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Late Preclassic Inscription Documentation Project

Research Year: 2000
Culture: Maya
Chronology: Late Pre-Classic
Location: Guatemala, México, Belize
Sites: Various

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Introduction

This report concerns the current status of the Late Preclassic Inscription Documentation (LAPIDA) Project that I am conducting with support from FAMSI and other

organizations[1]. I designed LAPIDA with one short-term objective in mind: to collect accurate data for my dissertation research, which deals with the orthography and grammar of Late Preclassic Mayan texts. During my research I have observed that some of the published drawings of Late Preclassic monumental and portable texts are sometimes inaccurate in details that could affect epigraphic study. For this reason, I decided to undertake the primary documentation of the subset of Late Preclassic texts that I think are more amenable to epigraphic study.

In the following paragraphs I justify the need for this project, explain its methods, present the results achieved so far, and offer a preliminary discussion of some of the data. I conclude with a suggestion for the expansion of LAPIDA into a long-term project for documenting early inscriptions from throughout Mesoamerica. The goals of the expanded LAPIDA would be to collect accurate data relevant to understanding the origin and spread of Mesoamerican scripts, and to aid in their decipherment.

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The Need for LAPIDA

The need for the LAPIDA Project requires explanation, since published drawings for many of the texts relevant to the study of early Mayan writing already exist. For instance, at least two drawings of the Brooklyn Museum of Art jadeite pectoral mask have been published: one in Covarrubias (1957: figure 94) (Figure 1), and one in Schele and Miller (1986:150-151, Plate 45) (Figure 2). But when both drawings are compared with the photograph in Soustelle (1979: Plates 60 and 61) (Figure 3), it can be appreciated that they lack certain details, which I have included in the final drawing published here for the first time (Figure 4).

[1] In addition to funding from FAMSI, my LAPIDA Project has also been supported with grants from the Institute for Mesoamerican Studies, the Benevolent Association, and the Graduate Student Organization at the State University of New York at Albany. I have conducted research at the following museums and collections: the Dumbarton Oaks Research Library and Collection, the Yale Art Gallery, the Fidel Tristán Jade Museum in Costa Rica, the National Museum of Costa Rica, the Brooklyn Museum of Art, the Peabody Museum, the Princeton Art Museum, and the National Museum of Archaeology and Ethnology in Guatemala City.

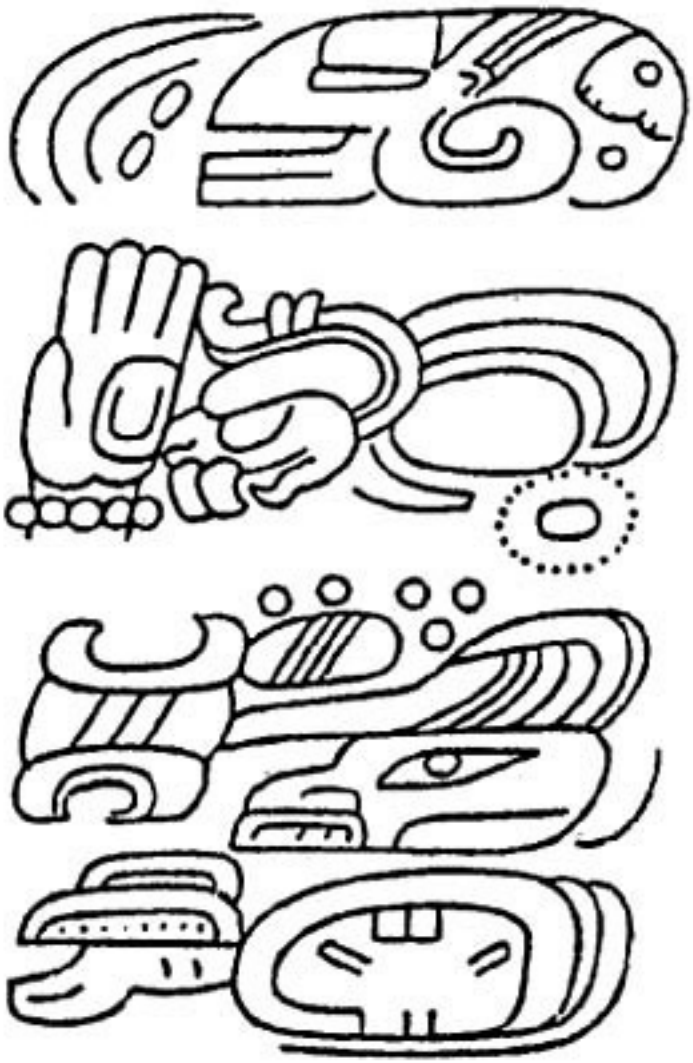


Figure 1. Brooklyn Museum of Art jadeite pectoral mask, Covarrubias (1957: figure 94).

Figure 2. Brooklyn Museum of Art jadeite pectoral mask, Schele and Miller (1986:150-151, Plate 45).

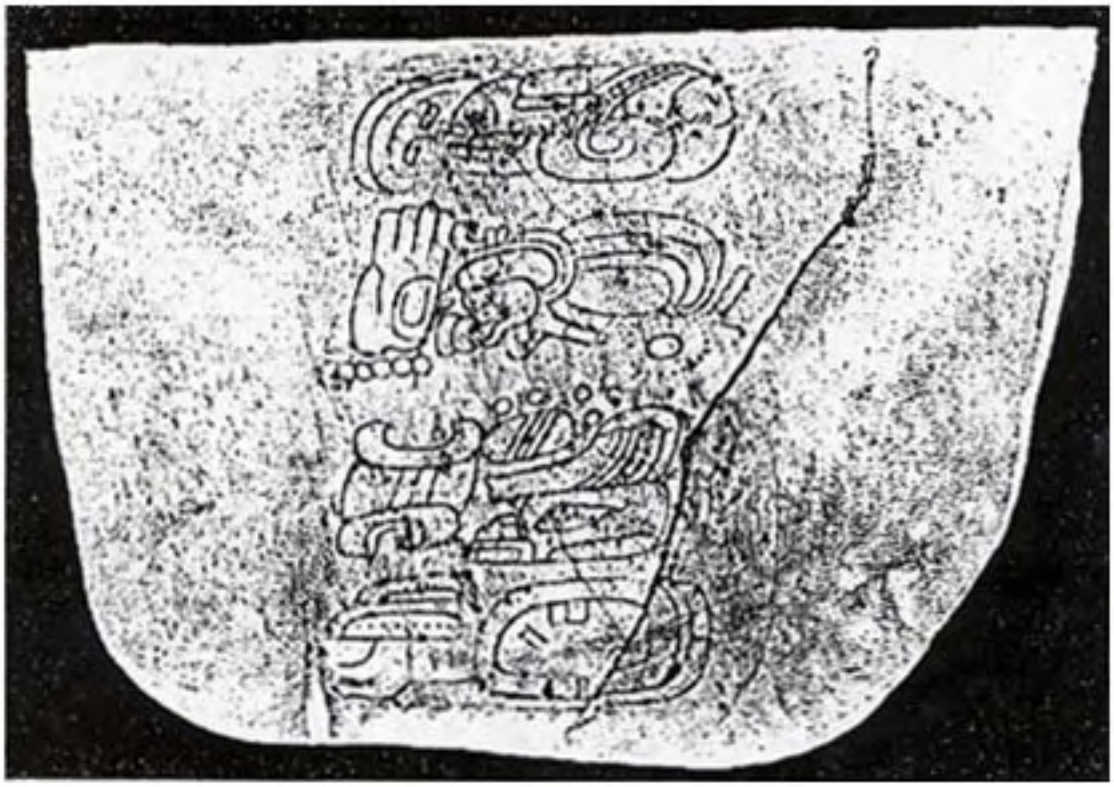


Figure 3. Brooklyn Museum of Art jadeite pectoral mask, Soustelle (1979: Plates 60 and 61).

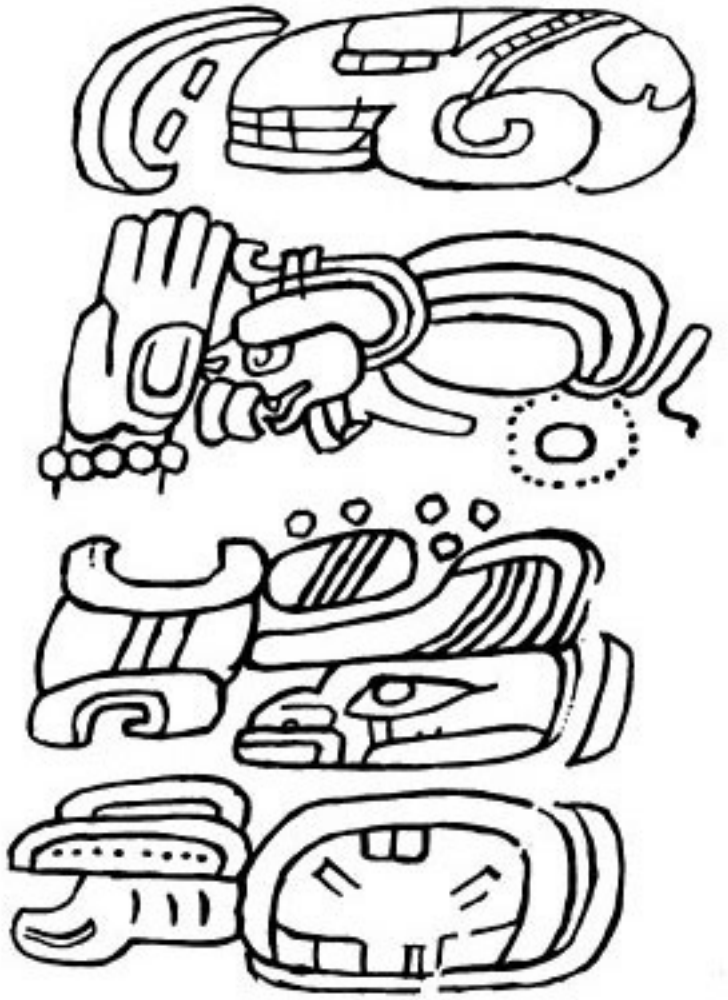


Figure 4. Brooklyn Museum of Art jadeite pectoral mask (BMA mask).

Another case is the drawing of the Dumbarton Oaks quartzite pectoral published in Coe (1966: figure 11). Among the details missing in his drawing is a crucial one for determining the linguistic affiliation of this text. A comparison of Coe's drawing of the glyph at C6a, and my own drawing of that glyph (Figure 5) can show this: Coe's drawing is missing an example of T1 **7u** inside T126 **ya**. This phonetic spelling of the preglottalic third person singular ergative/possessive prefix, **7u-ya** for 7uy-, has important implications: only Cholan and Yucatecan innovated an 7uy- allomorph of this prefix in Mayan. Indeed, Tzeltalan and Greater Kanjobalan have y- but not 7uy-; other Mayan languages have r- (Greater Quichean), t- (Greater Mamean), or in- (Huastec). Using the previous drawing, such a narrow discrimination would not be possible.

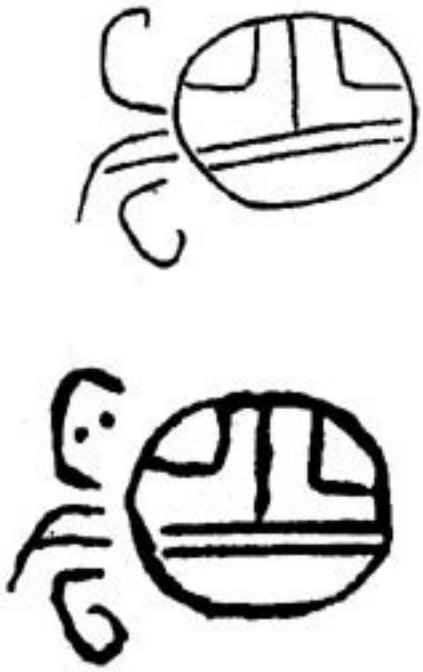


Figure 5. Dumbarton Oaks quartzite pectoral.

Project Design and Methods

The procedure involves the following six steps: (i) photograph scanning and processing, (ii) enlarged laser printout, (iii) field notes and sketching, (iv) inking of drawing, (v) scanning of drawing, and (vi) publishing of drawing in printed and online media.

