trained artist living in city surroundings. The artist's manner of drawing the symbol reveals more clearly the intellectual background of his immediate group, than the conservative religious structure that represents a broader but more primitive base of his culture. One should make a distinction between this formal, conservative, ideological base, and the progressive (often disrupting) tendencies of individual intellects. The development of urban life results in the segregation of an intellectually dominant class from the rest of the community. The selection of those whose ideas become socially significant is then made by a small segment of the community, which may develop interests peculiar to itself. One can observe that the monumental sculpture of the Maya shows the development of such interests, tangential to and digressing from the formal ideas expressed in traditional symbols. When we trace these symbols back from surviving concepts to the culture of the past, we should be fully aware of the fact that they had a different intellectual context in Classic times.

It is also partly with this consideration in mind

that I have limited the investigation to monumental sculpture. Mural painting and stucco have been excluded simply because there are very few surviving examples. Figure painting on pottery, on the other hand, is common, but it cannot be adequately discussed without taking into consideration its relation to other manifestations of the ceramic complex as well as its relation to the monuments. It offers an independent and intensely interesting subject for study, for here, in the meeting of the esoteric and the popular arts, we should be able to appraise the influence of the stela cult on the total community and to determine whether the artistic trends that have been observed were characteristic of its art as a whole or if they are manifest only in ceremonial wares directly related to the stela cult. Stratigraphic sequences are probably sufficiently accurate to allow tracing the artistic development of ceramic design almost as easily as that of monuments, and we may hope that such studies will be undertaken.

All studies which aim at describing art as a developing process are primarily dependent on the results of field archaeologists, and are of dubious value where chronological series have not been previously established or where the known distribution of art forms is very incomplete. The present study clearly brings out the imperfection in our set of data even for the relatively well explored area of the Classic Maya culture. For example, at Calakmul, a site of great importance where there are many carved monuments, a number of stelae which probably bear carving have never been turned or examined. At Yaxha is a large undated group which appears to be early; this could probably be checked by ceramic and architectural associations. The poorly dated series of monuments at Yaxchilan leaves us in the dark as to the nature of the influences which at some unknown period it seems to have exchanged with western Yucatan. The interior of the east half of the Yucatan Peninsula, the region just west of the northern sites in the Peten, the very important area along the Jatate and between the Chixoy and the Pasion Rivers, on the northern boundary of El Quiche and Alta Vera Paz, all these are archaeologically virtually unknown. In the latter area there may be styles which would explain the mysteriously sudden development of the late Copan style and its relation to the sculptures of Tonina. The single fragment from Salinas de Las Nueve Cerros, published by Selser, suggests that the Copan and Tonina styles may be extreme variants of a more widespread school

distributed along the southern frontier of the Maya.

As long as discussion is centered on a single tradition, which may absorb influences from the outside but is not radically changed by them, a general scheme of development can be roughly traced in spite of missing data. When contact between groups of very different cultures comes into play, stylistic evidence can often be interpreted in different ways and needs to be correlated with stratigraphic sequence. We can infer the sequence in Yucatan from style only in those examples of sculpture which conform to the Classic tradition. A series of monuments at Etzna is of this type. Another series is at Coba, and a number of sculptures related to this series occur in western Yucatan notably at Xcalumkin, Oxkintok, Kabah, and Uxmal. The Santa Rosa-Sayil type appears to be related to sculptures at Yaxchilan but has individual traits distinct from the Classic. Its dissolution into decadent forms can be inferred by analogy to a similar process observed in the Classic style. The Classic style in Yucatan does not evidence the degree of elaboration and formal perfection that it does in the south. Art for art's sake was apparently less highly valued and largely subordinated to architecture. There is a variety of schools and styles and it appears that, in the later periods at least, there was no common standard or tradition. Some local schools such as that of Oxkintok and Kabah may be distinguished. Quality X, on the other hand, seems to touch many sites and may be a general tendency or an influence from some region like Tabasco in contact with the northern coast. Knowledge of both chronology and distribution of types is imperative before the material can be classified and the significance of its qualities becomes clear. Oxkintok and Etzna offer particularly clear opportunities for the investigation of the relations between Classic and non-Classic styles in Yucatan. It seems that some foreign or strongly non-Classic factors were involved probably even before the Toltec Period, and it is possible that the Toltec entered a country already divided into cultural subgroups dominated by families of foreign extraction.

There is also an immediate need for descriptions, however imperfect, of the course of development of styles outside the Classic area. At Chinkultic and Comitán late monuments show clear relations with the sculpture of northern Yucatan, and exploration of the still unknown valley of the Grijalva River and of Tabasco may reveal possible sources of commonly shared influences.

The development of detailed sequences for the sculpture of the Pacific slope of Guatemala, and for independent styles such as that of Izapa and La Venta would place the Maya style in its proper environment. In the controversy about the date of La Venta and Izapa, stylistic comparison tends to support the side that would grant them considerable antiquity. It is not enough, however, to find a single horizon and to refer to it all monuments of the same general type. Like the Maya style, these probably persisted for a long time, and the horizon we find may fall at either extreme. Their duration, the resistance of their tradition to foreign influences, and the trends of their own internal development must be at least roughly sketched before the comparisons we draw have any real significance. The study of the Maya sequence indicates that gradual progress is best revealed in changes in technical and artistic qualities, whereas violent social changes are reflected more readily in the adoption of new motifs. At Izapa we may well find both types of change, a situation of particular interest because it seems to form a link between the Maya style, the style of La Venta, and that of Monte Alban. We know virtually nothing of the architectural remains of the site or its ceramics, and these should prove of absorbing interest.

It is presumptuous, however, to suggest to the archaeologist where he might dig and what he may expect to find. There is no lack of field problems of which he is thoroughly aware, and which he is only awaiting the opportunity to explore. Wherever even a tentative chronological sequence can be inferred, a beginning can be made to trace the character of changing artistic forms. This is most readily done through following the variations of identical or very similar motifs, but there is also a vital need to devise new approaches and new methods of treating with the variety of problems that arise. With the exception of Spinden's splendid *Study of Maya Art* there have been few systematic attempts to treat with art styles in the perspective of time. Archaeologists tend to limit their observations to techniques or to motifs expressed and are wary of falling into "subjective" attitudes in attempting to take up consideration of aesthetic factors or artistic mannerisms. The danger is there, but it is after all no greater than that which we face when we attempt to interpret the meaning of religious symbols. In either case, our methods are still primitive, but one may hope that they can be improved and refined and that in time they will result in new insight into

the intellectual aspects of Maya civilization. In the meantime, it would be a mistake, I feel, to attempt to reduce the study of art to a strictly "objective" discipline. Rigid definitions and attempts to form classifications of art forms on the basis of precisely defined physical similarities may only impede the discovery of those distinctions which are significant in art development. In initial attempts to treat with a subject so fundamental yet so little understood as

art, it is best to follow any lead that offers, and to leave the refining of method to a time when it is felt we have discovered a promising road to further discovery. In exploring new approaches, standards of scholarship, precision, and "objectivity" must take second place to the formulation of ideas which would enable us to describe a work of art and to relate it to other works, not as a form, but as a vehicle of expression.

## Monuments Covered in this Study

<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
ACANMUL Column . . . . .	. . . . .	Yucatan, Late Classic?	Fig. 100,c	167
AGUAS CALIENTES Stela 1 . . . . .	9.18. 0. 0. 0	9.17.10. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 99	145
ALTAR DE SACRIFICIOS Stela 8 . . . . .	(9.9.15. 0. 0?)	Late Classic	Fig. 48,b	117
Stela 9 . . . . .	(9.10. 0. 0. 0?)	Late Classic, Formative Phase?	Fig. 48,a	117
Stela 12 . . . . .	9. 4.10. 0. 0	9. 3. 0. 0. 0 ±2 katuns	Fig. 39,b	109
LA AMELIA Stela 1 . . . . .	(9.19. 0. 0. 0??)	10. 0. 0. 0. 0 ±2 katuns	Fig. 66,c	145
AREVALO FINCA ( <i>see</i> Kaminaljuyu) . . . . .	. . . . .	. . . . .	. . . . .	. . . . .
EL BAUL Monument 12 . . . . .	. . . . .	non-Classic, late	Thompson, 1948, Fig. 10,a	176
Stela 1 . . . . .	(7.19. 7. 8.12) <sup>1</sup>	non-Classic, early	Fig. 110,a	175
BENQUE VIEJO Stela 1 . . . . .	(10. 1. 0. 0. 0)	9.19. 0. 0. 0 ±?	Maler, 1908a, pl. 19	152
BONAMPAK Altar 2 . . . . .	. . . . .	9.13. 0. 0. 0 ±?	Fig. 47,a	118
Altar 3 . . . . .	. . . . .	9. 9. 0. 0. 0 ±?	Fig. 44,d	118
Stela 1 . . . . .	. . . . .	9.19. 0. 0. 0 ±2 katuns	Fig. 68	147
Stela 2 . . . . .	. . . . .	9.17. 0. 0. 0 ±2 katuns	Fig. 69,a	147
Stela 3 . . . . .	9.17.15.0. 0?	9.17.10. 0. 0 ±2 katuns	Fig. 69,c	147
Structure 1, lintels . . . . .	. . . . .	9.17.10. 0. 0 ±2 katuns	Fig. 70,a	147,148
Structure 6, lintel . . . . .	. . . . .	9. 9. 0. 0. 0 ±2 katuns	Fig. 44,c	118
CALAKMUL Stela 9 . . . . .	9.11.10. 0. 0?	9.13. 0. 0. 0 ±?	Fig. 46,c	114
Stela 15 . . . . .	9.19. 0. 0. 0?	9.17.10. 0. 0 ±?	Ruppert and Denison, 1943, pl. 49	142
Stela 17 . . . . .	. . . . .	10. 0. 0. 0. 0 ±2 katuns	Fig. 79,b	151,152
Stela 24 . . . . .	9.13.10. 0. 0?	Formative or Ornate?	Fig. 55,c	128
Stela 28 . . . . .	9. 9.10. 0. 0	9.11. 0. 0. 0 ±?	Ruppert and Denison, 1943, pl. 49	114
Stela 29 . . . . .	9. 9.10. 0. 0?	9.14. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 49	114
Stela 43 . . . . .	9. 4. 0. 0. 0	9. 3. 0. 0. 0 ±2 katuns	Fig. 40,a	108,109
Stela 50 . . . . .	. . . . .	9.19. 0. 0. 0 ±?	Fig. 79,e	152
Stela 51 . . . . .	9.15. 0. 0. 0	9.16. 0. 0. 0 ±2 katuns	Fig. 56	128
Stela 52 . . . . .	9.15. 0. 0. 0	9.16.10. 0. 0 ±2 katuns	Ruppert and Denison, 1943, pl. 51	128
Stela 53 . . . . .	9.15. 0. 0. 0?	9.16. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 51	128
Stela 54 . . . . .	9.15. 0. 0. 0	9.15.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 51	128
Stela 57 . . . . .	9.17. 0. 0. 0	10. 1. 0. 0. 0 ±?	Eroded	142
Stela 62 . . . . .	9.16. 0. 0. 0	9.15.10. 0. 0 ±2 katuns	Ruppert and Denison, 1943, pl. 52	128
Stela 65 . . . . .	. . . . .	9.19.10. 0. 0 ±2 katuns	Fig. 79,a	151
Stela 84 . . . . .	. . . . .	10. 3. 0. 0. 0 ±?	Fig. 79,d	151
Stela 88 . . . . .	. . . . .	9.11. 0. 0. 0 ±?	Fig. 42,a	114
Stela 89 . . . . .	9.15. 0. 0. 0	9.16.10. 0. 0 ±2 katuns	Ruppert and Denison, 1943, pl. 53	128
Stela 91 . . . . .	. . . . .	Decadent ?	Fig. 79,f	152

<sup>1</sup>Lehmann, 1936-39.

