

Chapter 8 - Observatory Clocks in India



The Prague Orloj clock tower photo taken by James Grimmelmann on 2005-05-16 19:55:37, http://en.wikipedia.org/wiki/Image:Prague_Clock_Tower.jpg, by permission.



Jantar Mantar in Jaipur

When I searched the Internet for other clocks, I came up with the biggest clock in India, which took me by surprise. There are six major observatories around Jantar Mantar in Jaipur¹, India. Although no telescopic instruments were found nearby, the huge observatory buildings such as Jantar Mantar facilitated precise observation of the stars greatly.

Ancient India linked astronomy with astrology as did all early civilizations. They concerned themselves with the calculation of solstices, eclipses and other natural observations. They also determined the Earth's circumference and theorized about gravitation between the sun and planets of our solar system. Ancient manuscripts include many astronomical references. Although many documents are dated to the first millennium BC, their contents appear to be much older.

Ancient India's contributions in the field of astronomy are well known. The earliest astronomical references are found in the Rig Veda, which is dated 2000 BC.

Reading the story about the observatory, I noticed that the next text on Vedic astronomy has been dated to be 1350 BC and was written by Lagadha. So in-between those ancient times, the story mentioned Yajnavalkya (perhaps 1800 BC), who advanced a 95-year cycle to synchronize the motions of the sun and the moon. To me this is an indication of spin-axis phenomena.

Let's examine the math and see if it conforms to the Aztec spin-axis conversion chart [Figure A in Chapter 3]. First, 365 days minus 95 (year/cycle) days = 270 ($365 - 95 = 270$). That means the Y-axis has 270 days and

¹ <http://www.crystalinks.com/indiastronomy.html>

the X-axis has 95 days left over in a year. To find the X-axis ratio of these two axes we divide 95 by 365 = .260 ($95/365 = .260$).

To relate it to a diminishing X-axis, we multiply it by 7 spin-axis turns in one year, which is 1.82 ratio. To find the crossover point on the chart, we can use the nearest reference point. Abraham's death in 1722 BC to Moses' death in 1240 BC is mean averaged to 1482 ($(1722 + 1240)/2 = 1481$).

Next set up an equation to relate the 1481 BC to 1.31 and 1.82 ($1481 \times 1.82/1.31 = 2057$). The result 2057 BC is startling. Riga Veda is dated to 2000 BC and Yajnavalkya at 1800 BC is an acceptable match. The ancient scholars from India were right, and I am impressed. Did the ancient priests use the spin-axis principles to figure out the system and check their computations? It would be some fun to find out. Once again, ancient records independently support the spin-axis hypothesis.



The early ideas in Riga Veda and of Yajnavalkya eventually developed into a heliocentric model of the solar system in which the Earth was taken to be spinning on a single Y-axis. The periods of the planets were given with respect to the sun in a book about AD 500 mentioned by Aryabhata.

Remember that before Julius Caesar the calendar had not been changed since 518 BC when the X-axis disappeared and people observed that the calendar cycles had become predictable. Pyramids were no longer built, and a new technology of making bronze clocks arrived.

Another reference is the Vedanga Jyotisha, a text on Vedic astrology written by Lagadha that is dated to 1350 BC, which is close to Moses' time. This document gives rules for tracking the motions of the Sun and the Moon. It also develops the use of geometry and trigonometry for astronomical observation.

Similar to the Aztec palace wall pictures, early India's cultures identified celestial objects with gods and spirits. We have millions of deities

in India, and many religions practiced by various ethnic groups that were constantly at odds with each other.

As in other cultures, India's earliest astronomers were priests or Magi. Their understanding of the "heavens" was seen as "divine", which explains astronomy's ancient correlation to what is now called astrology. The Vedas make a number of important references about astronomical events of chronological significance. India began their year at the vernal equinox in Orion since 4500 BC. Some texts (Yajnavalkya perhaps 1800 BC) describe the motions of the sun and the moon. The book, Shatapatha Brahmana, advances a 95-year cycle to synchronize the motions of the sun and the moon with the same X-axis / Y-axis data. Two witnesses establish facts in a court of law, and here are two independent references that tell the same story.

Looking at the pictures, I want to visit India to find out more about these observatories in order to see if there are more connections with the spin-axis hypothesis. I am sure I will find it. There is not enough information on the Internet, and I need to have a closer look of all those interesting structures.

In chapters 10-12, we will find more support for the spin-axis hypothesis when we visit Mexico City's outdoor museum. In Mexico, I visited seven pyramids where I also found the 95 cycles mentioned in the ancient Indian sources.

Many thanks to www.crystalinks.com for the beautiful pictures about some amazing clocks that I never knew existed. I recommend their web site.

