

Genealogy and the Vedic Timescale

Sai Venkatesh

The Renowned Astronomer and Cosmologist Carl Sagan once said “The Hindu religion is the only one of the world’s great faiths dedicated to the idea that the Cosmos itself undergoes an immense, indeed an infinite, number of deaths and rebirths. It is the only religion in which the time scales correspond to those of modern scientific cosmology. Its cycles run from our ordinary day and night to a day and night of Brahma, 8.64 billion years long. Longer than the age of the Earth or the Sun and about half the time since the Big Bang”.

True enough, Vedic Wisdom beautifully encompasses all facets of nature uncovered only recently by modern science - quantum mechanics, chaos theory, particle physics, big bang, cosmology, dark matter and dark energy, genetic code and an ultimate theory of everything emergent from mathematical symmetry and perfection bridging algebra and geometry through the largest possible Exceptionally Simple Lie Group Structure, the E8.

The previous articles have dealt with explaining these aspects of the universe all the way from before the Big Bang until present day life on earth. The corresponding perspectives in Vedic wisdom have also been outlined, in most cases where these universal concepts are alluded to deities such as Adityas, Vasus, Rudras, Ashvinis and so on.

[\(viXra:1808.0371](#), [viXra:1808.0528](#), [viXra:1809.0099](#))

Building on this, the focus of the present article is the Vedic Timescale, and how they map to current understanding of science. In decreasing order of duration one may consider the Vedic Timescales as Mahapralaya, Pralaya, Kalpas, Manvantaras and finally Yugas.

By definition, Mahapralaya is denoted as complete destruction of everything in the universe, leaving absolutely nothing behind. Pralaya on the other hand, is a partial destruction occurring at the end of an eon or Kalpa.

At this point, one wonders about the fate of the universe. Based on physical observations, one can be reasonably certain about the Big Bang being the origin of the universe. But what would its end be like? In the yesteryears, three choices were proposed - an ever expanding universe, a universe contracting to end in a big crunch, or a steady state model. From Einstein’s Relativity, one could understand the shape of the universe accordingly as hyperbolic, spherical like or flat.

However, findings from the Hubble have shown important facts - the universe is not only expanding, but such an expansion is going on in an accelerated rate. But also, the universe is flat rather than hyperbolic - this puzzle was solved by the dark energy, which arose from the

cosmological constant inherent to space time itself. Thus, Dark Energy definitely rules out a big crunch option of the universe's death.

In recent times, String theory emerged as the contender for a Theory of Everything, and for its part predicted a Big Bounce, similar in ways to the big crunch but a cyclic process, with our universe being among a series of universes created and destroyed periodically. However, with recent findings one understands that this theory is being put into jeopardy, yet again due to dark energy.

(<https://www.quantamagazine.org/dark-energy-may-be-incompatible-with-string-theory-20180809/>)

In short, one finds that dark energy prohibits any matter of energy based contraction of the universe, leading to decrease in space time and thus death. Yet, from Vedic sources we do find that the universe is constantly created and destroyed in series of Mahapralayas. How could this happen?

The answer might lie in the informational domain. In the E8 Theory of Everything, it was understood that the universal wavefunction is a chaotic signal, whose three components in their 8 entangled states are the E8 Charges, all of them existing in an informational space, and that creation began with the dawn of space time which in turn arose from breaking the symmetry of the E8 group, by making the Higgs field non-zero. Thus, the ultimate origin of the universe lies in a non-zero information value.

This means that if the Higgs field were to be turned zero again this very instant, the universe would simply collapse into nothingness instantly - no spacetime, no matter and no energy. This is a far more feasible and far less dramatic way of the universal extinction than big crunches and big bounces. This follows from the fact that the basis of matter and energy is information, seen as probability states in the quantum wavefunctions. It is information which manifests as matter and energy through various stages of interaction and entanglement, and complete destruction or Mahapralaya through informational realm is completely possible.

