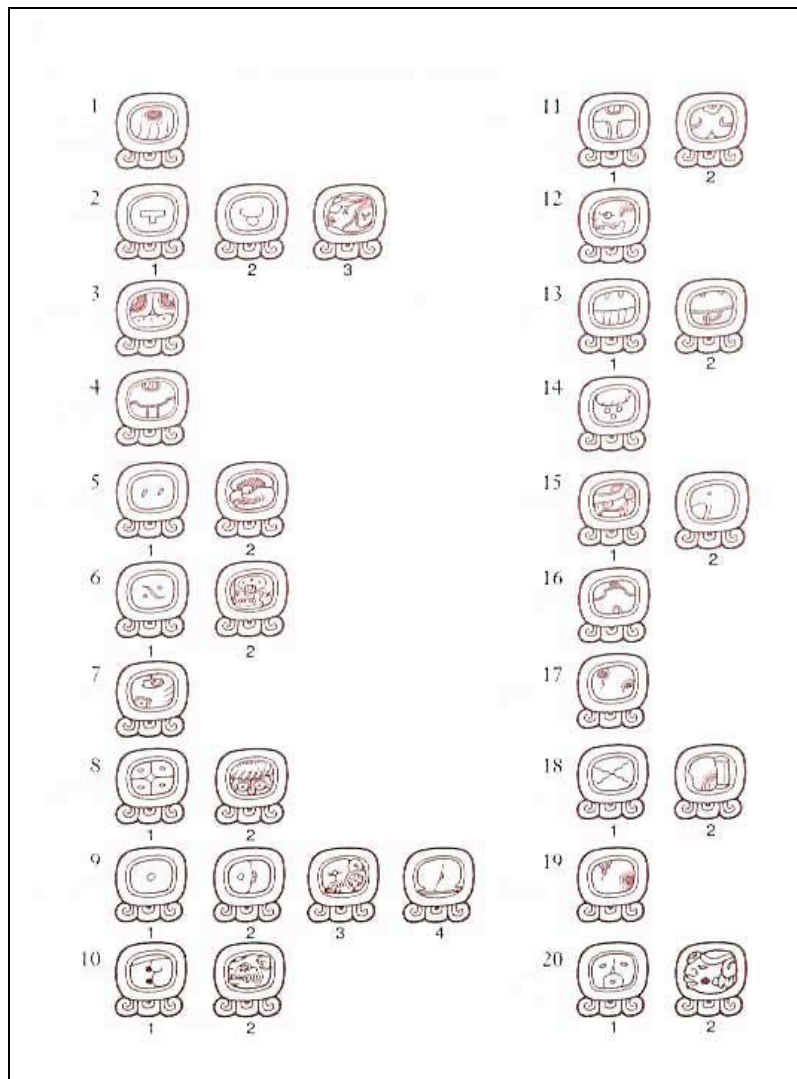


An Overview of Classic Maya Ceramics Containing Sequences of Day Signs

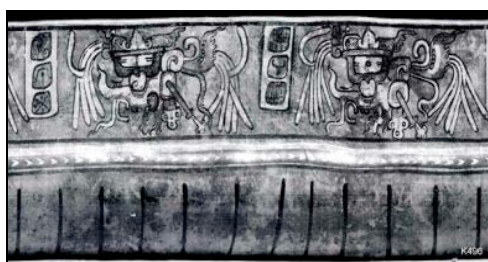
by Erik Boot (e-mail: wukyabnal@hotmail.com)
June 19, 2003

This essay presents an overview of Classic Maya ceramics that contain short, long, or complete sequences of the 20 Classic Maya day signs. Ceramics that contain this kind of sequence can be found in most of the Classic Maya styles and traditions. In referring to the 20 Maya day names the colonial Yucatec Maya equivalents will be used, but converted into a modern orthography: (1) Imix, (2) Ik', (3) Ak'b'al, (4) K'an, (5) Chikchan, (6) Kimi', (7) Manik', (8) Lamat, (9) Muluk, (10) Ok, (11) Chuwen, (12) Eb', (13) B'en, (14) Hix, (15) Men, (16) Kib', (17) Kab'an, (18) Etz'nab', (19) Kawak, and (20) Ajaw. For comparison, the figure below illustrates the 20 day signs, sometimes with variants, as employed in Classic Maya monumental inscriptions (after Coe and Van Stone 2000: 41, scanned and electronically cleaned by the author):