<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
CALKINI				
Columns . . . . .	. . . . .	non-Classic	Fig. 105, <i>a,b</i>	169
CANCUEN				
Stela 1 . . . . .	9.18.10. 0. 0?	9.17.10. 0. 0 ±2 katuns	Maler, 1908, pl. 13	145
Stela 2 . . . . .	9.18. 0. 0. 0	9.18. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 12	145
CANSACBE				
Column . . . . .	. . . . .	Yucatan Late Classic?	Fig. 99, <i>a</i>	167
EL CARIBE				
Stela 1 . . . . .	9.17.10. 0. 0?	9.18.10. 0. 0 ±2 katuns	Fig. 66, <i>a</i>	145
Stela 2 . . . . .	9.17.10. 0. 0?	9.18. 0. 0. 0 ±2 katuns	Fig. 66, <i>b</i>	145
EL CAYO				
Lintel 1 . . . . .	(9 17. 1. 2.12)	9.17.10. 0. 0 ±2 katuns	Maler, 1903, pl. 35	148,149
Stela 1 . . . . .	. . . . .	9.16.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 34	148
Stela 2 . . . . .	. . . . .	9.19. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 34	148
CERRO DE LAS MESAS				
Stela 3 . . . . .	. . . . .	non-Classic, early	Stirling, 1943, pl. 21	174
Stela 4 . . . . .	. . . . .	non-Classic, late	<i>Ibid.</i> , pl. 22, <i>a</i> <sup>2</sup>	174
Stela 5 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , pl. 21, <i>b</i> <sup>3</sup>	174
Stela 6 . . . . .	(9. 1.12.14.10) <sup>1</sup>	non-Classic, early	<i>Ibid.</i> , pl. 23	173,174
Stela 8 . . . . .	(9. 4.18.16. 8) <sup>1</sup>	non-Classic, early	<i>Ibid.</i> , pl. 24	173,174
Stela 9 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , pl. 21, <i>c</i>	174
Stela 10 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , pl. 25, <i>a</i>	174
Stela 11 . . . . .	. . . . .	non-Classic, late	<i>Ibid.</i> , pl. 25, <i>b</i>	174
Stela 14 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , pl. 20, <i>c</i>	174
CHAPULTEPEC (SAN MIGUEL)				
Stela 1 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , Fig. 10, <i>b</i>	174
CHIAPA				
Stone of . . . . .	(9.19. 0. 0. 0??)	9.11. 0. 0. 0 ±?	Morley, 1937-38, vol. 5, pl. 71	122
CHICHEN ITZA				
Akatzib, lintel . . . . .	(10. 2. 1. 0. 0) <sup>4</sup>	Late Yucatan variant?	Fig. 106, <i>b</i>	170
Ball Court, panel . . . . .	. . . . .	Toltec	Fig. 106, <i>c</i>	171
Hacienda, trough lintel . . . . .	(10. 2 0 0. 0) <sup>4</sup>	Late Yucatan variant?	Beyer, 1937, pl. 6	170
High Priest's Grave . . . . .	(10. 9. 0. 0. 0) <sup>4</sup>	Toltec	. . . . .	170
Lower Temple of the Jaguars . . . . .	. . . . .	Toltec	Maudslay, 1889-1902, vol. 3, pls. 45-51	171
Mercado . . . . .	. . . . .	Toltec	Fig. 107, <i>c</i> and Ruppert, 1943	171,172
Northeast colonnade . . . . .	. . . . .	Toltec	Fig. 107, <i>a</i>	. . . . .
Temple of the Chacmool . . . . .	. . . . .	Toltec	Morris, 1931	172
Temple of the Jaguars . . . . .	. . . . .	Toltec	Maudslay, 1889-1902, vol. 3, pls. 35-38	172
Temple of the Wall Panels . . . . .	. . . . .	Toltec	Ruppert, 1931	171,172
Temple of the Warriors . . . . .	. . . . .	Toltec	Figs. 107, <i>b</i> , 108, <i>a</i> ; Morris, 1931	172
Temple of the Xtoloc Cenote . . . . .	. . . . .	Toltec	Fig. 108, <i>b,c</i>	172
EL CHICOZAPOTE				
Lintel 1 . . . . .	. . . . .	Late Classic, Dynamic Phase	Maler, 1903, pl. 37	136
Lintel 2 . . . . .	. . . . .	Late Classic, Dynamic Phase	<i>Ibid.</i> , pl. 37	136
Lintel 3 . . . . .	. . . . .	Late Classic?	<i>Ibid.</i> , pl. 38	136
Lintel 4 . . . . .	. . . . .	Late Classic?	<i>Ibid.</i> , pl. 38	136
CHILIB				
Column . . . . .	. . . . .	Yucatan, Quality X?	Fig. 100, <i>b</i>	167
Jamb . . . . .	. . . . .	Yucatan, Quality X?	Lothrop, 1924, Fig. 21	157
CHINKULTIC				
Ball Court marker . . . . .	(9. 7.17.12.14)	Late Classic, Formative Phase	Keleman, 1943, pl. 82	121

<sup>1</sup>Stirling, 1943.<sup>2</sup>Caption, Stela 5.<sup>3</sup>Caption, Stela 4.<sup>4</sup>Thompson, 1937.

<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
<b>CHINKULTIC—Continued</b>				
Stela I . . . . .	(10. 0.15. 0. 0) or (9.17. 0. 0. 0) <sup>1</sup>	Late Classic, Decadent Phase?	Blom and La Farge, 1926-27, fig. 360	149,153
Stela 4 . . . . .	. . . . .	Late Classic?	<i>Ibid.</i> , fig. 362	150
Stela 7 . . . . .	9.17.10. 0. 0?	9.17. 0. 0. 0 ±?	<i>Ibid.</i> , fig. 365	149
Stela 8 . . . . .	(9.18. 0. 0. 0)	Late Classic	<i>Ibid.</i> , fig. 366	149
Stela 9 . . . . .	(9.19. 0. 0. 0)	9.14.10. 0. 0 ±?	Fig. 75, <i>b</i>	149
Stela 10 . . . . .	(9. 9.15. ? . ?)	9.10. 0. 0. 0 ±2 katuns	Fig. 48, <i>c</i>	122
<b>CHOCHKITAM</b>				
Stela I . . . . .	(Great Period)	9.17. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 85	142
<b>CHOCOLA</b>				
Relief . . . . .	. . . . .	non-Classic, Transition?	Fig. 109, <i>d</i>	177
<b>COBA</b>				
Stela 1 . . . . .	9.12.10. 0. 0?	9.13.10. 0. 0 ±2 katuns	Fig. 42, <i>b</i> ; Thompson, Pollock and Charlot, 1932, pls. 1, 2	122
Stela 2 . . . . .	9.10.10. 0. 0?	Late Classic, Formative Phase?	Thompson, Pollock and Charlot, 1932, pl. 4	122
Stela 3 . . . . .	(9.10. 0. 0. 0?)	Late Classic, Formative Phase?	<i>Ibid.</i> , pl. 4	122
Stela 4 . . . . .	(9. 9.10. 0. 0?)	9.13. 0. 0. 0 ±?	<i>Ibid.</i> , fig. 65	122
Stela 5 . . . . .	9.11.10. 0. 0?	9.14. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 5	122
Stela 6 . . . . .	(9. 9.10. 0. 0?)	9.13.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 6	122
Stela 8 . . . . .	(9.11. 0. 0. 0?)	Late Classic	<i>Ibid.</i> , pl. 7	122
Stela 12 . . . . .	. . . . .	Late Classic	<i>Ibid.</i> , pl. 9	122
Stela 13 . . . . .	(archaic) <sup>2</sup>	?	<i>Ibid.</i> , pl. 9	110,157
Stela 15 . . . . .	. . . . .	Late Classic	<i>Ibid.</i> , pl. 8	122
Stela 17 . . . . .	(archaic) <sup>2</sup>	?	<i>Ibid.</i> , pl. 11	110,157
Stela 20 . . . . .	9.14.10. 0. 0?	9.15. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 12	138
Stela 21 . . . . .	(9.11. 0. 0. 0?)	9.15.10. 0. 0 ±?	<i>Ibid.</i> , pl. 10	122,123
Stela 25 . . . . .	(9.14.10. 0. 0??)	Late Classic	. . . . .	138
<b>COMALCALCO</b>				
Tomb . . . . .	. . . . .	Late Classic and Quality X	Blom and La Farge, 1926-27, vol. 1, fig. 100	149
<b>COMITAN</b>				
Stela I . . . . .	10. 2. 5. 0. 0	9.19. 0. 0. 0 ±?	<i>Ibid.</i> , vol. 2, fig. 352	153
<b>COPAN</b>				
Altar G1 . . . . .	(9.18.10. 0. 0?)	Late Classic, Dynamic Phase	Maudslay, 1889-1902, vol. 1, pls. 53, 54, 116, 117	143
Altar G2 . . . . .	(9.18. 5. 0. 0?)	Late Classic, Dynamic Phase	<i>Ibid.</i> , pls. 53, 54, 116, 117	143
Altar G3 . . . . .	(9.17. 0. 0. 0)	Late Classic, Dynamic Phase	<i>Ibid.</i> , pl. 116, 117	143
Altar J' . . . . .	. . . . .	?	Morley, 1920, pl. 8	109
Altar K' . . . . .	. . . . .	?	<i>Ibid.</i> , pl. 8	109
Altar L . . . . .	(9.16.11. 0. 5)	Late Classic	Maudslay, 1889-1902, vol. 1, pl. 73	143
Altar L' . . . . .	. . . . .	?	Morley, 1920, pl. 8	109
Altar M' . . . . .	. . . . .	?	<i>Ibid.</i> , pl. 8	109
Altar O . . . . .	. . . . .	. . . . .	. . . . .	143
Altar Q . . . . .	9.17. 5. 0. 0	9.14.10. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 1, pls. 90-93	143
Altar Q' . . . . .	(9. 4.10. 0. 0?)	?	Morley, 1920, pl. 24	109

<sup>1</sup>Thompson, 1937.  
<sup>2</sup>Charlot, 1932.

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Altar T . . . . .	(9.17.12. 5.17)	Late Classic	Maudslay, 1889-1902, vol. I, pls. 118, 119	143
Altar U . . . . .	. . . . .	Late Classic	<i>Ibid.</i> , pl. 97	143
Altar W' . . . . .	(9.17. 5. 0. 0)	Late Classic	Morley, 1920, fig. 46	..
Ball Court, II, markers (original) . . . . .	. . . . .	?	Strömsvik, 1949	109
Ball Court II, markers (late)	. . . . .	Late Classic, Formative Phase?	Strömsvik, 1949	116
Stela A . . . . .	9.15. 0. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Maudslay, 1889-1902, vol. I, pls. 25-29	129
Stela B . . . . .	9.15. 0. 0. 0	9.16. 0. 0. 0 $\pm 2$ katuns	Fig. 57, <i>b</i>	129,130
Stela C . . . . .	(9.17.12. 0. 0)	9.16. 0. 0. 0 $\pm 2$ katuns	Fig. 51, <i>a,b</i>	129,130
Stela D . . . . .	9.15. 5. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Maudslay, 1889-1902, vol. I, pl. 43	129,130
Stela E . . . . .	9. 9. 5. 0. 0?	9.10. 0. 0. 0 $\pm 2$ katuns	Fig. 49, <i>c</i>	115
Stela F . . . . .	9.14.10. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Maudslay, 1889-1902, vol. I, pl. 50	129,130
Stela H . . . . .	9.15. 0. 0. 0?	9.16. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 55	129,130
Stela I . . . . .	9.12. 5. 0. 0	9.10. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 63	116
Stela M . . . . .	9.16. 5. 0. 0?	9.15.10. 0. 0 $\pm 2$ katuns	Gordon, 1902, pl. 16	129
Stela N . . . . .	9.16.10. 0. 0	9.16.10. 0. 0 $\pm 2$ katuns	Maudslay, 1889-1902, vol. I, pl. 76	129,130 143
Stela P . . . . .	9. 9.10. 0. 0	9. 9.10. 0. 0 $\pm 2$ katuns	Fig. 41, <i>d</i>	115
Stela 1 . . . . .	9.11.15. 0. 0	Late Classic, Formative Phase?	Fig. 50, <i>a</i>	116
Stela 2 . . . . .	9.10.15. 0. 0(?) <sup>1</sup>	9. 9. 0. 0. 0 $\pm 2$ katuns	Fig. 49, <i>b</i>	115,116
Stela 3 . . . . .	9.11. 0. 0. 0	9.10.10. 0. 0 $\pm 2$ katuns	Spinden, 1913, pl. 19	115
Stela 4 . . . . .	9.14.15. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Fig. 57, <i>a</i>	129,130
Stela 5 . . . . .	9.11.15. 0. 0?	9.10.10. 0. 0 $\pm 2$ katuns	Fig. 50, <i>b,c</i>	116,117
Stela 6 . . . . .	9.12.10. 0. 0	9.11.10. 0. 0 $\pm 2$ katuns	Spinden, 1913, pl. 18	117
Stela 7 . . . . .	9. 9. 0. 0. 0	9. 9. 0. 0. 0 $\pm 2$ katuns	Fig. 49, <i>a</i>	115
Stela 11 . . . . .	(9.17. 5. 0. 0?)	9.16.10. 0. 0 $\pm 2$ katuns	Gordon, 1896, pl. 8	143
Stela 18 . . . . .	(9. 7. 0. 0. 0?)	?	. . . . .	112,115
Structure 11 . . . . .	(9.17.10. 0. 0?)	Late Classic, Dynamic Phase	. . . . .	144
Structure 22 . . . . .	. . . . .	Late Classic, Ornate Phase?	Triek, 1939	144
Structure 26 (Hieroglyphic Stairway) . . . . .	(9.16. 5. 0. 0?)	Late Classic, Ornate Phase?	Gordon, 1902, pls. 1-18	131
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Stelae . . . . .	. . . . .	Late Classic?	. . . . .	164
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Stela 2 . . . . .	. . . . .	Late Classic and Quality X	Fig. 82, <i>e</i>	158
<i>DZITBALCHE (see San Pedro)</i> . . . . .				
<i>EL ENCANTO</i>				
Stela 1 . . . . .	. . . . .	Early Classic	Morley, 1937-38, vol. 5, pl. 86	110
<i>ENCANTO, FINCA</i>				
Flagstones . . . . .	. . . . .	Late Classic?	Blom, 1924, figs. 1, 2	137

<sup>1</sup>Thompson, 1944.