Pralaya is a partial destruction. In Vedic timescales, we find this occurring at the end of a Kalpa. A Kalpa or eon is a day of Brahma, consisting of bright and dark halves, each lasting 5 billion years approximately. Matsya Purana lists 30 Kalpas, stating that we are currently in the 26th - Shveta Varaha Kalpa. However, the observed age of the universe itself is just 13 billion years. Thus, it is not possible that 25 Kalpas have passed consecutively one after the other.

At this juncture, we must remember the relativistic principle that space and time must be seen as one single entity - spacetime. Hence, the descriptions of the Kalpas are not distinct units of time alone, but space also. That is, Kalpas run simultaneously in different regions of the universe, and not necessarily one after the other.

A Kalpa lasts 10 billion years. It is an observed fact that the Earth is nearly 5 billion years old. It is also understood that after nearly 5 billion years from now, the sun will meet its end. This duration of the solar system as $5+5=10$ billion years tallies remarkably with the Kalpa duration. Thus, Kalpas are solar systems, systems of stars with possibly exoplanets supporting life.

At this point, one asks the question, what is life? A generally agreed definition is that life consists of the dual functionality of sustenance and signaling. Earlier article discussed these two dimensions as Life and Sense, from an informational perspective.

From basic chemical elements, one might form complex structures and macromolecules. If these are capable of the sustenance and signaling functions, they become biomolecules, and kickstart life and evolution. The DNA-RNA is just one example of such a biomolecule - consisting of Hydrogen, Carbon, Oxygen and Nitrogen. However, it would be naive to assume that only this configuration could generate life. Theoretically, it is possible that one might develop life from other combinations of elements too, and it is possible that such life could exist on environments that do not support water.

https://en.wikipedia.org/wiki/Hypothetical_types_of_biochemistry)

Thus, all such solar systems formed around different stars in different regions of the universe - all form Kalpas, which are possibly arranged in chronological order based on date of creation. In that order, our solar system and earth is the 26th. The name Shveta Varaha Kalpa brings to the discussion the incarnations of Vishnu.

Among the 33 Devas are included the 12 Adityas. These capture the variety of the universe as seen relative to the earth as positions in the sky, called zodiac. This leads to the study of astronomy and astrology. The study is based on the energy sources that affect life on earth the most. These are called Grahas.

Without doubt, all energy on earth traces back to the sun. Apart from solar energy directly, the sun's energy reflected through various celestial bodies also influence earth, the most significant being the moon. Causing tides, it is understood that moon played a crucial role in life and evolution transitioning from aquatic to amphibian and finally terrestrial. It is also understood that the moon affects the psyche, observable on full and new moon days.

Apart from the moon, various planets also influence the earth, though in much less capacity and intensity. The only significant sources are the five planets of Mercury, Venus, Mars, Jupiter and Saturn. Thus these are also included along with the sun and moon.

In addition to these, one must take into account the interactions between these celestial bodies. However, the five planets are too insignificant to consider motion based changes in energy influences, leaving out the sun and moon. A significant problem and study in science done by Newton, Galileo and others was the Three Body Problem, trying to study the relative motion of

the sun, moon and earth. Poincare pointed out that this motion and its interrelations are a complex affair, and was the precursor to our understanding of Chaos Theory.

It is to account for this aspect that the Vedic culture had introduced two Chaya Grahas or 'shadow planets', called Rahu and Kethu. These were not planets, but merely points in the moon's orbit around the earth, in the side facing and opposite to the sun. Whenever the trio of earth, moon and sun perfectly aligned, one of the sun or the moon would be eclipsed relative to earth. This was described as the sun or moon being swallowed by Rahu or Kethu, since the positions of these points were the reasons for the eclipse. Thus, we now have the complete set of the Navagrahas - the sun, the moon, the five planets, Rahu and Kethu.

Among the Avatars of Vishnu, one observes these facts. Particularly in the Kurma Avatara, one sees that Chandra the moon God emerges from the ocean. In the same context, Rahu and Kethu are created from the severed parts of an Asura Swarnabhanu. Thus, this Avatara alludes to the creation of the moon, and also to its orbit containing the two nodes of Rahu and Kethu. The following Avatara, Varaha relates saving the earth from a state of disorder and destruction. This might possibly describe the stabilization of earth's orbit and conditions conducive to life. Only after such stabilization is life on earth rendered possible, and for this reason, our present Kalpa is named after Varaha.

