Fifth Palenque Round Table, 1983

General Editor Volume Editor Merle Greene Robertson Virginia M. Fields

The Pre-Columbian Art Research Institute San Francisco Copyright © 1985 by The Pre-Columbian Art Research Institute All rights reserved. No part of this publication may be reproduced in any form or by any means, without written permission of the copyright owner.

Library of Congress Catalog Number 85-60786

Lithographed and printed by Herald Printers Inc, Monterey, California.



Cover illustration:

GI 'Hunahpu

Birth: 1.18.5.3.2 9 Ik 15 Ceh 2697 B.C.

Drawing by Linda Schele

The Dynastic History of Naranjo: The Middle Period

MICHAEL P. CLOSS UNIVERSITY OF OTTAWA

he site of Naranjo is located in Guatemala, about 45 km east-southeast of Tikal. It contains numerous hieroglyphic monuments, including forty-one stelae, one lintel, one ballcourt sculpture, and a hieroglyphic stairway. Unfortunately, many of the glyphic texts are poorly preserved. Nevertheless, some of them are in very good condition and together with those which are partially preserved there is sufficient information to give a detailed account of the dynastic history of the site. Earlier researchers such as Proskouriakoff (1960:464-467), Berlin (1968a, 1973), and Marcus (1976a:58-62, 165-169) had difficulty in obtaining satisfactory pictorial records of the Naranjo inscriptions, a problem now remedied by the appearance of Parts 1-3 of Volume 2 of the Corpus of Maya Hieroglyphic Inscriptions (Graham and von Euw 1975; Graham 1978; Graham 1980).

The inscriptions of Naranjo fall into three general periods. An early period accounts for monuments sculpted from 9.8.0.0.0 to 9.10.10.0.0, a middle period for those from 9.13.10.0.0 to 9.14.15.0.0, and a late period for those from 9.17.10.0.0 to 9.19.10.0.0. The earliest date which may be attributed to the middle period at Naranjo is 9.12.10.5.12. There is thus a gap of some forty years between the last monument of the early period and the first reference to renewed activity in the middle period. Another gap of approximately forty years separates the latest date in the middle period from the earliest date in the late period. This gap may be more apparent than real, for there are a number of stelae whose Long Count placements are uncertain but which may fall into this interregnum.

The present paper is concerned with the dynastic happenings at Naranjo in the middle period. Interestingly, there is a continuity between the early and middle periods despite the hiatus in monumental activity noted above. In a previous paper (Closs n.d. b), I presented a reconstruction of the dynastic history of Naranjo in the early period. I then designated the great ruler of this period as "Chief Double-Comb" (Fig. 1a). His name glyph appears on three monuments of the middle period, and in order to appreciate these posthumous references it is necessary

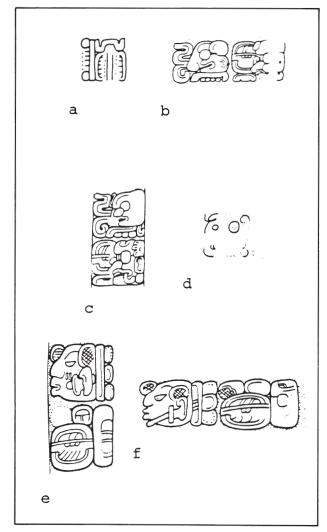


Fig. 1 Rulers named in the monuments of the middle period at Naranjo. Chief Double-Comb: (a) Stela 3, E14. Smoking Squirrel: (b) Stela 22, E7-F7, (c) Stela 30, B2-B3, (d) Stela 3, E6-F6. Lady 6: (e) Stela 24, A6-A7, (f) Stela 29, H13-113.

to recall that Double-Comb acceded to the throne at 9.5.12.0.4. This event is recorded on the early period Stela 25 together with its one, two, three, and three-and-a-half katun anniversaries. The significance of the middle period references will be discussed later in the paper.

There are twelve stelae from Naranjo which contain glyphic texts sufficiently well preserved to shed light on the history of the middle period. A thirteenth monument, Stela 26, may also be assigned to the middle period but cannot be tied to a specific date due to its fragmentary nature. Of the thirteen stelae pertaining to the middle period, eight, including Stela 26, are associated with a male ruler whom I shall refer to as "Smoking Squirrel." The remaining five are associated with a female ruler whom I shall refer to as "Lady 6." A summary of the dates on the twelve monuments which can be fixed in the Long Count is given in Table 1. The Long Count positions are listed in chronological order and are crossreferenced by monument and by ruler. The monuments in Table 1, with the exception of Stela 18, constitute the Series 1 Monuments listed by Proskouriakoff (1960:465).

Berlin (1968a:23) presents a date chart similar to Table 1 which covers the same monuments with the addition of Stela 20. The last monument is not included in the present analysis because its Calendar Round date is problematic and it is not fixed in the Long Count by its glyphic text. Moreover, there is reason to doubt that its protagonist is in fact Smoking Squirrel since the name of the ruler depicted on Stela 20 carries affixes (T18 and T126) which are not found in other representations of Smoking Squirrel's name, and the T117 postfix found with Smoking Squirrel's name is not used on Stela 20. It may be noted that while the dates in the two charts agree for the most part, there are some discrepancies. These are related to chronological decipherments on Stelae 1, 2, 18, 21, and 28.

Table 1 also disagrees with a few of the dedicatory dates for Naranjo stelae suggested by Mathews (Graham 1978:111). He assigns Stela 5 and Stela 20 to Long Count positions at 9.13.7.3.8 and 9.14.2.12.16, respectively, which would place them both within the middle period. I regard both of these placements as problematic and do not include them in Table 1. In addition, Mathews, probably due to a typographical error, places the dedicatory date of Stela 29 at 9.13.3.0.0 rather than one katun later at 9.14.3.0.0. Finally, he suggests that Stela 28 was dedicated at 9.14.10.0.0. The Long Count placement of this stela is very important since it is the latest monument dedicated to Smoking Squirrel. Six dates can be surely identified on Stela 28, all falling within an interval of about half a tun, running from 9.14.4.7.1 to 9.14.4.17.9. The latest of these dates is just eleven days before the quarter-katun event at 9.14.5.0.0, and there is more than ample space in the last two glyph columns of the badly eroded text to record such an event. It is also worth noting that this is the only quarter-katun event during the middle period for which no dedicatory monument has been identified. Thus, given the temporal distribution of monuments at Naranjo and the distribution of dates on Stela 28, it seems more likely that the monument was dedicated at 9.14.5.0.0 rather than 9.14.10.0.0.

Smoking Squirrel

Three examples of the name glyph of Smoking Squirrel are illustrated in Fig. 1, b-d. The name contains two glyphic expressions. The first consists of the T122 prefix, interpreted here as a symbol for "smoke," the head of a rodent, interpreted here as a squirrel, and a T117 postfix. The second part of the name consists of the T561, caan "sky" glyph with its common T23, -na, postfix, and anthropomorphic head with extended nose and lolling tongue, characteristic of God B in the codices. Jones (1977:39-41) has discussed a similar Sky God B glyph, occurring as the second part of the name of Ruler A of Tikal, and has observed that in this context it is sometimes replaced by the name glyph of God B (T668) as used in the codices.

The name of Smoking Squirrel occurs at least thirty-one times in the Naranjo inscriptions [Stela 1, A6-A7, C15-D15; Stela 2, A3-A4, D13-E13, E19-D20; Stela 3, E6-F6; Stela 21, A9-A10, F10-E11; Stela 22, A4-A5, E7-F7, F10-E11, H16-G17; Stela 23, E15-F15, H2-G3, H11-G12, H19-G20; Stela 24, C13-B13; Stela 26, p Ap1 – p Bp1; Stela 28, B6-B7, D11-C12; Stela 29, I8-H9; Stela 30, B2-B3, D10-C11, F10-E11, E15-F15, H6-G7, H10-G11, H14-G15; Stela 31, F12-E13, G7-H7, G14-H14]. It is significant that in all of these appearances, with the possible exception of Stela 3, E6-F6 (Fig. 1d), the form of Smoking Squirrel's name is invariant.

The simplest proof that the above glyph combination is the name of a Naranjo ruler can be seen on Stela 21, E9-F11, and on Stela 23, G16-H20. In each of these cases the name intervenes between the Naranjo emblem glyph and a preceding phrase of a chronological and calendrical nature.

Full-figure portraits of Smoking Squirrel appear on Stelae 1, 2, 21, 22, 23, 28, and 30.

Lady 6

Two examples of the name glyph of Lady 6 are illustrated in Fig. 1, e-f. The names differ only in the ultimate postfix where one has T24 and the other a related head variant. The name begins with the female head glyph, T1002, *na* "mother" the common prefix for female names in the inscriptions. This is attached to the bar and dot numeral "six." The second part of the name contains a T168, *Ahau* "lord, ruler," superfix, a T561, *caan* "sky," glyph as main sign, and one of the two variant postfixes noted earlier.

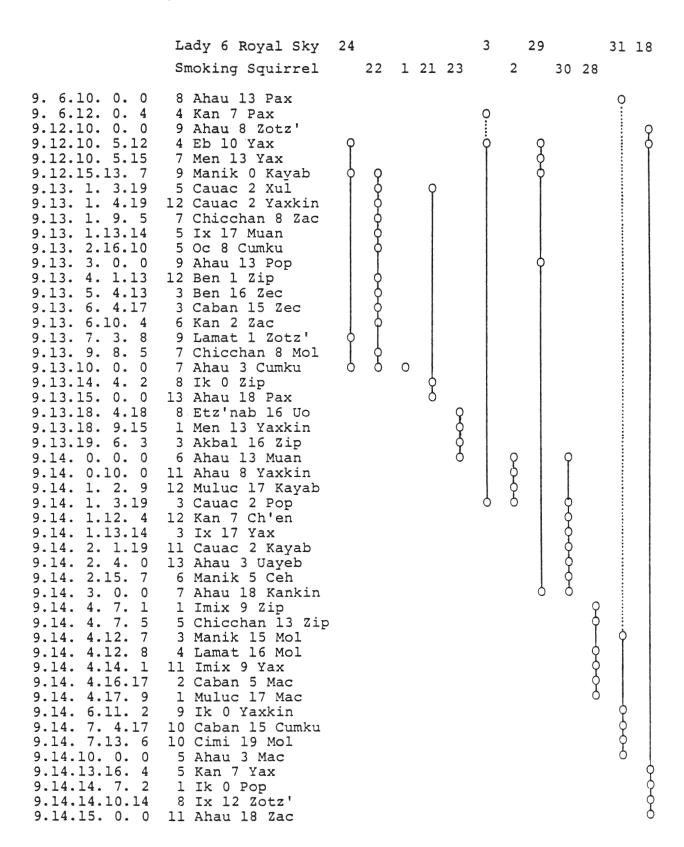
The name of Lady 6 occurs at least twelve times in the Naranjo inscriptions [Stela 18, D3-C4, F5; Stela 24, A6-A7, C9-B10, D6-E6, D17-E17; Stela 29, G10-F11, I4-H5, H13-I13, I17-H18; Stela 31, E15-F15, I15].

Full-figure portraits of Lady 6 appear on Stelae 3, 24, 29, and 31.

The Birth of Smoking Squirrel

As Proskouriakoff (1960:465) first pointed out, there

TABLE 1. Long Count positions and dates from the middle period at Naranjo.



are three statements recording the birth of Smoking Squirrel at 9.12.15.13.7, each employing the usual T740 birth glyph [Stela 22, E1-F11; Stela 24, B11-C17; Stela 29, H6-I9]. The birth is introduced by an Initial Series on Stela 22, the only monument dedicated to Smoking Squirrel which is known to mention it. Since no other monument in his series has an earlier dedicatory date, Stela 22 may be regarded as his initial monument. The remaining two records of the birth are found on monuments dedicated to Lady 6.

The Accession of Smoking Squirrel

Some of the general observations of Proskouriakoff (1960:460) concerning the inscriptions of Piedras Negras are applicable to those at Naranjo. For example, she noted that the monuments at Piedras Negras could be arranged in several series, each series corresponding to a presumed ruler. Similar series can be established at Naranjo for the rulers of the early, middle, and late periods. In the present case, Table 1 exhibits a series of seven monuments associated with Smoking Squirrel and a series of five monuments associated with Lady 6. Proskouriakoff observed that the earliest date in a given series was marked by T740 and she termed it the "initial date." This pattern is repeated at Naranjo in the Smoking Squirrel series and the initial date, now known to correspond to a birth date, has been discussed above. Proskouriakoff also noted that the first monument in a given series was marked by an "ascension motif" and was associated with a date she called the "inaugural date." Finally, she mentioned that the initial and inaugural dates tended to be repeated within a given series of monuments and were frequently commemorated by anniversaries. With respect to Naranjo, Proskouriakoff (1960:466) did not believe that the inaugural dates were marked by a distinctive motif or that they were celebrated by anniversaries. However, she did comment that the late period Stela 32 had a composition suggestive of the ascension motif at Piedras Negras and postulated that it began another series. This is confirmed by the existence of an inauguration glyph on Stela 32, S3, and by the fact that it is the first and only monument in the series dedicated to the ruler portrayed.

Berlin (1968a:17) has noted that the sculpted scene on Stela 22, the initial monument in the Smoking Squirrel series, shows an individual seated on an elevated throne (Fig. 2). He compared this theme to that found on Stela 32 which Proskouriakoff had related to the accession motif at Piedras Negras. Berlin accepted her interpretation and extended it to Stela 22, proposing that this monument depicted Smoking Squirrel's accession to power. He did not recognize an inauguration glyph in the text of Stela 22 and believed that the problem of the accession was complicated by Stela 20 which does mark an accession and which, as noted earlier, Berlin associated with Smoking Squirrel. While I endorse Berlin's notion that Stela 22 portrays the accession of Smoking Squirrel, I have rejected that proposal that Stela 20 is a Smoking Squirrel monument. This removes one complication but leaves the problem of locating an inauguration statement on Stela 22. If the patterns observed by Proskouriakoff at Piedras Negras are to prevail at Naranjo, Stela 22 should record the accession of Smoking Squirrel.

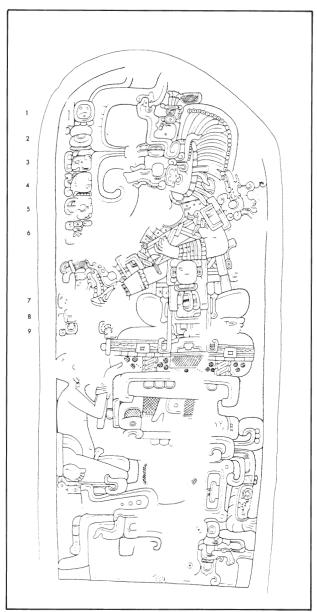


Fig. 2 Scene depicting the accession of Smoking Squirrel; Naranjo, Stela 22.

The earliest date following the birth of Smoking Squirrel on Stela 22 occurs at 9.13.1.3.19. I will argue that the event on this date, of which Smoking Squirrel is the protagonist, marks the beginning of his reign. The date is commemorated on Stela 21 and its first katun anniversary is celebrated on Stelae 2, 3, and 30. Thus, there are at least five references to the proposed accession date and its anniversary. By comparison, the birth of Smoking Squirrel is recorded three times. The only other dates

with multiple listings during the reign of Smoking Squirrel are of a chronological nature and refer to period endings. Hence, the pattern of dates gives strong support to the idea that Smoking Squirrel was inaugurated at 9.13.1.3.19.

Testifying to the importance of the event at 9.13.1.3.19 is the fact that its date is directly fixed in the Long Count by an initial Series on Stela 21. Unfortunately, the description of the event on this monument is totally effaced. The earlier reference to the event, on Stela 22, is well preserved and is reproduced in Fig. 3a. The verb at E10 employs as main sign the expression T168:518. This expression, with different affixes, appears in the predicate phrase of an accession statement of the great Pacal of Palenque [Temple of the Inscriptions, East Panel, R10-Q11]. It also occurs in the predicate phrase of an accession statement of New-Sky-at-Horizon of Copan [Structure 11, North Step, K2] (Proskouriakoff 1960:468). In each of these cases the predicate phrase has a two-part form in which the first part is an accession verb and the second part functions as an indirect object. Based on analogous constructions in other texts (Closs 1982), this second part has a meaning which should correspond to the concept of rulership. These examples tie the usage of the verb on Stela 22, E10, to accessions in general and to the notion of rulership in particular and give glyphic support to the idea that Smoking Squirrel was inaugurated on 9.13.1.3.19.

Smoking Squirrel commemorated the one katun anniversary of his accession in a sentence on Stela 30. The text is reproduced in Fig. 3b and may be paraphrased as follows.

E7 [It was] 19 [kins], 3 uinals and

F7 1 tun [to]

E8-F8 3 Cauac 2 Pop [9.14.1.3.19] E9 at the joining together of

F9 his first katun
E10 in the rulership
F10 Smoking Suirrel
E11 Sky God B
F11 Lord of Naranjo

The glyph at E10, glossed as "in the rulership," is somewhat problematic, but the locative prefix T59, ti "at, in," and the T168, Ahau "lord, ruler," superfix are visible. Moreover, the form and intent of the anniversary statement imitate a pattern which has been described elsewhere (Closs 1982).

Two stelae were actually erected to commemorate the anniversary of Smoking Squirrel's accession at 9.14.1.3.19. On one of these, Stela 2, the anniversary is marked by an Initial Series. Most of the glyphs have been eroded but enough remains at B10-C10 (Fig. 3c) to show that the Initial Series celebrates "his first katun in the rulership." Precedents for such anniversary phrases pertaining to accessions have been described elsewhere (Closs 1982).

