

## THE BOBAN CALENDAR WHEEL

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The Boban Calendar Wheel is so named because at one time it formed part of the Eugène Boban Collection.<sup>1</sup> As to its origin, we know only that it was discovered in Texcoco and sent to France in 1867.<sup>2</sup> It is presently in the John Carter Brown Library, Providence. A color lithograph was published by Doutrelaine in 1867.<sup>3</sup> A second color lithograph by Genaro López is included with Veytia's seven calendar wheels published in 1907.<sup>4</sup> Although most of the studies and photographic reproductions derive from the Doutrelaine lithograph, the Genaro López lithograph is superior in detail.

The Boban Calendar Wheel is unique in that it is calendrical and historical —calendrical on the circumference and historical in the center. By comparison, the seven Veytia calendar wheels and the eight listed by Glass<sup>5</sup> are all entirely calendrical in content. Extensive comments on both the calendrical and the historical portions of the document have been published by Robertson.<sup>6</sup> Glass and Robertson,<sup>7</sup>

<sup>1</sup> Colonel Doutrelaine, "Rapport... sur un manuscrit mexicain de la collection Boban." *Archives de la Commission Scientifique du Mexique*, 3: 120-33, 1, folding pl. Paris, 1867, p. 120.

<sup>2</sup> Eugène Boban, *Documents pour servir à l'histoire du Mexique. Catalogue raisonné de la collection de M. E. Eugène Goupil*. 2 vols. and atlas. Paris, 1891, vol. I, p. 360, no. 1, vol. II, p. 100.

<sup>3</sup> Doutrelaine's report to "le Ministre de l'instruction Publique" is dated Mexico, 20 janvier 1866. C. Doutrelaine, *op. cit.*, p. 120.

<sup>4</sup> Mariano Fernández de Echeverría y Veytia, *Los calendarios mexicanos*. Introducción por Genaro García. México, 1907. The Genaro Lopez lithograph was prepared under the supervision of Francisco del Paso y Troncoso over fifteen years prior to the publication date. See *ibid.*, p. v, xi.

<sup>5</sup> John B. Glass, "A Survey of Native Middle American Pictorial Manuscripts," *Handbook of Middle American Indians*, University of Texas Press, Austin, 1975, vol. 14, p. 42.

<sup>6</sup> Donald Robertson, *Mexican manuscript painting of the colonial period*. Yale University Press, New Haven, 1959, p. 146-49.

<sup>7</sup> John B. Glass and Donald Robertson, "A Census of Native Middle American Pictorial Manuscripts," *Handbook of Middle American Indians*, University of Texas Press, Austin, 1975, vol. 14, p. 96.

Boban,<sup>8</sup> Kubler and Gibson,<sup>9</sup> Doutrelaine,<sup>10</sup> comment briefly on its content.

The calendrical part that forms the periphery of the Codex has been studied and cited by Paso y Troncoso,<sup>11</sup> Jonghe,<sup>12</sup> and Caso<sup>13</sup> to verify their calendrical interpretations. The outer band consists of a glyphic representation of the eighteen twenty-day ritual "months" of the Aztec calendar year. These are followed by four year signs (*Acatl*, *Tecpatl*, *Calli*, *Tochtli*) and twenty day signs distributed in groups of five days each. Each group of five days represents the *nemontemi* days for each of the four year signs. To the left of the day signs the word *nente*... is visible. The "months" follow in a clockwise sequence and the first "month" *Quahuitlyehua* is the first "month" in the Texcocan calendrical system.<sup>14</sup> The name of each "month" is written to the left of the glyphic representation. Above each "month" glyph *veyti dias* (twenty days) is written and below each one is an ear of maize *centli* or *cintli*, a glyphic representation of *centpohualli* (twenty). The "month" glyphs are essentially variants of representations found in other post-hispanic calendars. Kubler and Gibson have given an exhaustive comparison of "month" glyphs in their discussion of the Tovar Calendar.<sup>15</sup>

The inner circle is a blue band. Paso y Troncoso indicated that in the upper right quadrant he could detect thirteen rectangles which record a thirteen year span, and that the circular band in its entirety gives the fifty-two year cycle.<sup>16</sup>

The middle band contains a sequence of footprints that begins at the upper right, at the foot of an individual wearing native attire—breachclout and cape. The footprints end at the upper left, where a

<sup>8</sup> E. Boban, *op. cit.*, vol. 1, p. 360, no. 1.