Within Kalpas the Vedas mention various Manvantaras. Our Kalpa consists of 14 Manvantaras, each mentioned to last for around 300 million years. The definition of Manvantara comes from Manu - the progenitor of human race. Each Manvantara corresponds to the duration of a Manu, denoting multiplication to create humans, and ends when such progeny ends. We are currently in the 7th Manvantara.

Scientifically, we have observed that humans have lived on earth only as far back as 300,000 years. This is far short of even a single Manvantara, let alone 7. To explain this, one can consider two possibilities. First, that there have been advanced species before the current homo sapiens, or that the Manvantaras are listing other animal species and not just humans. Earlier advanced species would surely leave records in geological artefacts, and while there are signs of what could hint at these, it is near impossible to find 6 layers of advanced species before humans. (<https://www.livescience.com/62338-intelligent-life-on-earth-before-humans.html>)

Secondly, the Manvantara states that 7 more are yet to come, and it is hard to visualize the evolution of humans further than the current state, or that life on earth would continue beyond humans, given how most factors of the environment have been tampered with and changed drastically by humans, such as global warming, ozone layer holes, resource depletion, genetic modifications, radioactivity etc.

A second option of resolving this, is similar to our interpretation of Kalpas - Manvantaras represent variations not in time, but in spacetime. That is, Manvantaras need not necessarily be one after another, but parallel and simultaneous in different regions of the planet, as different

human races originated by the 14 “Manus”. It is mentioned that of the 14, the Manus of the 3rd, 4th and 5th are brothers - this clearly affirms that the Manus are simultaneous rather than sequential. With this understanding, we shall now explore the Manvantaras in light of anthropology and world civilizations.

In an earlier article we had elaborated on a fact mentioned by Mahaperiyava Chandrasekharendra Saraswathi Shankaracharya of Kanchipuram - that the Vedic language is the oldest and is ancestor to all languages on earth today, including Sanskrit, Tamil, Hebrew and many more. ([viXra:1808.0115](#), [viXra:1808.0061](#))

We had seen how there was a Globalized Vedic Era where everybody living on this planet spoke this one language, had one common wisdom - the Vedas, protected by the seers or Rishis, who used Yoga to telepathically communicate with one another. The Vedas contained the highest states of human thought and consciousness, and people could spiritually advance to the highest stage of Liberation or Mukti, bringing to completion their purpose of life.

([viXra:1807.0322](#))

However, as ages passed, localized variations of the Vedic language arose which eventually gave way to different languages and language families. As the Vedic language morphed into these languages, people lost touch with the Vedic wisdom. This necessitated the Divine to manifest in different forms in different cultures so that spiritual wisdom may not be lost. These forms gave rise to what we see today as world religions. Thus, the root of religion is language.

Even going by earliest possible dating estimates, one can find that language families did not appear anytime before 20,000 years of the present. However, it is understood that humans have inhabited the planet for anywhere between 100 to 300 thousand years. Thus, this time duration between human appearance and language formation - a duration of at least 80,000 years, corresponds to the Global “Vedic Age”. It is in this era that the 14 Manus originated human races in various regions of the world.

It was also seen how manifestations of God, which included incarnations or Avatars, were rendered necessary due to loss of Vedic wisdom globally, due to growth of cultures speaking different languages. In this “Vernacular Age” the Vedas were preserved only in one region - the Indian Subcontinent, that too using Sanskrit - a language synthesized as a diluted version of the Vedic language. Within India, the Puranas and Itihasas record the various Avatars of the Divine Lord Vishnu.