As recent research shows, the Classic Maya day names may have been quite different from the Yucatec Maya day name list (for instance, the first day may have been *ha* ‘‘water’’, the seventh day *chij* ‘‘deer’’, the ninth day *b’aah* ‘‘gopher’’, the tenth day *tz’i* ‘‘dog’’, the fifteenth day *tz’ikin* ‘‘eagle’’, and the nineteenth day *chajuk* ‘‘thunder’’) (cf. Boot n.d.a, n.d.b). The examples described in this essay are presented in the numerical order of the vessel numbers as allocated within the Kerr archive of rollout photographs (cf. Kerr n.d.a). In this essay a total of thirteen examples will be discussed and illustrated. There are more examples of sequences of day signs on Maya ceramics (note 1), but the thirteen examples included here provide a balanced overview.

Example No. 1: Kerr No. 0496



Six day signs are illustrated on this ceramic. There are two columns with three day signs each. The first column lists from top to bottom ‘‘Imix’’, ‘‘Ik’ ’’, and ‘‘Ak’b’al’’, the order 1-2-3 of the Classic Maya day signs. The second column lists from top to bottom ‘‘Kab’an’’, ‘‘Kib’ ’’, and ‘‘Etz’nab’ ’’, the order here is 17-16-18.

The painter of the vessel apparently switched day signs 17 and 16, possibly as these hieroglyphic day signs are visually somewhat close in general appearance (at least based on the details he included). As such the first column covers the first three day signs, the second column the 16th, 17th, and 18th.

Example No. 2: Kerr No. 0594





Three day signs have been painted to the right of the dignitary who is seated and carried in the litter. A couple of cracks obscure some of the glyph details, but from right to left one can recognize “Imix”, “Ik’ ”, and “Ak’b’al” (sufficient detail survives to make a comparison with this particular day sign), the first three day signs of the Maya calendar.

The iconography on this vessel, generally known as the Ratinlinxul Vase (part of the collection at The University Museum, Philadelphia), may depict a funerary procession (cf. Kerr n.d.b). This particular suggestion may explain why the reading order of the day signs is 3-2-1 instead of the normal 1-2-3, as the “other world” may have been considered to be a mirror image of the world of the living. Other “mirror image” texts can be found in Primary Standard Sequences (e.g. Kerr No. 4925) and monumental inscriptions (e.g. Yaxchilan, Lintel 25).

Example No. 3: Kerr No. 2082



There are two columns on this vessel that contain day signs. Each column is preceded, as the surviving details indicate, by a numeral seven, probably *huk* in Classic Maya. The first column depicts from top to bottom four signs, “(unknown)”, “Ak’b’al”, “Ak’b’al”, and “K’an”. The order is (?)-3-3-4. The second column depicts from top to bottom four signs, “Kimi’ ”, “Chuwen”, “Ak’b’al”, and “Ajaw (inverted)”. The order of the second column, if correctly identified, is thus 6-11-2-20. The numeral 7 may function as the coefficient of these two columns of day signs. If correct, the order of the first column may have been:

7 (?)	distance to next in order:	(unknown) days
7 Ak’b’al		260 days
7 Ak’b’al		201 days
7 K’an		

As the first day sign is unknown, it is impossible to say anything about this series of four numbered day signs other than that each opens with the coefficient 7 (compare rollout photograph published on the Web with Kerr 1990: 212 presented here and scanned by the author; the Web-published rollout has the missing detail “reconstructed”). The second column may record the following series of dates:

7 Kimi'	distance to next in order:	65 days
7 Chuwen		52 days
7 Ak'b'al		117 days
7 Ajaw		(total days covered: 234 days)

The second series of dates provides specific amounts of days that are important to the Classic Maya calendar. A total of 65 days is a fourth part of the complete 260 day count, a total of 52 days is a fifth of the 260 day count. When one adds 65 to 52 one arrives at 117, the third amount of (elapsed) days of the second column. The number 117 is the base of the almanac recorded on Dresden Codex 30c-33c. In that almanac there are nine explanatory texts, each separated by 13 days. Nine times 13 is 117. The Dresden almanac covers 20 sequences of 117 days, a total of 2340 days (Thompson 1970: 102). The present vessel may provide specific stations from a comparable almanac:

7 Kimi'	5 x 13 days to reach
7 Chuwen	4 x 13 days to reach
7 Ak'b'al	9 x 13 days to reach
7 Ajaw	2 x 13 days to reach 7 Kimi'

As such the full length of this putative almanac is 20 x 13 or 260 days. This particular sequence of day signs deserves more research in the future, as it deviates from the calculation as used in the Dresden Codex almanac (all days in that almanac have the coefficient 11 and are 13 days apart, starting with 11 Kib'). At present it is the only ceramic that may contain an almanac covering 260 days. Unfortunately, the first column cannot be reconstructed at present.