First, a photograph of the text is scanned at high resolution, and the image is enhanced (increasing focus or sharpness) as needed (Figure 6). (I have used Adobe Photoshop for the imaging process). Starting out with a black-and-white photograph (i.e., grayscale), if the incised glyphs are dark (e.g., filled in with red or black pigment) and surrounded by a lighter surface (e.g., light green mineral), an enlarged-scale laser printout is produced at this point. However, if the incisions are light (e.g., white pigment) and surrounded by a darker surface (e.g., dark green mineral), the image is first inverted into its negative, so the incisions become dark and easier to see through tracing paper (Figure 7). If a color photograph is used, it may be useful to scan the photograph in color rather than grayscale; once scanned, it is possible (with Adobe Photoshop) to view the image under different filters: Red, Blue, Green, and RGB (all three). If the incised glyphs are filled in with red pigment, for example, applying the Blue filter may enhance the contrast and make for a more suitable image. Inverting the image to its negative may also improve the contrast, as in the case with grayscale photographs.

Figure 6. Imaging process.

Figure 7. Imaging process.

Then, an enlarged laser printout is produced. The enlarged printout is taped to a portable drawing board, and tracing paper is taped on top of the printout. Using a pencil, loupes of different magnifications, and ideally one or two separate portable or movable light sources, the inscription is sketched through first-hand examination of the artifact. The sketching is done on the tracing paper that lies on top of the enlarged printout of the photograph of the text (Figure 8). The light sources allow one to enhance the light-shadow contrasts of incisions, when applied at oblique angles with respect to the inscribed surface, and from different directions (i.e., raking light assist). Gloves (cotton or disposable latex) should be used when handling the object.

Later, an enlarged photocopy or laser printout of the field drawing of the text is produced (Figure 9). Tracing paper is taped on top of the photocopy or printout, and the drawing is traced with ink using a light table. The images produced (photographic and line art) are scanned and ready for on-line publication, or photocopied for dissemination by other means (Figure 10). One of the aims of this interim report is to fulfill this last step.

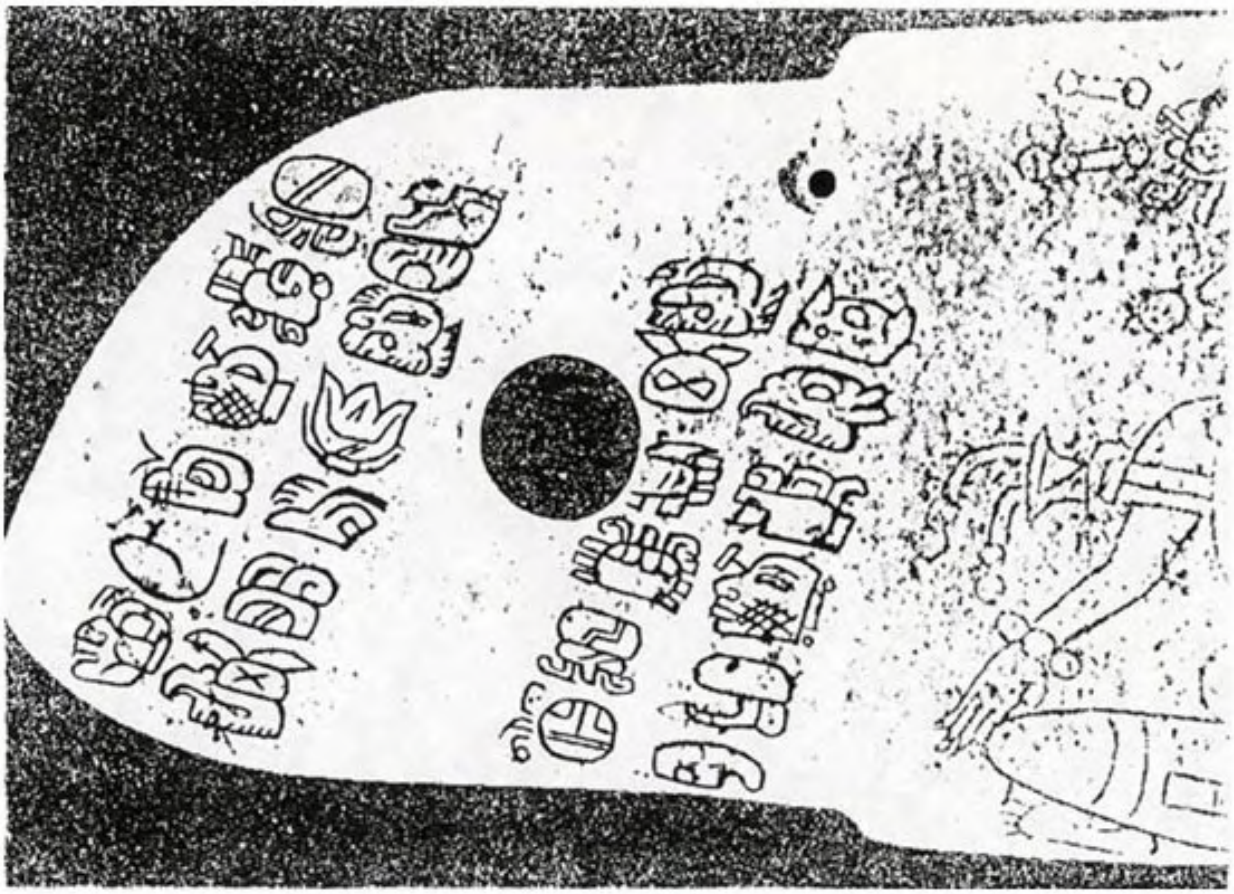


Figure 8. Imaging process.

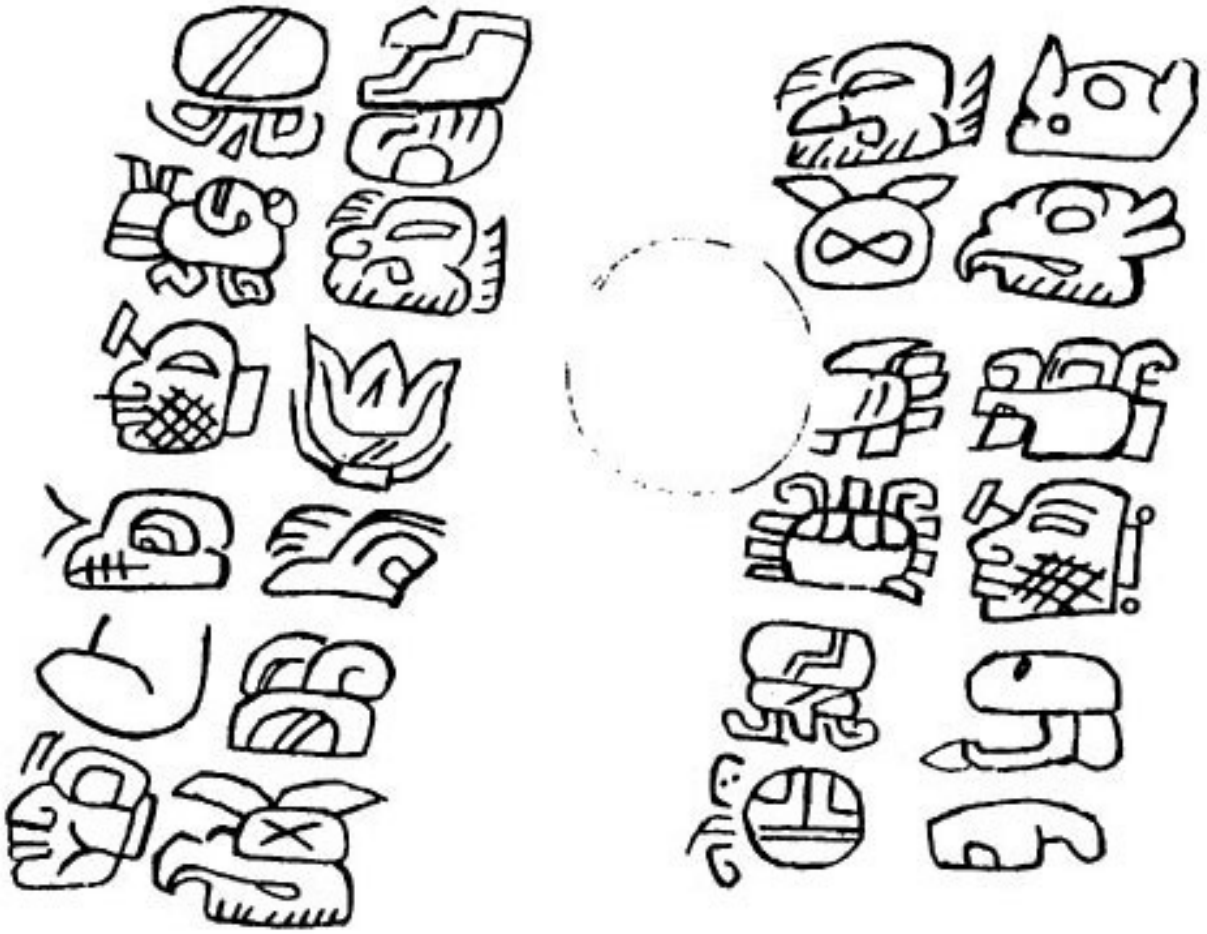


Figure 9. Imaging process.

Figure 10. Dumbarton Oaks jade pectoral (DO pectoral).

Results Achieved to Date

Included in this report are final drawings of the following early texts (abbreviations are provided, see Addendum):

1. Dumbarton Oaks jade pectoral (Figure 10, DO pectoral).
2. Dumbarton Oaks jadeite celt (Figure 11, DO celt).
3. Jade Museum jade spoon (Figure 12, JM spoon).
4. Jade Museum jade plaque No. 4444 (Figure 13, INS 4444).
5. Jade Museum jade plaque No. 4443 (Figure 14, INS 4443).
6. Jade Museum jade plaque No. 4442 (Figure 15, INS 4442).
7. Jade Museum jade plaque No. 4441 (Figure 16, INS 4441).
8. Jade Museum jade plaque No. 4440 (Figure 17, INS 4440).
9. Jade Museum jade plaque No. 2007 (Figure 18, INS 2007).
10. Jade Museum jade plaque No. 2006 (Figure 19, INS 2006).
11. Jade Museum slate disk No. 6528 (Figure 20, INS 6528).
12. Jade Museum jade plaque No. 4563 (Figure 21).
13. La Fortuna slate disk (Figure 22, LF disk).
14. Peabody Museum at Yale jaguar figurine (Figure 23, PMY jaguar).

15. Cenote tubular jade bead (Figure 24, CNT 6125).
16. Cenote tubular jade bead (Figure 25, CNT 22001).
17. The lower glyphic panel of Hauberg Stela (Figure 26, Figure 27, Figure 28, and Figure 29, HBG stela).
18. The lower glyphic panel of Kaminaljuyú Stela 10 (Figure 30, KJ Stela 10).
19. Brooklyn Museum of Art jade mask (Figure 4, BMA mask).

For some drawings I have not had the benefit of first-hand observations yet, but I have used published high-resolution photographs to improve upon previously published drawings. The following drawings are thus only preliminary:

20. Hatzcap Ceel jade axe (Figure 31, HTZ axe).
21. Kendal jade axe (Figure 32, KND axe).
22. An unprovenanced jade clamshell (Figure 33, UNP clamshell, K763).
23. The Pomona jade earflare (Figure 34a, and Figure 34b, PMA flare).
24. The British Museum pectoral (Figure 35, BM pectoral).
25. The Cleveland Museum jade plaque (Figure 36, CM plaque).
26. A jade plaque reportedly from Nosara, Nicoya, Costa Rica (Figure 37) published in Stone (1968: figura 9).
27. An unprovenanced jade plaque reportedly from Costa Rica (Figure 38) published in Stone (1977:68, figure 78c).

My dissertation research focuses on the following four inscribed artifacts: DO pectoral, JM spoon, PMY jaguar, and UNP clamshell. I discuss other texts, but in less detail. Next I discuss the differences between my drawings of these texts and the previously published drawings.