The Vernacular Age is best understood in the framework of the four Yugas or Eras. These are applicable to all the 14 Manvantaras, but within the Indian Manvantara, one can understand the 4 Yugas through Vishnu Avatars. Apart from the life creating Kurma and Varaha and earlier Matsya Avatara, the first Yuga, Satya Yuga concludes with Narasimha Avatara, believed to be connected to local sites in India such as Ahobilam and Joshimath. This is the first Avatara to mention such localization, as well as human beings such as Prahlada, and is followed by

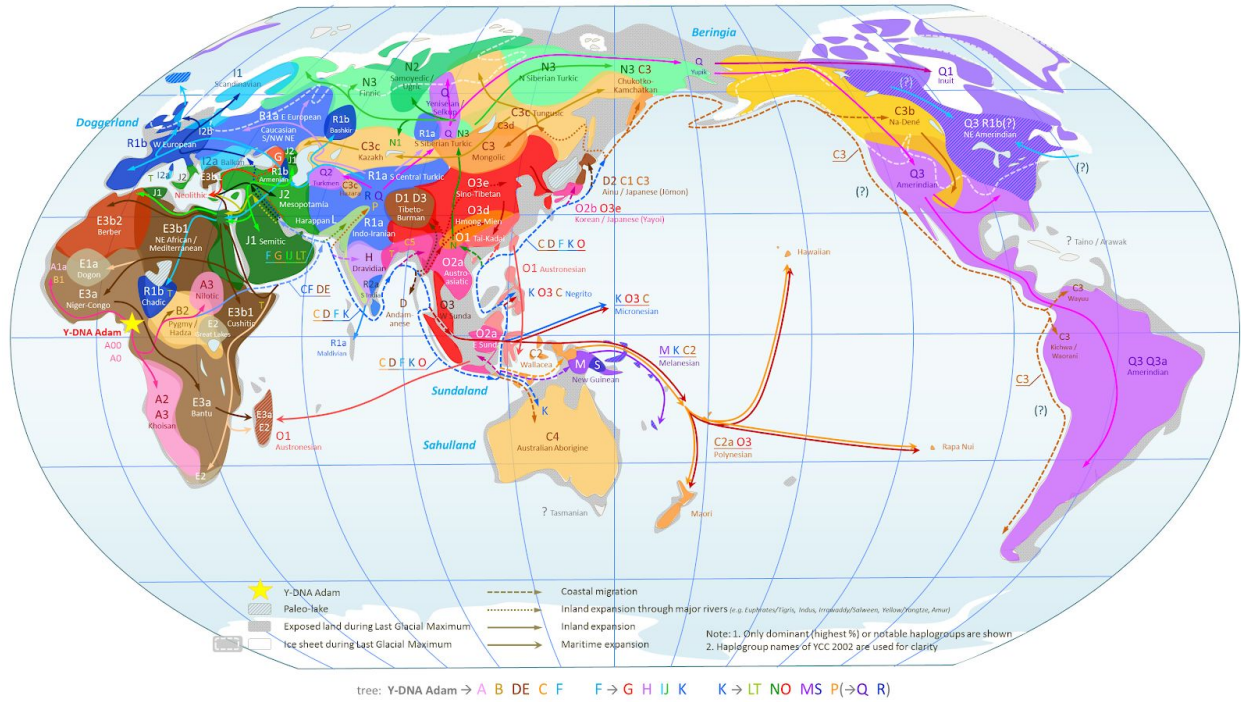
Vamana Avatara connected with Kerala, Sirkazhi, Kanchipuram. Thus Satya Yuga includes the transition from Vedic to Vernacular Ages. The next Yuga, Treta, saw incarnations as Parashurama and Rama. Dvapara the 3rd Yuga saw Krishna and Balarama, whereas the present age Kali sees Buddha and Kalki.

In the system of Manvantaras, each of the 14 is named after the originator Manu of that race. These Manus were without doubt from the Vedic and not the Vernacular Age. At the origin, these races were indeed speaking the Vedic language. However, due to divergence they entered vernacular age, necessitating divine manifestations. Thus each Manvantara also specifies an Avatara of Lord Vishnu local to that race. In addition, each Manvantara also mentions the seven seers or Sapta Rishis, who contributed to spiritual wisdom of that race. These Rishis could be from Vedic and/or Vernacular ages. This is why one sees Vedic era Rishi names like Kashyapa as well as Vernacular era names such as Ashvathama and Parashurama. Due to differences in languages, the Gods such as Indra etc are also seen different in each Manvantara. The seventh Manvantara corresponding to India alone retains the original 33 Vedic deities, since the Vedas were preserved in this race using Sanskrit.