Example No. 4: Kerr No. 4660



On this ceramic vessel there is only one column with three possible day signs. Although the day signs are painted in a somewhat opaque style, from top to bottom this column seems to read

“Lamat”, “Muluk”, and “Ok”. The scribe used celamorphic variants for “Lamat” and “Ok”. If correctly identified, the order of the days is 8-9-10 (see Example No. 5). The artist who painted this vessel also produced Kerr No. 8556 (see Example No. 13).

Example No. 5: Kerr No. 4927



This beautifully incised ceramic vessel contains a total of three day signs, each prefixed with a coefficient. The order is:

6 “Lamat”

7 “Muluk”

8 “Ok”

This vessel contains the same sequence of day signs at Kerr No. 4660 (Example No. 4), but in the present example the day signs themselves are clearly recognizable. The order is thus again 8-9-10. The scribe (or, actually, the “carver”) who produced this vessel used rare celamorphic variants for “Lamat” (compare to Copan, Hieroglyphic Stairway, Date 3) and “Muluk” (compare to Copan, Hieroglyphic Stairway, Step L: A). The variant he used for the day sign “Ok” is more common (e.g. Copan, Hieroglyphic Stairway, Step Q: M) (examples after Thompson 1950: Figure 7 and 8) (see also illustration on first page of this essay).

Example No. 6: Kerr No. 5379



This is one of the so-called Tikal Dancer Plates (Reents-Budet 1994: 197-198, Figures 5.36-5.39), in the past also known as the “Uaxactun Dancer” plates (identification by Nicholas Hellmuth, cited in Coe 1982: 88). This plate currently resides in the collection of The Mint Museum of Art, Charlotte, North Carolina. The central image depicts a dancing Maize God. The inner rim that surrounds his image contains all 20 day signs; these 20 day signs are grouped in four sections of five day signs each. These are the four sections, going clockwise starting at the top section depicted above the headdress of the Maize God:



“Kab’an”, “Etz’nab’ ”, “Kawak”, “Ajaw”, “Imix”



“Ik’ ”, “Ak’b’al”, “K’an”, “Chikchan”, “Kimi’ ”



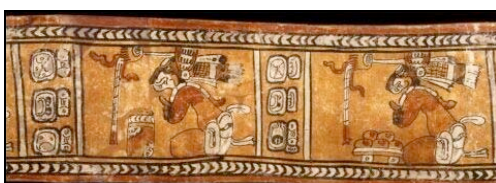
“Manik’ ”, “Lamat”, “Muluk”, “Ok”, “Chuwen”



“Eb’ ”, “B’en”, “Hix”, “Men”, “Kib’ ”

All twenty day signs are presented here, grouped in order as 17-18-19-20-1, 2-3-4-5-6, 7-8-9-10-11, and 12-13-14-15-16. The opening day signs of each section ([17] “Kab’an”, [2] “Ik’ ”, [7] “Manik’ ”, and [12] “Eb’ ”) comply with Type II Year Bearers, the Classic Maya Year Bearers. The Year Bearer falls on the first day of the first month of the 365-day calendar. The first month was named “Pohp” (Classic Maya: K’anjalb’u(j), K’anjalaw); the “first of Pohp” in Classic times was known as the “seating of Pohp” (0 Pohp) (note 2). If the top section is indeed to be read first, it may indicate that the day “Kab’an” was considered to be the first of the four Year Bearers in the Classic Maya period. Interestingly, the “first” Year Bearer date after 13.0.0.0, 4 Ajaw 8 Kumk’uh (the “zero date” of the present Maya calendar) is 0.0.0.0.17, 8 Kab’an 0 Pohp. This first Year Bearer date may indicate that “Kab’an” indeed was considered to be the first in order of Type II.