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Stela 1 . . . . .	. . . . .	Late Classic and Quality X	Fig. 83, <i>a</i>	138,158
Stela 2 . . . . .	9.15. 0. 0. 0?	9.17. 0. 0. 0 ±2 katuns	Fig. 83, <i>b</i>	138,158
Stela 4 . . . . .	. . . . .	Late Classic	Fig. 83, <i>c</i>	138,158
Stela 5 . . . . .	(9.18. 0. 0. 0?)	9.17. 0. 0. 0 ±2 katuns	Fig. 80, <i>a</i>	158
Stela 6 . . . . .	. . . . .	Late Classic and Quality X	Fig. 83, <i>e</i>	158
Stela 7 . . . . .	. . . . .	9.15.10. 0. 0 ±2 katuns	Fig. 83, <i>d</i>	158
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Stela 9 . . . . .	(9.19. 0. 0. 0?)	non-Classic?	Fig. 84, <i>b</i>	159
Stela 12 . . . . .	. . . . .	Decadent	Fig. 81, <i>b</i>	158
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Stela 16 . . . . .	. . . . .	Toltec?	Fig. 84, <i>d</i>	159
Stela 18 . . . . .	9.12. 0. 0. 0?	9.13. 0. 0. 0 ±2 katuns	Fig. 46, <i>a</i>	123,158
Stela 19 . . . . .	9.13. 0. 0. 0?	9.14.10. 0. 0 ±2 katuns	Fig. 46, <i>b</i>	123,158
<b>FLORES</b>				
Stela 1 . . . . .	(10. 2. 0. 0. 0)	Decadent?	Morley, 1937-38, vol. 5, pl. 157	152
<b>LA FLORIDA</b>				
Stela 7 . . . . .	9.16.15. 0. 0?	9.17.10. 0. 0 ±2 katuns	Fig. 61, <i>c</i>	145
Stela 9 . . . . .	9.15. 0. 0. 0?	9.16. 0. 0. 0 ±2 katuns	Fig. 61, <i>b</i>	131
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<b>HALAL</b>				
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Lintel . . . . .	. . . . .	Late Yucatan variant?	Fig. 104, <i>b</i>	169
<b>LOS HIGOS</b>				
Stela 1 . . . . .	9.17.10. 0. 0	Late Classic	Morley, 1920, p. 385	150
<b>HOLACTUN (see Xcalumkin)</b>				
<b>LA HONRADEZ</b>				
Stela 1 . . . . .	(9.17.10. 0. 0?)	Late Classic	Morley, 1937-38, vol. 5, pl. 84	141
Stela 2 . . . . .	(9.17.15. 0. 0???)	Late Classic	<i>Ibid.</i> , pl. 84	141
Stela 3 . . . . .	(9.17. 5. 0. 0???)	Late Classic	<i>Ibid.</i> , pl. 83	141
Stela 4 . . . . .	9.18.10. 0. 0?	9.17.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 84	141
Stela 5 . . . . .	9.18. 0. 0. 0?	9.19. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 83	141
Stela 6 . . . . .	(9.16.15. 0. 0???)	9.16. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 83	141
Stela 7 . . . . .	9.17. 0. 0. 0	9.19. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 83	141
Stela 9 . . . . .	(9.18. 5. 9. 0.???)	Late Classic	<i>Ibid.</i> , pl. 84	141
<b>HUNTICHMUL</b>				
Lintel . . . . .	. . . . .	Late Classic, variant	Fig. 104, <i>d</i>	169
<b>ICHMAC</b>				
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<b>ICHMUL</b>				
Ball-court panels . . . . .	. . . . .	Late Classic, Dynamic Phase?	Fig. 82, <i>a,b</i>	158
<b>ITSIMTE</b>				
Altar 1 . . . . .	(9.17. 5. 0. 0?)	Late Classic, Dynamic Phase	Morley, 1937-38, vol. 5, pl. 156	142
Stela 1 . . . . .	(9.15. 5. 0. 0??)	9.18. 0. 0. 0 ±?	Maler, 1908, pl. 11	142
Stela 3 . . . . .	9.16. 0. 0. 0?	9.15.10. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 155	127,128, 142
Stela 4 . . . . .	(9.15.15. 0. 0?)	10. 0. 0. 0. 0 ±2 katuns	Maler, 1908, pl. 11	142
Stela 5 . . . . .	9.15. 0. 0. 0	9.16.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 12	127
<b>IXKUN</b>				
Stela 1 . . . . .	9.18. 0. 0. 0	9.17. 0. 0. 0 ±2 katuns	Fig. 72	141,142
Stela 4 . . . . .	(9.16.10. 0. 0???)	9.19. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 49	141
Stela 5 . . . . .	9.18.10. 0. 0	9.19.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 93	141,142

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<b>IXLU</b>				
Stela 1 . . . . .	10. 1.10. 0. 0?	10. 1. 0. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 158	150
Stela 2 . . . . .	10. 2.10. 0. 0?	10. 1. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 158	150
<b>IZAPA</b>				
Stela 1 . . . . .	. . . . .	non-Classic	Stirling, 1943, pl. 49	177
Stela 2 . . . . .	. . . . .	non-Classic, early?	<i>Ibid.</i> , pl. 49	177
Stela 3 . . . . .	. . . . .	non-Classic, early	<i>Ibid.</i> , pl. 50	177
Stela 4 . . . . .	. . . . .	non-Classic, early?	Fig. 110, <i>b</i>	177
Stela 11 . . . . .	. . . . .	non-Classic	Fig. 110, <i>c</i>	....
<b>JAINA</b>				
Stela 1 . . . . .	9.11. 0. 0. 0?	9.13.10. 0. 0 $\pm 2$ katuns	Fig. 45, <i>c</i>	123,160
Stela 2 . . . . .	. . . . .	Late Classic, variant?	Fig. 82, <i>c</i>	160
Stela 3 . . . . .	. . . . .	Late Classic, variant?	Fig. 82, <i>d</i>	160
<b>JONUTA</b>				
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Relief . . . . .	. . . . .	Late Classic, Dynamic Phase	Fig. 69, <i>b</i>	148
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Structure 2C6 (Codz Poop) . . . . .	. . . . .	Toltec?	Fig. 103, <i>a,b</i>	169
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Altar . . . . .	Esperanza Phase	Early (Classic variant?)	Kidder, Jennings, and Shook, 1946, fig. 133, <i>d</i>	178
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Fragments . . . . .	Esperanza Phase	Early?	Kidder, Jennings, and Shook, 1946, fig. 142	178
<b>KANKI</b>				
Lintel . . . . .	. . . . .	Late Classic, Dynamic Phase?	Fig. 95, <i>g</i>	167
<b>KAYAL</b>				
Jamb in Campeche Museum . . . . .	. . . . .	Late Classic, Dynamic Phase?	Fig. 99, <i>b</i>	166
Jambs in church . . . . .	. . . . .	Decadent	Fig. 99, <i>c</i>	166
<b>KEUIC</b>				
Stela 1 . . . . .	. . . . .	non-Classic	Fig. 90, <i>c</i>	163
<b>KUMCHE (see Ichmul)</b>				
. . . . .	. . . . .	. . . . .	. . . . .	....
<b>LABNA</b>				
Altar and panels . . . . .	. . . . .	Late Yucatan variant	Fig. 93, <i>e-h</i>	169
<b>LACANJA</b>				
Stela 7 . . . . .	9. 8. 0. 0. 0	9. 9.10. 0. 0 $\pm 2$ katuns	Fig. 44, <i>b</i>	117,118
<b>LEYDEN PLATE</b>				
. . . . .	8.14. 5. 0. 0?	9. 3. 0. 0. 0 $\pm 2$ katuns	Fig. 41, <i>a</i>	105
<b>LOLTUN</b>				
Rock carving . . . . .	. . . . .	8.14. 0. 0. 0 $\pm ?$	Fig. 38, <i>b</i>	154
<b>LA MAR</b>				
Stela 1 . . . . .	9.17.15. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 36	148
Stela 2 . . . . .	9.18.15. 0. 0	9.17.10. 0. 0 $\pm 2$ katuns	Fig. 73, <i>a</i>	148
<b>MAXCANU</b>				
Column . . . . .	. . . . .	Yucatan, Quality X	Fig. 100, <i>f</i>	167
Panel . . . . .	. . . . .	Late Yucatan, variant	Fig. 103, <i>e</i>	169
<b>MAYAPAN</b>				
Columnar figures . . . . .	. . . . .	non-Classic?	Fig. 105, <i>d-f</i>	169
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<b>MIACATLAN</b>				
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LA MILPA				
Stela 7 . . . . .	9.17.10. 0. 0	9.16.10. 0. 0 $\pm 2$ katuns	Fig. 64,c	142
MORAL ( <i>see</i> Morales) . . . . .	. . . . .	. . . . .	. . . . .	...
MORALES				
Stela 1 . . . . .	9.16. 5. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	Andrews, 1943, fig. 26	148
Stela 3 . . . . .	. . . . .	9.16. 0. 0. 0 $\pm 2$ katuns	Pavon Abreu, 1945, fig. 9	148
MOTUL DE SAN JOSE				
Stela 2 . . . . .	(10. 0. 0. 0. 0???)	9.17. 0. 0. 0 $\pm 2$ katuns	Maler, 1910, pl. 45	142
MULUCH SECA				
Panel . . . . .	. . . . .	non-Classic	Fig. 104,c	169
LA MUNECA				
Stela 5 . . . . .	(9.17.10. 0. 0?)	10. 1. 0. 0. 0 $\pm 2$ katuns	Fig. 78,c	152
Stela 13 . . . . .	10. 2.10. 0. 0	10. 0.10. 0. 0 $\pm ?$	Ruppert and Denison, 1943, pl. 54	152
NA BALUM WINIK ( <i>see</i> Lacanja)	. . . . .	. . . . .	. . . . .	....
NAACHTUN				
Stela 1 . . . . .	(9. 9.10. 0. 0)	Transition?	Morley, 1937-38, vol. 5, pl. 149	112,113
Stela 2 . . . . .	9.10.10. 0. 0	Late Classic, Ornate Phase?	<i>Ibid.</i> , pl. 154	115,125
Stela 3 . . . . .	(9. 5. 0. 0. 0?)	non-Classic?	<i>Ibid.</i> , pl. 148	110,112
Stela 4 . . . . .	(9.14.10. 0. 0???)	Late Classic, Ornate Phase	<i>Ibid.</i> , pl. 150	125
Stela 5 . . . . .	(9.13. 0. 0. 0???)	9.17. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , pl. 148	....
Stela 6 . . . . .	(9.18. 0. 0. 0??)	Late Classic, Ornate Phase?	<i>Ibid.</i> , pl. 152	125
Stela 9 . . . . .	(9.15. 0. 0. 0?)	Late Classic	<i>Ibid.</i> , pl. 151	125
Stela 18 . . . . .	(9.11. 0. 0. 0??)	9.15.10. 0. 0 $\pm ?$	<i>Ibid.</i> , pl. 153	125
Stela 21 . . . . .	(9.12.16.17.12??)	Late Classic	<i>Ibid.</i> , pl. 153	115
NAKUM				
Stela D . . . . .	(10. 1. 0. 0. 0?)	Late Classic, Decadent Phase	Tozzer, 1913, pl. 42	152
NARANJO				
Stela 1 . . . . .	9.13.10. 0. 0?	9.14. 0. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 88	126
Stela 2 . . . . .	9.14. 5. 0. 0?	9.14. 0. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 20	127
Stela 3 . . . . .	(9.14. 1. 3. 19?)	9.14. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 20	127
Stela 4 . . . . .	(9.12. 5. 0. 0?) 9.14. 5. 0. 0?	Late Classic, variant?	Morley, 1937-38, vol. 5, pl. 90	141
Stela 5 . . . . .	(9.13. 7. 3. 8??)	Late Classic, variant?	Maler, 1908a, pl. 21	141
Stela 6 . . . . .	(9.18. 0. 0. 0??)	9.14.10. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 21	140
Stela 7 . . . . .	9.19. 0. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 22	141
Stela 8 . . . . .	9.18.10. 0. 0	9.18.10. 0. 0 $\pm 2$ katuns	Fig. 64,a	141
Stela 9 . . . . .	(9.10.10. 0. 0??)	10. 0.10. 0. 0 $\pm 2$ katuns	Fig. 71,b	151
Stela 11 . . . . .	(9.11.10. 0. 0??)	9.14. 0. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 30	127,140
Stela 12 . . . . .	9.18.10. 0. 0	10. 0.10. 0. 0 $\pm 2$ katuns	Fig. 64,b	141
Stela 13 . . . . .	9.17.10. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Fig. 62,b	140
Stela 14 . . . . .	9.18. 0. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	Fig. 53,b	140
Stela 17 . . . . .	(9.12.10. 0. 0???)	Early Classic?	Morley, 1937-38, vol. 5, pl. 89	110
Stela 19 . . . . .	9.17.10. 0. 0	9.16.10. 0. 0 $\pm 2$ katuns	Fig. 71,a	140
Stela 20 . . . . .	(9.18.10. 0. 0?)	9.14. 0. 0. 0 $\pm 2$ katuns	Fig. 55,a	126,127
Stela 21 . . . . .	9.13.15. 0. 0	9.14.10. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 35	125
Stela 22 . . . . .	9.13.10. 0. 0	9.14. 0. 0. 0 $\pm 2$ katuns	Fig. 55,b	125,127
Stela 23 . . . . .	9.14. 0. 0. 0	9.15. 0. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 37	125
Stela 24 . . . . .	9.13.10. 0. 0	9.13. 0. 0. 0 $\pm 2$ katuns	Fig. 49,b	125,127
Stela 25 . . . . .	9. 9. 5. 0. 0?	9. 6.10. 0. 0 $\pm ?$	Fig. 44,a	113
Stela 28 . . . . .	9.14.10. 0. 0?	9.15. 0. 0. 0 $\pm 2$ katuns	Fig. 62,a	125,140
Stela 29 . . . . .	9.14. 5. 0. 0	9.13. 0. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 41	125
Stela 30 . . . . .	9.14. 5. 0. 0	9.14. 0. 0. 0 $\pm 2$ katuns	Fig. 63,a	127,140
Stela 31 . . . . .	9.14.10. 0. 0	9.14. 0. 0. 0 $\pm 2$ katuns	Maler, 1908a, pl. 43	125