<sup>9</sup> George Kubler and Charles Gibson, "The Tovar Calendar: An illustrated Mexican manuscript of ca. 1585." *Memoirs of the Connecticut Academy of Arts and Sciences*, vol. 11. New Haven, 1951, p. 56.

<sup>10</sup> C. Doutrelaine, *op. cit.*, p. 120-33.

<sup>11</sup> Francisco del Paso y Troncoso, *Descripción, historia y exposición del código pictórico de los antiguos Náhuas que se conserva en la Biblioteca de la Cámara de Diputados de París*. Florencia, 1898, p. 195-312.

<sup>12</sup> Edouard de Jonghe, "Der altmexikanische Kalender" *Zeitschrift für Ethnologie*, 38:485-512. Berlin, 1906, p. 495-96, fig. 3.

<sup>13</sup> Alfonso Caso, *Los calendarios prehispánicos*. Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas, México, 1967, p. 71-73. Caso includes color photographs of the original and the Doutrelaine lithograph.

<sup>14</sup> *Ibid.*, p. 38.

<sup>15</sup> G. Kubler and C. Gibson, *op. cit.*, p. 22-35.

<sup>16</sup> F. Paso y Troncoso, *op. cit.*, p. 302.

similar individual appears in a somewhat differing posture. The word *xiuh*... is written in front of the individual at the right. This could conceivably read *xiuhixua* (the herb grows or the year is born) or *xiuhixualiztli* (the growing of the herb or the birth of the year). The word *xiuhca*... is written behind the individual at the left. This could be read as *xiuhcayotl* (the affairs of the past year).<sup>17</sup> The two words, the two individuals and the footprints could thus indicate the lapse of the 18 "month" cycle beginning with *Quahuitlyehua* and ending with *Izcallami*.

Deriving from the blue band, dividing two footprints and between the "months" *Atemoztli* and *Tititl*, a hand grasps a bundle of herbs. Paso y Troncoso considers this to be an indication of the *xiuhtzitzquilo* ceremony; that the grasping of the herb (*xiuitl*) or year (*xiuitl*) indicates the beginning of a new fifty-two cycle and that this occurred in the "month" *Tititl*.<sup>18</sup> The ceremony is described by Sahagún: "Hence was it said that then were tied and bound our years, and that once again the years were newly laid hold of. When it was evident that the years lay ready to burst into life, everyone took hold of them, so that once more would start forth —once again— another [period of] fifty-two years".<sup>19</sup> In the corresponding Spanish text, Sahagún is more explicit regarding the *xiuhtzitzquilo* ceremony.<sup>20</sup>

In considering the central, or the historical part, Robertson notes that the Codex has pictorial forms drawn by two different hands, that Hand A painted most of the Codex, but that Hand B, a less skilled hand, painted a two-story building, a church, a two-story building facing a one-story building and two temples on a pyramid in the four quadrants respectively. The sun in European style is also the work of Hand B.<sup>21</sup> The Náhuatl glosses, including the "month" names were

<sup>17</sup> Fray Andrés de Olmos, *Grammaire de la langue Nahuatl ou Mexicaine*... publiée... par Rémi Siméon. Imprimerie Nationale, Paris, 1875, p. 41. See especially note No. 2.

<sup>18</sup> F. Paso y Troncoso, *op. cit.*, p. 302, 309.

<sup>19</sup> Bernardino de Sahagún, *Florentine Codex: General History of the Things of New Spain*. Arthur J. O. Anderson and Charles E. Dibble, trs. and eds.; 12 Books and Introductory Vol. The School of American Research and the University of Utah. 1950-1982. Book 7, p. 25.

<sup>20</sup> Fray Bernardino de Sahagún, *Historia general de las cosas de Nueva España*. Angel Ma. Garibay K., ed. 4 vols. Editorial Porrúa, México, 1956, vol. 2, p. 269-270. "y porque era principio de otros cincuenta y dos años, decían también *xiuhtzitzquilo*, que quiere decir, 'se torna el año nuevo', y en señal de esto cada uno tocaba a las yerbas, para dar a entender que ya se comenzaba la cuenta de otros cincuenta y dos años."

<sup>21</sup> D. Robertson, *op. cit.*, p. 147-8.

added after the painting of the Codex. These glosses intrude into the blue band and they circumvent the representation of the sun.

Because of the limited space available to the artist, only a synoptic version of Texcocan history was possible. The contents could conceivably be construed as an abbreviated extract from such codices as the Mapa Tlotzin or the Mapa Quinatzin.<sup>22</sup> In effect, a colonial period is added to the nomadic and sedentary life styles as depicted in the two aforementioned codices.