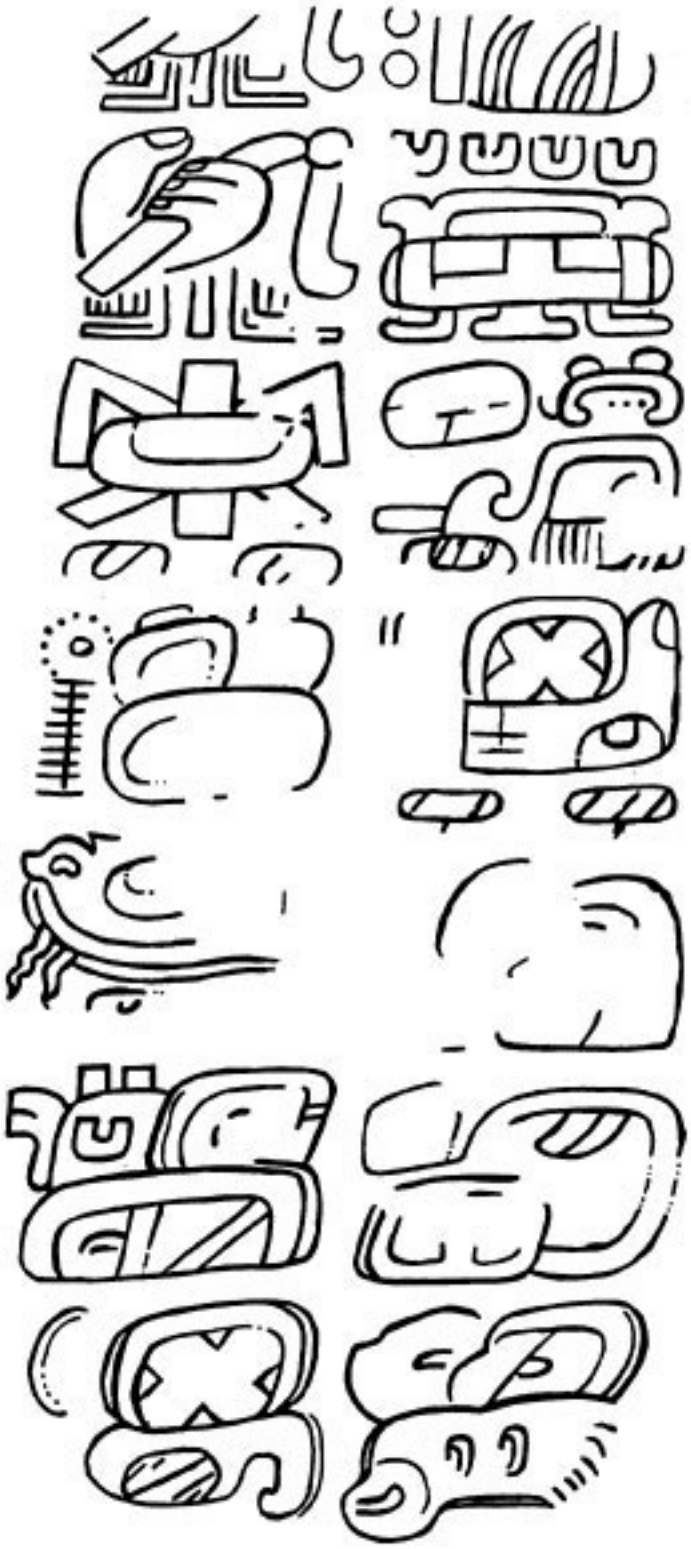


Figure 11. Dumbarton Oaks jadeite celt (DO celt).

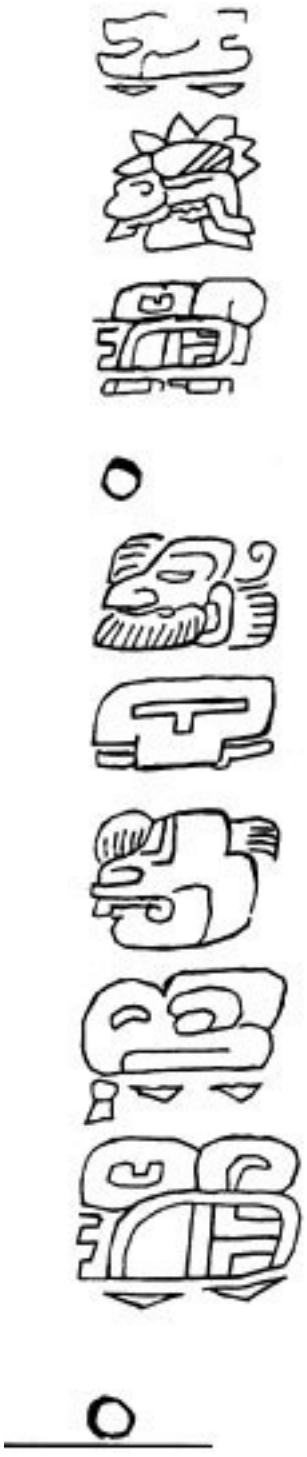


Figure 12. Jade Museum jade spoon (JM spoon).

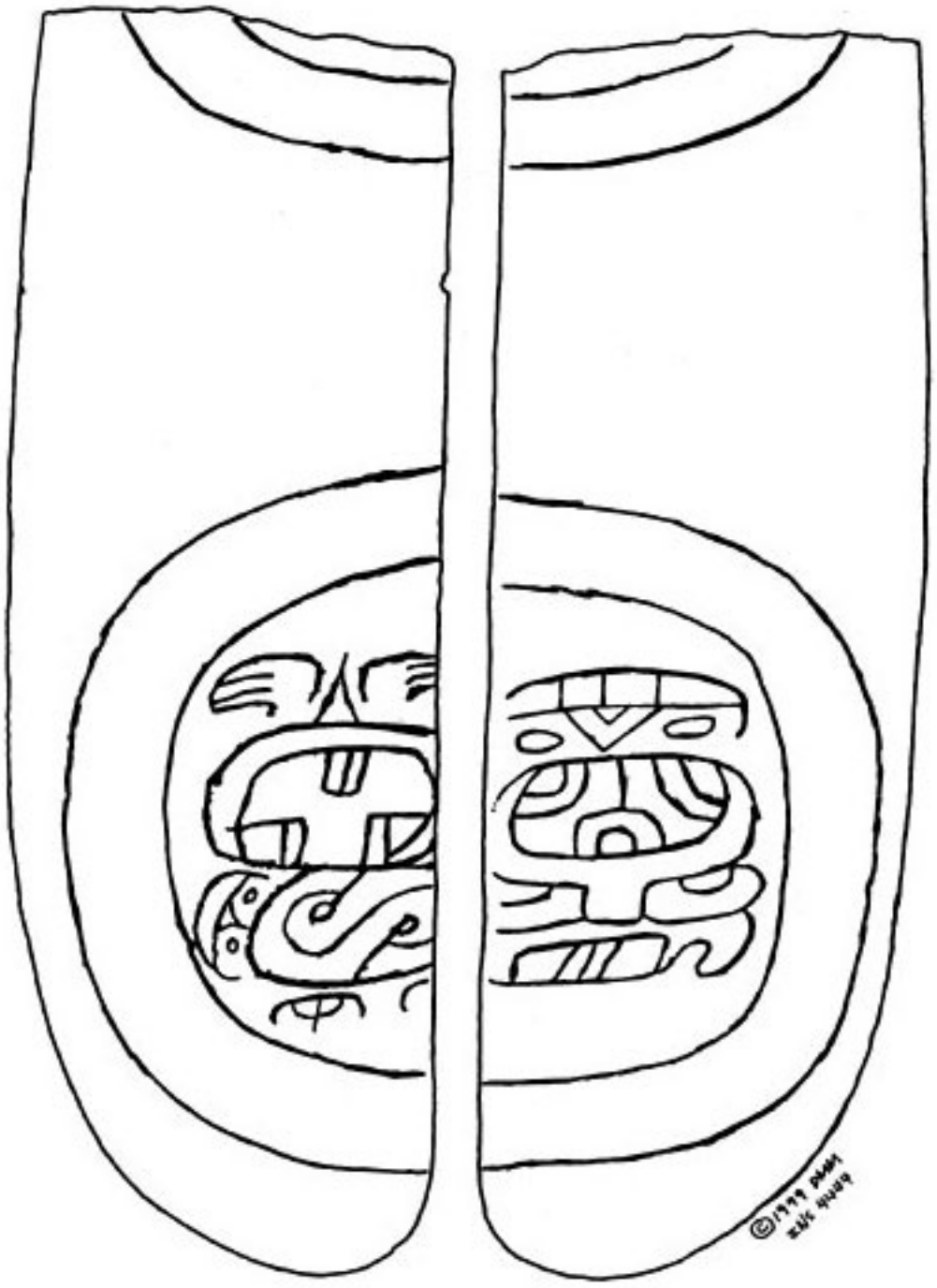


Figure 13. Jade Museum jade plaque No. 4444 (INS 4444).

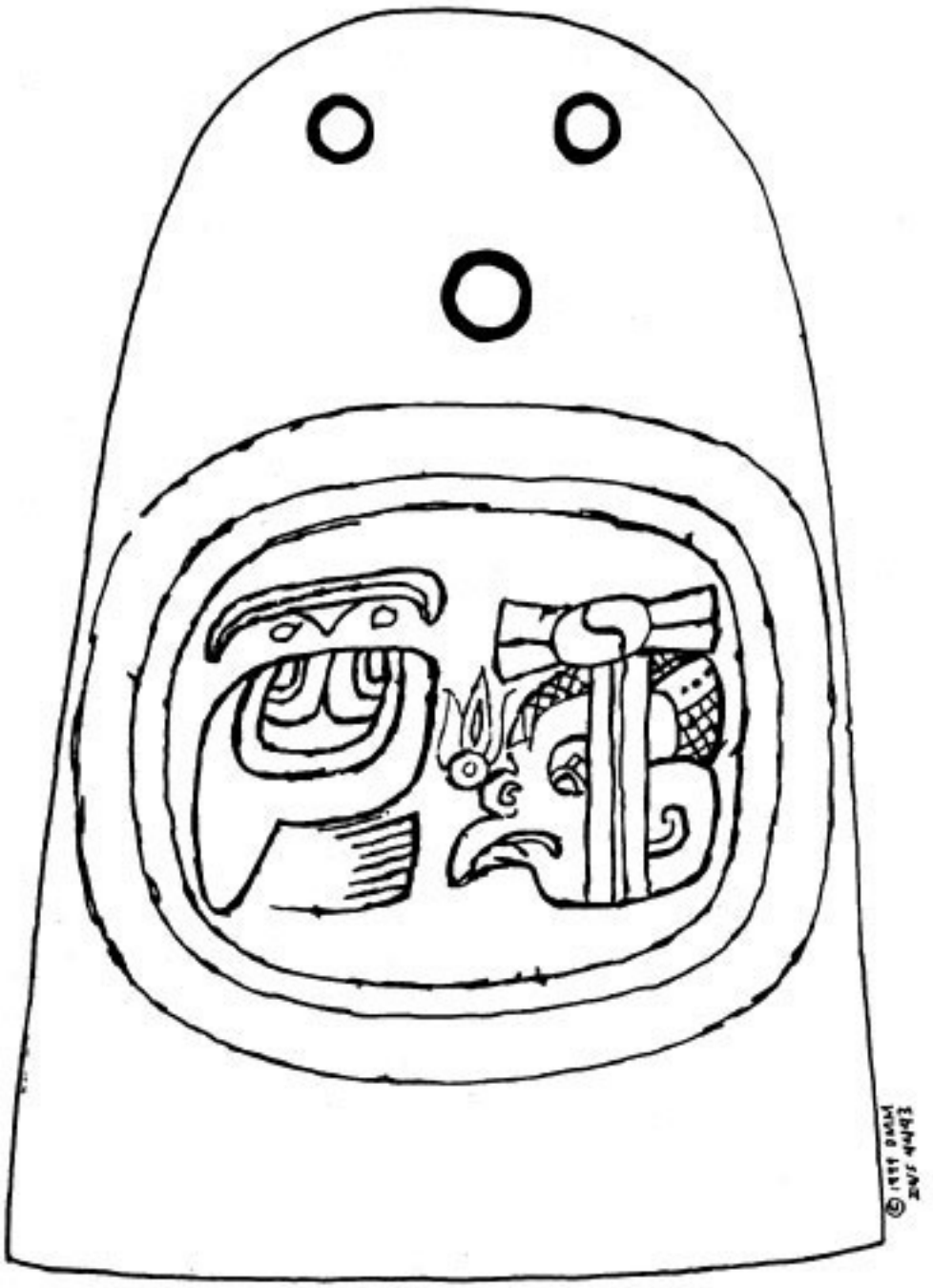


Figure 14. Jade Museum jade plaque No. 4443 (INS 4443).