The second stela dedicated at Smoking Squirrel's an-

niversary celebration is Stela 3. It belongs to the series of monuments associated with Lady 6. The reference to the anniversary occurs in a sentence running from E1 to E11. The anniversary date is found at E4-E5, Smoking Squirrel's name at E6-F6, and the Naranjo emblem glyph

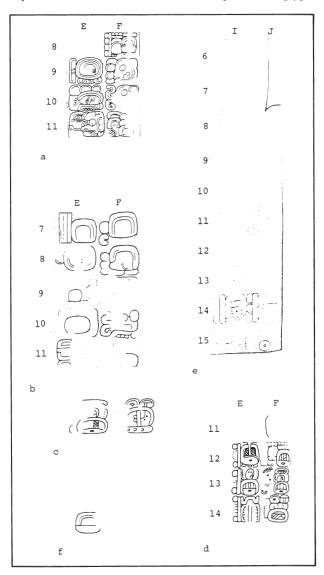


Fig. 3 (a) Sentence describing the accession of Smoking Squirrel; Naranjo. Stela 22, F8-F11. (b) Sentence describing the one katun anniversary of Smoking Squirrel's accession; Naranjo, Stela 30, E7-F11 (c) Reference to the one katun anniversary of Smoking Squirrel's accession; Naranjo, Stela 2, B10-C10. (d) Sentence relating the one katun anniversary of Chief Double-Comb's accession to a similar event in the reign of Smoking Squirrel; Naranjo, Stela 3, F11-F14. (e) The end of the text on Stela 28 relating the one katun anniversary of the first quarter-katun event in the reign of Chief Double-Comb to a similar event in the reign of Smoking Squirrel; Naranjo, Stela 28, I6-J15. (f) Anniversary katun from Stela 28, B4.

title at E7. The name phrase is followed by that of a Lady Ahau of "Tikal" at E9, and by a woman's name at E10-F10. The latter female is clearly not Lady 6, and whether or not she is to be identified with the lady at E9 is not certain. However, it is possible that this woman is Smoking Squirrel's wife. Many of the remaining glyphs in this sentence are eroded and the visible details shed little light on the nature of the anniversary date and the relationships among the people named.

However, the terminal sentence on Stela 3 is in excellent condition, is of considerable interest, and is reproduced in Fig. 3d. It is a subsidiary sentence attached to the preceding sentence marking Smoking Squirrel's anniversary. The subsidiary sentence may be paraphrased as follows:

F11-E12 [On] (4 Kan) 7 Pax [9.6.12.0.4] F12 [it was] 15 [kins], 3 uinals, 9 tuns and

E13 7 katuns

F13a from the joining together of

F13b his katun

E14 Chief Double-Comb F14 Lord of Naranjo

This sentence recalls the one katun anniversary of Double-Comb's accession at 9.5.12.0.4. The fact that it is attached to an anniversary date of Smoking Squirrel implies that the anniversary is like-in-kind to that of Double-Comb. Since Double-Comb's anniversary was of an accession, then so also was that of Smoking Squirrel. Hence, in this text, Lady 6 commemorated her son's anniversary by comparing it to a similar anniversary of the great early ruler of Narnajo.

The last part of the text of Stela 28 (Fig. 3e) contains a distance number whose magnitude is similar to that encountered in the sentence from Stela 3, discussed above. It is found at J13-J14 and can be reasonably reconstructed as 7.10.0.0. The drawing of the text indicates a katun coefficient of 8, but in the photograph which accompanies the drawing in Graham (1978), the central dot of the coefficient differs from the two flanking dots. This suggests that it may be better rendered as 7. The zero coefficients of the kin and uinal term are compatible with the surviving remnants of the distance number but cannot be surely identified.

In the case of Stela 3 it has been seen that the distance number counted back to the reign of Chief Double-Comb and was used to link an event in his life to a similar event in the life of Smoking Squirrel. In the present case the name of Double-Comb appears at J11 and that of Smoking Squirrel precedes it at I9-J9. If we assume that this preceding sentence marked the period ending at 9.14.5.0.0, the proposed dedication date of Stela 28, then the distance number of 7.10.0.0 would fix the ultimate sentence at 9.6.15.0.0. The rationale behind this reconstruction is that 9.14.5.0.0 marks the katun anniversary of 9.13.5.0.0, which is the first quarter-katun event following Smoking Squirrel's accession on 9.13.1.3.19. In this regard, it may be noted that there is an anniversary katun

notation on the front of Stela 28, B4 (Fig. 3f). The earlier date at 9.6.15.0.0 marks the katun anniversary of 9.5.15.0.0, which is the first quarter-katun event following Double-Comb's accession at 9.5.12.0.4. Hence, Smoking Squirrel's quarter-katun event at 9.14.5.0.0 is like-in-kind to that of the great Double-Comb at 9.6.15.0.0, almost 150 years earlier. Once again, the like-in-kind events are related to the dates of accession but in this case allow us to only approximate the date of Smoking Squirrel's accession. The relationship establishes bounds for the latter event between 9.13.0.0.0 and 9.13.5.0.0.

An Accession Motif at Naranjo

It has been claimed that Stela 22 portrays the accession event of Smoking Squirrel. The ruler is depicted seated on a jaguar covered throne and holding a ceremonial bar. Three features in the scene on Stela 22 seem to be characteristic of other accession monuments at Naranjo from the middle and late periods. Of these, the most important and the only diagnostic trait is the holding of the ceremonial bar. A second feature, found on most accession monuments and only rarely on other monuments, is a three-boned crest appearing at the top of the headdress. The third feature found on middle and late period accession monuments, but also common in non-accession



Fig. 4 Scene depicting the accession of Chief Double-Comb; Naranjo, Stela 25.

scenes, is the presence of a headdress based upon a deity head with long nose and lacking a lower jaw.

The wielding of the ceremonial bar as a monumental theme at Naranjo can be traced back to Stela 25, the monument which commemorates the accession and anniversaries of accession of Chief Double-Comb. In the scene depicted on this stela, shown in Fig. 4, one has a prototype for later accession monuments. The dominating feature is Double-Comb holding the ceremonial bar. He is also shown wearing a headband to which is attached a long-nosed god with a diminutive lower jaw. This appears to be replaced by a headdress based on a long-nosed deity lacking a lower jaw in later accession monuments. On top of Double-Comb's head is what may be an early form of the three-boned crest. The simplicity of Double-Comb's attire is in striking contrast to the rich embellishments of later rulers.

Stelae 6, 7, 9, 12, 14, 20, 22, 25, 31, and 32 all display ceremonial bar scenes. Stela 25, the proposed prototype, is the only monument in this group from the early period and relates to the accession of Double-Comb. Stela 22 has been considered and identified as the accession monument of Smoking Squirrel. The remaining monuments, with the exception of Stela 31, do not belong to the middle period and will not be examined in detail in this paper. Nevertheless, it is clear that Stelae 6, 14 20, and 32 celebrate the inauguration of Naranjo rulers. In fact, each of these monuments contain explicit accession glyphs [Stela 6, A3; Stela 14, D9-C10; Stela 20, A4; Stela 32, S3]. Stelae 12 and 7 do not celebrate an accession proper but do mark the ten tun and one katun anniversaries of the Stela 14 accession monument. Stela 9 has no surviving glyphs and so must be discounted. In summary, six of the monuments exhibiting ceremonial bar scenes celebrate the accessions of the rulers depicted, two of the monuments are associated with accsssions by extension, one has been discounted due to its lack of glyphic content, and one, Stela 31, has not been discussed.

The foregoing evidence argues strongly that the ceremonial bar motif is indicative of accession monuments or their anniversaries at Naranjo. As a consequence, there is good reason to believe that Stela 31 commemorates the accession of the ruler it portrays (Fig. 5). Its consideration has been delayed because it is dedicated to Lady 6, and an accession monument for a female ruler would be without precedent. This is not to say that female rulers are unknown in the Classic Maya inscriptions, for two such are known from Palenque. Lady Ik was seated on the throne of Palenque at 9.7.10.3.8 [Temple of the Inscriptions, East Panel, K2-K9] and appears to have ruled until her death at 9.8.11.6.12 (Lounsbury 1974). A second female ruler, Lady Zac-Kuk, began her reign at 9.8.19.7.18 [Temple of the Inscriptions, East Panel, N11-P5]. Her rule was relatively brief since the great Pacal was inaugurated as ruler of Palenque a little over two years later on 9.9.2.4.8 (Mathews and Schele 1974). Lady Zac-Kuk appears to have abdicated in favor of Pacal

since she continued to live for another twenty-five years until 9.10.7.13.5 (Lounsbury 1974). It is interesting to note that the accession statements of Lady Ik and Lady Zac-Kuk are posthumous, whereas the records of Lady 6 are contemporaneous.

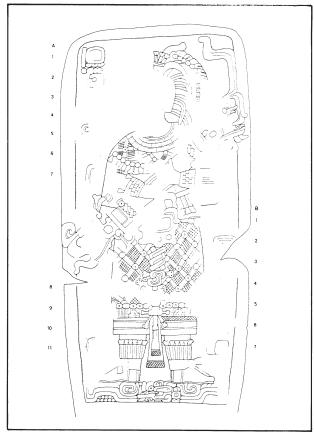


Fig. 5 Scene depicting the accession of Lady 6; Naranjo, Stela 31.

Stela 31 was erected on 9.14.10.0.0, and the prior death of Smoking Squirrel is germane to the accession of Lady 6 at that time. Before considering additional evidence concerning her accession, the problem of Smoking Squirrel's death will be addressed.

The Death of Smoking Squirrel

No explicit death statement relating to Smoking Squirrel is apparent in the surviving texts of Naranjo. However, there is good circumstantial evidence that he died prior to the erection of Stela 31. The latest monument dedicated to Smoking Squirrel is Stela 28 and the latest secure date on the monument is at 9.14.4.17.9. Nevertheless, it is likely that Stela 28 was dedicated eleven days later at the quarter-katun on 9.14.5.0.0. Smoking Squirrel is also mentioned on Stela 31 at F12-E13, G7-H7, and G14-H14. The penultimate reference to him can be fixed at 9.14.7.13.6 while the final reference could be six days later, but this is uncertain. There are no later references to Smoking Squirrel in the inscriptions of Naranjo.

The latest monument of the middle period, Stela 18, has a dedication date at 9.14.15.0.0. It lists the ancestry of Lady 6 and also recalls the beginning of the middle period but, unlike the other monuments of the middle period, it does not contain any references to Smoking Squirrel. This is evidence that he was no longer alive at this time. Name glyphs at H2-G3 and J2-I3, although badly eroded, appear to resemble that of Smoking Squirrel. However, it is unlikely that these glyphs refer to the Smoking Squirrel born on 9.12.15.13.7, since they are followed by the Naranjo rulership title (Closs n.d. b) at H3 and J3, respectively. In all of the previously accepted occurrences of Smoking Squirrel's name, that title is never employed. Rather, in all cases but one [Stela 23, E15-F15], his name is followed by the Naranjo emblem glyph. This suggests that the individual named on Stela 18 is not Smoking Squirrel, but a namesake. It is interesting to observe that there are other references to namesakes of Smoking Squirrel at Naranjo. Indeed, an individual named "Smoking ti Squirrel" is mentioned on Stela 13, H10-G11, on a monument which may have been dedicated on 9.17.10.0.0. He is listed as the father of a late Naranjo ruler, "Smoking Batab," named at F10-E11. Another namesake, "Smoking New Squirrel," appears on Stela 20, B1-B2, which commemorates this ruler's accession. As noted earlier, the Long Count position of Stela 20 is problematic. In a tentative reconstruction of the late history of Naranjo I have placed it at 9.15.15.3.16. Of these two namesakes, the former employed the Naranjo rulership title [Stela 13, H13] while the latter used the Naranjo emblem glyph title [Stela 20, B3]. An analysis of the Naranjo texts suggests that the person named on Stela 18, H2-G3 and J2-I3, Smoking ti Squirrel, and Smoking New Squirrel, all belong to the generations following Smoking Squirrel and preceding Smoking Batab. Further speculation on the relationship of these three namesakes of Smoking Squirrel with each other and with the original Smoking Squirrel would be premature at this time.

It may also be noted that a Smoking Squirrel is named on a polychrome vase described by Coe (1982:108-113). This Smoking Squirrel also takes the Naranjo rulership title and is probably identical to the one recorded on Stela 18. In any case, the vase record is posthumous and does not alter the fact that during his lifetime the Smoking Squirrel born on 9.12.15.13.7 used the Naranjo emblem glyph title and not the Naranjo rulership title.

The epigraphic eveidence points to Smoking Squirrel's death within the interval from 9.14.7.13.6 to 9.14.10.0.0 when he was 32 to 34 years old. There is also other evidence that Smoking Squirrel died at this time. In the fifteen tuns from 9.13.10.0.0 to 9.14.5.0.0 at least eleven stelae were erected. By contrast, in the ten tuns from 9.14.5.0.0 to 9.14.15.0.0 only two stelae are known. This suggests that something happened at Naranjo, probably between 9.14.5.0.0 and 9.14.10.0.0, which had a dramatic effect on the pace of stela production. Since both of the latest stelae are dedicated to Lady 6 while

eight of the eleven earlier stelae are dedicated to Smoking Squirrel, there is good reason to suspect that the cause of the decline was the death of Smoking Squirrel.

The Accession of Lady 6

The front of Stela 31, illustrated in Fig. 5, portrays Lady 6 as a new ruler of Naranjo. The composition shows her holding a ceremonial bar, wearing a headdress based on a long-nosed deity lacking a lower jaw, and sporting a three-boned crest at the top of the headdress. It has been argued that these features form an accession motif for rulers at Naranjo and therefore constitute the trappings of royal power at this site. Thus, the imagery on Stela 31 implies that Lady 6 had replaced Smoking Squirrel as ruler of Naranjo by 9.14.10.0.0.

Marcus (1976a:165) has raised the question of whether the woman depicted on Stela 31 is in fact Lady 6. The question can be answered affirmatively since her name is written out in full at E15-F15 and in conflated form at

No date on Stela 31 can be identified as an accession date for Lady 6 prior to the mid-katun at 9.14.10.0.0. This suggests that she may have assumed power at Naranjo by presiding over the mid-katun festivities, including the dedication of Stela 31, and wielding the ceremonial bar of office on that occasion. In this case, she is no longer acting as regent but has taken the ceremonial bar into her own hands and has installed herself on the throne of Naranjo.

There is a date on Stela 31 which is recorded between the last reference to Smoking Squirrel and the dedication date at 9.14.10.0.0. The date is of special interest since it is not contemporaneous with the era of the monument and has a temporal position far in the past. It occurs in a sentence which is chronologically linked to the midkatun at 9.14.10.0.0. The sentence is shown in Fig. 6 and its glyphic content is paraphrased below.

[It was] 0 [kins], 0 uinals, 16 0 tuns [and] 8 katuns [from] 17

J7-I8 8 Ahau (13 Pax) [9.6.10.0.0]

J8 [at the] end of a tun 19 Chief Double-Comb J9 Lord of Naranjo

In this passage Lady 6 relates the first mid-katun celebration she has presided over as a ruler of Naranjo in her own right to a similar event celebrated by Chief Double-Comb more than 150 years earlier. The event presided over by Double-Comb was the first mid-katun occurring in his reign which began at 9.5.12.0.4. Hence, Lady 6 compares her role in presiding over the mid-katun at 9.14.10.0.0 as like-in-kind to that of Double-Comb in presiding over the mid-katun at 9.6.10.0.0. The implication is that Lady 6 is a legitimate ruler of Naranjo just as the great Double-Comb was so many years ago.

The device of referring to the famous Double-Comb to legitimize a reign is found three times at Naranjo The two other occurrences relate to the reign of Smoking

Squirrel and have already been discussed. The fact that Lady 6 employs the identical device provides unequivocal evidence that she is to be regarded as a ruler in the same sense as Smoking Squirrel and Chief Double-Comb.

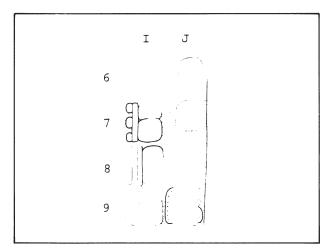


Fig. 6 Sentence relating the first mid-katun event in the reign of Chief Double-Comb to a similar event in the reign of Lady 6; Naranjo, Stela 31, 16-J9.

Chronological Events Celebrated During The Middle Period

Direct evidence relating to the exercise of power at Maya sites is available by examining the various period ending statements to see who presided at these important events. The celebration of period endings by erecting monuments dedicated to themselves was one of the most conspicuous activities of Classic Maya rulers. It is clear that ceremonial rites were among the important functions performed by rulers on these auspicious occasions. (See, for example, Bricker 1981.) This knowledge provides an excellent analytic tool for identifying who was in power at a given moment in time. A summary of the period endings celebrated during the middle period at Naranjo, with the corresponding chronological events noted and the name of the celebrant listed, is given in Table 2. Selected texts which relate to some of the period endings in Table 2 are illustrated in Fig. 7. Most of these are complete sentences of a special type, common in the Maya inscriptions, in which the only events mentioned are of a chronological nature.

The earliest chronological event celebrated in the middle period is recorded on Stela 29, H10-H14 (Fig. 7a). The cycle event at I12, associated with 9.13.3.0.0, has been referred to in Table 2 as the "Tikal cycle." The rational for this terminology is that the cycle was proclaimed on Tikal Temple I, Lintel 3, A1-A2, on a date which may correspond to the dedicatory date of the lintel. Moreover, there is a possibility that it was recorded on the much earlier Tikal Stela 25, C3, in association with the Long Count position 9.4.3.0.0 (Coe, Shook and Satterthwaite 1961:68-71). By contrast, the occurrences of this glyph at other sites are much later. Indeed, at Naranjo it is first mentioned on Stela 29 which was dedicated at 9.14.3.0.0. The event is also recorded on another monu-

ment, reportedly from Xunantunich, which has been described by von Winning and Dütting (Labbé 1982:38-41). This monument has also been fixed in the Long Count at 9.14.3.0.0 and so is contemporaneous with Naranjo, Stela 29. Thus, the earliest occurrences of the event glyph pertain to Tikal.

The text in Fig. 7a refers to an "end of tun" event at H12 and to the Tikal cycle event at I12. These events are far more than chronological footnotes. They are public events celebrated by the protagonist named at H13-I13, that is, Lady 6. The sentence implies that Lady 6 presided over the events recorded and that she was exercising one of the prerogatives of a ruler. Since Smoking Squirrel had been installed in his rulership a few years earlier, Lady 6 would be performing these functions by proxy, that is as regent. This is understandable given that the king was only seven years old at the time.

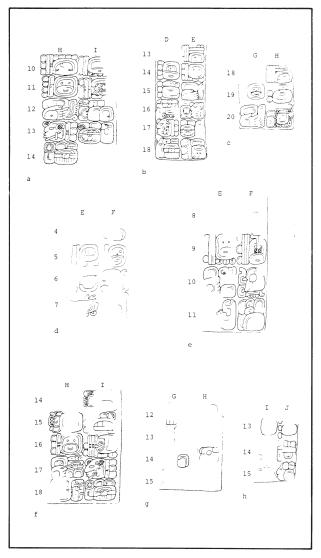


Fig. 7 Selected period ending statements from the middle period at Naranjo. (a) Stela 29, H10-H14; (b) Stela 24, E13-E18; (c) Stela 22, H18-H20; (d) Stela 1, F4-E7; (e) Stela 21, F8-F11; (f) Stela 29, I14-I18; (g) Stela 30, G12-H15; (h) Stela 31, I13-J15.