Starting from the Manus, through thousands of years, people have maintained the lineages patrilineally, using the Y-Chromosome in DNA, existing only in males. This is visible in the Vedic tradition of Gotra, where a person claims descent from one of the 14 Manus, through one of the 7 Rishis of that Manvantara. Thus, in summary, the Manvantaras are a spacetime description of human race and peopling, which corresponds to human migration patterns studied using genealogy, through Y-DNA Haplogroups.

In current understanding of genealogy, one places the earliest human, in Africa, and building from there develop an Out of Africa hypothesis. However, older skeletons found in various parts of the world constantly challenge this model. Furthermore, Mahaperiyava had quoted the Srimad Bhagavatham stating that the 1st of the 14 Manus lived along the banks of Vaigai river near Madurai, Tamilnadu. In another discourse, Mahaperiyava had also confirmed the existence of Kumarikandam, an extension south of the Indian subcontinent, that eventually submerged, even before the Vedic Age ended. In Tamil literature, Madurai is often mentioned in connection with the Kumarikandam, ruled by Pandya kings. Thus, from all these, one could presume Kumarikandam, including Madurai, to be the region of the first Manu, and thus the original birthplace of human beings. This can be seen as an extension - a precursor to the first African haplogroups, such as A and B. For convenience, we presume the Kumarikandam haplogroup 0.

Thus we understand that among the 14 Manvantaras, the first is Kumarikandam, second is early Africa and seventh is India. With this information, we can correlate with the Y-DNA migration patterns and haplogroups, and from these, we can identify the races specified by the 14 Manvantaras. We can also understand which of the 48 manifestations mentioned in earlier articles arose from each of the Manvantaras.



Manvantara Name, Number	Sapta Rishis, Vishnu Avatara	Haplogroups & Regions; Age (KiloYears) [Descendant of]	Manifestations
1. Svayambhu	Marichi, Atri, Angiras, Pulaha, Kratu, Pulastya, Vashishta; <i>Yajna</i>	0 Kumarikandam (Age Unknown)	Waaq Allah
2. Swarochisha	Urjastambha, Agni, Praña, Danti, Rishabha, Nischara, Charvarivan; <i>Vibhu</i>	A, B West Africa, Nilotic, Khoisan 236-130ka [0]	Tora Nlari, Amun Ankh
3. Uttama	Kaukundihi, Kurundi, Dalaya, Śankha, Praváhita, Mita, Sammita; <i>Satyasena</i>	C Australia, Dene Japan, Tungusic Wallacea 68ka	Tengri, MitsuTomoe, Diigo Sini, Wuagyl Ngaylod
4. Tapasa	Jyotirdhama, Prithu, Kavya, Chaitra, Agni, Vanaka, Pivara; <i>Hari</i>	D Andaman, Ainu, Altaic, Tibetan 64ka	Pulga, Kunzang Gyalwa