Figure 15. Jade Museum jade plaque No. 4442 (INS 4442).

Figure 16. Jade Museum jade plaque No. 4441 (INS 4441).

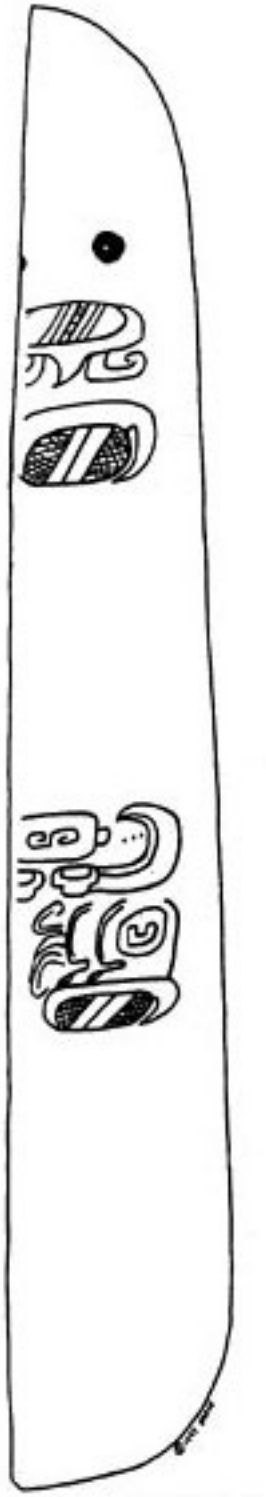


Figure 17. Jade Museum jade plaque No. 4440 (INS 4440).

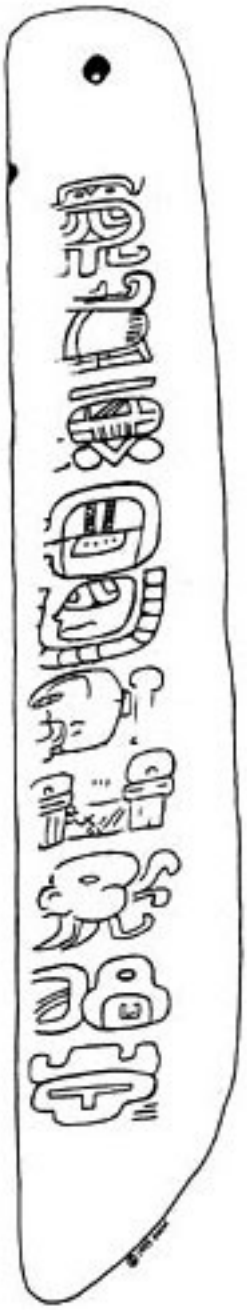


Figure 18. Jade Museum jade plaque No. 2007 (INS 2007).

Figure 19. Jade Museum jade plaque No. 2006 (INS 2006).

Figure 20. Jade Museum slate disk No. 6528 (INS 6528).

Figure 21. Jade Museum jade plaque No. 4563 (INS 4563).

Figure 22. La Fortuna slate disk (LF disk).

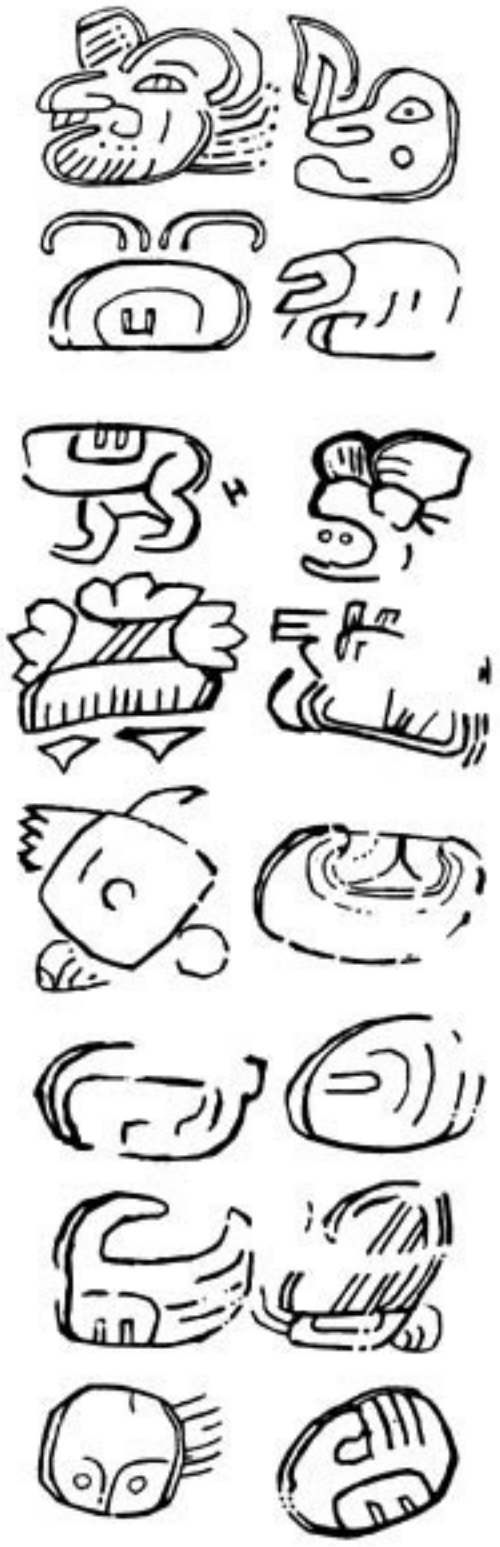


Figure 23. Peabody Museum at Yale jaguar figurine (PMY jaguar).

Figure 24. Cenote tubular jade bead (CNT 6125).

Figure 25. Cenote tubular jade bead (CNT 22001).

Figure 26. The lower glyphic panel of Hauberg Stela (HBG stela).

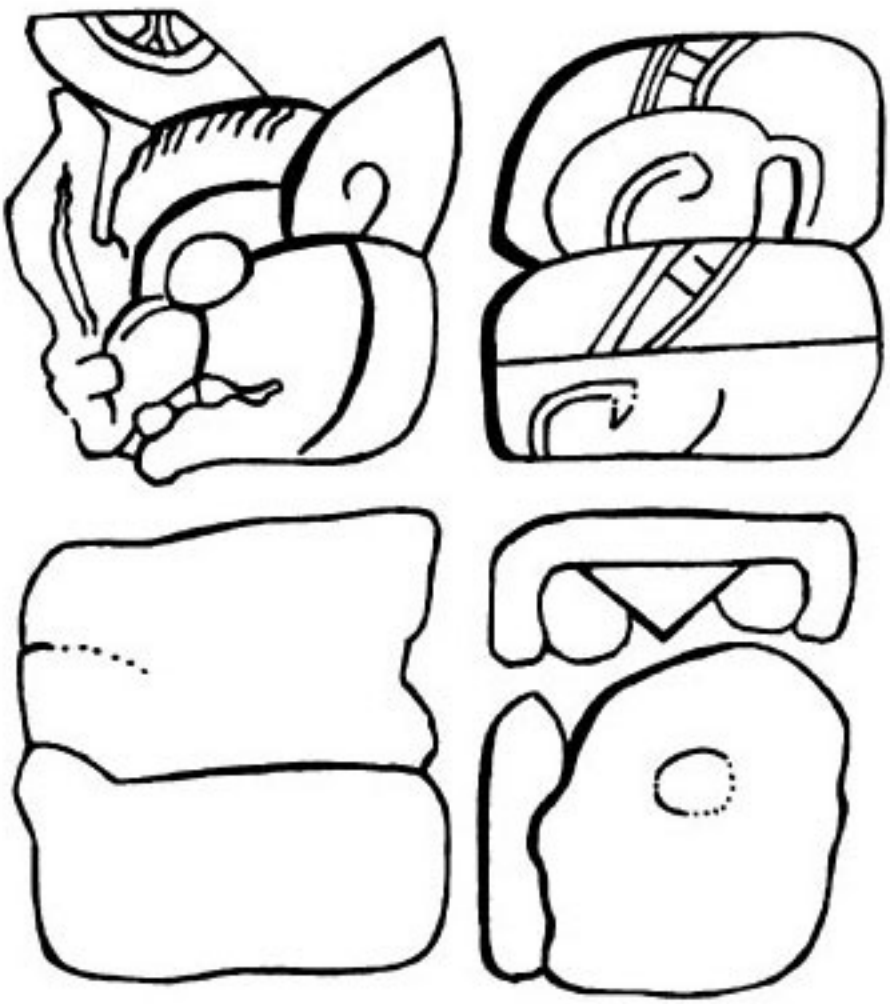


Figure 27. The lower glyphic panel of Hauberg Stela (HBG stela).

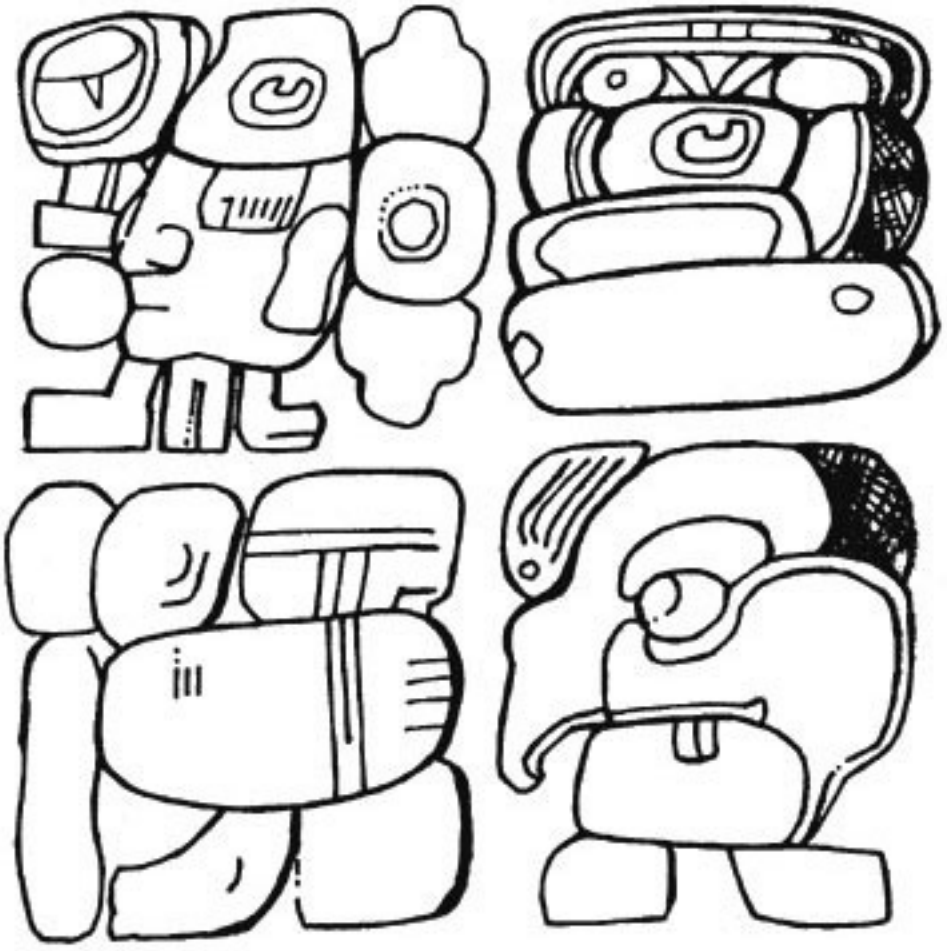


Figure 28. The lower glyphic panel of Hauberg Stela (HBG stela).