The earliest event of the middle period at Naranjo occurred at 9.12.10.5.12 and has Lady 6 as the protagonist. From the birth record of Smoking Squirrel at 9.12.15.13.7, it is clear that Lady 6 is at least five years older. Since she presided over the tun-ending and the Tikal cycle events when the king was seven years old, it may be inferred that she was much more than five years older than Smoking Squirrel and was of an older generation. This is in agreement with an earlier suggestion of Proskouriakoff (1960:466).

The first three monuments to be erected at Naranjo in the middle period were dedicated on 9.13.10.0.0. Of these, Stela 24 is in the Lady 6 series and Stelae 1 and 22 are in the Smoking Squirrel series. All three monuments contain complete sentences referring to the midkatun and these are illustrated in Fig. 7, b-d. A comparison of the three sentences is very instructive. On Stela 24 (Fig. 7b), the monument dedicated to Lady 6, she is named as the protagonist of the tun-ending event and the mid-katun event. This indicates that she officiated over the ceremonial rites associated with the period ending. On Stelae 22 (Fig. 7c) and 1 (Fig. 7d), the monuments dedicated to Smoking Squirrel, no celebrant at the period ending is named. This strongly suggests that Smoking Squirrel, now fourteen years old, did not preside at the celebrations. Hence, once again, it may be concluded that Lady 6 is acting as regent for Smoking Squirrel. The fact that he was fourteen and was still not exercising his royal powers reinforces the notion that Lady 6 was significantly older than Smoking Squirrel when she presided over the Tikal cycle event mentioned previously.

About five years after the erection of the preceding three monuments, Stela 21 was dedicated to Smoking Squirrel on 9.13.15.0.0. In the passage shown in Fig. 7e, Smoking Squirrel is listed as the protagonist of a period ending event for the first time. The earliest date on this monument refers to Smoking Squirrel's accession and commemorates it with an Initial Series. One other date can be recognized on Stela 21. This occurs at 9.13.14.4.2 and appears on the front of the monument. Since this intervenes between 9.13.10.0.0 when Lady 6 was exercising power and 9.13.15.0.0 when Smoking Squirrel presided over the chronological celebrations, it may mark the occasion when authority to rule was transferred from Lady 6 to Smoking Squirrel. At that time he would have been eighteen years old.

It can be seen from Table 2 that Smoking Squirrel celebrated the period endings from 9.13.15.0.0 to 9.14.3.0.0 inclusive. Although the glyphic record on Stela 28 is no longer extant, it has been argued that this stela records his commemoration of the quarter-katun at 9.14.5.0.0. The only anomaly in this period of Smoking Squirrel's active reign occurs on Stela 29, I14-I18 (fig.7f), where Lady 6 is indicated as presiding over the katun anniversary of the Tikal cycle event on 9.14.3.0.0. A parallel sentence on Stela 30, G12-H15 (Fig. 7g), demonstrates that Smoking Squirrel was also a celebrant at this event. The anniversary was of major importance

since both Stela 29 and 30 were dedicated at this time. The event is the only one in the annals of the middle period which is recorded in independent but parallel texts with two distinct celebrants. A possible explanation is that during these festivities Lady 6 represented Tikal while Smoking Squirrel represented Naranjo.

Table 2 indicates that by 9.14.10.0.0, Smoking Squirrel was no longer exercising power at Naranjo. The first evidence of this in the period ending records is on the back of Stela 31, 113-J15 (Fig. 7h). In this passage, 113-J13 contains the Calendar Round date 5 Ahau 3 Mac [9.14.10.0.0], I14 records the tun-ending event, and J14 the mid-katun event. The ruler presiding over these chronological celebrations is named at I15 as Lady 6. This confirms in a simple and direct manner that Smoking Squirrel was no longer ruling at Naranjo.

Before leaving this section it is interesting to note that Lady 6 makes use of the *bacab* title on Stlea 24, A9 and E18, and again on Stela 31, B7. The earlier usages are before Smoking Squirrel began his active reign and the later usage is after his presumed death. On Stelae 3 and 29, erected during Smoking Squirrel's active reign, she does not employ the title.

The Relationship Between Lady 6 and Smoking Squirrel

Berlin (1968a:20) was unable to decide whether Lady 6 was the mother or wife of Smoking Squirrel. Marcus (1976a:60-61, 165-167), on the other hand identifies Lady 6 as the mother of Smoking Squirrel. Berlin (1968a:19) observed that on Stela 23, F14-E14, a Lady Ahau of Tikal is shown in relationship to Smoking Squirrel. He interpreted the glyph at F14 to indicate a marriage between the woman at E14 and the protagonist of the sentence, Smoking Squirrel. A Lady Ahau of Tikal is also mentioned on the nearby contemporaneous Stela 3, E9. The reference is followed by a woman's name at E10-F10 which is distinct form that of Lady 6. It is known that Lady 6 refers to herself as a Lady Ahau of Tikal [Stela 24, D18; Stela 31, G1, J15] and that Stela 3 is dedicated to her (the opening event at Naranjo in which she was the protagonist is celebrated on this stela). Nevertheless, there is no explicit textual link identifying Lady 6 with the Lady Ahau at E9 or the woman at E10-F10. Similarly, there is no mention of the name of Lady 6 on Stela 23 and there is no reason to identify the woman named in the monument's "marriage" clause with Lady 6. In fact, Smoking Squirrel never explicitly refers to Lady 6 on any of his monuments.

The date on Stela 23 associated with the presumed marriage of Smoking Squirrel occurs at 9.13.18.4.18. This would be a very late date to observe a spousal alliance with Lady 6. Indeed, she had already exercised rulership functions by proxy more than 15 tuns earlier at 9.13.3.0.0 and again at the mid-katun on 9.13.10.0.0. Smoking Squirrel had begun his active reign more than 3 tuns earlier on 9.13.15.0.0. This chronology, together with the fact that Lady 6 celebrated the birth of Smoking Squirrel on her earliest monument, dedicated when she

TABLE 2. Period endings celebrated during the middle period at Naranjo.

Period Ending	Location	Chronological Event	Celebrant
9.13. 3. 0. 0	Stela 29, H10-H14	End of tun; New cycle (Tikal)	Lady 6
9.13.10. 0. 0	Stela 24, E13-E18	End of tun; Mid-katun	Lady 6
	Stela 22, H18-H20	End of tun; Mid-katun	(not given)
	Stela 1, F4-E7	End of tun; Mid-katun	(not given)
9.13.15. 0. 0	Stela 21, E9-F11	End of tun; 15 tuns	Smoking Squirrel
9.14. 0. 0. 0	Stela 23, G16-H20	End of 14 katuns; End of tun	Smoking Squirrel
	Stela 2, D3-E8	14 katuns	(not given)
	Stela 30, El-F6	14 katuns	Smoking Squirrel
9.14. 3. 0. 0	Stela 29, I14-I18	End of tun in the Tikal cycle	Lady 6
	Stela 30, Al-B6	Anniversary katun (Tikal)	Smoking Squirrel
	C1 -D11	"hand scattering"	Smoking Squirrel
	G12-H15	End of tun in the Tikal cycle	Smoking Squirrel
9.14.10. 0. 0	Stela 31, Al-B7	Mid-katun	Lady 6
	I13-J15	End of tun; Mid-katun	Lady 6
9.14.15. 0. 0	Stela 18, Al-D9	End of tun	Lady 6
	J 4- J6	15 tuns	(eroded)

presided over the mid-katun at 9.13.10.0.0, demonstrates a lengthy relationship between Lady 6 and Smoking Squirrel prior to 9.13.18.4.18. Moreover, it has been seen that Lady 6 probably belonged to an older generation than Smoking Squirrel. The combination of these factors can best be accounted for by the hypothesis that Lady 6 was the mother of Smoking Squirrel.

It is significant that Lady 6 refers to Smoking Squirrel on all of her monuments, except the last erected after her accession. Even though she was acting as ruler on Stela 24, it was because her son was king. Her right to govern was founded on this reality and her status and position are enhanced by the references to Smoking Squirrel. By contrast, Smoking Squirrel does not name his mother on any of his monuments. This neglect is at variance with the common practice of many Maya rulers, including those at Naranjo, in listing parentage statements in the records of their reigns. In these instances, the father of the ruler is almost always a former ruler himself and the parentage statements are means of legitimizing the current kingship. That Smoking Squirrel does not use this device suggests that his unknown father was not an actual ruler and that he had nothing to gain by publicizing his parentage.

The Origins of Lady 6 Royal Sky

On three of her monuments [Stelae 18, 24, and 29], Lady 6 has recorded her parentage. The lineage phrases referring to the mother of Lady 6 are illustrated in Fig. 8, a-c. The initial glyphs in the first and third phrases are relationship glyphs indicating "child of the female parent" and are followed by the name of the mother. (See Jones 1977:41-42 and Schele 1982:30-32 for some comments and examples of this type of structure.)

Three lineage phrases referring to the father of Lady 6 are shown in Fig. 8, d-f. The initial glyph in each phrase is a relationship glyph signifying "child of the male parent" and is followed by the name of the father and ultimately by the Tikal emblem glyph. The Tikal emblem glyph title, taken by her father but not her mother, is the source of the royal status claimed by Lady 6 herself. The first part of the father's name appears on Stela 24, D11 and on Stela 29, E6. It is followed by a "sky" glyph and a deity name with "smoke" prefix [Stela 24, E11; Stela 29, E7; Stela 18, C8b-D8]. The example of the deity name on Stela 24 has a symbolic form whereas in the other two cases it has an anthropomorphic form.

The father of Lady 6 carries a "3 katun" notation on Stela 29, E4, and a "4 royal katun" notation on Stela 18, D7b (Fig. 8, e-f). The former stela has a dedicatory date at 9.14.3.0.0 while the latter has a dedicatory date at 9.14.15.0.0. The common context in which these notations occur show that the simple "katun" and the "royal katun" notation have an equivalent meaning. They give the age of the individual named in terms of an ordinal numeration of katuns counted from birth. Subtracting a katun from the position of Stela 18 in the Long Count, it can be seen that the father of Lady 6 had "3 royal katuns" at 9.13.15.0.0. Comparing this with the record

on Stela 29 it can be concluded that in the interval from 9.13.15.0.0 to 9.14.3.0.0 he was between 40 and 60 years of age. It follows that he could have been no older than 52 years at 9.13.15.0.0. Extrapolating backwards, he could have been no older than 12 years at 9.11.15.0.0. If we assume that he reached puberty at age 14, the earliest he could have fathered Lady 6 would be at 9.11.17.0.0. This implies that Lady 6 could not have been any older than 13 years at 9.12.10.0.0.

Since Smoking Squirrel was born at 9.12.15.13.7, the assumption that Lady 6 gave birth at age 15 or later implies that at 9.12.10.0.0 she could not have been any younger than about 10 years. Thus, reasonable limits on human sexuality indicate that Lady 6 would have been between 10 and 13 years old at the beginning of the middle period at Naranjo. Any deviation from these limits would have to be very small. As a consequence, Lady 6 was about 32 years old when the first monuments of the middle period were dedicated and about 52 years old when she was portrayed on Stela 31 (Fig. 5) as a new ruler of Naranjo.

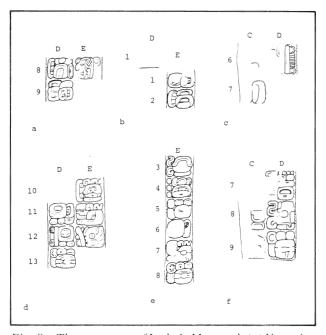


Fig. 8 The parentage of Lady 6. Maternal: (a) Naranjo, Stela 24, D8-D9; (b) Naranjo, Stela 29, D1, E1-E2; (c) Naranjo, Stela 18, C6-C7. Paternal: (d) Naranjo, Stela 24, E10-D13; (e) Naranjo, Stela 29, E3-E8: (f) Naranjo, Stela 18, D7-D9.

Houston and Mathews (1983) have argued that Lady 6 is the daughter of Ruler 1 of Dos Pilas. Their reasoning is based on the similarity of the names of the father of Lady 6 and of Ruler 1 of Dos Pilas. They have suggested that the latter ruler acceded to the throne at 9.10.12.11.2. However, from the age katun notations in the paternal lineage phrases of Lady 6, it can be concluded that her father was not born until sometime after 9.11.2.0.0.

Thus, the proposed accession date for Ruler 1 may be questioned. It was based on an interpretation of two anniversary phrases in the Dos Pilas texts [HS2, W, Step 2; HS1, Step 11. The first of the phrases relates to Ruler 1 of Dos Pilas and includes a T573 variant glyph, having the semantic value of "succession" or "change," and a numerical coefficient of 1, 2, or 3. The second of the phrases relates to Ruler 2 of Dos Pilas and includes a T573 glyph with a numerical coefficient of 2 and an u prefix. Now, it is clear from the known accession date of Ruler 2 that he is celebrating a one katun anniversary of accession. The anniversary text can be paraphrased as "completion, the second in succession, his katun in the rulership, Ruler 2 of Dos Pilas." The second expression can be interpreted as a reference to Ruler 2's position as second in the royal succession at Dos Pilas. With a similar interpretation, Ruler 1's anniversary phrase would read "completion, the first in succession, his katun..., Ruler 1 of Dos Pilas." The anniversary katun, not having any coefficient, should be interpreted as a first katun just as in the case of Ruler 2. The implication is that Ruler 1 acceded to the throne at 9.11.12.11.2, one katun later than proposed by Houston and Mathews. As a consequence, the dynastic records of Ruler 1 would be compatible with the age katun records at Naranjo. Moreover, there would not be a gap of more than seventeen tuns following Ruler 1's accession in which nothing of note seems to have occurred. In this reconstruction, Ruler 1 would have mounted the throne before he was eight years old and would have fathered Ruler 2 before he was eighteen years old.

Houston and Mathews (1983) have also pointed out that the emblem glyphs of Tikal, Dos Pilas, and Aguateca cannot be distinguished. I would suggest that this is because only one emblem glyph is being employed in all three cases, namely that of Tikal which has priority in its usage. It may be noted that the Tikal emblem glyph appears in the name phrase of Lady 6 [Stela 24, A8, C10; Stela 29, G11, H14, I18], as does an equivalent glyph in which the usual emblem glyph prefixes are replaced by the female head prefix [Stela 24, D18; Stela 31, G1, J15]. The equivalence of these glyphs is apparent from the identical contexts of their usage and in particular

by their interchangeability as exhibited on Stela 24. (One of these two glyphs also appears on Stela 18, C5, but it is uncertain which one due to erosion of the prefix.) After her accession at 9.14.10.0.0, Lady 6 was ruler of Narnajo but continued to use the Tikal emblem glyph, or its equivalent, in her name phrases. This does not mean that the Tikal emblem glyph became a Naranjo emblem glyph. Similarly, the use of the Tikal emblem glyph at Dos Pilas and Aguateca does not imply that it has become a local emblem glyph at these latter sites.

In order to better understand the usage of emblem glyphs in these historic texts it is useful to appreciate their function as titles applicable to Maya rulers and occasionally other noble individuals. This function is made evident by their grammatical position in name phrases and particularly in female name phrases, for in these cases the usual "water group" prefix is often replaced by the female head prefix and so there is no doubt that they must modify the name of the woman involved. Because the names they modify are rulers or other noble individuals, it is also clear that they are royal titles. The local and extra-local usage of emblem glyphs can then be explained by the hypothesis that emblem glyphs pertain to membership in a dynastic lineage centered at a specific site. Thus, for example, the emblem glyph titles of Lady 6 may be glossed as "Princess of Tikal" and "Lady Ahau of Tikal" with the understanding that she is thereby claiming a familial relationship with the royal lineage having its dynastic center at Tikal. It does not necessarily imply that she herself is from Tikal. In the same way, her father can claim to be a "Lord of Tikal" even though he was resident and ruler of Dos Pilas.

It is known that Ruler A of Tikal had "3 katuns" at 9.14.0.0.0 [Stela 16, C3] so that he would have been in the same generation as the father of Lady 6. As a result, it may be posited that Ruler A of Tikal was a brother of Ruler 1 of Dos Pilas, and uncle of Lady 6, and a granduncle of Smoking Squirrel of Naranjo. Such a scheme would imply that Dos Pilas, Naranjo, and Tikal were all being ruled by members of the same dynastic family, descendants of Lady Jaguar Seat and Lord Shield-Skull of Tikal (Jones 1977:41-42).

Bibliography

ACOSTA, JOSEPH DE

- 1880 The Natural and Moral History of the Indies. (Reprinted from the English translated edition of Edward Grimston, 1604.) The Hakluyt Society. London.
- 1970 The Natural and Moral History of the Indies. (Reprinted from the English translated edition of Edward Grimston, 1604, and edited by Clements R. Markham.) Vol. I. B. Franklin, New York

ADAMS, R. E. W.

- 1971 The Cermaics of Altar de Sacrificios, Guatemala.
 Papers of the Peabody Museum of American Archaeology and Ethnology 63(1). Harvard University,
 Cambridge.
- 1973 Maya Collapse: Transformation and Termination in the Ceramic Sequence at Altar de Sacrificios. In *The Classic Maya Collapse*, edited by T. P. Culbert, pp. 133-163. University of New Mexico Press, Albuquerque.
- 1977 *Prehistoric Mesoamerica*. Little, Brown and Company, Boston.

ADAMS, R. E. W., and ROBERT C. ALDRICH

A Reevaluation of the Bonampak Murals: A Preliminary Statement on the Paintings and Texts. In *Third Palenque Round Table*, 1978, Part 2, edited by Merle Greene Robertson, pp. 45-59. University of Texas Press, Austin.

ADAMS, R. E. W., and WOODRUFF D. SMITH

1981 Feudal Models for Classic Maya Civilization. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 335-349. University of New Mexico Press, Albuquerque.

AMRAM, D. W.

1942 The Lacandon, Last of the Maya. *El Mexico Antiguo* 6:15-26.

ANAWALT, PATRICIA RIEFF

1981 Indian Clothing Before Cortes. Mesoamerican Costumes from the Codices. University of Oklahoma Press, Norman.

ANDREWS, DOROTHY, and HEATH DE ZAPATA 1978 Vocabulario de Mayathan. Merida.

ANONYMOUS

1566 The Discription of a Rare or Rather Most Monstrous Fishe Taken on the East Cost of Holland the XVII of Nouember, Anno 1566. London.