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<b>NARANJO—Continued</b>				
Stela 32 . . . . .	9.19.10. 0. 0?	10. 2. 0. 0. 0 ±?	Maler, 1908a, pl. 44	151
Stela 33 . . . . .	9.17.10. 0. 0?	9.16. 0. 0. 0 ±2 katuns	Fig. 63,b	140
Stela 34 . . . . .	(9.11. 0. 0. 0??)	Late Classic	Morley, 1937-38, vol. 5, pl. 88	115
Stela 35 . . . . .	9.18.10. 0. 0	10. 2. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 92	141
<b>OXKINTOK</b>				
Stela 2 . . . . .	. . . . .	Late Yucatan, variant	Fig. 87,c	161
Stela 3 . . . . .	(10. 1. 0. 0. ?) <sup>1</sup>	Late Yucatan, variant	Fig. 87,a	161
Stela 4 . . . . .	. . . . .	Early Classic?	Fig. 86,e	110,161
Stela 9 . . . . .	. . . . .	Late Yucatan, variant	Fig. 87,d	161
Stela 10 . . . . .	. . . . .	Late Yucatan (Quality X)	Fig. 88,c	161
Stela 11 . . . . .	. . . . .	Late Yucatan, decadent?	Fig. 88,d	162
Stela 12 . . . . .	. . . . .	non-Classic	Fig. 88,b	162
Stela 14 . . . . .	. . . . .	Late Classic, variant?	Fig. 86,g	161
Stela 18 . . . . .	. . . . .	Late Classic?	Fig. 86,c	....
Stela 19 . . . . .	. . . . .	Late Yucatan (Quality X)	Fig. 81,c	161
Stela 20 . . . . .	(9.16. 0. 0. 0?) <sup>1</sup>	Late Classic, Dynamic Phase?	Fig. 86,f	161
Stela 21 . . . . .	. . . . .	Late Yucatan, variant	Fig. 88,a	161
Stela 24 . . . . .	. . . . .	Late Classic, variant?	Fig. 86,d	161
Stela 25 . . . . .	. . . . .	Late Yucatan, variant	Fig. 87,b	161
Stela 26 . . . . .	. . . . .	Late Classic, and Quality X?	Fig. 81,d	161
Structure 3C7 . . . . .	. . . . .	Late Classic and non-Classic	Figs. 96,d-g; 97,a,b	167,168
Structure 3C11 . . . . .	. . . . .	Late Yucatan, variant	Fig. 95,h	....
(Xkupaloma) lintels . . . . .	. . . . .	Decadent?	Fig. 98,a,b	169
<b>OXPEMUL</b>				
Stela 9 . . . . .	9.16. 0. 0. 0	Late Classic	Ruppert and Denison, 1943, pl. 55	129
Stela 10 . . . . .	(9.16. 0. 0. 0)	Late Classic	<i>Ibid.</i> , pl. 55	129
Stela 12 . . . . .	9.15. 0. 0. 0	9.16. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 56	129
Stela 15 . . . . .	. . . . .	10. 0. 0. 0. 0 ±2 katuns	Fig. 79,c	152
Stela 17 . . . . .	9.15. 0. 0. 0	9.16.10. 0. 0 ±2 katuns	Ruppert and Denison, 1943, pl. 56	129
<b>PALENQUE</b>				
Beau Relief . . . . .	. . . . .	Late Classic	. . . . .	....
House A, piers . . . . .	(9. 8.16.15.13??)	9.14.10. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 4, pls. 8, 9	137
House C, piers . . . . .	. . . . .	9.12. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 28	137
House D, piers . . . . .	. . . . .	9.16.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pls. 32, 33	137
House E, panel . . . . .	. . . . .	9.12. 0. 0. 0 ±2 katuns	Fig. 54,b	137
Panel . . . . .	. . . . .	Late Classic, Dynamic Phase	Keleman, 1943, pl. 81	149
Stela 1 . . . . .	(9.13. 0. 0. 0)	Late Classic	Maudslay, 1889-1902, vol. 4, pl. 67	136
Temple of the Cross . . . . .	(9.10.10. 0. 0)	9.14.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pls. 69, 70, 73	137
Temple of the Foliated Cross . . . . .	(9.13. 0. 0. 0)	9.15. 0. 0. 0 ±2 katuns	Fig. 54,a	137
Temple of the Inscriptions . . . . .	(9.13. 0. 0. 0)	9.14. 0. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 4, pls. 53, 54	....
Temple of the Sun . . . . .	9.13. 0. 0. 0?	9.14.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 87	137
<b>EL PALMAR</b>				
Stela 8 . . . . .	9.14.10. 0. 0	9.16. 0. 0. 0 ±2 katuns	Fig. 58,a	128
Stela 10 . . . . .	(9.15.15. 0. 0?) <sup>2</sup>	Late Classic, Ornate Phase	Fig. 59,a	128
Stela 12 . . . . .	. . . . .	Late Classic, Formative Phase?	Fig. 47,d	115,128

<sup>1</sup>See p. 161.  
<sup>2</sup>Thompson.

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<i>EL PALMAR—Continued</i>				
Stela 14 . . . . .	9.19.10. 0. 0	Late Classic, Dynamic Phase?	Fig. 73,c	152
Stela 16 . . . . .	9.18.10. 0. 0?	Late Classic	Fig. 58,b	....
Stela 31 . . . . .	. . . . .	Late Classic	Fig. 59,c	115
Stela 41 . . . . .	(10. 2.15. 0. 0?)	Late Classic	Fig. 59,b	128
<i>PANTALEON</i>				
Monument I . . . . .	. . . . .	non-Classic, late	Thompson, 1948, fig. 10,b	176
<i>PASION DEL CRISTO</i>				
Stela I . . . . .	. . . . .	Late Classic, variant?	Fig. 75,a	143
<i>PECHAL</i>				
Stela I . . . . .	. . . . .	Late Classic, decadent Phase	Ruppert and Denison, 1943, pl. 60	143
Stela 3 . . . . .	. . . . .	Late Classic?	<i>Ibid.</i> , pl. 60	143
<i>PICH CORRALCHE</i>				
Panels . . . . .	. . . . .	Late Classic, Decadent Phase?	. . . . .	163
<i>PIEDRAS NEGRAS</i>				
Ball-court panel (Structure K-6) . . . . .	. . . . .	Late Classic, Dynamic Phase	Satterthwaite, 1944, fig. 22	148
Lintel 1 . . . . .	(9.16.10. 0. 0?)	Late Classic, Dynamic Phase?	Maler, 1901, pl. 30	....
Lintel 2 . . . . .	9.11.15. 0. 0?	9.13.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 31	120
Lintel 3 . . . . .	(9.16.10. 0. 0?)	9.17. 0. 0. 0 ±?	Morley, 1937-38, vol. 5, pl. 146	148
Lintel 4 . . . . .	(9.11.15. 0. 0??)	9.13.10. 0. 0 ±2 katuns	Maler, 1901, pl. 32	120
Lintel 5 . . . . .	(9.12. 0. 0. 0???)	Late Classic	Morley, 1937-38, vol. 5, pl. 126	120
Lintel 7 . . . . .	(9.12. 0. 0. 0??)	Late Classic, Formative Phase	<i>Ibid.</i> , pl. 126	120
Lintel 12 . . . . .	(9. 5. 0. 0. 0??)	Early Classic or Formative	Fig. 39,d	110
<i>Miscellaneous Sculptured</i>				
Stone 16 . . . . .	. . . . .	9.17.10. 0. 0 ±2 katuns	Keleman, 1943, pl. 83,a	148
Stela 1 . . . . .	9.13.15. 0. 0	9.13. 0. 0. 0 ±2 katuns	Maler, 1901, pl. 12	135
Stela 2 . . . . .	9.13.15. 0. 0	9.13. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 15	134
Stela 3 . . . . .	9.14. 0. 0. 0	9.15. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 13	135
Stela 4 . . . . .	9.13.10. 0. 0	9.15. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 14	134,135
Stela 5 . . . . .	9.14. 5. 0. 0	9.15.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 15	135
Stela 6 . . . . .	9.12.15. 0. 0	9.13.10. 0. 0 ±2 katuns	Fig. 52,b	119
Stela 7 . . . . .	9.14.10. 0. 0	9.13. 0. 0. 0 ±2 katuns	Fig. 53,c	135
Stela 8 . . . . .	9.14.15. 0. 0? <sup>1</sup>	9.14.10. 0. 0 ±2 katuns	Fig. 47,d	135
Stela 9 . . . . .	9.15. 5. 0. 0	9.14. 0. 0. 0 ±2 katuns	Maler, 1901, pl. 18	135
Stela 10 . . . . .	9.15.10. 0. 0	9.15. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 19	135,136
Stela 11 . . . . .	9.15. 0. 0. 0	9.15.10. 0. 0 ±2 katuns	Fig. 52,c	135,136
Stela 12 . . . . .	9.18. 5. 0. 0?	9.17. 0. 0. 0 ±2 katuns	Fig. 70,c	148
Stela 13 . . . . .	9.17. 0. 0. 0	9.16.10. 0. 0 ±2 katuns	Fig. 70,b	148
Stela 14 . . . . .	(9.16.15. 0. 0?) <sup>2</sup>	9.15.10. 0. 0 ±2 katuns	Fig. 48,d	148
Stela 15 . . . . .	9.17.15. 0. 0?	9.16. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 139	148
Stela 25 . . . . .	9. 8.15. 0. 0?	9. 8.10. 0. 0 ±2 katuns	Fig. 52,a	118,119
Stela 26 . . . . .	9. 9.15. 0. 0?	9.10. 0. 0. 0 ±2 katuns	Fig. 53,a	118,119
Stela 31 . . . . .	9.10. 5. 0. 0?	9.11. 0. 0. 0 ±?	Maler, 1901, pl. 25	120
Stela 32 . . . . .	9.10.15. 0. 0	9.11. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 26	120
Stela 33 . . . . .	9.10.10. 0. 0?	9.13. 0. 0. 0 ±2 katuns	Fig. 45,a	120
Stela 34 . . . . .	9.11. 0. 0. 0?	9.12. 0. 0. 0 ±2 katuns	Fig. 45,b	120
Stela 35 . . . . .	9.11.10. 0. 0?	9.12. 0. 0. 0 ±2 katuns	Fig. 53,b	119,120
Stela 40 . . . . .	9.15.15. 0. 0	9.15. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 135	135,136

<sup>1</sup>Thompson, 1944a.  
<sup>2</sup>Thompson, 1943.