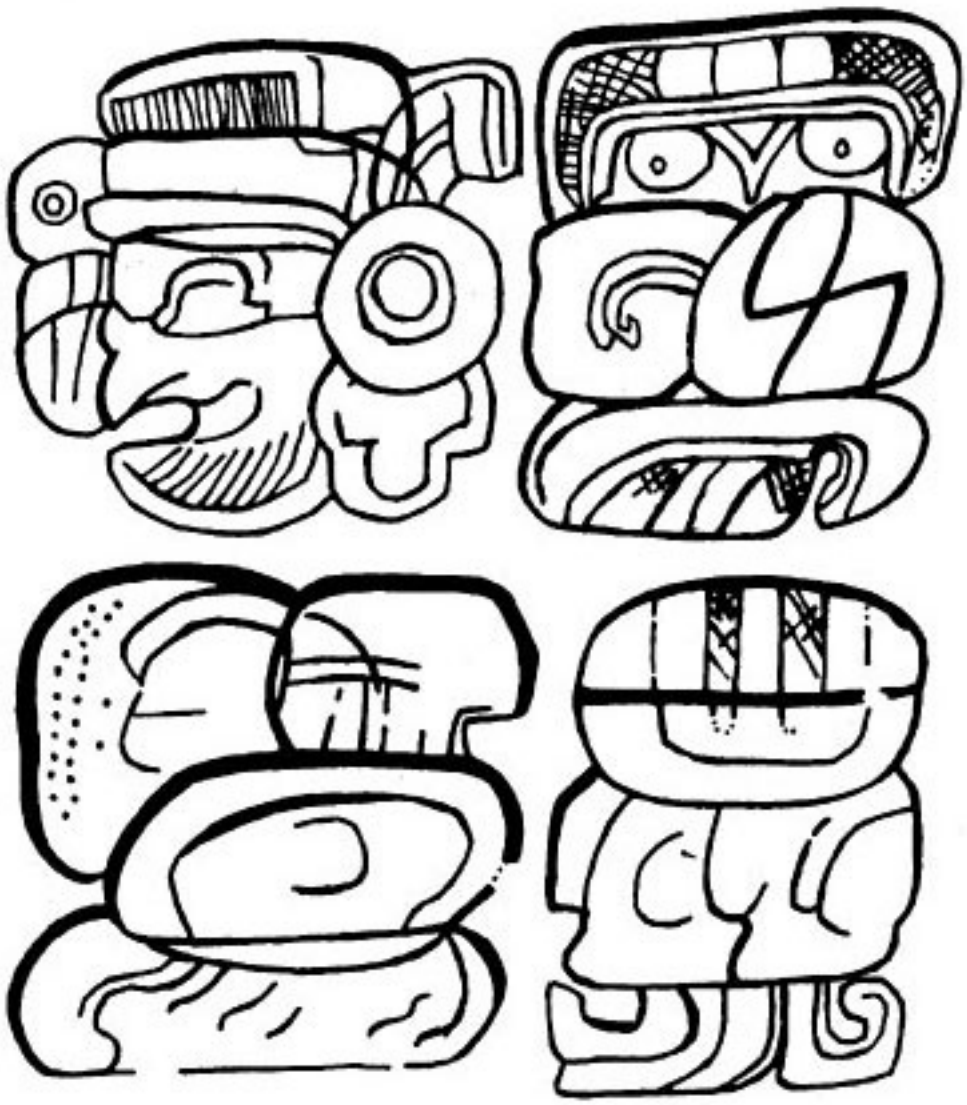


Figure 29. The lower glyphic panel of Hauberg Stela (HBG stela).

Figure 30. The lower glyphic panel of Kaminaljuyú Stela 10 (KJ Stela 10).

Figure 31. Hatzcap Ceel jade axe (HTZ axe).

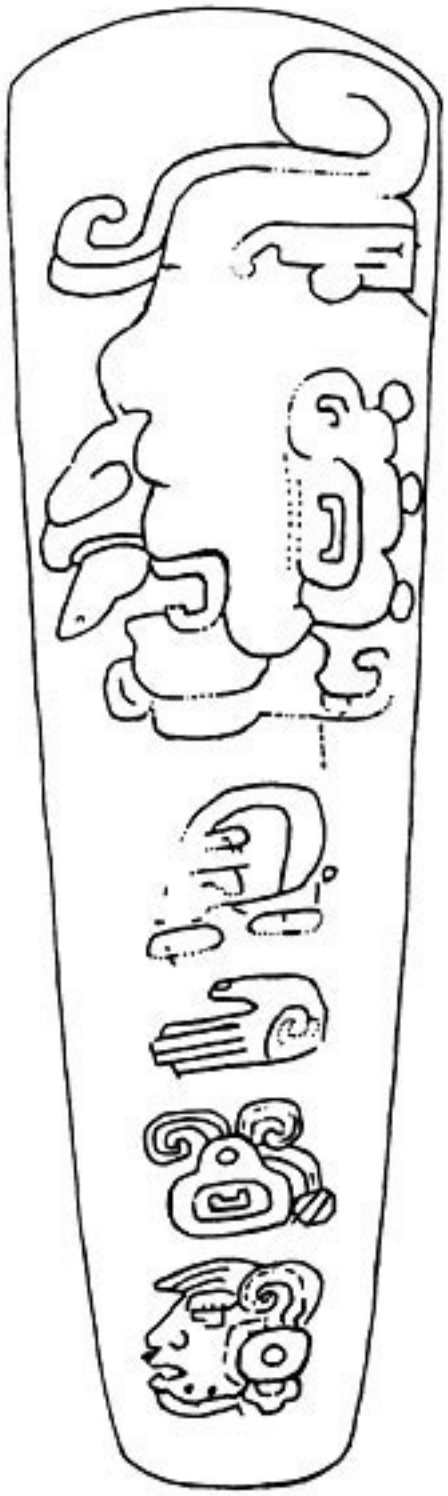


Figure 32. Kendal jade axe (KND axe).

Figure 33. An unprovenanced jade clamshell (UNP clamshell, K763).

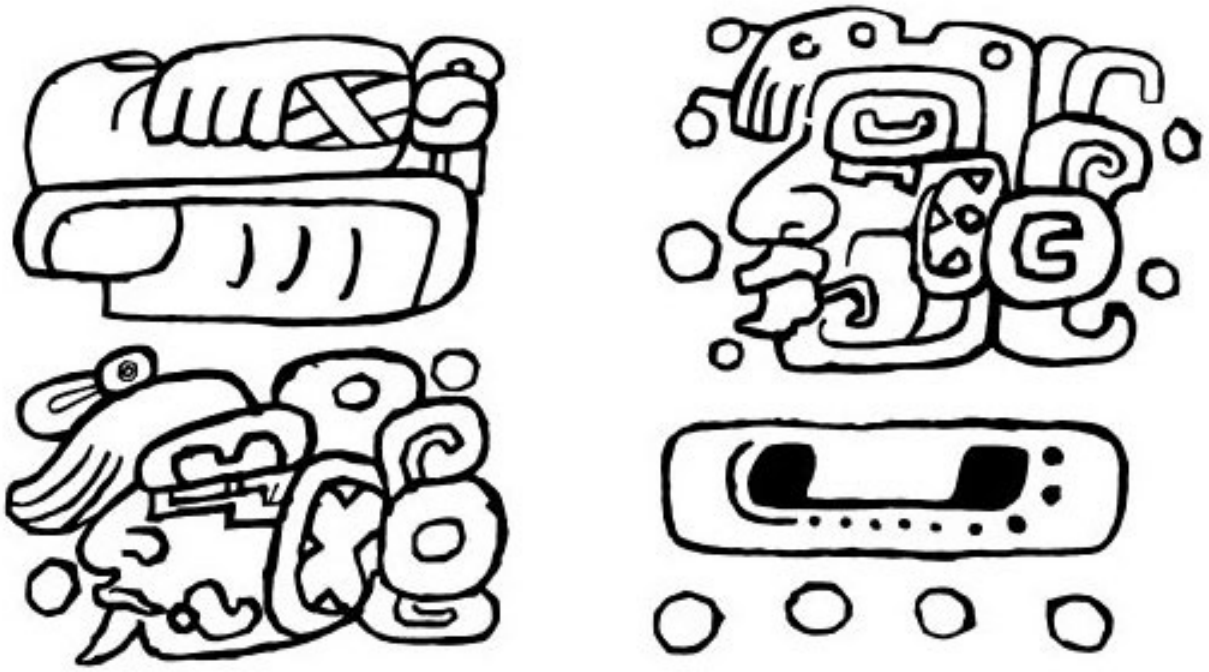


Figure 34a. The Pomona jade earflare (PMA flare).

Figure 34b. The Pomona jade earflare (PMA flare).

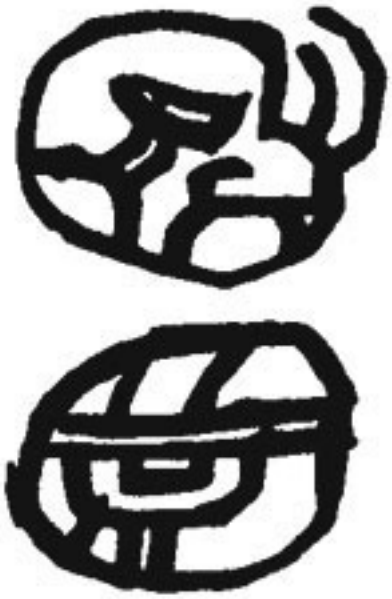


Figure 35. The British Museum pectoral (BM pectoral).

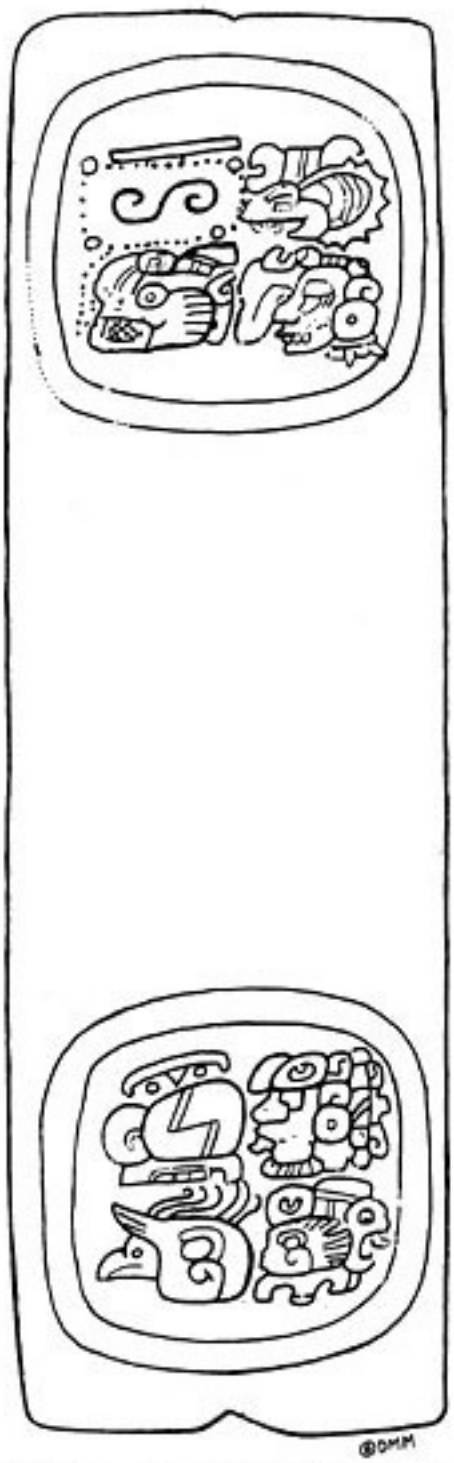


Figure 36. The Cleveland Museum jade plaque (CM plaque).

Figure 37. A jade plaque reportedly from Nosara, Nicoya, Costa Rica published in Stone (1968:figura 9).