ANONYMOUS

1689 Gazophylacium Anglicanum: Containing the Derivation of English Words, Proper and Common; Each in an Alphabet Distinct: Proving the Dutch and Saxon to Be the Prime Fountains, London.

ARBER, EDWARD (editor)

1885 The First Three English Books on America. Scribner & Welford, New York.

THE ARTS CLUB OF CHICAGO

1982 High Culture in the Americas Before 1500. The Arts Club of Chicago, Chicago.

AULIE, H. WILBUR, and E. W. AULIE

1978 Diccionario Ch' ol-Español, Español-Ch' ol. Vocabularios Indigenas 21. Instituto Lingüístico de Vernao. Mexico.

AVENI, ANTHONY F. (editor)

1977 Native American Astronomy. University of Texas Press, Austin.

BAILEY, NATHANIAL

1724 An Universal Etymological English Dictionary: Comprehending the Derivations of the Generality of Words in the English Tongue, Either Ancient or Modern, from the Ancient British, Saxon, Danish, Norman and Modern French, Teutonic, Dutch, Spanish, Italian, as also from the Latin, Greek, and Hebrew Languages, Each in Their Proper Characters. Second edition. London.

BARDAWIL, LAWRENCE W.

1976 The Principal Bird Deity in Maya Art – An Iconographic Study of Form and Meaning. In *The Art, Iconography & Dynastic History of Palenque, Part III* (Proceedings of the Segunda Mesa Redonda de Palenque), edited by Merle Greene Robertson, pp. 195-209. Robert Louis Stevenson School, Pebble Beach.

BARRERA VÁSQUEZ, ALFREDO

1980 Diccionario Maya Cordemex: Maya-Español, Español-Maya. Ediciones Cordemex, Merida.

BARRERA VÁSQUEZ, ALFREDO, and SYLVANUS G. MORLEY

1949 The Maya Chronicles. *Contributions to American Anthropology and History* 10:1-85. Carnegie Institution, Washington.

BARRERA VÁSQUEZ, ALFREDO, and SYLVIA RENDON

1948 El Libro de los Libros de Chilam Balam. Fondo de Cultura Economica, Mexico City.

BARTHEL, THOMAS S.

- 1951 Maya-Astronomie. Lunare Inschriften aus dem Südreich. Zeitschrift für Ethnologie 76:216-238. Braunschweig.
- 1968a El Complejo Emblema. Estudios de Cultura Maya 7:159-193. Mexico City.
- 1968b Götter Sterne Pyramiden. *Paideuma* 14:45-92. Bamberg.
- 1977 Untersuchungen zur Groβsen Göttin der Maya. Zeitschrift für Ethnologie 102:44-102. Braunschweig.
- 1979 Enigmatisches im Codex Vaticanus 3773: Kosmo gramm und Eschatologie. *Tribus* 38:83-122. Linden-Museum, Stuttgart.

BAUDEZ, CLAUDE F.

- n.d. a Iconography and History at Copan. In *The Southeast Mesoamerican Periphery: Problems and Prospects*, edited by Patricia Urban and Edward Schortman. University of Texas Press, Austin, in press.
- The Knife and the Lancet: the Iconography of Sacrifice at Copan. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Insitute, San Francisco.

BAUDEZ, CLAUDE, and BERTHOLD RIESE

Bacabs and Bicephalic Monsters in Copan Architecture. Paper presented at the 44th International Congress of Americanists, Manchester, England.

BEETZ, CARL P., and LINTON SATTERTHWAITE

1981 The Monuments and Inscriptions of Caracol, Belize.
University Museum Monograph 45. The University
Museum, University of Pennsylvania, Philadelphia.

BELLONI, PETRI

1551 De Aquatilibus. Paris.

BENSON, ELIZABETH

- 1976 Ritual Cloth and Palenque Kings. In *The Art, Iconog-raphy & Dynastic History of Palenque, Part III* (Proceedings of the Segunda Mesa Redonda de Palenque), edited by Merle Greene Robertson, pp. 45-58. Robert Louis Stevenson School, Pebble Beach.
- 1982 The House as an Image in Mesoamerica. Paper presented at the 44th International Congress of Americanists, Manchester, England.

BERLIN, HEINRICH

- 1944 Un Templo Olvidado en Palenque. *Revista Mexicana* de Estudios Antropologicas 6(1-2):62-90. Sociedad Mexicana de Antropología, Mexico.
- 1958 El Glifo 'Emblema' en las Inscripciones Mayas. *Journal de la Société des Américanistes* 47:111-119. Paris.
- 1959 Glifos Nominales en el Sarcófago de Palenque. *Humanidades* 2(10):1-8. Universidad de San Carlos, Guatemala.
- 1960 Mas casos del glifo lunar en numeros de distancia. Antropología e Historia de Guatemala 12(2):25-33. Instituto de Antropología e Historia, Guatemala.
- 1963 The Palenque Triad. Journal de la Société des Américanistes 52:91-99.
- The Inscription of the Temple of the Cross at Palenque. *American Antiquity* 30:330-342.
- 1968a Estudios Epigraficos 11. *Antropología e Historia de Guatemala* 20(1):13-24.
- 1968b The Tablet of the 96 Glyphs at Palenque, Chiapas, Mexico. *Middle American Research Institute Publication* 26:135-149. Tulane University, New Orleans.

- 1970 Miscelanea Palencana. Journal de la Société des Américanistes 59:107-128.
- 1973 Beiträge zum Verständnis de Inschriften von Naranjo.

 **Bulletin de la Société Suisse des Américanistes 37:7
 14.
- 1977 Signos y Significados en las Inscripciones Mayas. Instituto Nacional del Patrimonio Cultural de Guatemala. Guatemala.

BINFORD, LEWIS R.

1968 Some Comments on Historical versus Processual Archaeology. Southwestern Journal of Anthropology 24(3):267-275.

BISHOP, RONALD L., GARMAN HARBOTTLE, and EDWARD V. SAYRE

1982 Chemical and Mathematical Procedures Employed in the Maya Fine Paste Ceramics Project. In Analyses of Fine Paste Ceramics [Excavations at Seibal, Guatemala], edited by Jeremy A. Sabloff, pp. 272-282. Memoirs of the Peabody Museum of Archaeology and Ethnology 15(2). Harvard University, Cambridge.

BLOM, FRANS, and OLIVER LA FARGE

1926- Tribes and Temples: A Record of the Expedition to
27 Middle America Conducted by the Tulane University
of Louisiana in 1925. 2 vols. Middle American Research Institute Publication 1. Tulane University,
New Orleans.

BODLEIAN CODEX

see Caso, Alfonso.

BOLZ, INGEBORG

1975 Sammlung Ludwig Altamerika. *Ethnologica* 7. West Germany.

BOOS, FRANK H.

1968 Two Zapotec Urns with Identical Unclassified Figures Display a Unique Maize Fertility Concept. Baessler Archiv 16:1-8. Berlin.

BOOTH, DAVID

1836 An Analytical Dictionary of the English Language, in Which the Words Are Explained in the Order of Their Natural Affinity, Independent of Alphabetical Arrangement; and the Signification of Each Is Traced from Its Etymology. Simkin, Marshall, London.

BOVE, FREDERICK J.

1981 Trend Surface Analysis and the Lowland Classic Maya Collapse. *American Antiquity* 46:93-112.

BRADLEY, HENRY (editor)

1914 A New English Dictionary on Historical Principles, Vol. 8, Part II. Clarendon Press, Oxford.

BRAINERD, GEORGE W.

1958 The Archaeological Ceramics of Yucatan. University of California Anthropological Records 19. Berkeley.

BRASSEUR DE BOURBORG, CHARLES ETIENNE

1864 Relation des choses de Yucatan de Diego de Landa. Auguste Durand, Paris.

BRICKER, VICTORIA R.

- 1981 Las Ceremonias de Año Nuevo en las Monumentos Clasicos Mayas. Paper presented at the XVII Mesa Redonda of the Sociedad Mexicana de Antropología, San Cristóbal de Las Casas, Mexico.
- A Morphosyntactic Interpretation of Some Accession Compounds and Other Verbs in the Maya Hieroglyphs. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Insitute, San Francisco.

BRINTON, DANIEL GARRISON

1882 The Maya Chronicles, *Library of Aboriginal American Literature* 1. Philadelphia.

BROTHERSTON, GORDON

1979 Image of the New World. Thames and Hudson, London.

BRUCE S., ROBERTO D.

1976 Textos y Dibujos Lacandones de Naja. Coleccion Científica Lingüística 45. Instituto Nacional de Antropología e Historia, Mexico City.

BRUNDAGE, BURR CARTWRIGHT

1979 The Fifth Sun. University of Texas Press, Austin. BUDKER, PAUL

1971 The Life of Sharks. Weidenfeld and Nicholson, London.

BULLARD, WILLIAM R., JR.

1960 Maya Settlement Patterns in Northeastern Peten, Guatemala. *American Antiquity* 25:355-372.

Topoxte, a Postclassic Maya Site in Peten, Guatemala. In *Monographs and Papers in Maya Archaeology*, edited by William R. Bullard, pp. 245-307. Papers of the Peabody Museum of Archaeology and Ethnology 61. Harvard University, Cambridge.

1973 Postclassic Culture in Central Peten and Adjacent British Honduras. In *The Classic Maya Collapse*, edited by T.P. Culbert, pp. 221-241. University of New Mexico Press, Albuquerque.

BUSHNELL, G. H. S., and ADRIAN DIGBY

1955 Ancient American Pottery. Faber and Faber, London. BUTLER, MARY

Dress and Decoration of the Old Maya Empire. *The Museum Journal* 12(2):155-183. The University Museum, University of Pennsylvania, Philadelphia.

CARMACK, ROBERT

1966 El Ajpop Quiche, K'uk'cumatz: Un Problema de la Sociologia Historica. *Antropología e Historia de Guatemala* 18(1):43-50.

CASO, ALFONSO

1928 Las Estelas Zapotecas. Mexico.

1960 Codice Bodley 2858, ed. facsimilar. Sociedad Mexicana de Antropología.

CASO, ALFONSO, and IGNACIO BERNAL

1952 Urnas de Oaxaca. Memorias del Instituto Nacional de Antropología e Historia 2. Mexico City.

CASTRO, JOSE I.

1983 The Sharks of North American Waters. Texas A & M University Press, College Station.

CHARENCY, CHARLES FÉLIX HYACINTHE GOUTIER, COMTE DE

1874 Essai d'analyse grammaticale d'un texte en langue maya. Académie Nationale des Sciences, Arts et Belles Lettres de Çaen, Mémoires 141-161. Caen.

1875 Essai d'analyse grammaticale d'un texte en langue maya. Second edition. Le Havre.

CHASE, ARLEN F.

1985 Postclassic Peten Interaction Spheres: The View from Tayasal. In *The Lowland Maya Postclassic: Questions and Answers*, edited by Arlen Chase and Prudence Rice. University of Texas Press, Austin, in press.

n.d. Time Depth or Vacuum: The 11.3.0.0.0 Correlation and the Lowland Maya Postclassic. In *Late Lowland Maya Civilization: Classic to Postclassic*, edited by Jeremy Sabloff and E. W. Andrews V. University of New Mexico Press, Albuquerque, in press.

CHASE, DIANE Z.

1981 The Maya Postclassic at Santa Rita Corozal. *Archaeology* 34(1):25-33.

1982 Spatial and Temporal Variability in Postclassic Northern Belize. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania.

1985 Ganned But Not Forgotton: Late Postclassic Archaeology and Ritual at Santa Rita Corozal. In *The Lowland Maya Postclassic: Questions and Answers*, edited by Arlen Chase and Prudence Rice. University of Texas Press, Austin, in press.

CHASE, DIANE Z., and ARLEN F. CHASE

1982 Yucatec Influence in Terminal Classic Northern Belize. *American Antiquity* 47:596-614.

CHRISTALLER, W.

1933 Die zentralen Orte in Suddeutschland. Karl Zeiss, Jena. (Translated by Carlisle W. Baskin, 1966: Central Places in Southern Germany. Prentice Hall. Englewood Cliffs, New Jersey.)

CLARKSON, PERSIS B.

1979 Classic Maya Attire as Indicators of Status, Role, and Function. Masters' thesis, Department of Archaeology, University of Calgary, Alberta.

CLAYTON, THOMAS

1969 The "Shakespearean" Addition in the Booke of Sir Thomas Moore: Some Aids to Scholarly and Critical Shakespearean Studies. W. C. Brown, Dubuque.

CLOSS, MICHAEL P.

1981 Venus Dates Revisited. *Archaeoastronomy* 4(4):38-41.

On a Classic Maya Accession Phrase and a Glyph for "Rulership." *Mexicon* 4:47-50.

1985 A New Reading of Glyphs T12 and T229. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Institute, San Francisco.

n.d. a The Dynastic History of Naranjo: The Early Period. Estudios de Cultura Maya, in press.

COE, MICHAEL D.

1965 The Jaguar's Children: Pre-Classic Central Mexico. Museum of Primitive Art, New York.

1973 The Maya Scribe and His World. The Grolier Club, New York.

1975a Classic Maya Pottery at Dumbarton Oaks. Dumbarton Oaks, Washington, D.C.

1975b Death and the Ancient Maya. In *Death and the Afterlife in Pre-Columbian America*, edited by Elizabeth P. Benson, pp. 87-104. Dumbarton Oaks, Washington, D.C.

1977 Supernatural Patrons of Maya Scribes and Artists. In Social Process in Maya Prehistory, edited by Norman Hammond, pp. 327-347. Academic Press, New York.

1978 Lords of the Underworld: Masterpieces of Classic Maya Ceramics. Princeton University Press, Princeton.

1981a The Maya God N in the Memorial Art Gallery. *Porticus* 4:9-13. University of Rochester, New York.

1981b Religion and the Rise of Mesoamerican States. In *The Transition to Statehood in the New World*, edited by Grant D. Jones and Robert R. Kautz, pp. 157-171. Cambridge University Press, Cambridge.

1982 Old Gods and Young Heroes: The Pearlman Collection of Maya Ceramics. The Israel Museum, Jerusalem.

COE, WILLIAM R.

- 1965 Tikal: Ten Years of Study of a Maya Ruin in the Lowlands of Guatemala. *Expedition* 8:5-56.
- 1967 Tikal: A Handbook of the Ancient Maya Ruins. The University Museum, University of Pennsylvania, Philadelphia.

COE, WILLIAM R., and ROBERT J. SHARER

1979 The Quirigua Project: 1975 Season. In *Quirigua Reports* 1, edited by Wendy Ashmore, pp. 13-36. University Museum Monograph 37. University of Pennsylvania, Philadelphia.

COE, WILLIAM R., EDWIN M. SHOOK, and LINTON SATTERTHWAITE

1961 The Carved Wooden Lintels of Tikal. Tikal Report Number 6. Museum Monographs, The University Museum. University of Pennsylvania, Philadelphia.

COFFMAN, ROBERT

1979 A Commentary on the Hieroglyphic Inscriptions of Naranjo, El Peten, Guatemala. Unpublished manuscript, University of Texas at Austin.

COGGINS, CLEMENCY C.

- 1975 Painting and Drawing Styles at Tikal: An Historical and Iconographic Reconstruction. Ph.D. dissertation, Harvard University University Microfilms, Ann Arbor.
- 1980 The Shape of Time: Some Political Implications of a Four-Part Figure. *American Antiquity* 45:727-739.
- 1983 The Stucco Decoration and Architectural Assemblage of Structure 1-Sub, Dzibilchaltun, Yucatan, Mexico.
 Middle American Research Institute Publication 49.
 Tulane University, New Orleans.

COLBY, BENJAMIN N., and LORE M. COLBY

1981 The Daykeeper: The Life and Discourse of an Ixil Diviner. Harvard University Press, Cambridge.

COLLIER, GEORGE A.

1975 Fields of the Zotzil: The Ecological Bases of Tradition in Highland Chiapas. University of Texas Press, Austin

CORDRY, DONALD, and DOROTHY CORDRY

1968 *Mexican Indian Costumes*. University of Texas Press, Austin.

COROMINAS, JUAN (editor)

1954 Diccionario Crítico Etimológico de la Lengua Castellana, Vol. 4. Madrid.

CORONEL, FRAY JUAN

1930 Diccionario de Motul, atribuido a fray Antonio de Ciudad Real. Talleres de la Compania Tipografica Yucateca. Merida.

COWGILL, GEORGE

1963 Postclassic Period Culture in the Vicinity of Flores, Peten, Guatemala. Ph.D. dissertation, Department of Anthropology, Harvard University.

CRAINE, EUGENE R., and REGINALD C. REINDORP (translators and editors)

1979 The Codex Pérez and the Book of Chilam Balam of Maní. University of Oklahoma Press, Norman.

CRÓNICA DE MANÍ

1596 Latin American Library, Tulane University, New Orleans.

DAVOUST, MICHEL

1982 Los primeros soberanos de Palenque. Boletin de la Escuela de Ciencias Antropologicas de la Universidad de Yucatan 52:25-46. Merida.

DELGADO, HILDEGARD SCHMIDT

1963 Aboriginal Guatemala Handweaving and Costume. Ph.D. dissertation, Department of Anthropology, Indiana University.

DE VOS, JAN

- 1980a Fray Pedro Lorenzo de la Nada; Misionero de Chiapas y Tabasco; en el Cuarto Centenario de su Muerte. (No publisher or place of publication listed.)
- 1980b La Paz de Dios y del Rey; La Conquista de la Selva Lacandona; 1525-1821. Coleccion Ceiba, Ensayo, 10. Gobierno del Estado de Chiapas, Tuxtla Gutier-

DIESELDORFF, ERWIN P.

- 1893a Ausgrabungen in Coban. Zeitschrift für Ethnologie 25:374-382. Berlin.
- 1893b Bericht über alte bemalte Tongefasse von Guatemala. Zeitschrift für Ethnologie 25:547-550. Berlin.
- 1922 Welchen Gott Stellen die Steindollen der Mayavölker dar? In *Festschrift Eduard Seler*, edited by Walter Lehmann, pp. 47-58. Strecker und Schroder, Stuttgart.
- 1926- Kunst und Religion der Mayavolker. 2 volumes.31 Berlin.
- 1939 Los Secretos Contenidos en el Tablero del Templo de la Cruz de Palenque... El Sobre Azul, Mexico.