In the upper right quadrant is a mountain, *tepetl*, and in the upper left quadrant an expanse of water, *atl*. Water-mountain, *in atl in tepetl* or *atepetl*, whether painted or written is the metaphor for city or town. Over the mountain a man wearing a colonial hat and holding a staff is seated on a woven reed mat. The name reads don antonio pimentel. A second person similarly attired appears above the expanse of water. The name reads don hernando de chavez. Two Náhuatl glosses read: *yn... alcaldes. tetzcoco ypa xihuitl chicō tochtli. Ano...* (The alcaldes of Texcoco in the year 7 Rabbit, in the year...); *auh yn axcā ye yhui yahui. ŷ atl yn tepetl. ome atl a... aldes Regidores. alguaciles. alcalde mayor.* (and presently conditions are such<sup>23</sup> in the city<sup>24</sup> [on the day] 2 Water: alcaldes, regidores, alguaciles, alcalde mayor.)

Don Antonio Pimentel Tlahuitoltzin was the 12th ruler of Texcoco and, according to Sahagún, he ruled for six years.<sup>25</sup> Other sources indicate that he ruled from 1537<sup>26</sup> or 1540 until 1564.<sup>27</sup> According to the *Proceso inquisitorial del cacique de Tetzcoco*, Don Hernando de Chavez and Don Antonio Pimentel were contemporary alcaldes of Texcoco during the trial of Don Carlos Ometochtzin in 1539.<sup>28</sup> The speech scrolls emerging from the mouths of the two rulers would indicate a conversation or their contemporaneity.

<sup>22</sup> *Mapa Quinatzin, Mapa Tlotzin*. In J. M. A. Aubin, *Mémoires sur la peinture didactique et l'écriture figurative des anciens mexicains*, Précedés d'une introduction para E. T. Hamy. Paris, 1885.

<sup>23</sup> Read *ye yhui yahui*.

<sup>24</sup> C. Doutrelaine, *op. cit.*, p. 130-131, reads and translates the passage as follows: *auh yn axcan yc yhui yahui yn atl yn tepetl* — Et aujourd'hui va croissant la ville.

<sup>25</sup> B. de Sahagún, *Florentine Codex, op. cit.*, Book 8, p. 10.

<sup>26</sup> Byron McAfee and Robert H. Barlow, "The Titles of Tetzcotzinco." *Tlalocan* 2:110-127, Azcapotzalco, 1946, p. 119.

<sup>27</sup> Rémi Siméon, "Annales de Domingo Francisco de San Antón Muñón Chimalpahin Quauhtlehuanitzin, sixième et septième Relations (1258-1612)." *Bibliothèque Linguistique Américaine*, vol. 12. Paris. 1889, p. 240, 261.

<sup>28</sup> *Proceso inquisitorial del cacique de Tetzcoco*. Publicaciones de la Comisión reorganizadora del Archivo General y Público de la Nación. I. México, 1910, p. 19-22.

The year 7 Rabbit and the day 2 Water in the Náhuatl glosses could be 1538, 1590 or 1642. Caso reasons that 7 Rabbit 2 Water, 1538, is the date the two officials were installed and that the Codex was painted at the same time or soon thereafter.<sup>29</sup> Robertson considers the Don Hernando mentioned to be Don Hernando Pimentel, a son of and successor to Antonio Pimentel, and he would consequently date the Codex after 1564.<sup>30</sup>

In the lower half, two rulers, wearing capes and breechclouts and seated on woven reed seats with a back rest (*tepotzicpalli*), face each other. Between the speech scrolls are arrows (*mitl*), an obsidian sword (*maquahuatl*) and a shield (*chimalli*.) The arrows and shield either painted or written (*atl-chimalli*) represent a metaphor for warfare. The information afforded us is that two rulers spoke of or declared war. From the Náhuatl glosses below we learn that the rulers are Nezahualcoyotl and Itzcoatl. The two temples atop the pyramid to the right are those of the war god, Huitzilopochtli, and the rain god, Tlaloc. The Náhuatl text reads as follows:

