

Date (Julian calendar) 22/04/967

Time : 23:57 (12 hours after transit)

Location : Banteay Srei (13.598911° N ; 103.962850° E)

Ayanamsa = 7.017°

Degree zero of sidereal longitudes : 10' to the east of Zeta Piscium (*)

Canon : old Suryasiddhanta

No Bija

Software : HIC

System : Sunrise

Time used by HIC : 45 ghatikas ie 18 hours after sunrise (approximately 24 h)

“s : d : m” means “sign : degrees : minutes”

	S = Indian sidereal longitude calculated by HIC (degree zero at 10' to the east of zeta Piscium)	T = Indian tropical longitude (degree zero = vernal equinox) T = S + 7.017° 7.017° = ayanamsa	M = tropical longitude (degree zero = vernal equinox) calculated by modern methods Software : “Starry Night” and “SkyMap”	E = Indian error E = M - T
Sun s : d : m	00 : 29 : 40 = 29.667°	01 : 06 : 41 = 36.684°	01 : 6 : 43.62 36.727°	0.043°
Mars s : d : m	11 : 19 : 13 = 349.217°	11 : 26 : 14 356.234°	11 : 26 : 53.94 356.899°	0.665°
Mercury s : d : m	00 : 17 : 55 17.917°	00 : 24 : 56 24.934°	00 : 26 : 22.20 26.370°	1.436°
Jupiter s : d : m	11 : 29 : 37 359.617°	00 : 06 : 38 6.634°	00 : 6 : 2.46 6.041°	-0.593°
Venus s : d : m	11 : 28 : 35 358.583°	00 : 05 : 36 5.600°	00 : 4 : 51.90 4.865°	-0.735°
Saturn s : d : m	00 : 00 : 56 0.933°	00 : 07 : 57 7.950°	00 : 11 : 43.08 11.718°	3.768°
Moon s : d : m	05 : 01 : 55 151.917°	05 : 08 : 56 158.934	05 : 06 : 35.28 156.588°	-2.346°
Mean error				1.369°

(*) Burgess : degree zero at 18° 5' 8'' to the east of the vernal equinox of 1860 CE.

The ayanamsa is the difference of tropical longitude between the sidereal degree zero of 499 CE and the one of the relevant year. It is calculated by using the rate of precession of the Suryasiddhanta ie 54'' per year.

Alleged Indian convention: sidereal longitudes = tropical longitudes in 499 CE (ayanamsa = 0)

The mean Indian-Khmer error is 1.369° but longitudes indicated on the stele are at least at 150° from the true locations.

French translation of stanza XLIV (on the conjunction)

Le dieu a été érigé ici, à partir du lever du Verseau, Mars (1), Jupiter et Vénus (étant arrivés) dans le cinquième signe (le Lion), la lune étant arrivée dans l'extrémité (2) du dixième (le Capricorne), et les autres (3) (le Soleil, Mercure, Saturne) dans le sixième (la Vierge), le premier jour de Mādhava, un samedi.

	Indian sidereal longitude calculated by HIC (degree zero at 10' to the east of zeta Piscium)	Longitudes indicated on the stele	Indian sidereal longitude (I) if degree zero = SPICA I = T – 189.46045 with T = Indian tropical longitude (previous table ; third column)
Sun s : d : m	00 : 29 : 40 = 29.667°	06 : ? : ?	06 : 27 : 13.44 = 207.224
Mars s : d : m	11 : 19 : 13 = 349.217°	05 : ? : ?	05 : 16 : 46.44 166.774°
Mercury s : d : m	00 : 17 : 55 17.917°	06 : ? : ?	06 : 15 : 28.44 195.474°
Jupiter s : d : m	11 : 29 : 37 359.617°	05 : ? : ?	05 : 27 : 10.44 177.174
Venus s : d : m	11 : 28 : 35 358.583°	05 : ? : ?	05 : 26 : 8.40 176.140
Saturn s : d : m	00 : 00 : 56 0.933°	06 : ? : ?	05 : 28 : 29.40 (True longitude → 6th sign) 178.490
Moon s : d : m	05 : 01 : 55 151.917°	10 : ? : ?	10 : 29 : 28.44 (extremity indeed) 329.474°

<http://srigaruda.com/visti/index.php/en/publications/articles/91-ayanamsa>

v. Ayanamsa choices

There are two main ayanamsas given in the vedic scripture namely Revati-paksha and Chitra-paksha. The word paksha refers to 180 degrees or an exact opposite position from a fixed star. Here Revati and Chitra do not refer to a large constellation of nakshatras spanning ~13 degrees, but to the original stars which make up the base of the nakshatra positions. The star Chitra corresponds to the star Spica, whilst Revati corresponds to the star Zeta Piscium. 180 degrees opposite the star Chitra is said to be 0 degrees of Aries, whilst 180 degrees opposite Revati is 0 degrees of Libra.