<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
PIEDRAS NEGRAS— <i>Continued</i>				
Throne I . . . . .	9.17.15. 0. 0	9.16. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 40	148
POLOL				
Altar I . . . . .	(Early Period)	Early Classic	Fig. 36, <i>d</i>	110
Stela 2 . . . . .	(9.19. 0. 0. 0???)	9.18. 0. 0. 0 ±2 katuns	Lundell, 1934, pl. 2	142
Stela 3 . . . . .	(9.17. 0. 0. 0???)	9.19. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 4	142
Stela 4 . . . . .	(9.19. 0. 0. 0???)	9.13.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 3	142
PUSILHA				
Stela C . . . . .	(9. 9. 0. 0. 0???)	9.13.10. 0. 0 ±?	Morley, 1937-38, vol. 5, pl. 166	117
Stela E . . . . .	9.15. 0. 0. 0?	Late Classic	<i>Ibid.</i> , pl. 166	150
Stela K . . . . .	9.12. 0. 0. 0?	Late Classic	<i>Ibid.</i> , pl. 166	117
Stela P . . . . .	(9.10.15. 0. 0)	Late Classic	<i>Ibid.</i> , pl. 166	117
Stela R . . . . .	(9.18. 0. 0. 0???)	Late Classic	<i>Ibid.</i> , pl. 161	150
QUIRIGUA				
Altar L . . . . .	. . . . .	Late Classic, variant	<i>Ibid.</i> , pl. 173	144
Altar Q . . . . .	. . . . .	Late Classic, Dynamic Phase?	<i>Ibid.</i> , pl. 171	145
Altar R . . . . .	. . . . .	Late Classic, Dynamic Phase?	<i>Ibid.</i> , pl. 171	145
Stela A . . . . .	9.17. 5. 0. 0	9.18. 0. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 2, pls. 4, 8	145
Stela C . . . . .	9.17. 5. 0. 0	9.18. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pls. 16,20	145
Stela D . . . . .	9.16.15. 0. 0	9.17. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pls. 21, 22	145
Stela E . . . . .	9.17. 0. 0. 0	9.17. 0. 0. 0 ±2 katuns	Fig. 65; Maudslay, 1889-1902, vol. 2, pls. 27, 28	144,145
Stela F . . . . .	9.16.10. 0. 0	9.17. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pls. 34, 35	144,145
Stela H . . . . .	9.16. 0. 0. 0	9.17. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 178D	131
Stela I . . . . .	9.18.10. 0. 0	9.17. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 172	145
Stela J . . . . .	9.16. 5. 0. 0	9.17.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 178D	145
Stela K . . . . .	9.18.15. 0. 0	9.19. 0. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 2, pls. 47, 48	145
Stela S . . . . .	(9.15.15. 0. 0)	. . . . .	Morley, 1937-38, vol. 5, pl. 170	131
Stela U . . . . .	. . . . .	. . . . .	. . . . .	131
Zoomorph B and altar . .	9.17.10. 0. 0	9.18. 0. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 2, pl. 9-1a	145
Zoomorph O and altar . .	9.18. 0. 0. 0?	9.17. 0. 0. 0 ±?	Morley, 1937-38, vol. 5, pl. 173; vol. 3, frontispiece	144,145
Zoomorph P and altar . .	9.18. 5. 0. 0?	9.17.10. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 2, pls. 54-57; Morley, 1937- 38, vol. 4, frontispiece	145
RIO BEC V				
Stela 5 . . . . .	. . . . .	Late Classic, Dynamic Phase?	Ruppert and Denison, 1943, pl. 55	142
Stela 6 . . . . .	. . . . .	Late Classical, Dynamic Phase?	Fig. 73, <i>b</i>	142
SALINAS DE LOS NUEVE CERROS . . . . .	. . . . .	Late Classic, Formative Phase	Seler, 1895, pl. 1	117
SAN ISIDRO PIEDRA PARADA				
Stela I . . . . .	. . . . .	non-Classic, early	Fig. 109, <i>b</i>	176
SAN MIGUEL (COZUMEL)				
Column . . . . .	. . . . .	non-Classic	Lothrop, 1924, fig. 165	157
SAN PEDRO (DZITBALCHE)				
Jamb and column . . . . .	. . . . .	Late Yucatan, variant	Fig. 98, <i>e,f</i>	168
SANTA ELENA POCO UINIC				
Stela I . . . . .	. . . . .	9.18. 0. 0. 0 ±?	Palacios, 1928, figs. 84-88	149
SANTA LUCIA COTZUMALHUAPA				
Sculpture . . . . .	. . . . .	non-Classic, late	Thompson, 1948, figs. 2-17	175,176

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SANTA MARGARITA				
Stela I . . . . .	. . . . .	non-Classic, early	Fig. 109, <i>a</i>	176
SANTA ROSA XTAMPAK				
Palace . . . . .	. . . . .	Late Classic, Dynamic Phase?	Fig. 94, <i>a,b</i>	165
Stela 1 . . . . .	. . . . .	Decadent	Fig. 86, <i>b</i>	160
Stela 2 . . . . .	. . . . .	Late Classic, variant?	Fig. 85, <i>a</i>	159
Stela 3 . . . . .	. . . . .	Late Classic, variant?	Fig. 85, <i>d</i>	159,160
Stela 4 . . . . .	. . . . .	Late Classic, variant?	Fig. 85, <i>c</i>	160
Stela 5 . . . . .	9.16. 0. 0. 0?	Late Classic, Ornate Phase?	Fig. 80, <i>b</i>	138,159
Stela 7 . . . . .	9.16. 0. 0. 0?	Late Classic, Dynamic Phase?	Fig. 86, <i>a</i>	138,159
Stela 8 . . . . .	. . . . .	Late Classic, variant?	Fig. 85, <i>b</i>	159
SANTO TON				
Stela I . . . . .	. . . . .	9. 9. 0. 0. 0 ±?	Blom and La Farge, 1926-27, vol. 2, fig. 261	122
SAYIL				
Stela 1 . . . . .	. . . . .	Late Classic?	Eroded	162
Stela 2 . . . . .	. . . . .	Late Yucatan, variant	Fig. 90, <i>a</i>	162
Stela 3 . . . . .	. . . . .	Decadent?	Fig. 89, <i>a</i>	162
Stela 4 . . . . .	. . . . .	Decadent	Fig. 81, <i>a</i>	163
Stela 5 . . . . .	. . . . .	Decadent?	Fig. 89, <i>b</i>	162
Stela 6 . . . . .	(9.19. 0. 0. 0?) <sup>1</sup>	Late Classic, Dynamic Phase?	Fig. 80, <i>c</i>	162
Stela 7 . . . . .	. . . . .	Late Yucatan, variant	Fig. 90, <i>b</i>	162
Stela 9 . . . . .	. . . . .	non-Classic	Fig. 90, <i>d</i>	163
Structure 4BI . . . . .	. . . . .	Late Yucatan, variant	Fig. 102	168
SEIBAL				
Stela I . . . . .	10. 2. 0. 0. 0?	10. 1. 0. 0. 0 ±2 katuns	Fig. 78, <i>b</i>	152,153
Stela 2 . . . . .	(10. 0. 0. 0. 0???)	9.18. 0. 0. 0 ±?	Maler, 1908, pl. 4	153
Stela 3 . . . . .	(9.19. 0. 0. 0???)	9.19. 0. 0. 0 ±?	Fig. 78, <i>a</i>	153
Stela 5 . . . . .	(9.17.10. 0. 0???)	10. 0. 0. 0. 0 ±2 katuns	Maler, 1908, pl. 5	145
Stela 7 . . . . .	9.18.10. 0. 0	10. 0. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 5	145
Stela 8 . . . . .	10. 1. 0. 0. 0	10. 1. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 7	152
Stela 9 . . . . .	10. 1. 0. 0. 0	10. 0. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 10	152
Stela 10 . . . . .	10. 1. 0. 0. 0	10. 0.10. 0. 0 ±2 katuns	Fig. 77	152
Stela 11 . . . . .	10. 1. 0. 0. 0	10. 0.10. 0. 0 ±2 katuns	Maler, 1908, pl. 9	152
STEPHENS ( <i>see</i> Lacanja)	. . . . .	. . . . .	. . . . .	. . . . .
TAJIN				
Stela . . . . .	. . . . .	non Classic, late?	Fig. 110, <i>d</i>	178
TAYASAL				
Stela I . . . . .	(9.17. 0. 0. 0???)	Late Classic, variant?	Morley, 1937-38, vol. 5, pl. 157	152
TEMAX				
Skeleton figure . . . . .	. . . . .	non-Classic	Fig. 105, <i>c</i>	169
TENAM				
Stela I . . . . .	. . . . .	9.17. 0. 0. 0 ±2 katuns	Blom and La Farge, 1926-27, vol. 2, figs. 353, 354	149
Stela 2 . . . . .	. . . . .	Late Classic	<i>Ibid.</i> , fig. 355	150
TIKAL				
Altar of Stela A7 . . . . .	. . . . .	Early Classic?	Morley, 1937-38, vol. 5, pl. 71	108
Altar of Stela A8 . . . . .	. . . . .	Early Classic?	<i>Ibid.</i> , pl. 71	108
Altar V . . . . .	9.14. 0. 0. 0?	Late Classic	Maler, 1911, pl. 28	124
Altar VIII . . . . .	9.16. 0. 0. 0?	Late Classic, Dynamic Phase	Fig. 61, <i>a</i>	125
Stela I . . . . .	(Very early Baktun 9)	9. 0. 0. 0. 0 ±2 katuns	Fig. 41, <i>b</i>	106
Stela 2 . . . . .	(Very early Baktun 9)	9. 3.10. 0. 0 ±2 katuns	Maler, 1911, pl. 14	106

<sup>1</sup>See p. 162.

Monument	Date	Style	Illustration	Page
TIKAL—Continued				
Stela 3 . . . . .	9. 2.15. 0. 0	9. 4. 0. 0. 0 $\pm 2$ katuns	Maler, 1911, pl. 15	107
Stela 4 . . . . .	(9. 1.10. 0. 0???)	Early Classic?	<i>Ibid.</i> , pl. 16	110,111
Stela 5 . . . . .	9.15.15. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 17	124,125
Stela 6 . . . . .	9. 4. 0. 0. 0?	9. 3. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 70	107
Stela 7 . . . . .	9. 3. 0. 0. 0	9. 3. 0. 0. 0 $\pm 2$ katuns	Morley, 1937-38, pl. 69	107
Stela 8 . . . . .	(9. 0.10. 0. 0??)	9. 3.10. 0. 0 $\pm 2$ katuns	Maler, 1911, pl. 19	107
Stela 9 . . . . .	9. 2. 0. 0. 0	9. 3.10. 0. 0 $\pm 2$ katuns	Fig. 39, <i>a</i>	107
Stela 10 . . . . .	(9. 3.13. 0. 0??)	9. 8. 0. 0. 0 $\pm 2$ katuns	Fig. 47, <i>c</i>	113
Stela 11 . . . . .	10. 2. 0. 0. 0	10. 1. 0. 0. 0 $\pm 2$ katuns	Maler, 1911, pl. 22	150
Stela 12 . . . . .	(9. 4.13. 0. 0???)	Late Classic, Formative Phase?	<i>Ibid.</i> , pl. 24	113
Stela 13 . . . . .	(9. 1. 0. 0. 0??)	9. 2.10. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 25	107
Stela 15 . . . . .	9. 3. 0. 0. 0?	9. 3. 0. 0. 0 $\pm ?$	Morley, 1937-38, vol. 5, pl. 69	107
Stela 16 . . . . .	9.14. 0. 0. 0	9.15. 0. 0. 0 $\pm 2$ katuns	Maler, 1911, pl. 26	124
Stela 17 . . . . .	(9. 6. 7. ? ?)	. . . . .	Morley, 1937-38, vol. 5, pl. 68	112
Stela 18 . . . . .	(8.19. 0. 0. 0??)	9. 0. 0. 0. 0 $\pm 2$ katuns	Fig. 38, <i>c</i>	105
Stela 19 . . . . .	(9.18. 0. 0. 0?)	Late Classic, Dynamic Phase?	Fig. 60, <i>b</i>	139
Stela 20 . . . . .	9.16. 0. 0. 0	9.15.10. 0. 0 $\pm 2$ katuns	Fig. 60, <i>a</i>	125
Structure 10, lintel . . . . .	9.15.10. 0. 0?	9.16. 0. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 73	125
Temple II (?) lintel . . . . .	. . . . .	Late Classic, Ornate Phase	Maler, 1911, pl. 18	125
Temple IV (?) lintels . . . . .	(9.16. 0. 0. 0?)	9.16.10. 0. 0 $\pm 2$ katuns	Maudslay, 1889-1902, vol. 3, pls. 71, 77	125
TONALA				
Station Stela . . . . .	. . . . .	non-Classic, late?	Palacios, 1928, fig. 24	178
TONINA				
T-5 . . . . .	. . . . .	Late Classic	Blom and La Farge, 1926-27, fig. 221	137
T-9 . . . . .	9.18. 0. 0. 0?	9.17. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , fig. 230	137,138
T-12 . . . . .	. . . . .	9.10.10. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , fig. 234	121
T-13 . . . . .	. . . . .	Late Classic?	<i>Ibid.</i> , fig. 235	137
T-20 . . . . .	. . . . .	9.16.10. 0. 0 $\pm ?$	<i>Ibid.</i> , fig. 242	137,149
T-26 . . . . .	. . . . .	9.11.10. 0. 0 $\pm ?$	<i>Ibid.</i> , fig. 250	121
T-28 . . . . .	. . . . .	9.11. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , fig. 253	121
T-32 . . . . .	. . . . .	Late Classic, Formative Phase	Fig. 47, <i>b</i>	121
T-37 . . . . .	. . . . .	Late Classic	. . . . .	137
TOPOXTE				
Stela 1 . . . . .	(Middle Period??)	Late Classic	Lundell, 1934, pl. 8	150
Stela 2 . . . . .	(Middle Period??)	Late Classic	<i>Ibid.</i> , pl. 8	150
Stela 3 . . . . .	(Middle Period??)	Late Classic?	<i>Ibid.</i> , pl. 9	150
TULUM				
Stela 1 . . . . .	9. 6.10. 0. 0	9. 2. 0. 0. 0 $\pm ?$	Fig. 41, <i>c</i> ; Lothrop, 1924, pl. 1	111,112, 157
Stela 2 . . . . .	. . . . .	Decadent	<i>Ibid.</i> , pl. 1	157
Stela 3 . . . . .	. . . . .	?	<i>Ibid.</i> , fig. 19	157
UAXACTUN				
Altar (Stela 26?) . . . . .	9. 0.10. 0. 0?	9. 2.10. 0. 0 $\pm 2$ katuns	Fig. 39, <i>e</i>	106
Stela 2 . . . . .	9.16. 0. 0. 0?	Late Classic	Morley, 1937-38, vol. 5, pl. 62	125
Stela 3 . . . . .	9. 3.15. 0. 0	9. 1. 0. 0. 0 $\pm 2$ katuns	Fig. 38, <i>d</i>	106,107
Stela 4 . . . . .	(8.18. 0. 0. 0?)	8.17. 0. 0. 0 $\pm ?$	Morley, 1937-38, vol. 5, pl. 56	103
Stela 5 . . . . .	(9. 3. 0. 0. 0??) <sup>1</sup>	8.17. 0. 0. 0 $\pm ?$	Fig. 38, <i>a</i>	103,104
Stela 6 . . . . .	(9. 9. 6. 2. 3??)	Early Classic?	Fig. 39, <i>a</i>	112,113
Stela 7 . . . . .	9.19. 0. 0. 0	9.19. 0. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 65	139
Stela 8 . . . . .	Last Quarter of Baktun 9	Late Classic	<i>Ibid.</i> , pl. 63	139

<sup>1</sup>See p. 104.