DURAN, FRAY DIEGO

1971 Book of the Gods and Rites and the Ancient Calendar. University of Oklahoma Press, Norman.

DÜTTING, DIETER

- 1976 The Great Goddess in Classic Maya Religious Belief. Zeitschrift für Ethnologie 101:41-146. Braunschweig.
- 1978 "Bats" in the Usumacinta-Valley. Remarks on the Inscriptions of Bonampak and Neighboring Sites in Chiapas, Mexico. *Zeitschrift für Ethnologie* 103:1-56. Braunschweig.
- 1979a Sustina Gracia. An Inquiry into the Farmer's Almanacs of the Codex Dresden. *Indiana* 5:145-170. Berlin.
- 1979b On the Hieroglyphic Inscriptions of Three Monuments from Piedras Negras, Guatemala. *Zeitschrift für Ethnologie* 104:17-63. Braunschweig.
- 1980 Aspects of Classic Maya Religion and World View. *Tribus* 29:106-167. Linden-Museum, Stuttgart.
- 1981 Life and Death in Mayan Hieroglyphic Inscriptions. Zeitschrift für Ethnologie 106:185-228. Berlin.
- 1982 The 2 Cib 14 Mol Event in the Inscriptions of Palenque, Chiapas, Mexico. *Zeitschrift für Ethnologie* 107:233-258. Berlin.
- 1984 Venus, the Moon, and the Gods of the Palenque Triad. Zeitschrift für Ethnologie 109, in press. Berlin.
- n.d. On the Context-dependent Use of Bi- and Polyvalent Graphemes in Mayan Hieroglyphic Writing. Paper presented at the Fourth Palenque Round Table, June, 1980, Palenque, Chiapas, Mexico.

EARLE, DUNCAN M.

1983 The Metaphor of the Day in Quiche: Notes on the Nature of Everyday Life. In *Symbol and Meaning Beyond the Closed Community: Essays in Mesoamerican Ideas*, edited by Gary H. Gossen. Institute for Mesoamerican Studies, State University of New York at Albany.

EASBY, ELIZABETH K., and JOHN F. SCOTT

1970 Before Cortes: Sculpture of Middle America. The Metropolitan Museum of Art, New York.

EDMONSON, MUNRO STERLING

- 1965 Quiche-English Dictionary. Middle American Research Institute Publication 30. Tulane University, New Orleans.
- 1971 The Book of Counsel: The Popul Vuh of the Quiche Maya of Guatemala. Middle American Research Institute Publication 35. Tulane University, New Orleans.
- 1976 The Mayan Calendar Reform of 11.16.0.0.0. Current Anthropology 17:713-717.
- 1981 Some Postclassic Questions About the Classic Maya. In *Ancient Mesoamerica*, *Selected Readings*, second edition, edited by John A. Graham, pp. 221-228. Peek Publications, Palo Alto, California.
- 1982 The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin. University of Texas Press, Austin.
- n.d. a Heaven Born Merida and Its Destiny. University of Texas Press, Austin, in press.
- n.d. b The First Chronicle from the Book of Chilam Balam of Mani. Transcription from a photographic facsimile of text in Craine and Reindorp 1979:134-137. Manuscript.

EKHOLM, GORDON F.

1970 Ancient Mexico and Central America. American Museum of Natural History, New York.

EKHOLM, SUSANNA M.

- 1979a The Lagertero Figurines. In *Maya Archaeology and Ethnohistory*, edited by Norman Hammond and Gordon R. Willey, pp. 172-186. University of Texas Press, Austin.
- 1979b The Significance of an Extraordinary Maya Ceremonial Refuse Deposit at Lagertero, Chiapas. In *Actes du XLII^e Congrés Internacional des Américanistes* 8:147-159. Société des Américanistes, Musée de l'Homme, Paris.
- 1981 The Lagertero Regional Style of Maya Moldmade Figurines. Paper presented at Mesoamerican Figurines: Their Archaeological Contexts and Iconographic Meanings, a University Seminar, Columbia University, New York.
- 1982 Una Ceremonia Maya de Fin de Ciclo. Paper presented at Cuarenta Años de Investigaciones Antropológicas en Chiapas: Conmemoración, San Cristobal de Las Casas, Chiapas. State Government of Chiapas, in press.
- 1983 End of Haab Ceremonies: Possible Ancient Mulucyear Rites at Lagertero. Paper presented at the Fifth Palenque Round Table, Palenque, Chiapas, Mexico.
- The Lagertero Ceramic 'Pendants'. In Fourth Palenque Round Table, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Institute, San Francisco.

ESCALONA RAMOS, ALBERTO

1933 Historia de los Mayas por sus Cronicas. Universidad Nacional del Sureste, Merida.

EUW, ERIC VON

- 1977 Itzimte, Pixoy, Tzum. Corpus of Maya Hieroglyphic Inscriptions, 4(1). Peabody Museum, Harvard University, Cambridge.
- 1978 Xultun. Corpus of Maya Hieroglyphic Inscriptions, 5(1). Peabody Museum, Harvard University, Cambridge.

FAULHABER, JOHANNA

1970 Anthropometry of Living Indians. In Handbook of

Middle American Indians, Vol. 9, edited by T. Dale Stewart, pp. 82-104. General editor, Robert Wauchope. University of Texas Press, Austin.

FITCHETT, ARTHUR G.

1974 Origin of the 260-day Cycle in Mesoamerica. *Science* 185:542-543.

FITZPATRICK, ELISE, and NICHOLSON J. EASTMAN 1960 Obstetrics for Nurses. Lippincott, Philadelphia. FLANNERY, KENT V.

1972 The Cultural Evolution of Civilizations. *Annual Review of Ecology and Systematics* 3:399-426.

FONCERRADA DE MOLINA, MARTA

- 1965 La Escultura Arquitectonica de Uxmal. Imprenta Universitaria, Mexico.
- Mural Painting in Cacaxtla and Teotihuacan Cosmopolitism. In *Third Palenque Round Table*, 1978,
 Part 2, edited by Merle Greene Robertson, pp. 183-198. University of Texas Press, Austin.

FORSTEMANN, ERNST

1906 Commentary on the Maya Manuscript in the Royal Public Library of Dresden. Papers of the Peabody Museum of American Archaeology and Ethnology 4(2). Harvard University, Cambridge.

FOUGHT, JOHN G.

1972 *Chorti (Mayan) Texts (1)*. Edited by Sarah S. Fought. University of Pennsylvania Press, Philadelphia.

FOX, JAMES A., and JOHN S. JUSTESON

- 1980 Mayan Hieroglyphs as Linguistic Evidence. In *Third Palenque Round Table*, 1978, Part 2, edited by Merle Greene Robertson, pp. 204-216. University of Texas Press, Austin.
- 1983 Hieroglyphic Evidence for the Languages of the Classic Maya. Manuscript.
- n.d. Polyvalence in Mayan Hieroglyphic Writing. In *Phonetic Studies in Mayan Hieroglyphic Writing*, edited by Lyle Campbell and John S. Justeson, Institute for Mesoamerican Studies, State University of New York, Albany, in press.

FREIDEL, DAVID A.

- 1981 Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya. In *The Transition to Statehood in the New World*, edited by Grant D. Jones and Robert R. Kautz, pp. 188-227. Cambridge University Press, Cambridge.
- New Light on the Dark Age: A Summary of Major Themes. In *The Lowland Maya Postclassic: Questions and Answers*, edited by Arlen Chase and Prudence Rice. University of Texas Press, Austin, in press.

FREIDEL, DAVID A., and LINDA SCHELE

1982 Symbol and Power: A History of the Lowland Maya Cosmogram. Paper presented at the Princeton Conference on the Origins of Maya Iconography, Princeton.

GANN, THOMAS

- 1900 Mounds in Northern Honduras. Nineteenth Annual Report 1897-1898, Part 2:655-692. Bureau of American Ethnology, Washington, D.C.
- 1918 The Maya Indians of Southern Yucatan and Northern British Honduras. Bureau of American Ethnology Bulletin 64. Washington, D.C.

GATES, WILLIAM E.

1932 Eras of the Thirteen Gods and the Nine Gods: Book of Chumayel, Pages 42-48. *Maya Society Quarterly* 1(2):78-92.

GELB, IGNACE J.

1963 A Study of Writing. Second edition. University of Chicago Press, Chicago.

GENDROP, PAUL

1980 Dragon-Mouth Entrances: Zoomorphic Portals in the Architecture of Central Yucatan. In *Third Palenque Round Table*, 1978, Part 2, edited by Merle Greene Robertson, pp. 138-150. University of Texas Press, Austin.

GIRARD, RAFAEL

1962 Los Mayas Eternos. Libro Mex, Mexico.

GOLDSTINE, HERMAN H.

1973 New and Full Moons 1001 B.C. to A.D. 1651.

Memoirs of the American Philosophical Society 94.
Philadelphia.

GOODMAN, J.T.

The Archaic Maya Inscriptions. Appendix to A. P. Maudslay, *Biologia-Centrali Americana; Archaeology*. R. H. Porter and Dulau and Company, London.

GORDON, G. B.

1896 Prehistoric Ruins of Copan, Honduras. Memoirs of the Peabody Museum of American Archaeology and Ethnology 1(1). Harvard University, Cambridge.

GOSSEN, GARY H.

1974 Chamulas in the World of the Sun: Time and Space in a Maya Oral Tradition. Harvard University Press, Cambridge.

GRAHAM, IAN

- 1967 Archaeological Explorations in El Peten, Guatemala.
 Middle American Research Institute Publication 33.
 Tulane University. New Orleans.
- 1978 Naranjo, Chunhuitz, Xunantunich. Corpus of Maya Hieroglyphic Inscriptions 2(2). Peabody Museum, Harvard University, Cambridge.
- 1979 *Yaxchilan*. Corpus of Maya Hieroglyphic Inscriptions 3(2). Peabody Museum, Harvard University, Cambridge.
- 1980 Ixkun, Ucanal, Ixtutz, Naranjo. Corpus of Maya Hieroglyphic Inscriptions 2(3). Peabody Museum, Harvard University, Cambridge.
- 1982 *Yaxchilan*. Corpus of Maya Hieroglyphic Inscriptions 3(3). Peabody Museum, Harvard Univesity, Cambridge.

GRAHAM, IAN, and ERIC VON EUW

- 1975 *Naranjo*. Corpus of Maya Hieroglyphic Inscriptions 2(1). Peabody Museum, Harvard University, Cambridge.
- 1977 Yaxchilan. Corpus of Maya Hieroglyphic Inscriptions 3(1). Peabody Museum, Harvard University, Cambridge.

GRAHAM, JOHN A.

1973 Aspects of Non-Classic Presences in the Inscriptions and Sculptural Art of Seibal. In *The Classic Maya Collapse*, edited by T. P. Culbert, pp. 207-217. University of New Mexico Press, Albuquerque.

GRANGER, TIMOTHIE

1568 A Moste True and Marueilous Straunge Wonder, the Lyke Hath Seldom Ben Seene, of XVII Monstrous Fishes, Taken in Suffolke, at Downam Brydge, Within a Myle of Ipswiche. London.

GREENE, MERLE

1967 Ancient Maya Relief Sculpture. The Museum of Primitive Art, New York.

GREENE, MERLE, ROBERT L. RANDS, and JOHN A.

GRAHAM

1972 Maya Sculpture from the Southern Lowlands, the Highlands and Pacific Piedmont: Guatemala, Mexico, Honduras. Lederer, Street and Zeus, Berkelev.

GREENE ROBERTSON, MERLE

- 1974 The Quadripartite Badge A Badge of Rulership. In Primera Mesa Redonda de Palenque, Part 1, edited by Merle Greene Robertson, pp. 77-93. Robert Louis Stevenson School, Pebble Beach.
- 1979 A Sequence for Palenque Painting Techniques. In Maya Archaeology and Ethnohistory, edited by Norman Hammond and Gordon R. Willey, pp. 149-171. University of Texas Press, Austin.

GREENE ROBERTSON, MERLE, MARJORIE S ROSENBLUM SCANDIZZO, and JOHN R. SCANDIZZO

1976 Physical Deformities in the Ruling Linegae of Palenque, and the Dynastic Implications. In *The Art, Iconography & Dynastic History of Palenque, Part III*, Proceedings of the Segunda Mesa Redonda de Palenque, edited by Merle Greene Robertson, pp. 59-86. Robert Louis Stevenson School, Pebble Beach.

GRIEDER, TERENCE

- 1960 Manifestaciones de Arte Maya en la Region de Petexbatun. *Antropología e Historia de Guatemala* 12(2):10-17. Instituto de Antropología e Historia, Guatemala.
- 1982 Origins of Pre-Columbian Art. University of Texas Press, Austin.

GROVE, DAVID C.

Olmec Monuments: Mutilation as a Clue to Meaning. In *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, edited by Elizabeth P. Benson, pp. 48-68. Dumbarton Oaks, Washington, D.C.

GUITERAS HOLMES, CALIXTA

1960 La Familia Tzotzil en la Salud y en la Enfermedad. *Tlatoani* 2(13):4-6. Mexico.

GUNTER, GORDON

1938 Notes on invasion of fresh water by fishes of the Gulf of Mexico, with special reference to the Mississippi-Atchafalaya River System. *Copeia* 2:69-72.

HAKLUYT, RICHARD

1927 The Principal Navigations, Voyages, Traffiques & Discoveries of the English Nation, Vol. 4. Dutton, New York.

HAMBLIN, ROBERT L., and BRIAN L. PITCHER

1980 The Classic Maya Collapse: Testing Class Conflict Hypotheses. *American Antiquity* 45:246-267.

HAMILTON, FRANCIS

1822 An Account of the Fishes Found in the River Ganges and Its Branches. Edinburgh.

HAMMOND, NORMAN

- 1973 British Museum-Cambridge University Corozal Project, 1973 Interim Report (editor). Centre of Latin American Studies, Cambridge University, Cambridge.
- 1974 The Distribution of Late Classic Maya Major Ceremonial Centres in the Central Area. In *Mesoamerican Archaeology: New Approaches*, edited by Norman Hammond, pp. 313-334. University of Texas Press, Austin.
- 1975 Lubaantun, a Classic Maya Realm. Monograph of the Peabody Museum of Archaeology and Ethnology,

Vol. 2. Harvard University, Cambridge.

1977 Ex Oriente Lux: A View from Belize. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 45-76. University of New Mexico Press, Albuquerque.

HARRISON, PETER D.

Some Aspects of Preconquest Settlement in Southern Quintana Roo, Mexico. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 259-286. University of New Mexico Press, Albuquerque.

HAURY, EMIL W.

1933 Maya Textile Weaves. Unpublished manuscript, Tozzer Library, Harvard University, Cambridge.

HAWKINS, JOHN

1569 A True Declaration of the Troublesome Voyage of M. John Hawkins to the Parts of Guinea and the West Indies, in the Years of Our Lord 1567 and 1568. London.

HELLMUTH, NICHOLAS M.

- 1970 Preliminary Bibliography of the Chol Lacandon, Yucatec Lacandon, Chol, Itza, Mopan and Quehache of the Southern Maya Lowlands; 1524-1969. Third edition, revised. Katunob, Occasional Publications in Mesoamerican Anthropology 4. Museum of Anthropology, University of Northern Colorado, Greeley.
- 1971 Progress Report and Notes on Research on Ethnohistory of the 16th-19th Century Southern Lowland Maya. Part I: The Cholti-Lacandon of Dolores (Sac Balam), Chiapas, 1695-1712. Part II: The Yucatec-Lacandon of San Jose de Gracia Real, 1786-1807, revised (original 1970). Mimeographed, Guatemala City.
- 1978 Tikal Copan Travel Guide: A General Introduction to Maya Art, Architecture, and Archaeology. Foundation for Latin American Anthropological Research, Guatemala City and St. Louis.
- 1982 Cosmology, Zoology, and Iconography of Early Peten Maya Cache Vessels and Incensarios. Paper presented at the Princeton Conference on the Origins of Maya Iconography, Princeton University.

HELMS, MARY W.

1977 Iguanas and Crocodilians in Tropical American Mythology and Iconography with Special Reference to Panama. *Journal of Latin American Lore* 3:51-133.

HENDERSON, JOHN S.

1974 Origin of the 260-day Cycle in Mesoamerica. *Science* 185:542.

HEYDEN, DORIS

1981 Caves, Gods, and Myths: World-View and Planning in Teotihuacan. In *Mesoamerican Sites and World-Views*, edited by Elizabeth P. Benson, pp. 1-39. Dumbarton Oaks, Washington, D.C.

HOPKINS, NICHOLAS A.

- 1981 La Influencia del Yucatecano Sobre el Cholano y su Contexto Histórico. Paper presented at the XVII Mesa Redonda, Sociedad Mexicana de Antropología, San Cristobal de Las Casa, Chiapas.
- 1982 Cholan as Western Mayan With a Yucatecan Substratum. Paper presented at the Annual Meeting of the American Anthropological Association, Washington, D.C.

HOUSTON, STEPHEN, and PETER MATHEWS

1983 The Dynastic Sequence of Dos Pilas, Peten, Gua-

temala. Paper presented at the Fifth Palenque Round Table, Palenque, Chiapas, Mexico.

HUGH-JONES, STEPHEN

1982 The Pleiades and Scorpius in Barasana Cosmology. In *Ethnoastronomy and Archaeoastronomy in the American Tropics*, edited by Anthony F. Aveni and Gary Urton, pp. 183-201. Annals of the New York Academy of Sciences, Vol. 385. New York.

JAKEMAN, M. WELLS

1948 *The Origins and History of the Mayas*. Research Publishing Company, Los Angeles.

JOHNSON, IRMGARD WEITLANER

- 1954 Chiptic Cave Textiles from Chiapas, Mexico. *Journal de la Société des Américanistes* 43:137-147.
- 1971 Basketry and Textiles. In *Handbook of Middle American Indians*, Vol. 10, edited by Gordon F. Ekholm and Ignacio Bernal, pp. 297-321. General editor, Robert Wauchope. University of Texas Press, Austin.

JOHNSON, SAMUEL

1756 A Dictionary of the English Language; in Which Words Are Deduced from Their Originals; and Illustrated in Their Different Significations, by Examples from the Best Writers, Vol. 2. London.

JOHNSTON, KEVIN

1981 A Commentary on the Hieroglyphic Inscriptions of Dos Pilas, Petexbatun, Guatemala. Unpublished manuscript, University of Texas, Austin.

JONES, CHRISTOPHER

1977 Inauguration Dates of Three Late Classic Rulers of Tikal, Guatemala. *American Antiquity* 42:28-60.

JONES, CHRISTOPHER, and LINTON SATTERTHWAITE

1982 The Monuments and Inscriptions of Tikal: The Carved

Monuments. Tikal Report No. 33A. University

Museum Monograph 44. The University Museum,

University of Pennsylvania, Philadelphia.