5. Raivata	Hirannyaroma, Vedasrí, Urddhabahu, Vedabahu, Sudhaman, Parjanya, Mahámuni; <i>Vaikuntha</i>	E Niger Congo, Berber, Bantu, Cushite, Dogon 64ka	Olorun Mulungu
6. Chakshusha	Sumedhas, Virajas, Havishmat, Uttama, Madhu, Abhináman, Sahishnnu; <i>Ajita</i>	F Mesopotamia 65ka	Inanna Ishtar
7. Vaivasvatha	Kashyapa, Atri, Vashista, Vishvamitra, Gautama, Agastya, Bharadvaja; <i>Vamana</i>	H India, Persia 48ka [F]	Ganesha, Ahura Mazda, Skanda, Surya, Shakti, Ek Omkar, Vishnu, Shiva
8. Savarni	Diptimat, Galava, Parasurama, Kripa, Ashwatthama, Vyasa, Risyasrnga; <i>Sarvabhauma</i>	G Caucasus, Neolithic 48ka [F]	Dela Malx, Mithra
9. Daksha	Savana, Dyutimat, Bhavya, Vasu, Medhatiti, Jyotismá, Satya; <i>Rishabha</i>	I Balkan, Celtic Scandinavian 42ka [F]	Danu, Mari, Kouros Apollo
10. Brahma	Havishmán, Sukriti, Satya, Apámmúrtti, Nábhága, Apratimaujas, Satyaket; <i>Vishvaksena</i>	J Semite, Caspian Sicily, Atlantic 42ka [F]	Yahweh, Gorgon
11. Dharma	Níschara, Agniteja, Vapushmá, Vishnú, Áruni, Havishmá, Anagha; <i>Dharmasetu</i>	K, <u>L</u> , <u>M</u> , <u>S</u> , <u>T</u> Melanesian, <u>Indus</u> , <u>Negrito</u> , <u>Micronesia</u> , <u>Afar</u> 45ka [F, <u>K</u>]	Afekan
12. Rudra	Tapaswí, Sutapas, Tapomúrtti, Taporati, Tapodhriti, Tapodyuti, Tapodhan; <i>Sudhama</i>	N Siberian, Turkic, Finnic, Ugric 40k [K]	Ukko Perun
13. Deva	Nirmoha, Tatwadersín, Nishprakampa, Nirutsuka, Dhritimat, Avyaya, Sutapas; <i>Yogeshwara</i>	O, <u>P</u> , <u>R</u> Sino-Mien-Tai, Oceania, Austric <u>Iran-European</u> , <u>Central Turkic</u> 44-30k [K, <u>P</u>]	Atua, Tao, Babokoto, Bu Luotuo, Suab, Atabey, Dao Mau

14. Indra	Agnibáhu, Śuchi, Śhukra, Magadhá, Gridhra, Yukta, Ajita; <i>Brihadbhanu</i>	Q Turkmen, Inuit Yenisei, Amerind 30k [P]	Silla Inukshuk, Gitchi Manitou, Ququmatz, Tupa, Inti
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Some important points need to be noted in context of this Haplogroup-Manvantara mapping. First, most haplogroups beautifully represent indigenous cultures developed around it, in a defined region of the planet. However, some haplogroups are of a migratory type. That is, they arise from a parental regional haplogroup, but are found in vast swathes of regions distributed across multiple continents, populating regions already inhabited by other, earlier haplogroups.

For example, haplogroups K, L and M arose from F around 45000 years ago. Though F is indigenous to Mesopotamia, KLM peopled vast swathes of areas such as Indian subcontinent, Melanesia and Micronesia, all areas inhabited by earlier haplogroups such as C and H. The only uninhabited area populated indigenously by the KLM is Papua New Guinea. Such non-indigenous haplogroups are assimilated into existing populations through intermixing and marriages. However, the patrilineal lineage will remain unbroken from the parent haplogroup due to Y Chromosomes. Thus, even though L Haplogroup originates from Mesopotamian F, migrates to India and intermixes with the H Haplogroup, Y Chromosomes from the F will be maintained intact in the L, even though they now reside in India and not Mesopotamia.

This understanding is all the more crucial in the modern age, where colonization and globalization have rendered tremendous intermixing and migrations of people from across the globe. Even in spite of this, the Y DNA Haplogroups and Manvantaras are always maintained intact albeit obscured at times. A simple genealogy test will easily remove the obscurities and point to the original Manvantara or Patrilineal Haplogroup of every living human being.

The age of a Manvantara is 306 million years, while humans inhabited the earth for at most 300 thousand years. This might give a clue of how much longer humans will sustain on earth until they will out of force or choice be rendered impotent, collapsing the 14 races. However, it is interesting to note the first Manvantara - Svayambhu. This race occupied the Kumari Kandam, which remains submerged for much more than 20,000 years now.