<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
<b>UAXACTUN—Continued</b>				
Stela 9 . . . . .	8.14.15. 0. 0	8.15. 0. 0. 0 ±?	Fig. 37, <i>a</i>	103
Stela 10 . . . . .	(Late Baktun 8 or Early Baktun 9)	8.15. 0. 0. 0 ±?	Fig. 36, <i>e,f</i>	103
Stela 14 . . . . .	(9.19. 0. 0. 0???)	9.14. 0. 0. 0 ±?	Morley, 1937-38, vol. 5, pl. 64	125
Stela 15 . . . . .	. . . . .	Early Classic?	<i>Ibid.</i> , pl. 57	103
Stela 16 . . . . .	(Late Baktun 8)	Early Classic	<i>Ibid.</i> , pl. 57	103
Stela 18 . . . . .	8.16. 0. 0. 0	Early Classic	<i>Ibid.</i> , pl. 54	103
Stela 19 . . . . .	8.16. 0. 0. 0	8.15. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 55	103
Stela 20 . . . . .	9. 3. 0. 0. 0?	9. 4. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 61	106,107
Stela 22 . . . . .	9. 3.10. 0. 0	Early Classic?	<i>Ibid.</i> , pl. 59	107
Stela 23 . . . . .	(9. 2. 0. 0. 0)	. . . . .	<i>Ibid.</i> , pl. 59	....
Stela 26 . . . . .	9. 0.10. 0. 0	. . . . .	. . . . .	107
Structure E-VII-sub, masks	. . . . .	pre-Classic?	Fig. 36, <i>a,b</i>	102
<b>UCANAL</b>				
Stela 2 . . . . .	(10. 0. 0. 0. 0???)	Late Classic	Morley, 1937-38, vol. 5, pl. 93	150,151
Stela 3 . . . . .	(10. 0.10. 0. 0???)	9.16. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 93	150,151
Stela 4 . . . . .	10. 1. 0. 0. 0	9.19.10. 0. 0 ±2 katuns	Fig. 76, <i>a</i>	150
<b>UOLANTUN</b>				
Stela 1 . . . . .	8.18.15. 0. 0	8.17. 0. 0. 0 ±2 katuns	Fig. 37, <i>b</i>	104
<b>UXMAL</b>				
Stela 2 . . . . .	. . . . .	Late Classic, Decadent Phase?	Fig. 91, <i>b</i>	163,167
Stela 3 . . . . .	. . . . .	Late Classic, variant	Fig. 80, <i>d</i>	163
Stela 4 . . . . .	(9.18. 0. 0. 0?) <sup>1</sup>	Late Classic, variant	Fig. 91, <i>a</i>	163
Stela II . . . . .	. . . . .	Late Classic	Fig. 92, <i>a</i>	164
Stela 14 . . . . .	. . . . .	Toltec Period?	Fig. 92, <i>b</i>	164
<b>UXUL</b>				
Stela 2 . . . . .	(9 9. 0. 0. 0)	Late Classic, Formative Phase	Fig. 42, <i>e</i>	114
Stela 4 . . . . .	. . . . .	Late Classic	Ruppert and Denison, 1943, pl. 58	114
Stela 6 . . . . .	9.12. 0. 0. 0?	9.11. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 58	114
Stela II . . . . .	. . . . .	9.16.10. 0. 0 ±?	<i>Ibid.</i> , pl. 60	142
Stela 13 . . . . .	9.11.10. 0. 0	9.14. 0. 0. 0 ±?	<i>Ibid.</i> , pl. 60	114
<b>XCALUMKIN</b>				
Glyphic Group, North Building . . . . .	9.16.10. 0. 0	9.15. 0. 0. 0 ±2 katuns	Fig. 94, <i>e-g</i>	166
Glyphic Group, South Building . . . . .	9.16. 0. 0. 0	9.15. 0. 0. 0 ±2 katuns	Fig. 95, <i>a-c,e,f</i>	166
Initial Series Building . . . . .	9.16. 0. 0. 0	9.16. 0. 0. 0 ±2 katuns	Fig. 94, <i>c,d</i>	138,166
South Court lintel . . . . .	9.16. 0. 0. 0	Yucatan, variant?	Fig. 95, <i>d</i>	....
<b>XCOCHA</b>				
Glyphic Band Building . . . . .	. . . . .	Late Classic, and Quality X	Fig. 100, <i>a</i>	167
Roof-crest Building . . . . .	. . . . .	Late Classic, variant?	Fig. 99, <i>d</i>	166
Valley Group Building . . . . .	. . . . .	Late Classic, variant?	Fig. 99, <i>e</i>	166
<b>XCOCHKAX</b>				
Glyphic Lintel Building . . . . .	. . . . .	Late Yucatan, variant?	Fig. 98, <i>c,d</i>	168
<b>XCULOC</b>				
Sculptured Columns Building . . . . .	. . . . .	Late Yucatan, variant?	Fig. 101	168
<b>XCULOC PUEBLA</b>				
Atlantean . . . . .	. . . . .	non-Classic	Fig. 95, <i>i</i>	168
<b>XMAKABATUN</b>				
Stela 3 . . . . .	(Beginning of last quarter of Baktun 9)	9.19. 0. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pl. 81	151
Stela 4 . . . . .	(Beginning of last quarter of Baktun 9)	10. 0. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 81	151

<sup>1</sup>See p. 163.

<i>Monument</i>	<i>Date</i>	<i>Style</i>	<i>Illustration</i>	<i>Page</i>
<b>XULTUN</b>				
Stela 1 . . . . .	(10. 1. 0. 0. 0???)	Late Classic	Morley, 1937-38, vol. 5, pl. 78	150
Stela 2 . . . . .	(9.13. 0. 0. 0???)	. . . . .	<i>Ibid.</i> , pl. 78	125
Stela 3 . . . . .	10. 1.10. 0. 0	10. 1.10. 0. 0 $\pm 2$ katuns	Fig. 76, <i>b</i>	151
Stela 4 . . . . .	(9.11. 0. 0. 0?)	9.17.10. 0. 0 $\pm ?$	Morley, 1937-38, vol. 5, pl. 76	139
Stela 5 . . . . .	(9.12. 0. 0. 0)	9.18. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , pl. 76	139
Stela 6 . . . . .	(9. 3.17. 0. 0?)	Early Classic?	<i>Ibid.</i> , pl. 74	110
Stela 7 . . . . .	(9. 7.10. 0. 0)	Early Classic?	<i>Ibid.</i> , pl. 77	110,112
Stela 8 . . . . .	(9. 8.10. 0. 0???)	10. 2. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 77	139
Stela 10 . . . . .	10. 3. 0. 0. 0	10. 1. 0. 0. 0 $\pm 2$ katuns	Fig. 76, <i>c</i>	151
Stela 11 . . . . .	(9. 5. 7. 0. 0?)	Early Classic?	Morley, 1937-38, vol. 5, pl. 75	112
Stela 12 . . . . .	(Second quarter of Baktun 9)	8.15. 0. 0. 0 $\pm 2$ katuns	Fig. 37, <i>c</i>	104,105
Stela 13 . . . . .	(9.18. 0. 0. 0???)	Early Classic	Morley, 1937-38, vol. 5, pl. 77	110
Stela 15 . . . . .	9.14. 0. 0. 0?	Late Classic	<i>Ibid.</i> , pl. 77	125
Stela 18 . . . . .	(1st quarter of Baktun 9)	9.12. 0. 0. 0 $\pm ?$	Fig. 43, <i>a</i>	114
Stela 19 . . . . .	(1st quarter of Baktun 9)	Late Classic	Morley, 1937-38, vol. 5, pl. 78	114,115
Stela 20 . . . . .	(1st quarter of Baktun 9)	Early Classic	<i>Ibid.</i> , pl. 74	110
Stela 21 . . . . .	(9.14.10. 0. 0?)	9.11. 0. 0. 0 $\pm 2$ katuns	Fig. 43, <i>b</i>	114
<b>YALTITUD</b>				
Stela 1 . . . . .	(Great Period)	Late Classic	Morley, 1937-38, vol. 2, p. 203	146,150
<b>YAXCHILAN</b>				
Lintels ( <i>see</i> Structures) . . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Stela 1 . . . . .	(9.16. 6. 0. 0???)	9.18. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , vol. 5, pl. 107	147
Stela 2 . . . . .	(9. 9. 0. 0. 0???)	. . . . .	<i>Ibid.</i> , pl. 72	118
Stela 3 . . . . .	(9.16.10. 0. 0???)	9.16.10. 0. 0 $\pm 2$ katuns	Fig. 67	146
Stela 4 . . . . .	(9.16.10. 0. 0???)	9.17. 0. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 70	146
Stela 5 . . . . .	(9.13.10. 0. 0???)	9.17.10. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 101	147
Stela 6 . . . . .	(9.11. 3.10.13)	9.14. 0. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 71	118
Stela 7 . . . . .	(9.16.10. 0. 0???)	9.15.10. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 100	146
Stela 8 . . . . .	(Early Great Period)	Late Classic	<i>Ibid.</i> , pl. 100	134
Stela 9 . . . . .	(Middle Period)	9.15. 0. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 72	132,134
Stela 10 . . . . .	(9.16.15. 0. 0???)	9.16.10. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 73; Morley, 1937-38, vol. 5, pl. 178H	146
Stela 11 . . . . .	9.16. 5. 0. 0	9.17. 0. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 74	146
Stela 13 . . . . .	(9.16. 1. 0. 0???)	9.16. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , pl. 72	146
Stela 14 . . . . .	9.4.10. 0. 0	9.3.10. 0. 0 $\pm 2$ katuns	Morley, 1937-38, vol. 5, pl. 103	109
Stela 15 . . . . .	(9.12. 8.14. 1???)	9.14. 0. 0. 0 $\pm ?$	Maler, 1903, pl. 79	132,133
Stela 16 . . . . .	(2nd quarter of Baktun 9)	9.19. 0. 0. 0 $\pm ?$	Morley, 1937-38, vol. 5, pl. 104	146
Stela 17 . . . . .	(9.13. 0. 0. 0???)	10. 0.10. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 178H	147
Stela 18 . . . . .	(9.12. 0. 0. 0???)	9.16.10. 0. 0 $\pm 2$ katuns	Maler, 1903, pl. 77	146
Stela 19 . . . . .	(9.12.10. 0. 0???)	9.14. 0. 0. 0 $\pm ?$	<i>Ibid.</i> , pl. 77	132,133
Stela 20 . . . . .	(9.12. 0. 0. 0???)	9.18. 0. 0. 0 $\pm ?$	Fig. 74	146
Stela 23 . . . . .	(first half of Middle Period)	Late Classic	Morley, 1937-38, vol. 5, pl. 178A	132,133
Stela 27 . . . . .	9. 4. 0. 0. 0	9. 2.10. 0. 0 $\pm 2$ katuns	Fig. 39, <i>c</i>	109
Stela 30 . . . . .	(Early Great Period)	Late Classic	Morley, 1937-38, vol. 2, fig. 80	134
Structure 1 (Lintels 5,6,7,8)	(9.11. 0. 0. 0???)	9.16.10. 0. 0 $\pm 2$ katuns	Maler, 1903, pls. 49-52	147
Structure 2 (Lintel 9)	(9.12.15. 0. 0???)	9.17. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pl. 53	146,147
Structure 12 (Lintels 36,48)	(9. 5. 0. 0. 0???)	9. 9. 0. 0. 0 $\pm ?$	Morley, 1937-38, vol. 5, pl. 113	109,147
Structure 13 (Lintels 32,33,50)	(9.10.17. 0.13???)	9.17. 0. 0. 0 $\pm 2$ katuns	<i>Ibid.</i> , pls. 111, 114	147

