

The Cycle of Ages

The Cyclic Time Concept of the Vedas

by Raja Vidya das



The Vedic Divisions of Time

It is only recently that the Western scientists discovered the existence of the atom; but the following ancient Sanskrit verses show that the atom or anu was already known to the Asian seers thousands of years back.

This information is taken from the Paramahansa Samhita Bhagavat-puranam: III/XI, which was originally spoken by Sri Sukadeva Goswami 30 years after the start of this current Kali Yuga or exactly 5070 years ago as of 1999 AD. I consider this information to be amazing, especially as it relates to modern scientific discoveries. Remember, the following information dates back to 3070 BC.

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The Vedic Divisions of Time

by Richard S. Brown, GIA, PG

Verse 1: (The great sage) Maitreya said: "The smallest particle of material substance, which has not yet combined with any other similar particles, is called paramanu (a sub-atomic particle of matter). Paramanus always exist both in the dormant and manifest states of material existence. It is the combination of more than one paramanu (sub-atomic particle) which gives rise to the illusory concept of a (material) unit.

Verse 2: And the entire manifest material existence, taken as a non-specific whole, and before returning to an unmanifest (dormant) state, is defined as the largest (material) size.

Verse 3: We can understand the short and long dimensions of (material) time, as a potency of the Supreme all-pervading transcendental Lord, Who, in the form of the Sun, passes across the small and large dimensions of (material) things.

Verse 4: The amount of time it takes the Sun to pass across the smallest particle of matter is called paramanu which is the smallest measure of time, while the period it takes to cross the total expanse of material creation is called the longest measure of time.

Verse 5: A combination of two paramanus constitutes an anu (atom); and three anus (atoms) makes one trasarenu. Trasarenu are visible [to the naked eye] when seen floating upward in the air while viewed through rays of sunlight which enter a room through a latticed window.

Verse 6: Three Trasarenu is called a truti (8/13,500 part of a second), which is a measure of time it takes (the Sun) to travel across three Trasarenu. A combination of one hundred truti is called a vedha (8/135 part of a second), and three vedhas together is known as a lava (8/45 part of a second).

Verse 7: A combination of three lavas is called a nimesha or the twinkling of an eye (8/15 part of a second), while three such nimeshas equals a ksana (8/5 part of a second). A combination of five ksanas is known as a katha (8 seconds), and fifteen kathas is equal to a laghu (2 minutes).

Verse 8: A conglomerate of 15 laghus is called a nadika (30 minutes). Two nadikas equal a muhurta (hour), and six or seven nadikas equal a prahara (approximately 3 hours to 3 and a half hours, depending on long or short days), which is a fourth of a day by human calculation.

Verse 9: A nadika can be measured by taking a copper pot weighing six palas (8 tolas=ck dictionary) that can contain about 14 ounces of water and punching a small hole in the bottom using a 10-12" long golden needle that weighs four mashas (ck dictionary); when the pot is placed in water it takes a nadika of time (about 30 minutes) to fill up (and sink).

Verse 10: Oh Vidura, who respect all beings, (the Sage Maitreya continued), for humans, day and night consist of four yamas (6 hour periods), while 15 such days & nights make up the bright or dark fortnight, by rotation.

Verse 11: Two of these fortnights (the bright and the dark) equals a masah (one month consisting of 30 days length), and this period is taken as one day and one night of the forefathers (Pitris in heaven). Two of these months equal a ritu or season, while six such months is called an ayana (one full movement of the Sun from North to South or South to North).

Verse 12: By the calculation of the demigods in heaven these two ayanas (12 months by human calculation) make up their celestial day and night which is one year for humans. And the full life span for humans is 100 years.

Linear Versus Cyclic Time

The modern historical scientists' linear concept of time strikingly resembles the traditional Judaeo-Christian concept, and it strikingly differs from that of the ancient Greeks and Indians. The cosmological ideas of several prominent Greek thinkers included a cyclic or episodic time similar to that found in the Vedic literature of India.

For example, we find in Hesiod's Works and Days a series of ages (gold, silver, bronze, heroic, and iron) similar to the Indian yugas (ages). In both systems the quality of human life becomes progressively worse with each passing age. In On Nature, Empedocles speaks of cosmic time cycles. In Plato's dialogues, there are descriptions of revolving time and recurring catastrophes destroying or nearly destroying human civilization. Aristotle said often in his works that the arts and sciences had been discovered many times in the past. In the teachings of Plato, Pythagoras, and Empedocles on the transmigration of the soul, the cyclical pattern extends to individual psycho-physical existence.

When Judaeo-Christian civilization arose in Europe, another understanding of time became prominent -- time going forward in a straight line. Broadly speaking, this concept of time involves a unique act of cosmic creation, a unique appearance of human beings, and a unique history of salvation, culminating in a unique denouement, the last judgment. The drama occurs only once. Individually, the life of a human being mirrors this process; so, with some exceptions, orthodox Christian theologians rejected transmigration of the soul.

Modern historical sciences share the basic Judaeo-Christian assumptions about time. The universe we inhabit is a unique occurrence: Humans arose once on this planet; the history of our ancestors followed a unique though unpredestined evolutionary pathway; and the collapse of the "Big Bang" universe will bring everything to a close.

One is tempted to propose that the modern account of human evolution is a Judaeo-Christian heresy that covertly retains fundamental structures of Judaeo-Christian cosmology, eschatology, and salvation history while overtly dispensing with the scriptural account of divine intervention in the origin of species, including our own.