Example No. 7: Kerr No. 5604





Yet another Chama style vessel (see Examples No. 2 and No. 4), this one resides in the collection of the Museo Popol Vuh, Guatemala. This vessel illustrates two columns that each contain three day signs. The first column may illustrate from top to bottom the day signs “Etz’nab’ ”, “Muluk”, and “Ajaw”. The second column seems to contain from top to bottom “Etz’nab’ ”, “Muluk”, and “Ajaw(?)”. The variants used for “Muluk” in both columns seem unusual, but no other day sign can be compared with the details contained in the painted designs (compare to illustration on page 1). The same can be said for the variant for “Ajaw” in the second column; additionally, based on “parallel sequences”, this might be the only solution. If correctly identified, each column provides the order 18-9-20. This would mean a distance of 11 days between each day sign depicted; it takes 11 days from “Etz’nab’ ” to reach “Muluk”, from which it takes 11 days to reach “Ajaw”.

Example No. 8: Kerr No. 5618



1 2 3 4 5

This Early Classic polychrome lidded tetrapod, found at the Mundo Perdido Complex at Tikal (currently at the Museo Nacional de Arqueología e Historia, Guatemala), contains five columns of day signs. The remaining, unnumbered column may present an explanatory text, a dedicatory

text, or a sequence of titles and names of the owner and/or patron. It does not seem to contain any day sign.

Each column of day signs has to be read from the bottom to the top:

	1	2	3	4	5
<i>(top)</i>	“Chikchan”	“Chikchan(?)”			“[eroded]”
	“K’an”	“K’an”	“K’an”		“K’an”
	“Ak’b’al”	“Ak’b’al”	“Ak’b’al”		“Ak’b’al”
	“Ik’ ”	“Ik’ ”	“Ik’ ”	“Ik’ ”	“Ik’ ”
	“Imix”	“Imix”	“Imix”	“Imix”	“Imix”
<i>(bottom)</i>	“Ajaw”	“Ajaw”	“Ajaw”	“Ajaw”	“Ajaw”

The scribe who painted these columns of day signs used several interesting variants for some of the day signs; he particularly favored the celamorphic variant for “Imix”, the head of the so-called Water Lily Serpent. Another interesting variation can be found between the first column and the second column. It seems that the regular “serpent” sign for “Chikchan” is substituted by a possible Early Classic variant of T585; the T764.SERPENT (with or without **b’i** infix) represents the **b’i** value, possibly derived through a process of acrophony from *b’ik’* “to move like a serpent” (for a full discussion of this substitution, see Boot n.d.a: Note 1). The scribe also favored the T774var for “K’an” instead of the (Late Classic) T506 day sign. The five day sign columns provide five series of day signs; in order these are 20-1-2-3-4-5, 20-1-2-3-4-5, 20-1-2-3-4, 20-1-2, and 20-1-2-3-4-5(?). At present I have no answer to the question why these particular five series of day signs were recorded. The answer may be contained in the remaining unnumbered column.

Example No. 9: Kerr No. 5861



The center design on this plate, possibly having a Campeche origin, is a double-column glyph text that runs from top to bottom. A total of 22 single glyphs has been painted, eleven per column. Bar and dot coefficients have been placed on the outer edges of the two columns, but, if my interpretation of the spacing is correct, there seem to be 12 coefficients per side (left side: 7-6?-1-2-5-5-5-2-2-5-11-12, right side: 12-12-3-2-5-6?-7-5-2-2-6?-7). This may mean that the series of coefficients is simply ornamental.

Although the day sign glyphs have not been painted by a master scribe, sufficient detail survives to identify and reconstruct 20 out of 22 glyphs:

	Column 1:	Column 2:
01.	“Ik’ ”	“Ak’b’al”
02.	“K’an”	“Chikchan”
03.	“Kimi’ ”	“Manik’ ”
04.	“Lamat”	“Muluk”
05.	“Ok”	“Chuwen”
06.	“Eb’ ”	“B’en”
07.	“Hix”	“Men”
08.	“Kib’ ”	“Kab’an”
09.	“Etz’nab’ ”	“Kawak”
10.	“Ajaw”	“Imix”
11.	(unknown)	(unknown)

This plate records a series of 20 day signs, starting with the day “Ik’ ” and ending with “Imix”. The reason why this series opens with “Ik’ ” may be the fact that “Ik’ ” was one of the Classic Maya Year Bearers (see Example No. 6). The prominent “Ik’-designs” on either side of the double columns, painted against the outer rim of the plate, may stress the importance of the day “Ik’ ” as a Type II Year Bearer. The last two glyphs may have been a short explanatory text, but at present it is impossible to identify these signs (alternative comments by various researchers on the calendrical contents of this plate with a possible Campeche origin can be found at <http://www.mayavase.com/comments5861.html>).