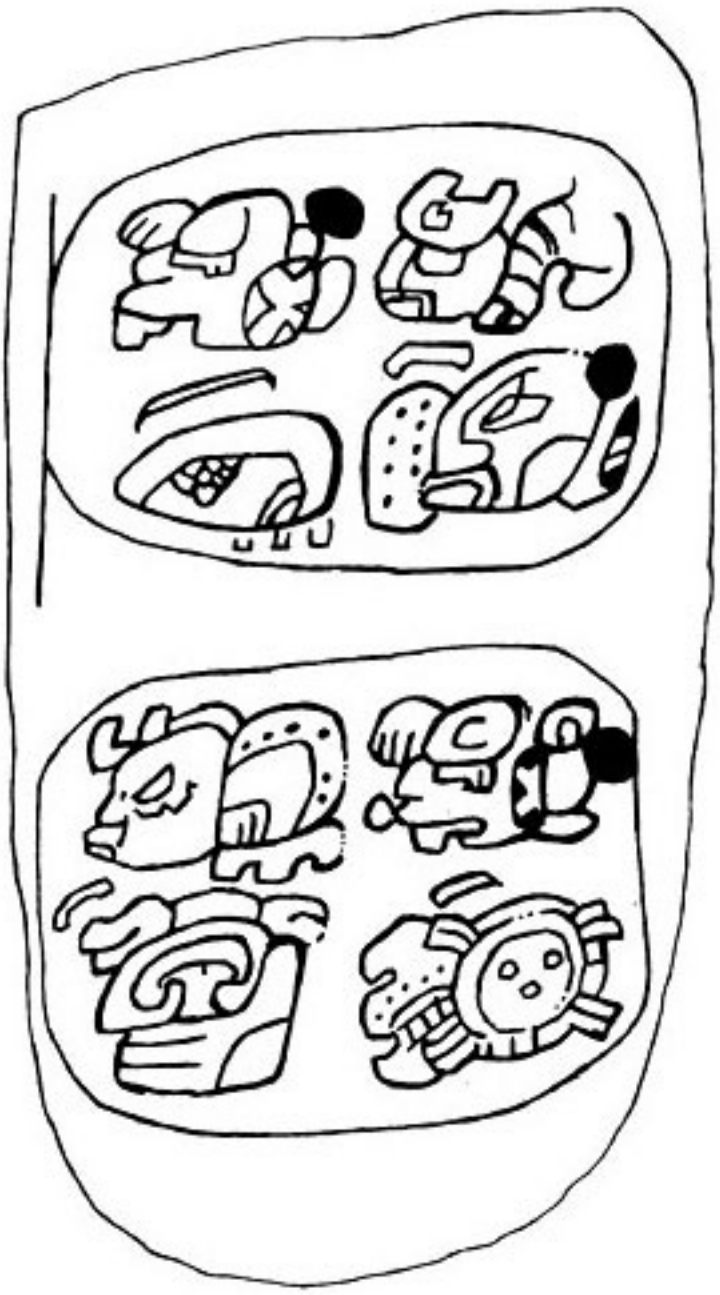


Figure 38. An unprovenanced jade plaque reportedly from Costa Rica published in Stone (1977:68, figure 78c).

Comparison of Drawings

Several drawings of the DO pectoral text (Figure 10) have been published, including: Coe (1966: figure 11), Schele and Miller (1986:120), and Mora-Marín (1997: figure 3). The final drawing presented here differs from these three as follows. The main differences between Coe's (1966) drawing (Figure 39) and Figure 10 are in C2, D2, and C6a; between Schele and Miller's (1986) drawing (Figure 40) and Figure 10 are in A2b, D1, C2, D2, D3, and C6a; and finally, between Mora-Marín's (1997) drawing (Figure 41) and Figure 10 are in A2b, C2, D3, and C6a. Of these, the ones pertaining to A2b, D1, and C6a are the most important ones for epigraphic purposes.

It is worth mentioning that the DO pectoral's original cinnabar pigment has been replaced by a nontoxic counterpart. During the curation process, the cinnabar was removed, and the new pigment applied using pre-curation close-up color slides as guides. After curation, some of the intentional incisions were not refilled, and are therefore no longer visible under normal room lighting without magnification or light manipulation. Also, some of the scratch marks on the pectoral's surface were accidentally filled in[2]. My drawing takes into account only the intentional incisions, most of which are visible in the photograph in Coe (1966: figure 2), and in the pre-curation color slides on file at Dumbarton Oaks; it should therefore be compared with those sources.

[2] This was evident to me when I examined the pre-curation close-up slides.

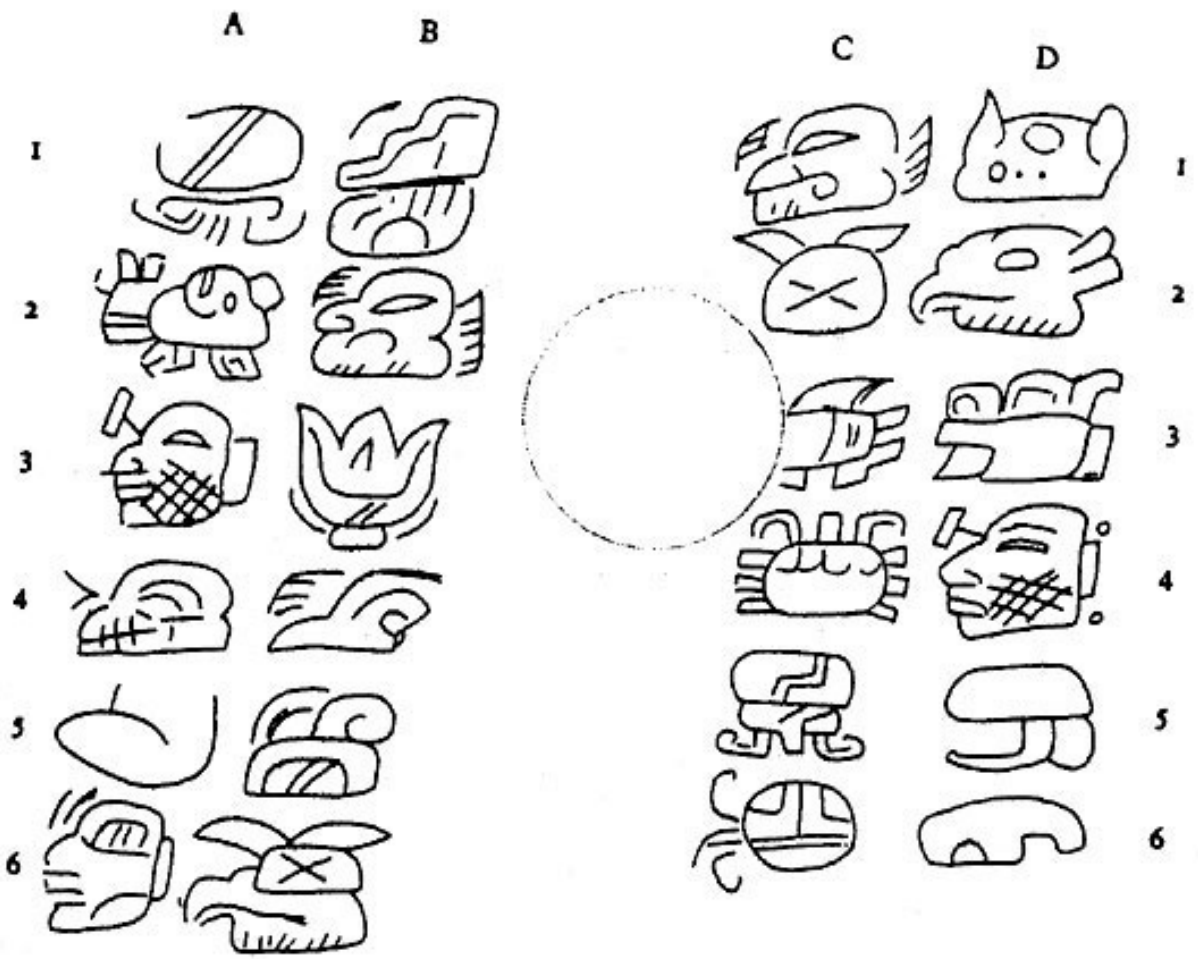


Figure 39. DO pectoral text, Coe (1966:figure 11).

Two different drawings of the JM spoon have been published: a drawing by Dorie Reents-Budet (Figure 42) partially published in Anderson (1993:113), and my earlier drawing (Figure 43) published in Mora-Marín (1997: figure 5). Figure 12, my more recent drawing, represents an improvement over the previous two[3]. It shows several signs and sign details missing from glyphs A2, A3, A7, and A8 in Reents-Budet's drawing. The main differences with respect to my previous drawing lie in the renderings of A1a and A3d. The glyph at A1a is partly effaced, and so the reconstruction of A1 is uncertain[4].

[3] It is based on the tracing of a higher resolution scan than the one used for the previous drawing, and as a result, it represents the incisions more faithfully. In fact, what seemed to be nicely rounded corners in the previous drawing can now be seen as somewhat more tentative etchings with a more angular appearance.

[4] The surface where A1 is incised has suffered much scratching.

Coe (1973:25) published a photograph and a line drawing of the PMY jaguar text (Figure 44)[5]. The photograph does not show the lower four rows of glyphs very clearly. Upon inspection of the artifact, I realized they have experienced more damage than the top four rows, a fact that Coe's drawing indicates through stippling. The drawing I have prepared (Figure 23) differs from Coe's drawing in several details, a few of which are of likely epigraphic significance[6]: the extra details and apparent suffix to glyph B7; and an apparent suffix to glyph A8.

Figure 40. DO pectoral text, Schele and Miller (1986:120).

[5] The text has been discussed in Coe (1973; 1976), Ayala (1983), Fahsen (1987; 1988; 1999), Hansen (1991), Anderson (1993), Mora-Marín (1996; 1997), and Coe and Kerr (1998). I briefly mention some of their contributions below.

[6] Some of these details are only important for art historical and paleographic study: the rendering of the tuft of hair in glyph A1; the double outlines on glyphs A4, B4, B5, and B8; the internal element of top sign in glyph B3; the internal elements of glyph B5; the cartouche and internal elements of glyph A7; and a few details in glyph B8.

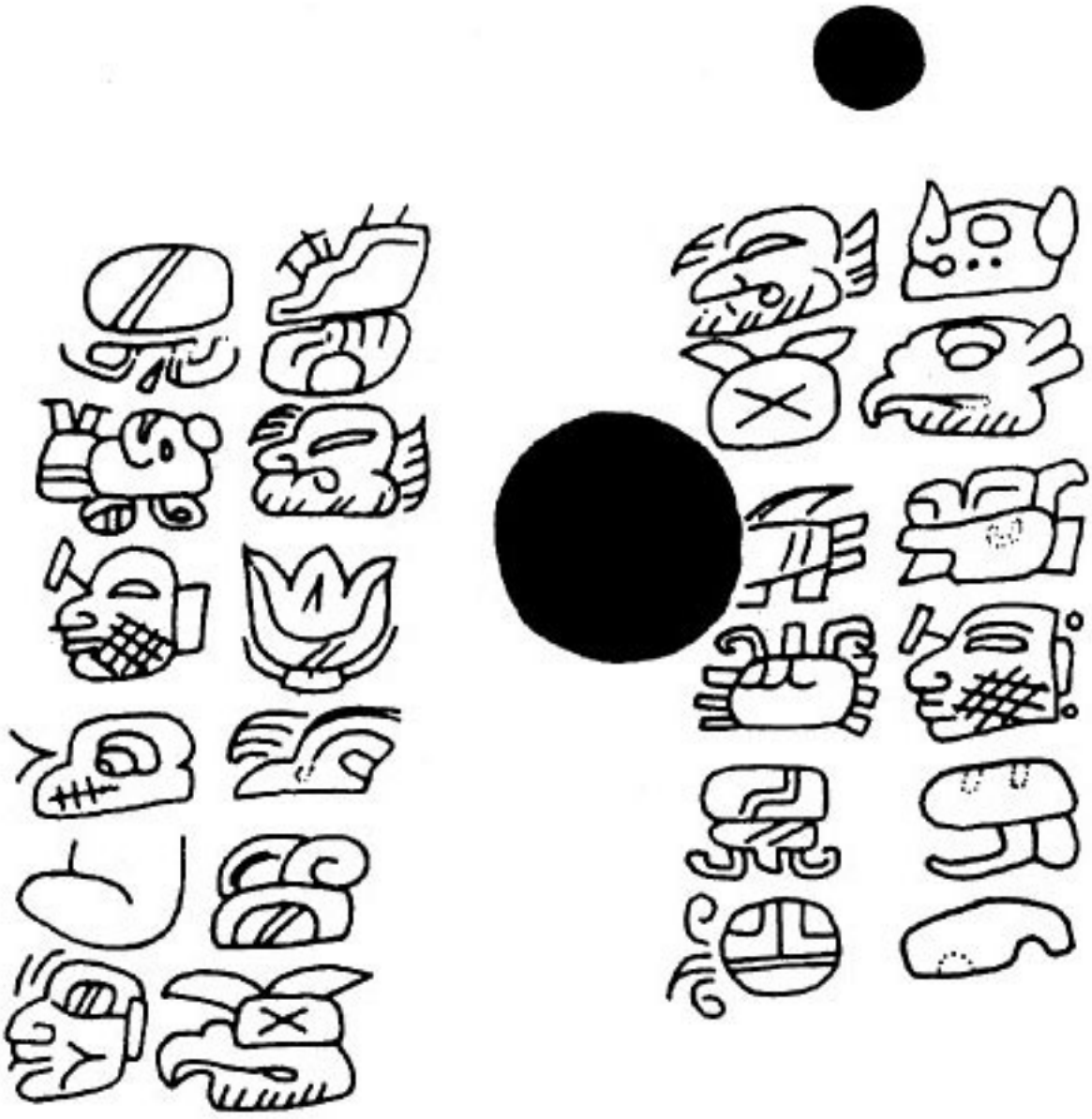


Figure 41. DO pectoral text, Mora-Marín (1997:figure 3).