MONUMENTS COVERED IN THIS STUDY

Monument	Date	Style	Illustration	Page
<i>YAXCHILAN—Continued</i>				
Structure 16 (Lintels 38,39, 40) . . . . .	(9.15.10. 0. 0??)	9.17.10. 0. 0 ±2 katuns	Maler, 1903, pl. 65	147
Structure 20 (Lintels 12,13, 14) . . . . .	(9.15.10. 0. 0??)	10. 0.10. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 55; Morley, 1937-38, vol. 5, pl. 109	147
Structure 21 (Lintels 15,16, 17) . . . . .	(9.13.10. 0. 0??)	9.17. 0. 0. 0 ±2 katuns	Maudslay, 1889-1902, vol. 2, pls. 83, 84, 85	147
Structure 23 (Lintels 24,25, 26) . . . . .	(9.14.15. 0. 0??)	9.17.10. 0. 0 ±2 katuns	Maler, 1903, pl. 58; Maudslay, 1889-1902, vol. 2, pls. 86, 87	147
Structure 33 (Lintels 1,2,3)	9.16. 5. 0. 0	9.19. 0. 0. 0 ±2 katuns	Maler, 1903, pls. 46, 47, 48	147
Structure 34 (Lintel 4) . . . . .	(1st half of Middle Period)	Late Classic	Morley, 1937-38, vol. 5, pl. 110	134
Structure 42 (Lintels 41,42, 43) . . . . .	(9.14. 0. 0. 0??)	9.16.10. 0. 0 ±2 katuns	Maler, 1903, pls. 66, 67; Morley, 1937-38, vol. 5, pl. 178B	147
Structure 44 (Lintels 44,45, 46) . . . . .	(9.13. 0. 0. 0??)	9.13. 0. 0. 0 ±?	Maler, 1903, pl. 68; Morley, 1937-38, vol. 5, pl. 114	134,137
Structure 54 (Lintels 54,57, 58) . . . . .	9.16. 5. 0. 0?	9.16.10. 0. 0 ±2 katuns	Morley, 1937-38, vol. 5, pls. 115, 178F	147
Structure 55 (Lintels 51,52, 53) . . . . .	9.16.15. 0. 0?	9.18. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 115	147
Structure 88 (Lintel 55) . . . . .	(9.16.15. 0. 0-9.17. 0. 0. 0??)	Late Classic	<i>Ibid.</i> , pl. 178F	147
<i>YAXCOPOIL</i>				
Stela 1 . . . . .	. . . . .	Late Yucatan, variant	Fig. 88, <i>f</i>	162
Stela 2 . . . . .	. . . . .	Late Yucatan, variant	Fig. 88, <i>e</i>	162
Column and jamb . . . . .	. . . . .	Late Yucatan (Quality X)	Fig. 110, <i>d,e</i>	167
<i>YAXHA</i>				
Stela 1 . . . . .	(Early Period)	Early Classic	Maler, 1908a, pl. 15	107
Stela 2 . . . . .	(Early Period)	9. 5. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 15	107,108
Stela 3 . . . . .	(Early Period)	. . . . .	Morley, 1937-38, vol. 5, pl. 160	107
Stela 4 . . . . .	(Early Period)	9. 1.10. 0. 0 ±2 katuns	Maler, 1908a, pl. 16	107,108
Stela 5 . . . . .	(Early Period)	8.16. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 16	107,108
Stela 6 . . . . .	(Middle Period?)	9. 0.10. 0. 0 ±2 katuns	Fig. 40, <i>b</i>	107,108
Stela 7 . . . . .	(Middle Period?)	Early Classic	Morley, 1937-38, vol. 5, pl. 160	107
Stela 10 . . . . .	(Great Period?)	Early Classic	Maler, 1908a, pl. 18	107,108
Stela 11 . . . . .	(Middle Period?)	non-Classic	Morley, 1937-38, vol. 5, pl. 161	108
Stela 12 . . . . .	(Middle Period?)	Early Classic	<i>Ibid.</i> , pl. 160	107,108
Stela 13 . . . . .	(9.18. 3. 0. 0?)	9.15. 0. 0. 0 ±2 katuns	<i>Ibid.</i> , pl. 160	142

## Glossary

- 4 Ahau 8 Cumhu*—The starting date of the Maya Initial Series. A 4 Ahau 8 Cumhu date recurs every 52 years, but unless otherwise stated the date referred to is one which is sometimes designated as the end of Baktun 13, and which preceded by more than 3500 years the earliest Maya inscription.
- Altar*—A low stone monument. Altars placed in front of stelae are most often circular in form, with a height less than the radius.
- Ankle-guard*—A flap fastened to the heel of a sandal and covering the ankle (see fig. 30,t-e').
- Anklet*—An ornament worn by the Maya around the ankle, often resembling a cuff in form (see fig. 30,q').
- Apron of loincloth*—(1) The end of the loincloth, which hangs in front or behind the legs of a Maya figure. (2) Sometimes, a flap or ornamental element in the form of an apron, attached to the belt and covering the end of a loincloth (see figs. 24, 25, 26).
- Archaic*—Surviving locally or sporadically from an earlier period, specifically from the Early Classic Period to the Late Classic.
- Archaism*—A trait unusual in a given period, but commonly occurring at an earlier time (see *Archaic*).
- Archaistic*—This word has been used in the text to denote similarity but not identity to older traits.
- Area*—A large geographical division, specifically one based on the distribution of a given culture, e.g., the Maya area.
- Baktun*—A period of 144,000 days or 20 katuns, specifically one of such consecutive periods counted from 4 Ahau 8 Cumhu and designated by the first number appearing in the Initial Series. Same as *Cycle*.
- Ball court*—A field and the structures defining it, designed for the game of ball known in Mexico as *tlaxtli*.
- Ball-court marker*—Any sculptured piece which defines a point or line on a playing surface of a ball court. Specifically, one of three flat round or rectangular stones aligned on the central axis.
- Bar-and-dot numeral*—A number expressed by a combination of bars and dots in which a dot stands for one unit and a bar for five.
- Bar ornament* (pectoral)—An ornament composed of a large tubular bead with smaller beads attached at each end. When worn on the chest it is called a bar pectoral (see fig. 22,h,i,j).
- Beneficent god*—A designation given by Maler to a type of figure common at Yaxchilan. It stands with open hands from which falls a symbolic element sometimes interpreted as water, but according to Maler representing the "good things of life" (see fig. 67).
- Bird pectoral*—An ornament worn on the chest by Toltec figures. It resembles a butterfly in shape and is believed to represent a bird (fig. 22,e'). Sometimes called butterfly pectoral (*Mariposa*).
- Blood sacrifice*—A rite practiced by the Maya in which the tongue is pierced and a stick, rope, or thorn, is passed through the opening (fig. 71,a).
- Braid-and-fringe motif* (element)—A decorative border on textiles composed of a narrow band or braid and a fine fringe (fig. 35,c-f).
- Calendar Round date* (or notation)—A date consisting of one of 13 consecutive numbers associated with one of 20 consecutive names of days and the position of the day in the year. Identical Calendar Round dates recur every 52 years and are not absolutely fixed in time.
- Ceremonial bar*—A large ornamented bar carried horizontally or obliquely by Maya figures. When there are serpent heads at the ends of the bar it is usually called a serpent bar (see fig. 31,g,b).
- Chacmool*—A type of statue which presents a recumbent human figure supporting a disc on its body. It has a wide distribution in Mesoamerica and is named after a statue discovered at Chichen Itza by Baron Le Plongeon, who, in his fantastic history of the site, considered it to be a portrait of a former prince, Chacmool (Red Tiger).
- Chain element*—An element attached to the belt of a Maya figure to hold an ornament which hangs behind the legs. It is made up of links of specialized form, but in later times is replaced by a rope (see fig. 23,t-v).
- Chenes*—A region between the Puuc and Rio Bec characterized by distinctive architectural remains.
- Classic Maya*—The people who inscribed Initial Series and Period Ending dates on their monuments, and those of essentially the same culture.
- Classic Period*—The period defined by the occurrence of Initial Series and Period Ending dates in Mesoamerica. About 8.14.0.0.0–10.4.0.0.0 or, by the Thompson correlation, about A.D. 320–900.

- Classic (Maya) Style* (also mode or tradition)—The style most commonly represented by monuments bearing Initial Series or Period Ending dates.
- Coefficient*—Any number occurring with a glyph.
- Correlation*—Specifically, the chronological relation between the Maya Initial Series and the Christian calendar which permits us to express a date given in one notation in terms of the other. At present there is no universally accepted correlation. The Thompson correlation, a modification of those previously proposed by Goodman and Martinez Hernandez, is widely used. It gives the Maya date 11.16.0.0.0 13 Ahau 8 Xul as A.D. 1539, November 3, in the Julian calendar. The Spinden correlation makes 12.9.0.0.0 equivalent to A.D. 1536, April 12, and one more recently proposed by Vaillant makes 11.3.0.0.0 approximately contemporaneous with these dates.
- Cursive*—Having the quality of lines drawn rapidly, often tending to slope in one direction, as handwriting does.
- Cycle*—Same as *Baktun*.
- Day coefficient*—One of 13 numbers, which, combined with day names, form the sacred calendar of 260 days used widely in Mesoamerica.
- Day sign* (or glyph)—One of 20 hieroglyphs expressing the names of consecutive days.
- Decadent Phase*—That phase of the development of Classic Maya sculpture which is characterized by a decline in the quality of draftsmanship and by the use of irregular and exaggerated forms; often associated with non-Classic traits; most strongly represented after 9.19.0.0.0.
- Dedicatory date*—That date inscribed on a monument which is considered to represent the time of its erection or dedication.
- Diving god*—A small figure represented with its legs in the air, by some believed to be the god of bees or patron deity of beekeeping. Particularly common on the east coast of Yucatan.
- Dynamic Phase*—A phase of the development of Maya monumental sculpture characterized by the use of forms which suggest motion and which are balanced in the composition without recourse to bilateral symmetry. This tendency is most strongly felt after 9.16.0.0.0.
- Early Classic Period*—The period between 8.14.0.0.0 and about 9.5.0.0.0 or 9.8.0.0.0, characterized in monumental sculpture by the position of the principal figure which stands with its feet pointing in the same direction, one behind the other.
- At Uaxactun it is correlative with the Tzakol Phase of ceramics.
- Earplug*—An ornament worn in the lobe of the ear. It is often flaring in shape and made of jade, shell, pottery or other hard material (fig. 20, *a-c'*).
- Eecatl*—The Aztec god of wind, usually represented with protruding lips resembling a beak.
- Esperanza Phase*—A ceramic phase represented at Kaminaljuyu. On a common horizon with the Tzakol Phase at Uaxactun, with Teotihuacan III in Mexico, and with the Early Classic Period of Maya sculpture.
- Face numeral*—A glyph in the form of a human face whose characteristics denote a number.
- Fillet*—A narrow band or border, usually raised.
- Flaccid serpent*—A motif which corresponds to the serpent bar, but with the body of the serpent curving downward between the arms of the figure holding it (fig. 31, *f*).
- Form*—(1) Shape. (2) An element or part of a design characterized by its shape rather than by what it represents.
- Formative Phase*—The phase of development of Late Classic sculpture when traits from the Early Period survive locally, while Late Classic characteristics appear in simple form. Ascendant between 9.8.0.0.0 and 9.11.0.0.0, and considered to last until 9.13.0.0.0.
- Fret*—A form composed of a fillet which turns in right angles. The running fret is not common in Classic sculpture and what is usually referred to is a design like a volute scroll but with rectangular turns (figs. 14, *s-u*; 35, *j,k*).
- Fringe-and-leaf motif*—A design composed of three leaves with a band or fringe between them (fig. 35, *d'*).
- Gaiter*—A leg covering worn by some Maya, made of straps apparently wrapped around the calf (fig. 29, *c'-m'*).
- Glyph*—See *Hieroglyph*.
- Great Period*—That part of the Late Classic Period when the greatest number of monuments were being carved in the Maya area and when design and carving technique achieved its greatest complexity. It is defined by Morley as 9.15.0.0.0–10.0.0.0.0. A slightly earlier position, 9.13.0.0.0–9.18.10.0.0, may be preferable.
- Guilloche*—A curvilinear band design formed of two waving and interlacing fillets (fig. 35, *d'*).
- Hacha*—A stone artifact, carved usually in the form of a head laterally flattened to form an edge which suggests the edge of an axe.