The Vedic Calculation of Time: The Vedic concept of time is cyclic, rotating in cycles of four yugas:

<i>Satya yuga:</i>	<i>1,728,000 human years</i>
<i>Treta yuga:</i>	<i>1,296,000 human years</i>
<i>Dvapara yuga:</i>	<i>864,000 human years</i>
<i>Kali yuga:</i>	<i>432,000 human years</i>

This yuga cycle totaling 4.32 million years is also called a maha- or divya-yuga. One thousand such cycles, 4.32 billion years, make up one day of Lord Brahma, the demigod who governs the universe. Such a day of Brahma is called a kalpa. Each of Brahma's nights lasts as long as his day. Life is manifest on earth only during the day of Brahma. With the onset of Brahma's night, the entire universe is devastated and plunged into darkness. When another day of Brahma begins, life again becomes manifest.

Each kalpa (day of Brahma) is divided into 14 manvantara periods, each lasting 71 yuga cycles. Preceding the first and following each manvantara period is a junction (sandhya and sandhyamsa respectively) the length of a Satya-yuga (1,728,000 years). Each manvantara period ends with a partial devastation and starts with a partial recreation of the universe.

Brahma lives 100 years, consisting of 360 days and nights (the Vedic year is based on the cycles of the moon, not the sun). Thus Brahma lives 100×360 kalpas = 36,000 days plus 36,000 nights. In human years, Brahma's life span lies far beyond our power of imagination: $72,000 \times 4,320,000,000$ human years = 311,040,000,000,000 human years.

The life span of Brahma is identical with the duration of the universe. This time span, called a maha-kalpa, is also the duration of one breathing in and out of Maha-Vishnu, the Personality of Godhead. Maha-Vishnu lies down within the ocean of causality and sleeps. He is eternal, and He dreams the material world in His cosmic slumber. When He exhales, all the universes emanate from the pores of His skin, and a Brahma is born within each universe. When He inhales, Brahma dies, and He sucks the universes into His mouth and destroys them. With each exhalation, the entire process starts anew. This cycle goes on eternally and is therefore also called eternal time.

The four yugas can also be calculated in demigod years:

<i>Satya yuga:</i>	<i>4,800 demigod years</i>
<i>Treta yuga:</i>	<i>3,600 demigod years</i>
<i>Dvapara yuga:</i>	<i>2,400 demigod years</i>
<i>Kali yuga:</i>	<i>1,200 demigod years</i>

Each six months of human time is one day for the demigods, and another six months is one night. When the sun is in the southern side of the universe (summer in the Southern Hemisphere), the demons have day and demigods have night, and vice versa when the sun is in the Northern Hemisphere. One of our years is one of their days, and 360 of our years is one of their years.

Most demigods maintain their positions within the universe for the duration of one manvantara (age of Manu). Because the demigods live for one day of Brahma, they change their positions each manvantara and become other demigods. Since 14 manvantaras (14 Manus) reign in one day of Brahma, a total of $14 \times 360 \times 100 = 504,000$ Manus and demigods change shifts in the lifetime of Brahma.

The Four Yugas : The Vedic Puranas describe the four yugas as follows:

Satya-yuga, or the golden age, is the ideal age, characterized by virtue, wisdom, religion, and practically no vice or ignorance. Humans do not hate or envy each other, nor do they ever feel anxious, fearful, or threatened. They solely worship the one Supreme Personality of Godhead, hear the one Veda, obey the one law, and practice the one religious process -- meditation on the Supreme. People live for about 100,000 years.

In *Treta-yuga* vice is introduced. The good qualities that humans had in Satya-yuga reduce by one third. People introduce religious rites, sacrifices, and ceremonies. They start to act with fruitive desires, expecting a reward for their work and religious activities. They live for a maximum of 10,000 years.

In *Dvapara-yuga* uprightness is only half of what it was in Satya-yuga. The Vedas are divided into four parts, and only a few people study them. Sensual desires and diseases begin to well up, and injustice spreads in human civilization. People live for a maximum of 1000 years.

In *Kali-yuga* only one fourth of human uprightness remains and gradually reduces to nil as the age progresses. We now live in Kali-yuga, the iron age; the most degraded of the four ages (kali literally means "quarrel and hypocrisy").

In this age men are short lived and have less intelligence. They are especially lazy in performing their spiritual duties and exceedingly slow to surrender to the Lord. They are misled, frustrated and, above all, always disturbed. The qualities of religion (truthfulness, cleanliness, forbearance and mercy) and the qualities of life (intelligence, duration of life and bodily strength and beauty) all diminish. The maximum duration of human life is 100 years, and even that is rare.

Yuga: An era varying from $1-4 \times 1200 \times 360$ solar years in which one 'year of the gods' is 360 earthly years.

Mahâyuga: A period of four yuga's, named Satya, Tretâ, Dvâpara, Kali, together covering 4.32 million years taking $1/1000$ day of Brahmâ. Individual duration: 1200×360 years to multiply with a factor of respectively 4, 3, 2 en 1. To this constitute 360 earthly years one year of the gods.

Where We Are Now

According to the Vedic scriptures, we are now in the first day of the second half of the life of Brahma (even he gets old, and he is now 50). Within this day of Brahma, we are in the seventh manvantara (of Vaivasvata Manu), in the 28th turnover of its 71 yuga cycles.

Modern astronomy calculates the beginning of the present Kali-yuga at 2:27a.m. on February 20th in the year 3102 B.C.