Neçavalcoyotzin tetzcocu  
ytzcohuatzin. tenochtliā.  
tlatoani catca. yehuātin  
quittohuaya. yn mitova. yn  
teoatl yn tlachinolli yhuā y  
tlacopā. yn totoquihuatzin.  
amo ñe q'cuiya yn temochichi-  
huaya yn tlaçotilmalli. auh yn  
mastlatl. auh y cozcapedlatl.  
auh y matemecatl. auh y  
cotzehuatl auh yn quetzallal-  
piloni. yn teçacatl. y nacochtli.  
auh y xiuccactli quipachovaya.  
petlatl ycpalli. auh yn altepetl.  
auh yn cuitlapilli y atlapalli  
auh inic onezcal. . . onehuapahualo

Nezahualcoyotzin was ruler of  
Texcoco, Itzcohuatzin was ruler  
of Tenochtitlan. They declared  
the so-called water-conflagration  
(war). And Totoquihuatzin was  
ruler of Tlacopan. Not without  
purpose did they take that with  
which one was arrayed: precious  
capas, and breechclouts, and plaited  
collars and armbands, and leather  
bands for the calf of the leg, and  
head bands with sprays of quetzal  
feathers, labrets, ear plugs and blue  
sandals. They governed the city<sup>31</sup>  
and the commoners.<sup>32</sup> And in this  
manner were they trained,<sup>33</sup> reared.

The war indicated by the glyphs and mentioned in the glosses would be the campaign against the Tepanec of Azcapotzalco that commenced in the year 1 Flint, 1428. Nezahualcoyotl and Itzcoatl

<sup>29</sup> A. Caso, *op. cit.*, p. 72.

<sup>30</sup> D. Robertson, *op. cit.*, p. 149.

<sup>31</sup> Literally "they occupied the woven reed mat, the woven reed seat."

<sup>32</sup> Literally "the tail feathers, the wing feathers."

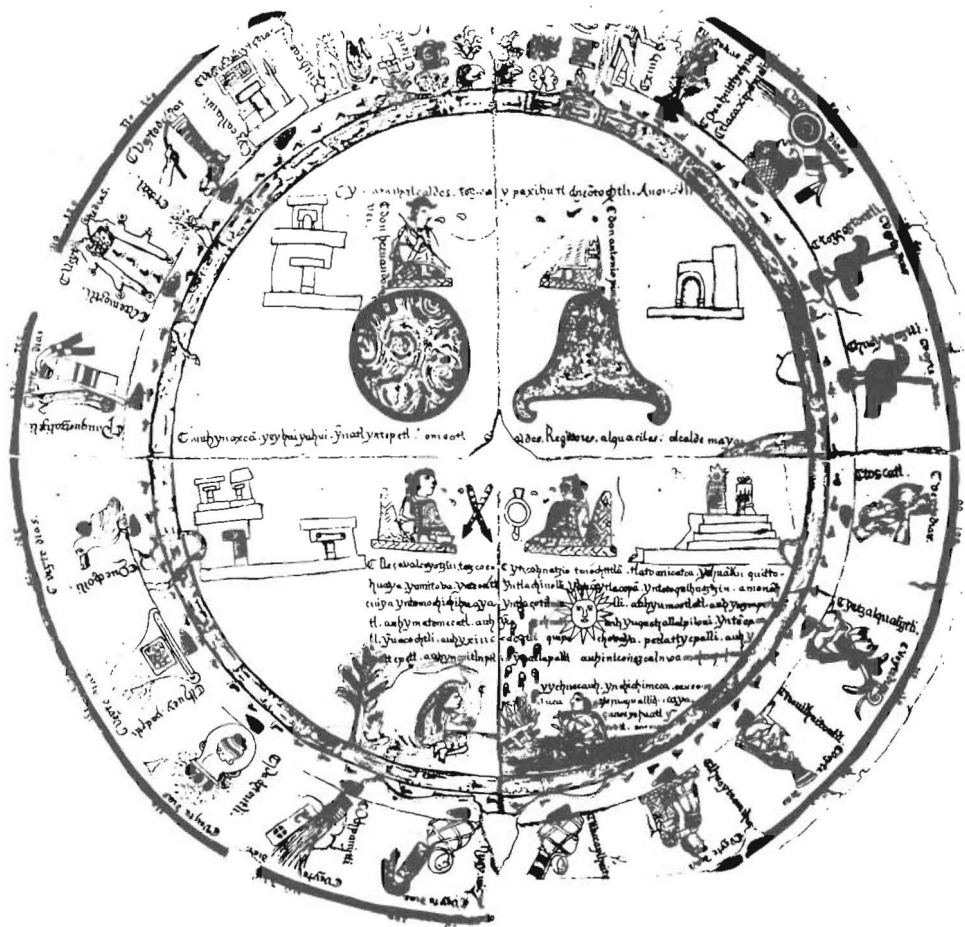
<sup>33</sup> Read *onezcaltilo*.



