SBS 248/348 **Professor Mendoza**

Ancient Maya Civilization

LD 8: Maya Calendar Dates and their Interpretation

Instructions: Using the attached illustrations of Maya monuments with Long Count inscriptions, please approximate the dating of each monument by way of the simple calculation of the passage of individual days from the date of August 11, 3114 B.C. I am looking only for an approximation to within a year or so of the actual date. Calculations will be achieved in the first instance by way of simple arithmetic (using a pocket or computer-based calculator), and second, by way of the Maya date calculator located at http://bama.ua.edu/~gomez002/gregcal.html or http://www.pauahtun.org/Calendar/tools.html.

1. First, assemble into teams of three to four participants. Having formed teams, please self-delegate tasks to individual team members as per the following requirements: (a) identification of calendrical glyphs, (b) interpretation of calendrical position and meaning, (c) calculation of the specific number of days represented in the date glyph selected, (d) calculation of the total number of days elapsed since August 11, 3114 B.C., and finally, (e) approximation of the Gregorian Calendar date intended.

2. You will need to begin interpretations only on those monuments and those portions of monuments wherein there exists the Initial Series Introductory Glyph (ISIG) which consists of an oval-shaped cartouche turned on end (like a cushion) within which are located two vertical box-like lines and the image of an animal head out of the top of which sprouts a serpent or serpentine-like horizontal bar.

3. Remember that you will generally be working from the Initial Series Introductory Glyph downward from left to right (column to row), left to right and so forth.

4. Bear in mind that (a) a shell symbol [] is the equivalent of the number zero, (b) a dot is equivalent to the number one, and (c) the bar is the equivalent of the number five. Similarly, when a head variant glyph number is combined with the likeness of a fleshless human mandible, the mandible represents the equivalent of the number ten added to the head variant glyph in question. For example, a head variant glyph for the number 8, with a human mandible added, is equal to the number 18.

5. In order to calculate the total days represented in each vigesimal (x 20) positional notation, you will need to use the following guide to the meanings of the calendrical cycles or periods entailed in the calculation. The periods that you will need to calculate are as follows:

1 **Bak'tun** = 20 k'atuns or 144,000 days (Maya Great Cycle @ 394.24 years)

1 **K'atun** = 20 tuns or 7,200 days (Maya generation or cycle @ 19.71 years)

1 **Tun** = 18 winals or 360 days (Maya solar year)

1 **Winal** = 20 k'ins or 20 days (Maya month)

1 **K'in** = 1 day (Maya solar day) [See http://encycl.opentopia.com/term/Maya_numerals examples]

6. Upon calculation of the Long Count date, please confirm your findings with the online Maya calendar calculation program noted above. Finally, calculate and compare your results with the actual day and year date provided by the computer-generated program. The group that comes closest to the actual date on their respective monument wins the day's contest…without prizes, as the case may be.

7. The following ISIG glyph panel was adopted from Exercise 6 in the Coe and Van Stone (2001) text. Use this exercise as a starting point for working on how to interpret calendrical glyphs. Then, having completed the interpretation of this panel, find other similar panels in your texts or on the Internet (line drawings or photographs of stele or related monuments) to select additional panels to interpret. Please bear in mind that the Maya used both bar and dot (and zero) numerals or head (deity) variants of numerals as in the case of the site of Palenque.

Piedras Negras Stela 10

Coe & Van Stone, 2001

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