The dimensions, provenance, and current location of the UNP clamshell (K763) are unknown to me[7]. The only previous drawing of the text is by John Montgomery (Figure 45), and is partially published in Anderson (1993:112-113)[8]; it is for the most part

[7] I am very grateful to Donald Hales for informing me that this artifact corresponds to File No. 763 in Justin Kerr's archives, and also to Justin Kerr, who provided me with the color prints of his photographs that I used to draw the text.

[8] I thank Lloyd Anderson for providing me with a copy of John Montgomery's drawing.

accurate, but lacks a few small details, two of which are of likely epigraphic significance and which I have filled in my drawing (Figure 33)[9]. One is a detail in the form of a nostril in the sign at A6a. This shows the sign at A6a depicts a nose. Also, the sign at A6b consists of two elongated elements; I think they could be fingers, one of which may show a fingernail, but this is unclear.

Figure 42. JM spoon, Dorie Reents-Budet, partially published in Anderson (1993:113).

[9] The reeds/hairs projecting from the earflare in glyph A5 and missing in Montgomery's drawing are likely not relevant to epigraphic decipherment, but interesting for they make this earflare element identical to the one in glyph A1.

I intend to discuss the rest of the drawings I am providing here for the first time at a later date. The FAMSI grant I received has allowed me to complete the following drawings: the JM spoon, INS 4442, INS 2007, INS 6528, PMY jaguar, CNT 6125, CNT 22001, the Hauberg Stela, Kaminaljuyú Stela 10, and the UNP clamshell[10].

[10] I am very grateful to John Hauberg for allowing me to study the Hauberg Stela, and to Matthew H. Robb for facilitating me the resources at the Princeton Art Museum where the Hauberg Stela was on display earlier this year. My drawing of Kaminaljuyú Stela 10 owes a great deal to the help, support, and resources of Federico Fahsen, Nancy Monterrosa, Carolina Sisniega, the former Director of the National Museum of Guatemala, Lcda. Dora Guerra de González, Juan Antonio Valdés, John Justeson, Ian Graham, and James Porter. I am grateful to Gloria Polizzotti Greis and David S. Stuart at the Peabody Museum, and to Susan Matheson at the Yale Art Gallery for their assistance. I am also grateful to Zulay Soto at the Fidel Tristán Jade Museum and to Marlin Calvo at the National Museum of Costa Rica for their assistance.

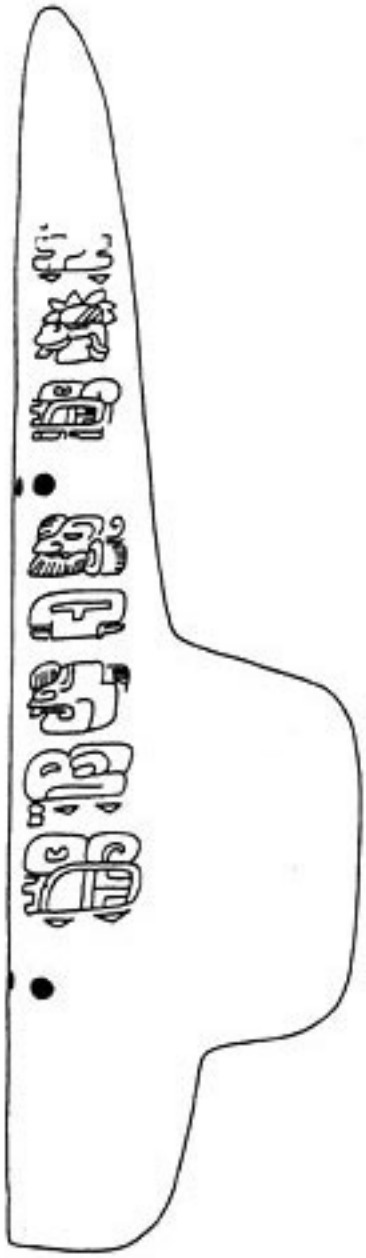


Figure 43. JM spoon, Mora-Marín (1997:figure 5).

Art History and Paleography

Accurate drawings of Late Preclassic texts can aid not only in decipherment, but also in the development and refinement of a paleographic chronology for the Mayan script. Such a framework can assist in the relative dating of unprovenanced texts and in tracing important historical changes, and is therefore of great importance. The research I have conducted with support from FAMSI should prove very useful for achieving this goal.

The early development of graphic forms and orthographic rules in the Mayan script have been discussed in Justeson and Mathews (1990), Grube (1990; 1994), and Lacadena (1996). In my dissertation I discuss several key cases relevant to the study of the four texts mentioned above. Some of the graphic and orthographic developments discussed by the authors mentioned above may prove more useful than others. The following are just a few examples.

The U-shaped element can serve as a good point of departure, given its presence in a large number of different signs, and also, its recognizable mutations through time. This widespread use in Mayan signs, as Lacadena (1996) has described, led to a chain shift of graphic change involving signs with the U-shaped element during the Early-to-Late Classic transition. The change in question involved the substitution of the original U-shaped element inside a cartouche for a circular element, and later still, the addition of two small circles on the outside of the cartouche. The earliest Mayan texts can provide additional data relevant to the historical development of these elements.

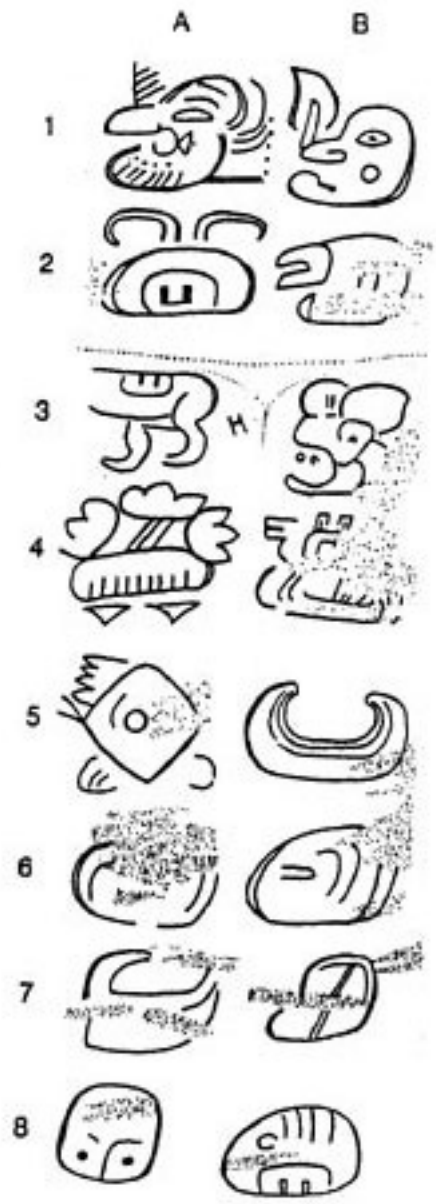


Figure 44. PMY jaguar text, Coe (1973:25).

For example, the DO celt text, with the proposed date of A.D. 120 (Schele and Miller, 1986:83), has two examples of the U-element inside a hand sign and inside the likely predecessor of T168 (cf. B4 and A7). Several other undated and unprovenanced early texts also exhibit this element: the BMA pectoral, CNT 6125, the JM spoon, the PMY jaguar, the UNP clamshell, and the PMA flare, among others. The BMA pectoral (A2a) and the CNT 6125 (A2, A4c) both exhibit the use of the U-element. The JM spoon has two examples of the U-element, but both in the same sign (A3a, A8a); no other signs in this text are signs where the U-element is likely to occur in later texts. The UNP clamshell has one instance of the U-element, in the same sign as the occurrence in the

JM spoon (cf. A7a). The DO pectoral has one iconographic occurrence of the U-element, but no glyphic ones.

The Protoclassic PMA flare shows four glyphic (i.e. rather than iconic) occurrences of the U-element: two in the SUN.GOD glyph (A2/B1), one in T840 (D1a), and one in T710 (D1c). Interestingly, the lower glyphic panel of KJ 10 may contain a case of the U-element at F3, in the same glyph as D1c of the PMA flare. If one takes into account the iconography of the glyphs in the PMA flare, one can witness the free variation relationship between the U-element and the O-element inside the (T62) earflare worn by the two instances of the SUN.GOD glyph; this variation may have started in the iconography, and subsequently intruded into the glyphic domain, although only further study can determine this.

Figure 45. UNP clamshell, John Montgomery, partially published in Anderson (1993:112-113).

Lastly, the PMY jaguar contains one clear example at A2. Moreover, the PMY jaguar text may constitute a missing link in the history of the glyphic use of the U-element. It exhibits both the U-element typical of Mayan signs and the double-stub element more common in Epi-Olmec signs (but also present in some Mayan signs, as in the upward-pointing FLAT.HAND sign, cf. Tikal Stela 31). More importantly, I think that the PMY jaguar examples show that the double-stub element is simply a form of the U-element:

the double-stub element is identical to the U-element if the last is placed along the outline of a glyph, rather than centered inside a cartouche. This text could be of significance, for this reason, in the study of the relationship between the Epi-Olmec and Mayan scripts. It suggests a time and place when and where both forms were in free variation in the Mayan script, before the U-element took over.

Interestingly, as already remarked, the DO pectoral text contains no examples of the U-shaped element, even in signs where the element is typically present in later texts (cf. A5 and B5). This fact may constitute evidence for a very early dating of the DO pectoral text, as proposed by Coe (1966; 1976) and Coe and Kerr (1998), and which I think is supported by a series of glyphic and iconographic comparisons with Kaminaljuyú Stela 10 and Stela 11, which may date to ca. 300-200 B.C.[11] For example, the rectangular posterior head element of the glyphs at A3/D4 in the DO pectoral resembles that found in the glyphs at F6, G1, and G8 in KJ 10. The glyph at A6 on the HTZ axe and B1 on the PMA flare can be compared in particular with D4 on the DO pectoral, which contains not only a rectangular posterior element, but also the two circles present on the DO pectoral case[12]. Another pair of elements that bears a close correspondence includes the lower torso and thigh elements of the seated personage on the DO pectoral and the glyph at E5 on KJ 10, on the one hand, and the tree-like Jester God crowning the seated personage on the DO pectoral and the standing personage on Kaminaljuyú Stela 10, on the other hand (cf. Coe, 1966; Fields, 1989; Taube, 1998).

Other sign attributes may be relevant for the purposes of relative dating of texts. The U-element, present in Mayan texts from the Late Preclassic through the Early Classic, is not a very narrow temporal marker. In the case of the BMA pectoral and CNT 6125, the T757 GOPHER sign and the T1 **7u** sign, rendered similarly in both texts (cf. A1b and A3b, and A1a and A3a/A4a, respectively) may allow for a more narrow relative dating of these two texts; they share calligraphic traits not present in other Mayan texts. The only exception with respect to the last remark is the DO pectoral; its instance of T1 **7u** at C6a agrees in form with those on the BMA pectoral and CNT 6125.

[11] A full elaboration of this line of inquiry, however, requires its own paper and cannot be provided here. Kaminaljuyú Stela 10 was associated with Verbena phase (400-200 B.C.) sherds. Kaminaljuyú Stela 11 was associated with both Verbena phase and Arenal phase (200 B.C.-A.D. 100) sherds, suggesting perhaps a transitional date between these phases for its deposition, and therefore ca. 300-200 B.C. I believe that the DO pectoral text dates to around this time. Federico Fahsen (personal communication, 2000) favors a dating of ca. 200-100 B.C. for KJ 10.