JONES, CHRISTOPHER, and ROBERT J. SHARER

1980 Archaeological Investigations in the Site Core of Quirigua. *Expedition* 23(1):11-19.

JORALEMON, PETER DAVID

- 1971 A Study of Olmec Iconography. Studies in Pre-Columbian Art and Archaeology 7. Dumbarton Oaks, Washington, D.C.
- 1974 Ritual Blood-Sacrifice Among the Ancient Maya: Part I. In *Primera Mesa Redonda de Palenque, Part II*, edited by Merle Greene Robertson, pp. 59-75. Robert Louis Stevenson School, Pebble Beach, California.

JORDAN, DAVID STARR, and MARY CYNTHIA DICKERSON

Notes on a Collection of Fishes from The Gulf of Mexico at Vera Cruz and Tampico. *Proceedings of the U.S. National Museum* 34:11-22.

JOSSERAND, J. KATHRYN

1975 Archaeological and Linguistic Correlations for Mayan Prehistory. Actas del XLI Congreso Internacional de Americanistas, México 1:501-510.

JOSSERAND, KATHRYN, LINDA SCHELE, and NICHOLAS HOPKINS

1985 Linguistic Data on Maya Inscriptions: The *Ti* Constructions. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Insitute, San Francisco.

JUSTESON, JOHN S.

1982 The Chronological Portion of a Late Preclassic Maya Stela and the Early Development of the Maya Eclipse Calendar. Unpublished manuscript.

JUSTESON, JOHN S., and WILLIAM M. NORMAN

1983 A Reinterpretation of Some 'Auxiliary Verb' Constructions in Mayan Hieroglyphic Writing. Paper presented at the Fifth Palenque Round Table, Chiapas, Mexico.

KAUFMAN, TERRENCE S.

- 1971 Materiales Lingüísticos para el Estudio de las Relaciones Internas y Externas de la Familia de Idiomas Mayas. In *Desarrollo Cultural de los Mayas*, edited by Evon Z. Vogt and Alberto Ruz L., pp. 81-136. Centro de Estudios Mayas, Universidad Nacional Autonoma de Mexico, Mexico.
- 1972 El Proto-Tzeltal-Tzotzil: Fonología Comprada y Diccionario Reconstruido. Centro de Estudios Mayas, Cuaderno 5. Universidad Nacional Autonoma de Mexico, Mexico.
- 1978 Meso-American Indian Languages. *Encyclopaedia Britannica* 11:956-963. Fifteenth edition.

KAUFMAN, TERRENCE S., and WILLIAM NORMAN

n.d. An Outline of Proto-Cholan Phonology, Morphology, and Vocabulary. In *Phonetic Studies in Mayan Hieroglyphic Writing*, edited by Lyle Campbell and John S. Justeson, Institute for Mesoamerican Studies, State University of New York, Albany, in press.

KELLEY, DAVID H.

- 1962 Glyphic Evidence for a Dynastic Sequence at Quirigua, Guatemala. *American Antiquity* 27:323-335.
- 1965 The Birth of the Gods at Palenque. Estudios de Cultura Maya 5:93-134.
- 1968 Kakupacal and the Itzas. *Estudios de Cultura Maya* 7:255-268.
- 1976 Deciphering the Maya Script. University of Texas Press, Austin.
- 1977 Maya Astronomical Tables and Inscriptions. In *Native American Astronomy*, edited by Anthony Aveni, pp. 57-73
- 1980 Astronomical Identities of Mesoamerican Gods. In Archaeoastronomy Supplement to the Journal for the History of Astronomy 2:51-554.
- The Maya Calendar Correlation Problem. In Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey, edited by Richard M. Leventhal and Alan L. Kolata, pp. 157-208. University of New Mexico Press, Albuquerque, and Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.

KIDDER, ALFRED V.

- 1947 The Artifacts of Uaxactun, Guatemala. Carnegie Institution of Washington Publication 576. Washington, D.C.
- 1949 Certain Archaeological Specimens from Guatemala, I. *Notes on Middle American Archaeology and Ethnology* 4(92). Carnegie Institution of Washington, Division of Historical Research. Washington, D.C.

KIDDER, ALFRED V., and CARLOS SAMAYOA CHIN-CHILLA

1959 The Art of the Ancient Maya. T. W. Crowell, New York.

KIDDER, ALFRED V., JESSE D. JENNINGS, and EDWIN M. SHOOK

1946 Excavations at Kaminaljuyu, Guatemala. Carnegie Institution of Washington Publication 561. Washington, D.C.

KING, ARDEN R.

1955 Archaeological Remains from the Cintalapa Region, Chiapas, Mexico. *Middle American Research Records* 2(4):70-99. Tulane University, New Orleans.

KLEIN, CECELIA F.

1975 Post-Classic Mexican Death Imagery as a Sign of Cyclic Completion. In *Death and the Afterlife in Pre-Columbian America*, edited by Elizabeth P. Benson, pp. 69-85. Dumbarton Oaks, Washington, D.C.

KNOROZOV, YURI V.,

- 1952 Drevniaia Pis'mennost' Tsentral'noi Ameriki. Sovetskaia Etnografiia 3:100-118.
- 1955 Pis'mennost' Drevnikh Maia (Opyt Rasshifrovki). Sovetskaia Etnografiia 1:94-125.
- 1967 Selected Chapters from *The Writing of the Maya Indians*, translated by Sophie Coe. *Russian Translation Series of the Peabody Museum of Archaeology and Ethnology* 4. Harvard University, Cambridge.

KÖHLER, U.

1977 Čonbilal Č'ulelal. Grundformen Mesoamerikanischer Kosmologie und Religion in einem Gebetstext auf Maya-Tzotzil. Acta Humboldtiana, Series Geographico et Ethnographica 5, Wiesbaden.

KUBLER, GEORGE

- 1962 The Art and Architecture of Ancient America; The Mexican, Maya, and Andean Peoples. Penguin Books, Baltimore.
- 1967 The Iconography of the Art of Teotihuacan. Studies in Pre-Columian Art and Archaeology 4. Dumbarton Oaks, Washington, D.C.
- 1969 Studies in Classic Maya Iconography. Memoirs of the Connecticut Academy of Arts and Sciences 18. New Haven.

KURBJUHN, KORNELIA

1980 Die Sitze der Maya: Eine Ikonographische Untersuchung. Tübingen.

LABBÉ, ARMAND J.

1982 Religion, Art and Iconography: Man and Cosmos in Prehispanic Mesoamerica. Bowers Museum Foundation, Santa Ana, California.

LA FARGE, OLIVER, II, and DOUGLAS BYERS

1931 The Year Bearer's People. Middle American Research Series Publication 3. Tulane University, New Orleans.

LANDA, DIEGO DE

1982 Relación de las Cosas de Yucatán. Twelfth edition. Editorial Porrua, Mexico City.

LATHRAP, DONALD W.

1973 Gifts of the Cayman: Some Thoughts on the Subsistence Basis of Chavin. In *Variation in Anthropology, Essays in Honor of John C. McGregor*, edited by Donald W. Lathrap and Jody Douglas, pp. 91-105. Illinois Archaeological Survey, Urbana.

LAUGHLIN, ROBERT M.

1975 The Great Tzotzil Dictionary of San Lorenzo Zinacantán. Smithsonian Institution Contributions to Anthropology 19. Washington, D.C.

LECHUGA, RUTH D.

1982 El Traje Indígena de México. Panorama Editorial, Mexico.

LEHMANN, WALTER (editor)

1922 Festschrift Eduard Seler. Strecker und Shroder, Stuttgart.

LEIGH. HOWARD

1966 The Evolution of the Zapotec Glyph C. In *Ancient Oaxaca*, edited by J. Paddock, pp. 256-269. Stanford University Press, Palo Alto.

LEMON, GEORGE

1783 English Etymology; or, a Derivative Dictionary of the English Language: in Two Alphabets. London.

LEVENTHAL, RICHARD, and ALAN KOLATA (editors)

1983 Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey. University of New Mexico Press, Albuquerque, and Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.

LEYENDA DE LOS SOLES

in Velasquez, Primo F.

LINNAEUS, CAROLUS

1894 Systema Naturae: Regnum Animale. Tenth edition. Wilhelm Engelmann, Lipsius.

LOTHROP, SAMUEL K.

1936 Zacualpa: A Study of Ancient Quiche Artifacts. Carnegie Institution of Washington Publication 472. Washington, D.C.

1952 Metals from the Cenote of Sacrifice, Chichen Itza, Yucatan. Memoirs of the Peabody Museum of Archaeology and Ethnology 10(2). Harvard University, Cambridge.

LOUNSBURY, FLOYD G.

1973 On the Derivation and Reading of the 'Ben-Ich' Prefix. In *Mesoamerican Writing Systems*, edited by Elizabeth P. Benson, pp. 99-143. Dumbarton Oaks, Washington, D.C.

1974a Pacal. In *Primera Mesa Redonda de Palenque, Part I*, edited by Merle Greene Robertson, p. ii. Robert
Louis Stevenson School, Pebble Beach.

1974b The Inscription of the Sarcophagus Lid at Palenque. In *Primera Mesa Redonda de Palenque*, *Part II*, edited by Merle Greene Robertson, pp. 5-19. Robert Louis Stevenson School, Pebble Beach, California.

1976 A Rationale for the Initial Date of the Temple of the Cross at Palenque. In *The Art, Iconography & Dynastic History of Palenque, Part III*, edited by Merle Greene Robertson, pp. 211-224. Robert Louis Stevenson School, Pebble Beach, California.

1978 Maya Numeration, Computation, and Calendrical Astronomy. *Dictionary of Scientific Biography* 15:759-818.

1982 Astronomical Knowledge and Its Uses at Bonampak, Mexico. In *Archaeoastronomy in the New World:*American Primitive Astronomy, edited by Anthony F. Aveni, pp. 143-168. Cambridge University Press, Cambridge.

The Identities of the Mythological Figures in the 'Cross Group' Inscriptions of Palenque. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Institute, San Francisco.

LOWE, JOHN W. G.

1982 On Mathematical Models of the Classic Maya Collapse: The Class Conflict Hypothesis Reexamined.

American Antiquity 47:643-652.

LUCKERT, KARL W.

1976 Olmec Religion: A Key to Middle America and Beyond. University of Oklahoma Press, Norman.

MACLEOD, BARBARA

1979 Cholan and Yucatecan Verb Morphology and Glyphic

Verbal Affixes in the Inscriptions. Paper presented in part to the Fourth Taller Maya at Palenque, Chiapas, Mexico.

MAHLER, JOY

Textiles and Textile Impressions. In Mayapan, Yucatan, Mexico, by H. E. D. Pollock, Ralph L. Roys, Tatiana Proskouriakoff, and A. Ledyard Smith, pp. 403-405. Carnegie Institution of Washington Publication 619. Washington, D.C.

1965 Garments and Textiles of the Maya Lowlands. In Handbook of Middle American Indians, Vol. 3, edited by Gordon R. Willey, pp. 581-593. General editor, Robert Wauchope. University of Texas Press, Austin.

MAKEMSON, MAUDE WORCESTER

1951 The Book of the Jaguar Priest. Henry Schuman, New York.

MALER, TEOBERT

1901-03 Researches in the Central Portion of the Usumatsintla Valley. Memoirs of the Peabody Museum of American Archaeology and Ethnology 2. Harvard University, Cambridge.

MALMSTROM, VINCENT H.

1973 Origin of the Mesoamerican 260-day Calendar. Science 181:939-941.

1978 A Reconstruction of the Chronology of Mesoamerican Calendrical Systems. *Journal for the History of Astronomy* 9:105-116. Science History Publications, Chalfont, Bucks, England.

MARCUS, JOYCE

1973 Territorial Organization of the Lowland Classic Maya. *Science* 180:911-916.

1976a Emblem and State in the Classic Maya Lowlands: An Epigraphic Approach to Territorial Organization.

Dumbarton Oaks, Washington, D.C.

1976b The Origins of Mesoamerican Writing. *Annual Review of Anthropology* 5:35-67.

MARKHAM, CLEMENTS R. (editor)

1970 The Hawkins's Voyages During the Reigns of Henry VIII, Queen Elizabeth, and James I. B. Franklin, New York.

MARTÍNEZ HERNÁNDEZ, JUAN

1926 Crónica de Maní. Boletín de la Universidad Nacional del Sureste, Julio a Diciembre: 160-169. Merida.

1927 Crónicas Mayas. Carlos R. Menéndez. Merida.

1929 *Diccionario de Motul*. Atribuido a Fray Antonio de Ciudad Real. Merida.

1940 Crónicas Mayas. Second edition. Carlos R. Menéndez. Merida.

MASON, ALDEN, and G. B. GORDON

1925- Examples of Maya Pottery in the Museum and Other 28, 1943 Collections. The University Museum, University of Pennsylvania, Philadelphia.

MASTACHE DE ESCOBAR, ALBA GUADALUPE

1971 Técnicas Prehispánicas del Tejido. Serie Investigaciones 20. Instituto Nacional de Antropología e Historia, Mexico.

1974 Textiles from the Cueva de la Media Luna, Chiapas, Mexico. Preliminary Report, pp. 142-147. Archaeological Textiles; Irene Emory Round Table on Museum Textiles, 1974 Proceedings. The Textile Museum, Washington, D.C.

MATHENY, RAY

1978 Northern Maya Lowland Water-Control Systems. In *Prehispanic Maya Agriculture*, edited by Peter D. Harrison and B. L. Turner, pp. 185-210. University of New Mexico Press, Albuquerque.

MATHEWS, PETER

1977 The Inscription on the Back of Stela 8, Dos Pilas. Paper presented at Yale University.

Notes on the Dynastic Sequence of Bonampak, Part I. In *Third Palenque Round Table*, 1978, Part 2, edited by Merle Greene Robertson, pp. 60-73. University of Texas Press, Austin.

MATHEWS, PETER, and LINDA SCHELE

Lords of Palenque – The Glyphic Evidence. In *Primera Mesa Redonda de Palenque*, *Part I*, edited by Merle Greene Robertson, pp. 63-75. Robert Louis Stevenson School, Pebble Beach, California.

MATOS MOCTEZUMA, EDUARDO

1982 Symbolism of the Templo Mayor. In *Aztec Mexico: Discovery of Templo Mayor*, edited by Emily Umberger. Direccion General de Asuntos Culturales, S.R.E., Mexico.

MATTHEWS, GEORGE TENNYSON

1959 News and Rumor in Renaissance Europe: the Fugger Newsletters. Capricorn Books, New York.

MAUDSLAY, ALFRED P.

1889- Biologia Centrali-Americana; Archaeology. 5 vols.
 1902 Edited by F. Ducane Godman and O. Salvin. R. H. Porter and Dulau and Company. London.

1896- Biologia Centrali-Americana; Archaeology, Vol. 4, 1902 Text. R. H. Porter and Dulau and Company, London. MAYER, KARL H.

1978 Maya Monuments: Sculptures of Unknown Provenance in Europe. Acoma Books, Ramona, California.

1980 Maya Monuments: Sculptures of Unknown Provenance in the United States. Acoma Books, Ramona, California.

McARTHUR, H.

1979 The Role of the Ancestors in the Daily Life of the Aguacatec (Maya). Paper presented at the 18th International Congress of Americanists, Vancouver.

MEDIZ BOLIO, ANTONIO

1930 Libro de Chilam Balam de Chumayel. San Jose, Costa Rica

1952 Libro de Chilam Balam de Chumayel. Second edition. Universidad Nacional Autónoma de Mexico, México.

MENDOZA, JUAN GONZALES DE

1970 The History of the Great and Mighty Kingdom of China and the Situation Thereof, Vol. 2, edited by George T. Staunton. B. Franklin, New York.

MERRILL, ROBERT H.

1945 Maya Sun Calendar Dictum Disproved. *American Antiquity* 10:307-311.

MICHELON, OSCAR (editor)

1976 Diccionario de San Francisco. Akademische Drucku. Verlagsanstaldt. Graz.

MILBRATH, SUSAN

Astronomical Imagery in the Serpent Sequence of the Madrid Codex. In *Archaeoastronomy in the Americas*, edited by Ray A. Williamson, pp. 263-284. Ballena Press Anthropological Papers 22, Los Altos, California.

MILES, S. W.

1957 The Sixteenth-Century Pokom Maya. *Transactions of the American Philosophical Society* 47(4):735-781.

MILLER, ARTHUR G.

1973 The Mural Painting of Teotihuacan. Dumbarton

Oaks, Washington, D.C.

1974 The Iconography of the Painting in the Temple of the Diving God, Tulum, Quintana Roo: The Twisted Cords. In *Mesoamerican Archaeology: New Approaches*, edited by Norman Hammond, pp. 167-186. University of Texas Press, Austin.

1981 The Quintana Roo Mural Project. National Geographic Society Research Reports 13:443-457.

1982 On the Edge of the Sea, Mural Painting at Tancah-Tulum, Quintana Roo, Mexico. Dumbarton Oaks, Washington, D.C., Harvard University, Cambridge.

MILLER JEFFREY

1974 Notes on a Stelae Pair Probably from Calakmul, Campeche, Mexico. In *Primera Mesa Redonda de Palenque*, *Part I*, edited by Merle Greene Robertson, pp. 149-161. Robert Louis Stevenson School, Pebble Beach, California.

MILLER, MARY

1981 *The Murals of Bonampak*. Ph.D. dissertation, Department of Anthropology, Yale University, New Haven.

MILLER, ROBERT RUSH

1966 Geographical Distribution of Central American Fresh Water Fishes. Copeia 4:773-802.

MOLLOY, JOHN P., and WILLIAM L. RATHJE

1974 Sexploitation Among the Late Classic Maya. In Mesoamerican Archaeology: New Approaches, edited by Norman Hammond, pp. 431-444. University of Texas Press, Austin.

MORAN, FRAY FRANCISCO

1935 Arte y Diccionario en Lengua Cholti Quiere Decir Lengua de Milperos. Vocabulario en Lengua Cholti. Facsimile of 1695 manuscript. The Maya Society, Publication 9, Baltimore.

MORLEY, SYLVANUS G.

1935 Guide Book to the Ruins of Quirigua. Carnegie Institution of Washington, Supplemental Publication No. 16. Washington, D.C.

1937- The Inscriptions of Peten. 5 Vols. Carnegie Institution of Washington Publication 437. Washington, D.C.