Example No. 10: Kerr No. 6063



This beautifully incised ceramic vessel depicts two dancing spider monkeys. Above this scene there is a glyph band that contains a total of seven day signs. Each day sign seems to be combined with a coefficient. If correctly identified, from left to right the sequence is:

13 “Ak’b’al” 10 “Etz’nab’ ” 10 “Ajaw(?)” 13 “Imix(?)” 13 “Men(?)” 13 “Imix(?)” 13 “Men(?)”

With only a tentative identification of the “Ajaw”, “Imix” and “Men” signs, it is at present impossible to provide a series of distance numbers to connect the different recorded days. Additionally it is not clear which sign opened the series. It should be noted, however, that to the back of the “Ak’b’al” day sign a T24.MIRROR sign can be found. This T24.MIRROR sign may actually indicate that the series opens there. The T24.MIRROR sign and its variants constitute the main sign of the Initial Sign of the Primary Standard Sequence. In that context the T24.MIRROR sign and its variants read *lay* “here; this one” (cf. Boot 2003) and open the text. Thus 10 “Etz’nab’ ” may have opened the sequence of day signs here. If indeed 10 “Etz’nab’ ” opened this sequence, it should be noted that “Etz’nab’ ” is a Type III Year Bearer (see note 2).

Example No. 11: Kerr No. 6304



This Chama style ceramic vessel contains two columns of three day signs each. All six day signs are well painted and readily identifiable. The first column represents “K’an”, “Chikchan”, and “Kimi’ ”; the order is 4-5-6. The second column represents “Manik’ ”, “Lamat”, and “Muluk’ ”; the order here is 7-8-9. As such these two columns provide a continuous sequence 4-5-6-7-8-9. The significance of this sequence may be the fact that it actually opens and closes with a Type III Year Bearer day sign (“K’an” and “Muluk’ ”, see note 2). If correctly identified, this may indicate that the area in which Chama is located also had a calendar change of one day.

Example No. 12: Kerr No. 6997





This cylindrical vessel, currently at The Hudson Museum at Orono, Maine, illustrates two images of the Maize God. The image on the left side of the rollout photograph has long columns of day signs on his left and right sides. The column on the left, from top to bottom, reads “Imix”, “Ik’ ”, “Ak’b’al”, “K’an”, “Chikchan”, “Kimi’ ”, and “Manik’ ”, or the order 1-2-3-4-5-6-7 (the sign below “Manik’ ” is a filler). The column on the right, from top to bottom, reads “Lamat”, “Ok”, “Chuwen”, “Eb’ ”, “B’en”, “Hix”, and “Men”, or the order 8-10-11-12-13-14-15. The two columns present a total of 14 day signs in order, but the scribe did not include the ninth day sign “Muluk”; instead he added the fifteenth day “Men”. This is the second example in which the Maize God is associated with a long, nearly complete, day sign sequence. This association may not be coincidental, as the prognostications of the separate days were, and still are in certain areas in the Maya region, of importance for the growth of the maize plant (e.g. almanac in “Book of Chilam Balam of Tizimin”, fol. 23r-27v).

Example No. 13: Kerr No. 8556



This ceramic was painted by the same artist as Kerr No. 4660. The diagonally placed column contains a vertical row of three complete collocations and two incomplete collocations. Unfortunately, only the center day sign is easily recognizable. It is the day sign for “Lamat”. The one preceding the “Lamat” sign may represent a celamorphic variant of “Manik’ ” (it seems to be an animal of some sort, possibly a deer, which sometimes was used as the seventh day sign, cf. Site Q Panel 5 [The Art Institute of Chicago] and Site Q Panel 9 [Collection Manuel Barbachano Ponce]), the two day signs succeeding “Lamat” may represent “Muluk” and “Ok”. The “waves” contained in the putative sign for “Muluk” are somewhat reminiscent of the

reconstructed signs for the seventh day in the Xochicalco and Nuiñe calendars (cf. Edmonson 1988: Figure 15a). The sign for the putative “Ok” indeed contains some characteristics common to other examples of this day sign; notable are the large eye and the ear (cf. Thompson 1950: Figure 8).