- Head numeral*—See *Face numeral*.
- Head ornament*—An ornament carved in the form of a human head or face often used on belts and collars of Maya figures (fig. 23, z-o').
- Hieroglyph*—One of the characters in a Mesoamerican system of writing.
- Hotun*—A period of 5 tuns, or 1800 days. Specifically, one of such consecutive periods counted from 4 Ahau 8 Cumhu, and designated by Initial Series ending in 5.0.0, 10.0.0, 15.0.0, and 0.0.0.
- Initial Series*—A series of numbers and hieroglyphs which usually stands at the beginning of a Maya inscription and which expresses a date by its distance from 4 Ahau 8 Cumhu in terms of baktuns, katuns, tuns, uinals, and kins.
- Introducing glyph*—The glyph that stands at the head of an Initial Series.
- Katun*—A period of 20 tuns or 7200 days. One of such consecutive periods counted from 4 Ahau 8 Cumhu and designated by Initial Series ending in 0.0.0.
- Kin*—Day. Specifically, the last term of an Initial Series.
- Kukulcan*—The Maya Quetzalcoatl. A legendary hero reputed to have ruled in Yucatan and to have founded the city of Mayapan. Represented by the feathered serpent.
- Lacandon*—One of the Maya dialects. A group of Indians speaking this dialect and now living a primitive life in the forests of Chiapas and Guatemala.
- Labuntun*—A period of 10 tuns or 3600 days. One of such periods counted from 4 Ahau 8 Cumhu and designated by Initial Series ending in 10.0.0 or 0.0.0.
- Landa*. Diego de Landa, Bishop of Yucatan (1572-79) whose *Relacion de las Cosas de Yucatan* is one of the principal sources of knowledge of the early colonial and pre-Columbian culture of the Yucatecan Maya.
- Late Classic Period*—The period between 9.8.0.0.0 and 10.4.0.0.0. Characterized in the Maya area by a very high development of architecture and sculpture and correlative with the Tepeu Phase of ceramics at Uaxactun.
- Lintel*—A structural member spanning a doorway. Carved rectangular panels are sometimes erroneously designated as lintels. This nomenclature has been retained in the case of the so-called lintels of Piedras Negras, which were probably panels set vertically in masonry.
- Long Count*—The Maya system of counting time by progressively larger periods: the kin, uinal, tun, katun, baktun, etc., from a fixed day, usually 4 Ahau 8 Cumhu.
- Manikin*—A small figure with a characteristic grotesque face and usually one leg in the form of a snake (fig. 31, i-k).
- Manikin sceptre*—A short staff or hatchet held by Maya figures and representing the manikin. It is held by the extended leg which terminates in a snakehead. In some representations a hatchet-like blade pierces the head of the manikin (fig. 31, l,m).
- Maniple*—An element shown falling from the hands of some figures at Yaxchilan. It is surrounded by dots, and Maler has suggested that it represents "the good things of life" distributed by a "beneficent god."
- Mask*—(1) A common motif in Maya art representing a stylized grotesque face, often with anthropomorphic features. (2) More rarely, a mask worn by a figure in ceremonial dress.
- Mask-fastening*—An element in the form of a serpent head or mask worn under the chin and presumably designed to fasten the headdress (fig. 17, b-i).
- Mask headdress*—A common type of headdress in which the central element is a head of a serpent, jaguar, or indeterminate creature of stylized design (fig. 18, b-k).
- Mat motif*—A motif of interlacing strands very common in Maya art.
- Mat ornament* (pectoral)—An ornament of interlacing strands worn on a necklace or fastened to the collar (fig. 22, b).
- Medallion ornament* (pectoral)—An ornament of distinctive design in which the central element is usually round or oval. It is sometimes worn on a necklace but more often on the collar (fig. 22, k-m).
- Mesoamerica*—A region including those portions of North and Central America which are distinguished by high ancient civilizations. It includes most of Mexico, Guatemala, British Honduras, Honduras, El Salvador, Costa Rica, Nicaragua, and Panama.
- Month coefficient*—In a Maya date, the number which shows the position of the day in the current month of 20 days.
- Monument*—Any freestanding piece of sculpture permanently placed. Also, plain but shaped stones so placed, many of which were probably stuccoed and/or painted.
- Moon glyph*—A characteristic form appearing in

- the supplementary or lunar series and thought to represent the moon.
- Noseplug*—An ornament worn in the septum or the lobes of the nose.
- Olmec*—The people to whom are attributed such remains as have been found at La Venta, in southern Vera Cruz.
- Ornate Phase*—A stage of development in Classic sculpture which is characterized by intricate ornament and elaborate carving techniques. Most strongly represented between 9.13.0.0.0 and 9.15.0.0.0, but continuing into the period when the Dynamic Phase becomes ascendant.
- Palma*—A type of sculptured artifact which resembles in form a palm leaf or fan. Usually somewhat flattened and widest at the top.
- Pectoral*—An ornament worn on the chest.
- Pendent rear ornament*—An ornament suspended from the belt and hanging low behind the legs of the figure (fig. 23,u).
- Period*—A large division of time, characterized by distinctive cultural or stylistic traits.
- Period Ending date*—A date designated by its Calendar Round position and the notation of the end of a period of time on which the date falls. The tun is the smallest period of time known to be represented by such notations.
- Period glyph*—One of the glyphs which represent a period of time, as the successive terms of the Initial Series.
- Peten*—(1) A department of Guatemala. (2) As used here, a region characterized by archaeological sites typical of northeastern Peten, and including parts of southern Campeche and British Honduras.
- Phase* (of sculpture). A certain stage of development characterized by the most intense expression of a given trend. Although never clearly defined in time, a phase can be given limiting dates or, as in this report, can be associated with a period of time when many monuments show qualities that reflect the trend.
- Post-Columbian*—After the discovery of America by Columbus.
- Pre-Columbian*—Before the discovery of America by Columbus, usually understood to mean, however, before the contact of native peoples of Mesoamerica with Spaniards.
- Puuc* (region)—The area immediately south and west of a chain of hills in western Yucatan, defined by a characteristic architectural style and specialized masonry type.
- Quetzalcoatl*—A god or culture hero worshipped in Mexico and associated with the "Toltec" people. Identified with Kukulcan in Yucatan.
- Rio Bec* (region)—The region immediately north of the site of Rio Bec, which lies on the northern frontier of the Peten. Characterized by the occurrence of buildings with solid masonry towers and by specific techniques of construction.
- Scroll*—Any design element composed of volutes and/or undulating forms.
- Secondary series*—A notation of the distance between two Maya dates other than the initial 4 Ahau 8 Cumhu.
- Serpent*—Any representation whose principal features are derived from the snake.
- Serpent bar*—A ceremonial bar carried by Maya figures with a serpent head at one or at each end. See *Ceremonial bar*.
- Serpent fret*—A design element whose main feature is a fillet making a series of rectangular turns at the end. This fillet forms the upper jaw and nose of the serpent; elements representing the eye and the noseplug are added on one side (fig. 14,s-u).
- Silhouette relief*—A technique of carving in which the general form of the design is cut out in stone and detail is added in low relief on plane surfaces.
- Sky-and-earth monster*—One of several designs representing a creature with two different heads, one at each end of the body.
- Sky band*—A band of signs contained in rectangular divisions, supposed to represent celestial bodies. In some cases, such bands connect the two heads of the sky-and-earth monster.
- Spearthrower*—The atlatl. A device to extend the leverage of a human arm when a spear is thrown. It is essentially a short stick with a handle at one end, usually having two holes for the insertion of the first and second fingers, and at the other end, a hook against which rests the end of the spear or dart.
- Stela*—An upright independent monument. Usually in the form of a thick slab, approximately rectangular or slightly wedge-shaped in form and often rounded on the upper end. Modifications of this form, however, are not rare and some types, carved in high relief, tend to follow the form of the figure portrayed. Maya stelae are believed to have been time markers, and their erection is closely associated with calendrical and astronomical or astrological computations.

- Supraorbital plate*—That part of a serpent's head which is immediately above the eye. It is frequently represented as a distinct element with volutes or scrolls at either end (fig. 14, *a, i*).
- Symmetry*—As used in this report, bilateral symmetry or its approximation.
- Tepeu*—A ceramic complex at the site of Uaxactun, in northeastern Peten, defining the Late Classic Period (about 9.8.0.0.0–10.3.0.0.0).
- Thompson's correlation*—A relation between the Maya count and Christian chronology proposed by Thompson and similar to correlations previously proposed by Goodman and Martinez Hernandez. By this calculation the last date inscribed on a Maya stela—10.3.0.0.0 1 Ahau 3 Yaxkin—is equivalent to May 4, A.D. 889, in the Gregorian calendar.
- Throne*—A stone seat. One type is placed against a wall and is formed by a slab supported on legs. Usually this type has a back, sometimes elaborately carved. Another type of throne is carved in the form of a jaguar, and was apparently free-standing.
- Tlaloc*—(1) A Mexican god of rain. (2) A symbolic representation of a grotesque head, characterized by circles around the eyes, an up-turned nose, and tusklike teeth.
- Toltec*—(1) A people mentioned in aboriginal Mexican histories, who were supposed to have occupied the valley of Mexico before the coming of the Aztec, and from whom many of the later peoples claim descent. They are particularly associated with the worship of Quetzalcoatl. (2) The builders of the ancient remains at Tula, Hidalgo. (3) As this word is most frequently used in this report, people of the culture represented by a specific architectural and sculptural style at Chichen Itza. According to ceramic evidence, these remains belong to the next to last period of the city's occupation. They are closely akin to the remains at Tula, Hidalgo.
- Totonac*—(1) One of the aboriginal languages of Vera Cruz. (2) An uncertainly defined ancient culture of the area where Totonac is spoken. Carved yokes, hachas, and palmas are associated with this culture, and a certain graphic style represented at the ruins at Tajin is attributed to it.
- Transitional period*—Here used to designate the transition between the Early and the Late Classic Periods. It includes the period of low sculptural activity between 9.4.10.0.0 and 9.8.0.0.0 and the first part of the Formative Phase.
- Tun*—A period of 360 days. Specifically one of such consecutive periods counted from 4 Ahau 8 Cumhu or from the end of a katun.
- Twist motif*—A design formed of two strands twisting over each other. It resembles both the rope and the mat motif, the three being inter-related (fig. 35, *x, y*).
- Tzakol*—A ceramic complex at Uaxactun, Guatemala, which defines the Early Classic Period (8.14.0.0.0–9.8.0.0.0).
- Tzolkin*—The sacred calendar of the Maya consisting of 260 days.
- Uinal*—A period of 20 days.
- Uniformity, Period of*—A period defined by agreement in the lunar count used in many Maya cities. This period varies in different sites, but lasts roughly from about 9.12.0.0.0 to after 9.16.0.0.0. First defined by Teeple, 1930.
- Wing element*—An element of design often employed on Maya headdresses. It consists of a winglike or half-oval form bordered by short feathers, and is apparently used for the attachment of the longer plumes. A serpent head often forms a part of the design.
- Wristlet*—An ornament worn on the wrist, often cufflike in form (fig. 28).
- Yoke*—A stone in the shape of a large horseshoe or yoke, carved or plain. Such stones are widely distributed in Middle America. Their use is unknown.



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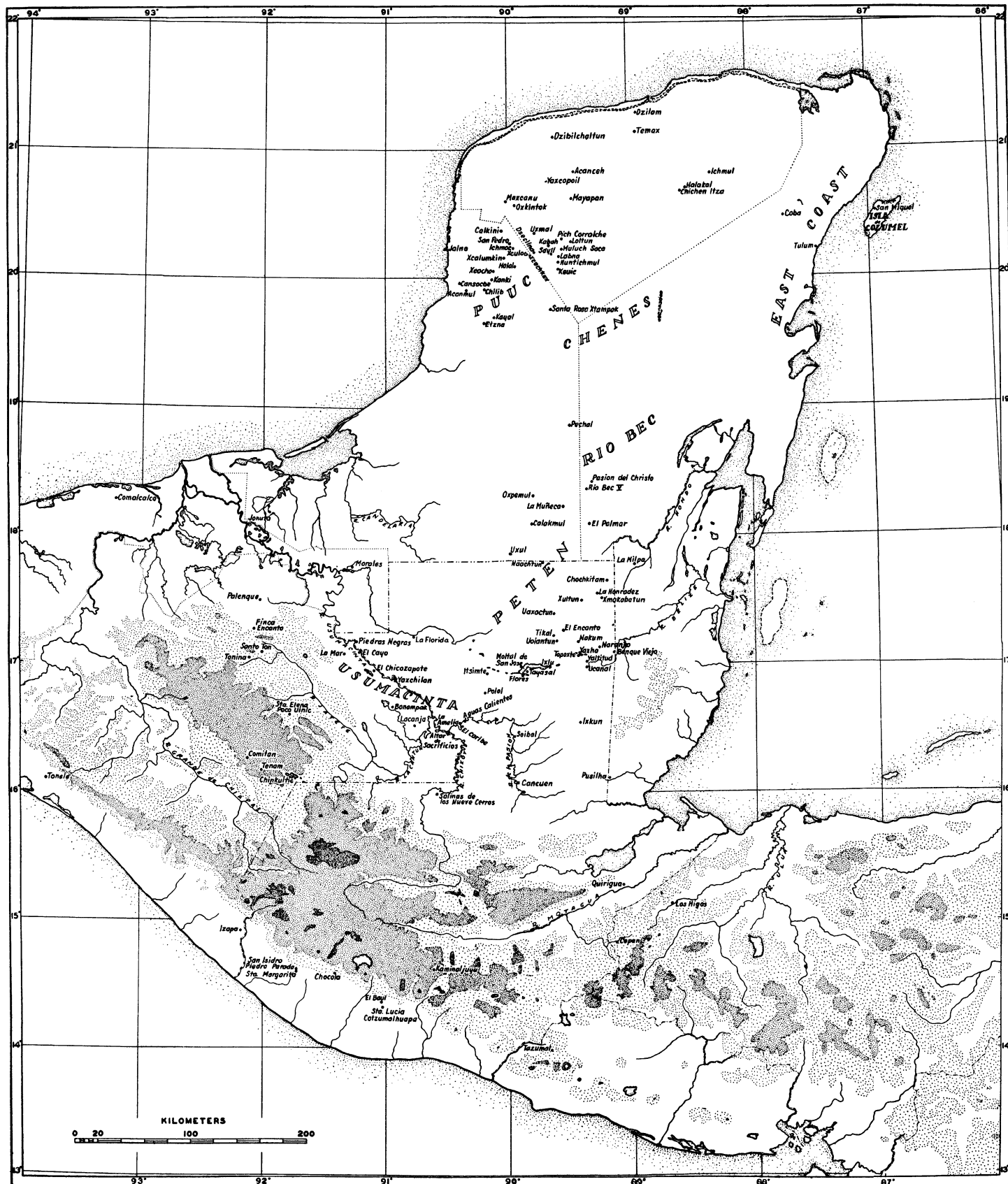


FIG. 111—MAP OF THE MAYA AREA SHOWING SITES COVERED IN THIS STUDY