The Stela Platform at Uxmal, Yucatan, Mexico. Middle American Research Institute Publication 26:151-180. Tulane University, New Orleans.

MORRIS, WALTER F., JR.

1979 A Catalog of Textiles and Folkart of Chiapas, Mexico.2 Vols. San Cristobal de Las Casas, Chiapas.

n.d. a Lagertero Textile Impressions. In *The Figurines of Lagertero*, by Susanna Ekholm and Walter F. Morris, Jr. *Papers of the New World Archaeological Foundation*. Brigham Young University, Provo, in preparation.

n.d. b The Textile Impressions of the Soconusco Coast Project. A Report to Barbara Voorhies, Project Director, Department of Anthropology, University of California, Santa Barbara.

n.d. c The Textiles of Pinuela Cave. In Report by John Clark and Walter F. Morris, Jr. *Papers of the New World Archaeological Foundation*. Brigham Young University, Provo, in preparation.

1985 Warped Glyphs: A Reading of Maya Textiles. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson. Pre-Columbian Art Research Insitute, San Francisco.

MOTOLINÍA, TORIBIO DE

1951 Motolinía's History of the Indians of New Spain.

Francis Borgia Steck, translator and annotator. Academy of American Franciscan History, Washington, D.C.

MUNDKUR, BALAJI

1976 The Cult of the Serpent in the Americas: Its Asian Background. *Current Anthropology* 17:429-455.

MURRAY, JAMES A. H. (editor)

1926 A New English Dictionary on Historical Principles, Vol. 10, Part I. Clarendon Press, Oxford.

MYERS, GEORGE S.

1952 Sharks and Sawfishes in the Amazon. *Copeia* 4:268-269

NAVARETTE, CARLOS, y LUIS LUJAN MUÑOZ

1963 Reconocimiento Arqueologico del Sitio de 'Dos Pilas', Petexbatun, Guatemala. *Cuadernos de Antropologia* 2. Instituto de Investigaciones Historicas, Universidad de San Carlos, Guatemala.

NEUENSWANDER, HELEN

1981 Vestiges of Early Maya Time Concepts in a Contemporary Maya (Cubulco Achi) Community. *Estudios de Cultura Maya* 13:125-163.

NEUGEBAUER, PAUL VICTOR

1938 Tafeln zur Berechnung der jährlichen Auf-und Untergänge der Planeten. Astronomische Nachrichten, Bd. 264, Nr. 6331. Kiel.

NICHOLSON, HENRY B.

1971 Religion in Pre-Hispanic Central Mexico. In *Handbook of Middle American Indians*, Vol. 10, edited by Gordon F. Ekholm and Ignacio Bernal, pp. 395-446. General editor, Robert Wauchope. University of Texas Press, Austin.

NICHOLSON, IRENE

1959 Firefly in the Night, A Study of Ancient Mexican Poetry and Symbolism. Faber and Faber, London.

1967 *Mexicanische Mythologie*. Wiesbaden. Also published as *Mexican and Central American Mythology*, Hamlyn, London.

NUTTALL, ZELIA

Nouvelles Lumières sur les Civilisations Américanes et le Système du Calendrier. Proceedings of the 22nd International Congress of Americanists I:119-148. Rome.

OAKES, MAUD

1951 The Two Crosses of Todos Santos: Survivals of Mayan Religious Ritual. Princeton University Press, Princeton.

O'NEALE, LILA

1942 Early Textiles from Chiapas, Mexico. Middle American Research Records 1(1). Tulane University, New Orleans.

ONIONS, C. T. (editor)

1966 The Oxford Dictionary of English Etymology. Clarendon Press, Oxford.

OPPOLZER, THEODOR RITTER VON

1962 Canon of Eclipses. Translated by Owen Gingerich. Dover Publications, New York. Originally published in 1887 (Canon der Finternisse) as Vol. 52 of the Memoirs of the Imperial Academy of Science, Vienna.

PALMA y PALMA, EULOGIO

1901 Los Mayas, Justo Sierra. Motul.

PALMER, A. SMYTHE

1890 Folk-etymology. Henry Holt, New York.

PANG, HILDA DELGADO

1976 Similarities Between Certain Early Spanish, Contemporary Spanish Folk and Mesoamerican Textile Design Motifs. In *Ethnographic Textiles of the Western Hemisphere: Irene Emory Round Table on Museum Textiles, 1976 Proceedings*, pp. 388-404. The Textile Museum, Washington, D.C.

PARSONS, LEE

1980 Pre-Columbian Art: The Morton D. May and The St. Louis Art Museum Collections. Harper and Row, New York.

PARTRIDGE, ERIC

1983 Origins: a Short Etymological Dictionary of Modern English. Greenwich House, New York.

PASZTORY, ESTHER

1974 The Iconography of the Teotihuacan Tlaloc. Studies in Pre-Columbian Art and Archaeology 15. Dumbarton Oaks, Washington, D.C.

PENDERGAST, DAVID M.

1981 Lamanai, Belize: Summary of Excavation Results, 1974-80. *Journal of Field Archaeology* 8(1):29-53.

1982 Excavations at Altun Ha, Belize, 1964-70, Vol. 2. Royal Ontario Museum, Toronto.

PETERSON, KATHERINE K.

1979 Observations on the Ik Windows at Palenque. Unpublished manuscript. Department of Anthropology, University of California, Berkeley.

PIÑA CHAN, ROMÁN

1970 The Archaeological Section. In *The Mexican National Museum of Anthropology*, by Ignacio Bernal, Román Piña Chan, and Fernando Cámara Barbachano, pp. 14-173 (revised edition). Thames and Hudson, London.

PLOG, STEVEN

1980 Stylistic Variation in Prehistoric Ceramics: Design Analysis in the American Southwest. Cambridge University Press, New York.

POHL, MARY

1981 Ritual Continuity and Transformation in Mesoamerica; Reconstructing the Ancient *Cuch* Ritual. *American Antiquity* 46:513-529.

POHL, MARY, and JOHN POHL

1983 Ancient Maya Cave Rituals. *Archaeology* 36(3):28-32.

PO'OT YAH, ELEUTERIO, and VICTORIA BRICKER

1981 Yucatec Maya Verbs (Hocaba Dialect). Grammatical Introduction by Victoria Bricker. *Latin American Studies Curriculum Aids*. Tulane University, New Orleans.

PROSKOURIAKOFF, TATIANA

1950 A Study of Classic Maya Sculpture. Carnegie Institution of Washington Publication 593. Washington, D.C.

1960 Historical Implications of a Pattern of Dates at Piedras Negras, Guatemala. American Antiquity 25:454-475.

1961a Portraits of Women in Maya Art. In *Essays in Pre-Columbian Art and Archaeology*, by Samuel K. Lothrop, and others, pp. 81-99. Harvard University Press, Cambridge.

1961b The Lords of the Maya Realm. Expedition 4(1):14-21.

1962 Civic and Religious Structures of Mayapan. In *Mayapan, Yucatan, Mexico*, edited by H. E. D. Pollock, Ralph L. Roys, Tatiana Proskouriakoff, and A.

- Ledyard Smith, pp. 86-140. Carnegie Institution of Washington Publication 619. Washington, D.C.
- Historical Data in the Inscriptions of Yaxchilan, PartI. Estudios de Cultura Maya 3:149-167.
- 1964 Historical Data in the Inscriptions of Yaxchilan, Part II. Estudios de Cultura Maya 4:177-201.
- 1974 Jades from the Cenote of Sacrifice. Memoirs of the Peabody Museum of Archaeology and Ethnology 10(1). Harvard University Press, Cambridge.

PULESTON, DENNIS E.

- 1974 Intersite Areas in the Vicinity of Tikal and Uaxactun. In *Mesoamerican Archaeology: New Approaches*, edited by Norman Hammond, pp. 303-311. University of Texas Press, Austin.
- 1976 The People of the Cayman/Crocodile: Riparian Agriculture and the Origins of Aquatic Motifs in Ancient Maya Iconography. In *Aspects of Ancient Maya Civilization*, edited by Francois de Montequin, pp. 1-26. Hamline University, St. Paul.
- 1977 The Art and Archaeology of Hydraulic Agriculture in the Maya Lowlands. In *Social Process in Maya Prehistory*, edited by Norman Hammond, pp. 449-467. Academic Press, London.

QUIRARTE, JACINTO

- 1976 The Relationship of Izapan-Style Art to Olmec and Maya Art: A Review. In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, edited by Henry B. Nicholson, pp. 73-86. UCLA Latin American Center Publications, Los Angeles.
- 1979 The Representation of Underworld Processions in Maya Vase Painting: An Iconographic Study. In Maya Archaeology and Ethnohistory, edited by Norman Hammond and Gordon R. Willey, pp. 116-148. University of Texas Press, Austin.

R., C.

1569 The True Discription of This Marueilous Straunge Fishe, Whiche Was Taken on Thursday Wassennight, the XVI Day of June, This Present Month, in the Yeare of Our Lord God MDLXIX. London.

RANDS, ROBERT L.

- 1953 The Water Lily in Maya Art: A Complex of Alleged Asiatic Origin. *Bureau of American Ethnology Bulleting* 151:75-153. Washington, D.C.
- 1955 Some Manifestations of Water in Mesoamerican Art. Bureau of American Ethnology Bulletin 157:265-393. Washington, D.C.
- RECINOS, ADRĪÁN, DELIA GOETZ, and SYLVANUS G. MORLEY
- 1950 Popul Vuh: The Sacred Book of the Ancient Quiché Maya. University of Oklahoma Press, Norman.

REDFIELD, ROBERT, and ALFONSO VILLA R.

1934 *Chan Kom, A Maya Village*. Carnegie Institution of Washington Publication 448. Washington, D.C.

REENTS, DORIE J., and JOHN R. SOSA

1980 Glyphic Evidence for Classic Maya Militarism. *Belizean Studies* 8(3):2-11.

REIFLER, ERWIN

n.d. A Comparative History of Metrology. Compiled by
 H. J. Griffin. Unpublished manuscript.

RICE, DON S.

1982 The Peten Postclassic: A Settlement Perspective.
Paper prepared for the School of American Research
Advanced Seminar publication, *Late Lowland Maya*Civilization: Classic to Postclassic, edited by Jeremy

A. Sabloff and E. W. Andrews V. University of New Mexico Press, Albuquerque, in press.

RICE, PRUDENCE M.

- 1979 The Ceramic and Non-ceramic Artifacts of Yaxha-Sacnab, El Peten, Guatemala. Part I The Ceramics: Section B, Postclassic Pottery from Topoxte. *Ceramica de Cultura Maya* 11:1-85.
- 1982 The Peten Postclassic: Perspectives from the Central Peten Lakes. Paper prepared for the School of American Research Advanced Seminar publication, *Late Lowland Maya Civilization: Classic to Postclassic*, edited by Jeremy A. Sabloff and E. W. Andrews V. University of New Mexico Press, Albuquerque, in press.
- 1983a Serpents and Styles in Peten Postclassic Pottery.

 American Anthropologist 85:866-880.
- 1983b Reptiles and Rulership in the Peten Postclassic. Paper presented at the Annual Meeting of the American Anthropological Association, Chicago.
- 1984 The Ceramics of Negroman-Tipu: A Preliminary Overview. Paper presented at the Annual Meeting of the Northwestern Anthropological Association, Hartford, Connecticut.

RIESE, FRAUKE JOHANNA

1981 Indianische Landrechte in Yukatan um die Mitte des 16. Jahrhunderts. Beiträge zur Mittelamerikanischen Völkerunde 16. Hamburgisches Museum für Völkerkunde, Hamburg.

RINGLE, WILLIAM, and THOMAS SMITH-STARK

- n.d. a A Computer Concordance to the Inscriptions of Palenque. Manuscript, in preparation. Tulane University, New Orleans.
- n.d. b Computational Approaches to Decipherment. Manuscript, in preparation. Tulane University, New Orleans.

ROBERTSON, DONALD

1970 The Tulum Murals: The International Style of the Late Postclassic. Verhandlungen des 38th Internationalen Amerikanistenkongresses 2:77-88.

ROBERTSON, MERLE GREENE see Greene Robertson, Merle.

ROBICSEK, FRANCIS

- 1975 A Study in Maya Art and History: The Mat Symbol.

 The Museum of the American Indian, Heye Foundation, New York.
- 1978 The Smoking Gods: Tobacco in Maya Art, History, and Religion. University of Oklahoma Press, Norman

ROBICSEK, FRANCIS, and DONALD M. HALES

- 1981 The Maya Book of the Dead. The Ceramic Codex. University of Virginia Art Museum, Charlottesville.
- 1982 Maya Ceramic Vases from the Late Classic Period: The November Collection of Maya Ceramics. University of Virginia Art Museum, Charlottesville.

ROYS, LAWRENCE

1934 The Engineering Knowledge of the Maya. *Contributions to American Archaeology* 6. Carnegie Institution of Washington Publication 436. Washington, D.C.

ROYS, RALPH L.

- 1931 The Ethno-Botany of the Maya. Middle American Research Series Publication 2. Tulane University, New Orleans.
- 1933 The Book of Chilam Balam of Chumayel. Carnegie Institution of Washington Publication 438.

- Washington, D.C.
- The Prophecies for the Maya Tuns or Years in the Books of Chilam Balam of Tizimin and Mani. In Carnegie Institution of Washington Publication 585:157-186. Washington, D.C.
- 1965 Ritual of the Bacabs. University of Oklahoma Press, Norman.
- 1967 The Book of Chilam Balam of Chumayel. Second edition. University of Oklahoma Press, Norman.

RUPPERT, KARL, and JOHN H. DENISON

1943 Archaeological Reconnaissance in Campeche, Quintana Roo, and Peten. Carnegie Institution of Washington Publication 543. Washington, D.C.

RUZ LHUILLER, ALBERTO

1958 Exploraciones Arqueologicas en Palenque 1955.

Anales del Instituto Nacional de Antropologia e Historia 10(39):185-240. Mexico City. Mexico.

SABLOFF, JEREMY A.

- 1973 Continuity and Disruption During Terminal Late Classic Times at Seibal: Ceramic and Other Evidence. In *The Classic Maya Collapse*, edited by T.P. Culbert, pp. 107-131. University of New Mexico Press, Albuquerque.
- 1975 Ceramics. Excavations at Seibal, Department of Peten, Guatemala. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(2). Harvard University, Cambridge.

SABLOFF, JEREMY A., and GORDON R. WILLEY

1967 The Collapse of Maya Civilization in the Southern Lowlands: A Consideration of History and Process. Southwestern Journal of Anthropology 23(4):311-336.

SABLOFF, JEREMY A., RONALD L. BISHOP, GARMAN HARBOTTLE, ROBERT L. RANDS, and EDWARD V. SAYRE

1982 Analysis of Fine Paste Ceramics. *Excavations at Seibal, Guatemala*, edited by Jeremy A. Sabloff. Memoirs of the Peabody Museum of Archaeology and Ethnology 15(2). Harvard University, Cambridge.

SAHAGÚN, FRAY BERNARDINO DE

1950- Florentine Codex. General History of the Things of
 69 New Spain. Edited by Arthur J. O. Anderson and Charles E. Dibble. Twelve volumes. The School of American Research and the University of Utah. Santa Fe.

SAHLINS, MARSHALL

1976 Colors and Cultures. Semiotica 16:1-22.

SANDERS, WILLIAM

1960 Prehistoric Ceramics and Settlement Pattern in Quintana Roo, Mexico. In Carnegie Institution of Washington Publication 606:155-264.

SARTOR, MARIO

1981 La città e la conquista: Mappe e documenti sulla trasformazione urbana e territoriale nell' America centrale del 500. Casa del Libro Editrice, Rome.

SATTERTHWAITE, LINTON

- 1964 Dates in a New Maya Hieroglyphic Text as Katun-Baktun Anniversaries. *Estudios de Cultura Maya* 4:203-222.
- Calendrics of the Maya Lowlands. In Handbook of Middle American Indians, vol. 3, edited by Gordon R. Willey, pp. 603-631. General editor, Robert Wauchope. University of Texas Press, Austin.

SCHÁVELZON, DANIEL

1980 Temples, Caves, or Monsters? Notes on Zoomorphic Façades in Pre-Hispanic Architecture. In *Third Palenque Round Table*, 1978, Part 2, edited by Merle Greene Robertson, pp. 151-162. University of Texas Press, Austin.

SCHELE, LINDA

- 1974 The Attribution of Monumental Architecture to Specific Rulers at Palenque. Paper presented at the 41st International Congress of Americanists, Mexico City.
- 1976 Accession Iconography of Chan-Bahlum in the Group of the Cross at Palenque. In *The Art, Iconography & Dynastic History of Palenque, Part III* (Segunda Mesa Redonda de Palenque), edited by Merle Greene Robertson, pp. 9-34. Robert Louis Stevenson School, Pebble Beach.
- 1978 Notebook for the Maya Hieroglyphic Writing Workshop at Texas. Institute of Latin American Studies, The University of Texas, Austin.
- 1979a Genealogical Documentation on the Tri-figure Panels at Palenque. In *Tercera Mesa Redonda de Palenque*, 1978, Part 1, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 41-70. Pre-Columbian Art Research, Monterey, California.
- 1979b The Puleston Hypothesis: The Water Lily Complex in Classic Maya Art and Writing. Paper presented at Princeton University.
- 1982 Maya Glyphs: The Verbs. University of Texas Press, Austin.
- Human Sacrifice Among the Classic Maya. In Ritual Human Sacrifice in Mesoamerica, edited by Elizabeth H. Boone, pp. 7-48. Dumbarton Oaks, Washington, D.C.

SCHELE, LINDA, and JEFFREY H. MILLER

1983 The Mirror, the Rabbit, and the Bundle: "Accession" Expressions from the Classic Maya Inscriptions.
Studies in Pre-Columbian Art and Archaeology 25.
Dumbarton Oaks, Washington, D.C.

SCHELE, LINDA, and PETER MATHEWS

1979 The Bodega of Palenque, Chiapas, Mexico. Dumbarton Oaks, Washington, D.C.

SCHELE, LINDA, PETER MATHEWS, and FLOYD G. LOUNSBURY

Parentage Statements in Classic Maya Inscriptions.

Paper presented at the International Conference on
Maya Iconography and Hieroglyphic Writing,
Guatemala City.

SCHELLHAS, PAUL

- 1897 Die Göttergestalten der Mayahandschriften: Ein mytholoogisches Kulturbild aus dem alten Amerika. Verlag von Richard Bertling, Dresden.
- 1904a Comparative Studies in the Field of Maya Antiquities.