[12] The posterior element present in these glyphic heads could in fact be a useful temporal and/or geographical marker, pending future study. Whether the apparent substitution between the rectangular posterior element and the earflare icon is significant remains to be seen through further study.

Figure 46. Epigraphic Discussion.

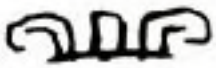
Preliminary Epigraphic Discussion

Four of the hieroglyphic texts published here are particularly useful to epigraphers: the DO pectoral, the JM spoon, the PMY jaguar, and the UNP clamshell. They have been discussed and studied by Coe (1966; 1973; 1976), Ayala (1983), Schele and Miller (1986), Fields (1980), Freidel and Schele (1989), Reents-Budet and Fields (1990), Anderson (1993), Mora-Marín (1997), and Coe and Kerr (1998), among other authors. Coe (1973; 1976) first remarked on the close stylistic and orthographic similarities between the DO pectoral and the PMY jaguar, while Reents-Budet and Fields (1990), Anderson (1993), and Mora-Marín (1997) have remarked on the close similarities between those two and the JM spoon and the UNP clamshell. Due to these similarities, their generally excellent preservation, and the fact that they are all inscribed on portable objects, I think that these four texts constitute a data set with more (structural and semantic) controls for epigraphers to exploit than any other group of Late Preclassic texts. Instead of undertaking a thorough review of the scholarship on these texts, here I just point to a few of the preliminary results of my epigraphic and linguistic analysis of these texts. I defend this analysis at length in my dissertation, as well as in an article that is near completion and submission.

In Mora-Marín (1997) I tested the hypothesis by Freidel and Schele (1989) that the text inscribed on the reverse of the DO pectoral contained two glyphs commonly present in the dedicatory formula or Primary Standard Sequence of Classic Mayan texts on portable objects (Coe, 1973; Grube, 1991; Houston, Stuart, and Taube, 1989; MacLeod, 1990; Stuart, 1989). I selected two stylistically, calligraphically, and orthographically related texts, as first identified by Coe (1976), and added the two examples with the same attributes first discussed in Reents-Budet and Fields (1990) and Anderson (1993). Three of the texts are inscribed on jadeite pendants, and one on a basalt jaguar figurine. All have legible texts. The most important of these is the one on the DO pectoral: it has the longest text of the four, and thus offers the best test case for a more detailed grammatical analysis.

Anderson (1993) conducted a structural comparison of the four texts centering on what I identify as a bearded Late Preclassic version of the GOD.N dedicatory glyphic verb; Anderson indeed suggested this glyph might be a verb. In Mora-Marín (1997) I conducted a structural analysis (Figure 46) of the texts and found supporting evidence for the claims by Freidel and Schele (1989) and Anderson (1993). I identified two additional glyphs which have possible correlates in the Classic period dedicatory formula (Figure 47), one of these being the bearded GOD.N glyph, and the other being T124 **TSIK** 'to (re)count, honor' (also **tsi**), and evidence for the glyphic names of the artifacts themselves and/or for parts of the artifacts (Figure 48).

bearded GOD.N glyph



T124 **TSIK** 'to (re)count, honor'

(also **tsi**)

Figure 47. Epigraphic Discussion.

T503 7IK'(-NAL): a label for '(jade) ornaments'(?)

face with T-element projecting from forehead:
a label for 'flat/smooth surface'(?)
or 'pectoral'(?)[1]

SPROUT-PERSON: a label for the were-jaguar figurine with a sprout on its head(?)

SPOTTED.BAT.HEAD: a label for a part of the DO pectoral (e.g. its text or polishing?)

[1] Possibly pa-FACE/FOREHEAD in the DO pectoral, as a phonetic complement for proto-Cholan *pam 'forehead', but also perhaps paihlm 'flat.thing' (cf. Tzeltal).

Figure 48. Epigraphic Discussion.

Since then, I have refined my analysis of the morphological and syntactic structure of the same passages of these texts (Figure 49). I believe that four out of the five instances of the bearded GOD.N glyphic verb in these four texts are examples of

antipassive verbs: GOD.N-ni for VERB-n-Ø-i (verb-AP-3sABS-CMP.ST)[13]. The sentences would be of a kind similar to the English sentences 'Casey baby-sat' (baby is the (underlying) object of the verb)[14]. Antipassive sentences of the kind proposed here (absolutive/incorporative antipassives) take a suffix represented with a **wV** sign in the Classic period, not an **nV** sign (Lacadena, 1998; Mora-Marín, 1998). If the DO text is in (pre/proto-)Cholan, as seems very likely, this evidence would support Kaufman's (1989) proposal that the proto-Mayan absolutive/incorporative antipassive was *-(a-)o-n, and not *-(a-)o-w, and suggests that the -(V)w suffix for incorporative antipassives in the Classic period was an innovation or borrowing. If the text is in Yucatecan, then it agrees with the Yucatecan -n 'absolutive/incorporative (incompletive) antipassive' suffix.

Thus, whether the DO pectoral text is in Cholan or Yucatecan hinges on whether the earliest form of the absolutive/incorporative antipassive suffix was a *-(V)n or *-(V)w form. I support Kaufman's (1989) reconstruction (*-(a-)o-n), which unfortunately leaves the question unanswered (i.e. the texts could show either a form of Cholan that had retained the ancestral *-(V)n suffix, or Yucatecan). I have not identified any evidence in these early texts, so far, that allows a more narrow distinction[15].

The fifth instance of the bearded GOD.N verb appears to be a (medio) passive verb: GOD.N for VERB[h]-Ø-Ø (verb[(M)P]-3sABS-CMP.ST). This sentence would be of the kind as 'The car was/got stolen'. The fact that there is no overtly spelled suffix on the verb suggests an infixed -h- '(medio) passive' marker; Kaufman (1989) reconstructs this suffix as a 'mediopassivizer' for proto-Mayan, but notes that in Cholan it eventually became a 'passivizer'. It is not possible based on this example to discriminate between the two.

[13] AP = antipassive, (M)P = (medio)passive, 3sABS = third person singular absolutive suffix, CMP = completive status marker.

[14] The verb baby-sit is more a case of a lexicalized compound in English, but it is the closest analog to the examples of antipassives with object-incorporation in Mayan.

[15] I pointed out above that the spelling **7u-ya-** for 7uy- in the DO pectoral text points to a Lowland Mayan affiliation (Cholan/Yucatecan).

ANTIPASSIVE SENTENCES

VERB-**n i**	=INCORPORATED.PATIENT	(AGENT.)SUBJECT
VERB-n-i-Ø	=PATIENT	SUBJECT
VERB-APASS-CMP-3sABS$_i$	=PATIENT	SUBJECT$_i$

'[Subject] [Patient]-[Verbed]'

(e.g. 'Mary student-taught')

(MEDIO)PASSIVE SENTENCE

VERB	(PATIENT.)SUBJECT
VERB[h]-Ø-Ø	SUBJECT
VERB[PASS]-CMP-3sABS$_i$	SUBJECT$_i$

'The [Subject] was/got [Verbed]'

(e.g. 'The car got stolen')

Figure 49. Epigraphic Discussion.

Thus, whether the DO pectoral text is in Cholan or Yucatecan hinges on whether the earliest form of the absolutive/incorporative antipassive suffix was a *-(V)n or *-(V)w form. I support Kaufman's (1989) reconstruction (*-(a-)o-n), which unfortunately leaves the question unanswered (i.e. the texts could show either a form of Cholan that had

retained the ancestral *-(V)n suffix, or Yucatecan). I have not identified any evidence in these early texts, so far, that allows a more narrow distinction[16].

The fifth instance of the bearded GOD.N verb appears to be a (medio) passive verb: GOD.N for VERB[h]-Ø-Ø (verb[(M)P]-3sABS-CMP.ST). This sentence would be of the kind as 'The car was/got stolen'. The fact that there is no overtly spelled suffix on the verb suggests an infixed -h- '(medio) passive' marker; Kaufman (1989) reconstructs this suffix as a 'mediopassivizer' for proto-Mayan, but notes that in Cholan it eventually became a 'passivizer'. It is not possible based on this example to discriminate between the two.

Lastly, assuming the bearded GOD.N glyph is in fact a dedicatory verb here, the incorporated objects that follow it in the four antipassive sentences, and the subject that follows it in the passive sentence, refer to the inscribed artifacts, or to parts of the inscribed artifacts themselves (Figure 48)[17]. These findings, if correct, suggest a major role of the dedicatory genre at an early date. This in turn supports an important role of gift exchange in the political economy of Late Preclassic Mayan society (Stuart, 1995) and in the spread of Late Preclassic Mayan writing (Mora-Marín, 1997).

Conclusions

Thanks to FAMSI and the other supporting organizations I have been able to complete (with one partial exception, the UNP clamshell) the immediate objectives of my LAPIDA Project: the primary documentation of the Late Preclassic texts that constitute the focus of epigraphic and linguistic analysis of my dissertation. As a short-term goal, I intend to expand the project to include additional Late Preclassic and Early Classic Mayan texts. As a long-term goal, I intend to expand the project to document early texts from across Mesoamerica, and contribute to the study of the origin and spread of the Mesoamerican scripts and to their decipherment, as well as to reconstruction of Mesoamerican social, artistic, and linguistic history.

ADDENDUM	
British Museum Olmec jade pectoral mask	BM pectoral
Brooklyn Museum of Art Olmec jade mask	BMA mask

[16] I pointed out above that the spelling **7u-ya-** for 7uy- in the DO pectoral text points to a Lowland Mayan affiliation (Cholan/Yucatecan).

[17] There is abundant iconographic evidence suggesting T503 functions as a label for jade ornaments, and therefore, that it may refer to the jade spoon itself in the JM spoon text. The best case for this hypothesis is the T503 **7IKÕ(-NAL)** sign that follows the bearded GOD.N**-ni** glyph in the JM spoon text.

Chichén Itzá Cenote tubular jade bead	CNT 6125
Chichén Itzá Cenote tubular jade bead	CNT 22001
Cleveland Museum jade plaque	CM plaque
Dumbarton Oaks jadeite celt	DO celt
Dumbarton Oaks quartzite pectoral	DO pectoral
Fidel Tristán Jade Museum jadeite spoon	JM spoon
Fidel Tristán Jade Museum jadeite plaque	INS 2006
Fidel Tristán Jade Museum jadeite plaque	INS 2007
Fidel Tristán Jade Museum jadeite plaque	INS 4440
Fidel Tristán Jade Museum jadeite plaque	INS 4441
Fidel Tristán Jade Museum jadeite plaque	INS 4442
Fidel Tristán Jade Museum jadeite plaque	INS 4443
Fidel Tristán Jade Museum jadeite plaque	INS 4444
Fidel Tristán Jade Museum jadeite plaque	INS 4563
Fidel Tristán Jade Museum slate disk	INS 6528
Hatzcap Ceel diorite axe	HTZ axe
Hauberg Stela	HBG stela
Kaminaljuyú Stela 10	KJ Stela 10
Kendal jadeite axe	KND axe
La Fortuna slate disk	LFA disk
Peabody Museum at Yale basalt jaguar	PMY jaguar
Pomona jadeite earflare	PMA flare
Unprovenanced jadeite clamshell	UNP clamshell

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Figure 4. Brooklyn Museum of Art jadeite pectoral mask (BMA mask).

Figure 5. Dumbarton Oaks quartzite pectoral.

Figure 6. Imaging process.

Figure 7. Imaging process.

Figure 8. Imaging process.

Figure 9. Imaging process.

Figure 10. Dumbarton Oaks jade pectoral (DO pectoral).

Figure 11. Dumbarton Oaks jadeite celt (DO celt).

Figure 12. Jade Museum jade spoon (JM spoon).

Figure 13. Jade Museum jade plaque No. 4444 (INS 4444).

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Figure 15. Jade Museum jade plaque No. 4442 (INS 4442).

Figure 16. Jade Museum jade plaque No. 4441 (INS 4441).

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Figure 44. PMY jaguar text, Coe (1973: 25).

Figure 45. UNP clamshell, John Montgomery, partially published in Anderson (1993:112-113).

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