FIG. 1. Tecpoyo Achcauhtli teaches Tlotzinto roast his Kill. (*Mapa Tlotzin*).



FIG. 2. Chichimec woman roasts serpent. (*Mapa Quinatzin*).



Boban Calendar Wheel. (López engraving)





combined their armies and the squadrons were led by Nezahualcoyotl, Itzcoatl and Motecuhzoma, respectively. The subordinate mention of Totoquihuatzin of Tlacopan in the glosses and the failure to record him in the Codex may be due to the fact that his coronation as ruler of Tlacopan was subsequent to the Tepanec war. By 1431 the Triple Alliance had been formed and Tlacopan had been accorded a lesser portion of the tribute.<sup>34</sup>

The arrayment cited in the glosses represents a partial list of the clothing and decorations with which the rulers were arrayed when they danced. Sahagún clearly indicates that these items were the exclusive privilege and prerogative of the rulers.<sup>35</sup>

Across the bottom a native woman kneels in the entrance of a cave, facing a fire. A man, likewise facing the fire, holds a bow and arrow in his left hand a second arrow in his right hand. Both wear capes made of grass or fibre. The Náhuatl text reads as follows:<sup>36</sup>

|                                  |   |
|----------------------------------|---|
| Auh y ye huecauh. yn chichimeca. | And in ancient times the Chichimecs                     |
| ca... co oz... .pec y ouca       | came to arrive at caves, mountains                      |
| atle ma qualli q'... caya. çan   | where <sup>37</sup> nothing was good. They              |
| oc yehuatl y tototl. ano mazatl  | roasted <sup>38</sup> only birds or <sup>39</sup> deer, |
| cov...                           | serpents. <sup>40</sup>                                 |

The Chichimec couple poised before the fire and the accompanying Náhuatl text indicate their nomadic life-style and imply their potential for cultural change. Both in glyphic style and content the scene can be related to scenes in Mapa Tlotzin and Mapa Quinatzin.

Both the glyphs and the Náhuatl text of Mapa Tlotzin inform us that a certain Tecpoyo Achcauhtli of Toltec extraction from Chalco accompanied Tlotzin as he hunted deer, rabbits, serpents and birds. For a first time Tecpoyo Achcauhtli roasted the kill Tlotzin had taken. For the first time he gave Tlotzin cooked food, for previously Tlotzin ate his kill uncooked. As León-Portilla has ably noted, the scene records one of the many steps in the gradual acculturation of the Chichimecs.<sup>41</sup>

<sup>34</sup> Fernando de Alva Ixtlixochitl, *Obras históricas*, 2 vols. Edición Edmundo O'Gorman. Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas, México, 1975. vol. II. p. 79, 82.

<sup>35</sup> B. de Sahagún, *Florentine Codex*, *op. cit.*, Book 8, p. 27, 56.

<sup>36</sup> I am indebted to my colleague Dr. Arthur J. O. Anderson for suggestions on the illegible portions of the text.

<sup>37</sup> Read *cacico oztoc*, *tepec in oncan*.

<sup>38</sup> Read *quixcaya*.

<sup>39</sup> Read *anocce*.

<sup>40</sup> Read *covatl*.

<sup>41</sup> Miguel León-Portilla, "El Proceso de aculturación de los Chichimecas de

A comparable scene depicting the Chichimec mode of subsistence appears also in Mapa Quinatzin. Below a hunter and facing a fire, a woman is shown in the act of roasting a serpent. These similar scenes in Mapa Tlotzin and Mapa Quinatzin enable us to conceive the general import of the Chichimec couple and the Náhuatl glosses in the Boban Calendar Wheel.

In adjudging the central portion of the Boban Calendar Wheel, the intrusive nature of the four buildings becomes apparent. Noteworthy is the lack of a place glyph and name glyphs for the six persons painted therein. The glyphic metaphors water and mountain for city, arrow and shield for war, the many metaphors included in the glosses, i.e., *in atl in tepetl*, *in teoatl in tlachinolli*, *petlatl icpalli*, *in cuiclapilli in atlapalli*, suggest an early date for the painting of the Codex. Robertson's suggested date of Ca. 1564 seems reasonable.<sup>42</sup>

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<sup>42</sup> D. Robertson, *op. cit.*, p. 149.

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