If the present identifications are correct the order of the day signs would be 7-8-9-10. The first glyph of this diagonal column remains without a certain identification; it may be a simple filler, or it may represent the day sign “Kimi” (if correct, the order of days signs would be 6-7-8-9-10).

Final Remarks

At present there are two ceramic containers that contain all 20 Classic Maya day signs. The first example can be found on the Tikal Dancer plate cataloged as Kerr No. 5379. The day signs, possibly placed in order so as to open each section with one of the Year Bearers, encircle the Maize God. The second example can be found on another plate, possibly from Campeche, cataloged as Kerr No. 5861. This series opens with the day sign “Ik’”, perhaps also indicative of the fact that the Year Bearer was intended. The second longest series of day signs could be identified on Kerr No. 6997. That series of day signs is also associated with the Maize God.

Four of the thirteen vessels with day sign sequences illustrated above were produced within the Chama style or tradition. Possibly one of the sequence of day signs recorded on one of those vessels may indicate that this area also changed its calendar by one day, like the Puuc area in western Yucatan. Within most of the known Classic Maya styles or traditions one can find an example that contains a day sign sequence. At present there is no Codex Style example.

Hopefully more examples of Classic Maya ceramics with day sign sequences will be found in the future. With a larger sample it might be possible to determine why the Maya scribes painted day sign sequences without any explanatory texts.

Notes

1) A polychrome painted vessel in the Ludwig Collection at the Rautenstrauch-Joest-Museum in Cologne, Germany, contains an upper rim text which also contains Classic Maya day signs. At present I only have two photographic views available (postcards Nos. 916 and 917 from Verlag Aurel Bongers in Recklinghausen, Germany), both illustrated here (scanned by the author):



A small number of vessels provides columns of day signs which actually repeat only one particular day sign. For instance, Kerr No. 4688 seems to contain a column of three times the day sign for “K’an”,

while Kerr No. 4929 provides two columns of three signs, but each sign is the day sign “Imix”. Kerr No. 4500 seems to contain two columns of three day signs each, but every day sign represents “Muluk”. Other vessels seem to contain columns of possible day signs, but the signs used are difficult to identify (e.g. Pearlman No. 22, cf. Coe 1982: 52-53; one column may record from top to bottom “Ajaw”, “Chikchan/Kimi”, and “Imix” or the order 20-5/6-1).

2) In the Maya area at different points in time there were different Year Bearers. These are the different options for the Year Bearers and examples:

<i>Type I</i>	(1) Imix	(6) Kimi	(11) Chuwen	(16) Kib’	(no evidence)
<i>Type II</i>	(2) Ik’	(7) Manik’	(12) Eb’	(17) Kab’an	Classic period, Dresden Codex
<i>Type III</i>	(3) Ak’b’al	(8) Lamat	(13) B’en	(18) Etz’nab’	Western Puuc, Paris Codex
<i>Type IV</i>	(4) K’an	(9) Muluk	(14) Hix	(19) Kawak	Landa, Madrid Codex
<i>Type V</i>	(5) Chikchan	(10) Ok	(15) Men	(20) Ajaw	(no evidence)

The Dresden Codex actually provides both the Type II (top register) and Type III (bottom registers) Year Bearers on its pages 25-28. To visualize the shift of Type II to Type III to Type IV, the following table has been developed. Read “0 Pohp” always as “first of Pohp”:

	<i>Type II</i> (Classic, Dresden)	<i>Type III</i> (Puuc, Paris)	<i>Type IV</i> (Landa, Madrid)
9 Imix	4 Wayeb’	3 Wayeb’	2 Wayeb’
10 Ik’	0 Pohp	4 Wayeb’	3 Wayeb’
11 Ak’b’al	1 Pohp	0 Pohp	4 Wayeb’
12 K’an	2 Pohp	1 Pohp	0 Pohp
13 Chikchan	3 Pohp	2 Pohp	1 Pohp

Type III Year Bearers first appeared in the seventh century, while there might be indications that Type IV Year Bearers already were in use in the eleventh century (cf. Boot 1998).

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