However, the Svayambhu Manvantara has not ended, which means the race is still alive. But where? One might presume that the inundations and floods in the region might have forced people to move to neighboring lands, those being Southern tip of India, East Africa, and Indonesia-Australia. One might find haplogroups of this stock in the mentioned populations if searched.

Especially given that the next haplogroups, A and B are found in Africa, one understands that East Africa is the most likely region still continuing the 1st Manvantara. Of interest are the hunter gatherer tribes in the hills of Ethiopia, and particularly speakers of the Shabo language,

which is a language isolate unrelated to any neighbouring language. The language might be the sole survivor of an early set of East African languages, not related to the Nilo-Saharan or Afro-Asiatic languages.

There are two theories mentioned for the development of Afro-Asiatic languages - that they originated in the Levant, or that they originated in Ethiopia. Whichever the case, it is clear that language is the root of religion. Speakers of Afro-Asiatic languages assimilated local religions. Egyptians carried on the Nilo-Sudanese religion centred on Amun, and similarly, Ethiopians took over the local religion of Somalia, centered on the God Waaq. Development of religion and language in Arabian peninsula was heavily influenced by South Arabia, which were in turn influenced by the Horn of Africa - Ethiopia and Somalia. For this reason, one can trace the concept of Allah, all the way back to Waaq, with the name Waaq retained in the Quran as a description of Allah. It is possible that the simple monotheistic Waaq was taken in as Allah by the local Arabian religion, which was polytheistic idol worshipping, and Prophet Mohammed sought to reform such practices, and transform worship of Allah back to monotheism, and for these, He used Spiritual Fundamentals from Judaism and Christianity.

Thus, among the 48 manifestations, Waaq-Allah is included in the 1st Manvantara. Among the 48 manifestations, all the geographical-cultural manifestations have been listed. Not listed are manifestations corresponding to the five elements or Bhutas, and three zones or Mandalas. These are universal and cannot be attributed to a specific culture or a haplogroup.

With this understanding of Manvantaras, we now proceed to the next Timescale - Yugas. It is said in Puranas etc that each Manvantara consist of 72 Mahayugas, each of which consist of 4 Yugas or eras. These are the Kritha, Tretha, Dvapara and Kali, which are respectively 4, 3, 2 and 1 times as long as the Kali Yuga. While some calculations put the age of Yugas to periods extending 100,000 years, this does not corroborate with observed evidence regarding human existence and civilization.

Mahaperiyava had on one occasion told that our current understanding of dates might be flawed on three accounts. First, astronomical patterns usually held as reference points, might repeat multiple times, because of cyclic planetary motions. Second, dating based on language phoneme changes is elusive at best, since languages such as the Vedic have in built error correction facilities, and thus phonemes would change much much slower than in a normal language. Third, archaeological evidences always point toward materialism. However, most of the ancient Vedic civilization was non-materialistic, with even the severe of nuclear weapons invoked using Mantras and a blade of grass, and not through radioactive material.

Thus, from this, it would seem that our understanding of human prehistory might need to be revised in a big way. However, evidences of human existence through evolution from other species, as well as certain evidences of civilization etc are existent, and assuming that we are not missing much information, we shall now attempt a timeline of Yugas. Our reference shall be dating of Vishnu Avatars that are recorded to appear in these Yugas.

It is said that each Manvantara consists of 72 Mahayugas or cycles of 4 Yugas. Even with the oldest observed race or Manvantara, that of Y-DNA A or B, we have Manvantara length 144ka. This would put one Mahayuga as 2000 years, and one Kali Yuga as 200 years. Clearly these durations are ridiculously short, and do not corroborate with the Vishnu Avatars.

Thus, it is possible that just like Kalpas and Manvantaras, Mahayugas are also spatiotemporal - ie right now, many or even all Mahayugas are running simultaneously, but in different geographical regions. They are arranged in seniority of their origin and do not necessarily imply one Mahayuga starts only after the previous is finished. We can find evidence for this in literature. If Mahayugas were cyclic and not spatiotemporal, there would be references for Rama 72 times, one for Treta Yuga of each Mahayuga. However, Srimad Bhagavatam in 8.24 mentions Rama as the 24th Treta Yuga in Vaivasvata Manvantara.