 **Bureau of American Ethnology Bulletin 28:591-622.

 Washington, D.C.
- 1904b Representation of Deities of the Maya Manuscripts.
 Papers of the Peabody Museum of American Archaeology and Ethnology 4(1). Harvard University, Cambridge.

SCHOLES, FRANCE V., and RALPH L. ROYS

1968 The Maya Chontal Indians of Acalan-Tixchel: a Contribution to the History and Ethnography of the Yucatan Peninsula. University of Oklahoma Press, Norman.

SCHRAM, ROBERT

1908 Kalendariographische und Chronologische Tafeln. J. C. Hinrichs, Leipzig.

SCHULTZE JENA, LEONARD

1954 La vida y las creencias de los indigenas Quiches de Guatemala. *Biblioteca Cultura Popular* 49. Ministerio de Educacion Publica, Guatemala.

SCHWARTZ, FRANK J.

1960 Additional Comments on Adult Bull Sharks *Carcharhinus leucas* (Müller and Henle), from Chesapeake Bay, Maryland. *Chesapeake Science* 1:68-71.

SEJOURNE, LAURETTE

1970 Arqueología del Valle de Mexico, I. Culhuacan. Instituto Nacional de Antropología e Historia, Mexico.

SELER, EDUARD

1887 Ueber die Namen der in der Dresdener Handschrift algebildeten Maya Gotter. Zeitschrift fur Ethnologie 19:224-231; 1:367-389.

1902- Gesammelte Abhandlungen zur Amerikanischen
 23 Sprach-und Altherhumskunde. 5 vols. (1908: Die Ruinen von Chichen Itza in Yucatan, Vol. 5.) A.
 Asher and Co., Berlin.

1963 *Commentarios al Codice Borgia*. Fondo de Cultura Economica, Mexico.

1976 Observations and Studies in the Ruins of Palenque, 1915, translated by Gisela Morgner and edited by Thomas Bartman and George Kubler. Robert Louis Stevenson School, Pebble Beach.

SEVERIN, GREGORY M.

1981 The Paris Codex: Decoding an Astronomical Ephemeris. Transactions of the American Philosophical Society 71(5). Philadelphia.

SHARER, ROBERT J.

1985 Terminal Classic Events in the Southeastern Lowlands: A View from Quirigua. In *The Lowland Maya Postclassic: Questions and Answers*, edited by Arlen F. Chase and Prudence M. Rice. University of Texas Press, Austin.

SHIPLEY, JOSEPH T.

1945 Dictionary of Word Origins. Philosophical Library, New York.

SHOOK, EDWIN M.

1965 Archaeological Survey of the Pacific Coast of Guatemala. In *Handbook of Middle American Indians*, Vol. 2, edited by Gordon R. Willey, pp. 180-194. General editor, Robert Wauchope. University of Texas Press, Austin.

SIDRYS, RAYMOND

1976 Mesoamerica: An Archaeological Analysis of Low-Energy Civilization. Ph.D. dissertation, University of California, Los Angeles. University Microfilms International, Ann Arbor.

SILVEIRA BUENO, FRANCISCO DA (editor)

1967 Grande Dicionario Etimológico-Prosódico de Lingua Portuguesa, Vol. 8. Sao Paulo.

SMAILUS, ORTWIN

1975 El Maya-Chontal de Acalán: Analisis Lingüístico de un Documento de los Años 1610-12. Centro de Estudios Mayas Cuaderno 9. Universidad Nacional Autonoma de Mexico, Mexico.

SMITH, AUGUSTUS LEDYARD

1950 *Uaxactun, Guatemala; Excavations of 1931-37*. Carnegie Institution of Washington Publication 588. Washington, D.C.

1982 Major Architecture and Caches. *Excavations at Seibal*. Memoirs of the Peabody Museum of Archaeology and Ethnology 15(1). Harvard University, Cambridge.

SMITH, AUGUSTUS LEDYARD, and A. V. KIDDER

1951 Excavations at Nebaj, Guatemala. Carnegie Institution of Washington Publication 594. Washington D.C.

SMITH, AUGUSTUS LEDYARD, and KARL RUPPERT

1956 Excavations in Housemounds at Mayapan: IV. Carnegie Institution of Washington, Department of Archaeology, Current Reports 36:471-527. Washington, D.C.

SMITH, HOMES W.

1936 The Retention and Physiological Role of Urea in the Elasmobranchii. *Biological Reviews* 11:49-82.

SMITH, ROBERT E.

1952 Pottery from Chipoc, Alta Verapaz, Guatemala. Carnegie Institution of Washington Publication 596. Washington, D.C.

1955 Ceramic Sequence at Uaxactun, Guatemala. 2 vols.
 Middle American Research Institute Publication 20.
 Tulane University, New Orleans.

1957 Tohil Plumbate and Classic Maya Polychrome Vessels in the Marquez Collection. *Notes on Middle American Archaeology and Ethnology 124*. Carnegie Institution of Washington, Washington, D.C.

1971 The Pottery of Mayapan. Papers of the Peabody Museum of Archaeology and Ethnology 66. Harvard University, Cambridge.

SMITH, ROBERT E., and JAMES GIFFORD

Pottery of the Maya Lowlands. In *Handbook of Middle American Indians*, Vol. 2, Part 1, edited by Gordon R. Willey, pp. 498-534. General editor, Robert Wauchope. University of Texas Press, Austin.

SOLÍS ALCALÁ, ERMILO

1949 Códice Pérez. Oriente, Merida.

SOTHEBY PARK BERNET, INC.

1982 Catalogue, Sale 4889Y, Fine Pre-Columbian Art. New York.

SPINDEN, HERBERT JOSEPH

1913 A Study of Maya Art: Its Subject Matter and Historical Development. Memoirs of the Peabody Museum of American Archaeology and Ethnology 6. Harvard University, Cambridge. Reprinted in 1975 by Dover Publications, New York.

Maya Dates and What They Reveal. Science Bulletin4(1). Museum of the Brooklyn Institute of Arts andSciences, Brooklyn.

SPORES, RONALD

1974 Marital Alliance in the Political Integration of Mixtee Kingdoms. *American Anthropologist* 76:279-311.

SQUIER, EPHRAIM G.

1852 Nicaragua: Its People, Scenery, Monuments, and the Proposed Interoceanic Canal, Vol. 1. Appleton, New York.

STAHLMAN, WILLIAM D., and OWEN GINGERICH

1963 Solar and Planetary Longitudes for Years – 2500 to +2000 by Ten-Day Intervals. University of Wisconsin Press, Madison.

STEGGERDA, MORRIS

1941 Maya Indians of Yucatan. Carnegie Institution of Washington Publication 531. Washington, D.C.

STEPHENS, JOHN LLOYD

- Incidents of Travel in Central America, Chiapas and Yucatan. 2 vols. Harper and Brothers, New York.
 Reprinted in 1969 by Dover Publications, New York.
- 1843 *Incidents of Travel in Yucatan*. 2 vols. Harper and Brothers, New York. Reprinted in 1961 by Dover Publications, New York.

STIRLING, MATTHEW W.

1943 Stone Monuments of Southern Mexico. Bureau of American Ethnology Bulletin 138. Smithsonian Institution, Washington, D.C.

STONE, ANDREA

1983 The Zoomorphs of Quirigua, Guatemala Ph.D. dissertation, Department of Art History, The University of Texas, Austin.

STONE, ANDREA, DORIE REENTS, and ROBERT COFFMAN

1985 Genealogical Documentation of the Middle Classic Dynasty of Caracol, El Cayo, Belize. In *Fourth Palenque Round Table*, *1980*, edited by Elizabeth P. Benson. Pre-Columbian Art Research Institute, San Francisco.

STUART, DAVID

1982 The Iconography of Blood in the Symbolism of Maya Rulership. Paper presented at the Princeton Conference on the Beginnings of Maya Iconography.

TATE, CAROLYN

- 1980 The Maya Cauac Monster: Visual Evidence for Ancestor Veneration Among the Ancient Maya. Masters' thesis, Department of Art History, The University of Texas, Austin.
- 1982 The Maya Cauac Monster's Formal Development and Dynastic Contexts. In *Pre-Columbian Art History: Selected Readings*, edited by Alana Cordy-Collins, pp. 33-54. Peek Publications, Palo Alto.

TAUBE, KARL

1981 Classic Maya Scaffold Sacrifice: A Ceremony of Field and State. Manuscript.

TEDLOCK, BARBARA

- 1982 Time and the Highland Maya. University of New Mexico Press, Albuquerque.
- n.d. Earth Rites and Moon Cycles: Mayan Synodic and Sidereal Lunar Reckoning. In *Ethnoastronomy: Indigenous Astronomical and Cosmological Traditions in the World*, edited by John B. Carlson and Von Del Chamberlain. Smithsonian Institution Press, in preparation.

TESOROS MAYAS DE GUATEMALA

1974 Exposicion Museo Nacional de Arqueología y Etnologia de Guatemala. Guatemala City.

THOMAS, CYRUS

- A Study of the Manuscript Troano. *U.S. Department* of the Interior: Contributions to North American Ethnology 5:1-237. Washington, D.C.
- Aids to the Study of the Maya Codices. Sixth Annual Report of the Bureau of American Ethnology (1884-85), pp. 253-371. Washington, D.C.

THOMERSON, JAMIE E., THOMAS B. THORSON, and RONALD L. HEMPEL

1977 The Bull Shark, Carcharhinus leucas, from the Upper Mississippi River Near Alton, Illinois. Copeia 1:166-168.

THOMPSON, J. ERIC S.

1934 Sky Bearers, Colors and Directions in Maya and Mexican Religion. Carnegie Institution of

- Washington Publication 436, Contribution 10. Washington, D.C.
- 1935 Maya Chronology: The Correlation Question. Carnegie Institution of Washington Publication 456, Contribution 14. Washington, D.C.
- 1937 A New Method of Deciphering Yucatecan Dates With Special Reference to Chichen Itza. Carnegie Institution of Washington Publication 483, Contribution 22. Washington, D.C.
- 1938 Sixteenth and Seventeenth Century Reports on the Chol Mayas. *American Anthropologist* 40(4):584-604
- 1944 The Fish as a Maya Symbol for Counting and Further Discussion of Directional Glyphs. *Theoretical Approaches to Problems* 2. Carnegie Institution of Washington, Washington, D.C.
- 1950 Maya Hieroglyphic Writing: An Introduction. Carnegie Insitution of Washington Publication 589. Washington, D.C. Second and third editions published in 1960 and 1971 by the University of Oklahoma Press, Norman.
- 1954 A Presumed Residence of the Nobility of Mayapan.

 Carnegie Institution of Washington, Department of
 Archaeology, Current Reports 19:71-87. Washington,
 D.C.
- 1957 Deities Portrayed on Censers at Mayapan. Carnegie Institution of Washington, Department of Archaeology, Current Reports 40.
- 1962 A Catalog of Maya Hieroglyphs. University of Oklahoma Press, Norman.
- 1965 Maya Hieroglyphic Writing. In *Handbook of Middle American Indians*, Vol. 3, edited by Gordon R. Willey, pp. 632-658. General editor, Robert Wauchope. University of Texas Press, Austin.
- 1970a Maya History and Religion. University of Oklahoma Press, Norman.
- 1970b The Bacabs: Their Portraits and Glyphs. In *Monographs and Papers in Maya Archaeology*, edited by William R. Bullard, Jr., pp. 469-485. Papers of the Peabody Museum of Archaeology and Ethnology 61. Harvard University Press, Cambridge.
- 1972 A Commentary on the Dresden Codex. Memoirs of the American Philosophical Society 93. Philadelphia.

THOMPSON, STITH

1955- *Motif Index of Folk Literature*. Indiana University 58, 1966 Press, Bloomington.

THORSON, THOMAS B.

- 1972 The Status of the Bull Shark, Carcharhinus leucas, in the Amazon River. Copeia 3:601-605.
- 1976 The Status of the Nicaragua Shark: an Updated Appraisal. In *Investigations of the Icthyofauna of Nicaraguan Lakes*, edited by Thomas B. Thorson, pp. 561-574. School of Life Sciences, University of Nebraska, Lincoln.
- THORSON, THOMAS B., DONALD E. WATSON, and C. MICHAEL COWAN
- 1966 The Status of the Fresh Water Shark of Lake Nicaragua. *Copeia* 3:385-402.

TOWNSEND, RICHARD F.

Malinalco and the Lords of Tenochtitlan. In *The Art* and *Iconography of Late Post-Classic Central Mexico*, edited by Elizabeth H. Boone, pp. 111-140. Dumbarton Oaks, Washington, D.C.

TOZZER, ALFRED M.

1907 A Comparative Study of the Mayas and Lacandones. New York.

1941 Landa's Relación de las Cosa de Yucatan. Papers of the Peabody Museum of American Archaeology and Ethnology 18. Harvard University Press, Cambridge.

1957 Chichen Itza and Its Cenote of Sacrifice: A Comparative Study of Contemporaneous Maya and Toltec.

Memoirs of the Peabody Museum of Archaeology and Ethnology 11, 12. Harvard University, Cambridge.

TREATY OF MANI

See Crónica de Maní

TRIK, AUBREY S.

 1939 Temple XXII at Copan. Carnegie Institution of Washington Publication 509, Contribution 27.
 Washington, D.C.

1963 The Splendid Tomb of Temple I at Tikal, Guatemala. *Expedition* 6(1):2-18.

TUCKERMAN, BRYANT

1964 Planetary, Lunar, and Solar Positions, A.D. 2 to A.D. 1649 at Five-Day and Ten-Day Intervals.

Memoirs of the American Philosophical Society 59. Philadelphia.

TURNER, B. L., II

1974 Prehistoric Intensive Agriculture in the Maya Lowlands. *Science* 185:118-124.

1979 Prehispanic Terracing in the Central Maya Lowlands: Problems of Agricultural Intensification. In *Maya Archaeology and Ethnohistory*, edited by Norman Hammond and Gordon R. Willey, pp. 103-115. University of Texas Press, Austin.

UNWIN, RAYNER

1960 The Defeat of John Hawkins: a Biography of His Third Slaving Voyage. Macmillan, New York.

VALENTINI, PHILIPP J. J.

The Katunes of Maya history. *Proceedings of the American Antiquarian Society* 74:69-117. Worcester.

VALLADARES, LEON A.
1957 El Hombre y el Maize: Etnografia y Etnopsicologia de Colotenango, Guatemala. Guatemala City.

VAN SWIETEN, G.

1976 Art de Mesoamerique/Meso-Amerikaanse Kunst. Société Genérale de Banque, Bruxelles.

VELASOUEZ, PRIMO F. (editor and translator)

1945 Codice Chimalpopoca (including Anales de Cuauhtitlan and Leyenda de los Soles). Universidad Nacional Autonoma de Mexico, Mexico.

VILLA, JAIME

1976 Icthyology of the Lakes of Nicaragua: Historical Perspective. In *Investigations of the Icthyofauna of Nicaraguan Lakes*, edited by Thomas B. Thorson, pp. 101-113. School of Life Sciences, University of Nebraska, Lincoln.

VILLA ROJAS, ALFONSO

1969 Maya Lowlands: The Chontal, Chol, and Kekchi. In Handbook of Middle American Indians, Vol. 7, edited by Evon Z. Vogt, pp. 230-243. General editor, Robert Wauchope. University of Texas Press, Austin.

VILLACORTA C., J. ANTONIO, and CARLOS A. VILLACORTA R.

1930 Códices Mayas: Dresdensis, Pereseianus, Tro-Cortesianus. Tipografía Nacional, Guatemala City. (Second edition: 1977).

VINSON, G. L.

1960 Las Ruinas de Petexbatun. Antropología e Historia

de Gautemala 12(2):3-9. Instituto de Antropología e Historia de Guatemala.

VOGT, EVON Z.

1969 Zinacantan: A Maya Community in the Highlands of Chiapas. Belknap Press of Harvard University Press, Cambridge.

1976 Tortillas for the Gods: A Symbolic Analysis of Zincanteco Rituals. Harvard University Press, Cambridge.

VON EUW, ERIC

see Euw, Eric von

WAUCHOPE, ROBERT

1970 Protohistoric Pottery of the Guatemalan Highlands. In *Monographs and Papers in Maya Archaeology*, edited by William R. Bullard, Jr., pp. 89-244. Papers of the Peabody Museum of Archaeology and Ethnology 61, Harvard University, Cambridge.

WEAVER, MURIEL PORTER

1972 The Aztecs, Maya and Their Predecessors: Archaeology of Mesoamerica. Seminar Press, New York.

WEBSTER NOAH

1828 An American Dictionary of the English Language: Exhibiting the Origin, Orthography, Pronunciation and Definitions of Words, Vol. 2. Lippincott, Phildelphia.

WHITNEY, WILLIAM DWIGHT (editor)

1903 *The Century Dictionary and Cyclopedia*, Vol. 8. Century Company, New York.

WILKINS, JOHN

1668 An Essay Towards a Real Character, and a Philosophical Language. London.

WILLEY, GORDON R., A. LEDYARD SMITH, GAIR TOURTELLOT III, and IAN GRAHAM

1975 Excavations at Seibal. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(1). Harvard University, Cambridge.

WILLIAMSON, JAMES A.

1949 Hawkins of Plymouth. Adam and Charles Black, London.

WILLSON, ROBERT W.

1924 Astronomical Notes on the Maya Codices. Papers of the Peabody Museum of Archaeology and Ethnology 6(3). Harvard University, Cambridge.

WINNING, HASSO VON

1961 Teotihuacan Symbols: The Reptile's Eye Glyph. *Ethnos* 26(3):121-166.

1963 A Maya 'God N' Effigy Bowl. *Masterkey* 37(2). WISDOM, CHARLES

1940 The Chorti Indians of Guatemala. University of Chicago Press, Chicago.

WOBST, H. M.

1977 Stylistic Behavior and Information Exchange. In For the Director: Research Essays in Honor of James B. Griffin, edited by Charles E. Cleland, pp. 317-342. Anthropological Papers 61, Museum of Anthropology, University of Michigan, Ann Arbor.

WONDERLEY, ANTHONY W.

1981 Late Postclassic Excavations at Naco, Honduras.
 Latin American Studies Program Dissertation Series
 86. Cornell University, Ithaca, New York.

WOODBURY, RICHARD, and AUBREY S. TRIK

1953 The Ruins of Zaculeu, Guatemala. 2 vols. United Fruit Company, New York.

WRIGHT, I. A. (editor)

1929 Spanish Documents Concerning English Voyages to the Caribbean 1527-1568. Hakluyt Society, London.