Thus, we understand that while the 7th Manvantara was originated by Vaivasvata Manu, the 72 Mahayugas are indications of his 72 descendants, each continuing the race further in specific lineages and geographic regions. Arranged by seniority, the 24th lineage is the famous Suryavamsa which produced Ikshvaku, Dasharatha and eventually Rama. Extending this understanding, we observe from the Bhagavatham Vamana as the 7th Treta Yuga, Dattatreya in 10th Treta Yuga, Parashurama in 19th Treta Yuga, Krishna and Veda Vyasa in 28th Dvapara Yuga, Buddha and Kalki in the 28th Kali Yuga. Interestingly, Vamana is mentioned as Vishnu Avatara for the 7th Manvantara and indeed, all these Avatars listed above starting with Vamana are recorded in Vaivasvata Manvantara.

Even more interesting is the mention of earlier Avatars in Manvantaras other than Vaivasvata. Narasimha is mentioned as Tapasa Manvantara, corresponding with haplogroup D, while Matsya corresponds with haplogroup F as Chakshusha Manvantara. This corresponds with Mesopotamia, and it is interesting to see how the great flood narrative of Matsya Avatara corresponds with the flood of Noah in the Bible. There is hardly doubt that the narrative of Noah itself is taken from the Epic of Gilgamesh, of the Sumerians. Thus, we can see complete concurrence between Vedic, Biblical and local Sumerian sources on the great flood, its geographical region, and its timeline.

It is suggested that the name Noah comes from Navai or Naava, which in Sanskrit, Tamil and Vedic language means boat, alluding to the Ark. Biblical scholars mention Noah speaking not Hebrew but the Adamic language - a universal language spoken by all mankind since Adam. This of course is a reference to the Vedic language. Mahaperiyava had indeed mentioned once that the Biblical story of Adam and Eve derives from the Upanishadic narrative of Atma and Jiva, with the morphing evident even in the names of the couple.

Thus, having established 72 Mahayugas as lineages within a Manvantara, we now proceed to understand Yugas. It is said that we currently live in the Kali Yuga, and that it started with the end of Mahabharata war and passing away of Lord Krishna. By astronomical dating, one arrives

at the date of 3102BC for end of Dvapara and start of Kali Yuga. Most Sanskrit scholars place the date of Rama and Ramayana at 15000BC. This would mean the end of Treta and start of Dvapara. From these bases, we get the age of Dvapara to be 15000-3000=12000 years.

(Richter-Ushanas, Egbert (1997). *The Indus Script and Rg-veda*. Motilal Banarsidass Publ. p. 16. ISBN 9788120814059.) (<http://www.galacticresonance.org/ancient-rama-empire-of-india/>)

This would put Kali Yuga as half that long, ie 6000 years beginning from 3102BC. Treta Yuga, three times as long would be 18000 years, and Kritha would be 4 times as long as Kali ie 24000 years. There is a significance to this length of the Yugas. The value of 24,000 years fits relatively close with the modern astronomical calculation of one full precession of the equinox, which takes 25,772 years. This phenomenon is observed as the stars moving retrograde across the sky at about 50 arc seconds per year, and is thought to produce periods of warm ages and ice ages known as the Milankovitch cycle.

Thus, we have the timelines for Yugas as Kritha:57000BC-33000BC; Treta:33000BC-15000BC; Dvapara:15000BC-3102BC; Kali:3102BC-2898AD. These timelines are for Vaivasvata Manvantara, and would apply more or less similar to other Manvantaras or races too. There are specific characteristics mentioned too for the 4 Yugas as follows.

“Krita Yuga was so named because there was but one religion, and all men were saintly: therefore they were not required to perform religious ceremonies. The Vedas were one. All mankind could attain to supreme blessedness. There was no agriculture or mining as the earth yielded those riches on its own. Weather was pleasant and everyone was happy. There were no religious sects.” This was clearly the Vedic age with the seven Rishis of each Manvantara.

“Treta Yuga: virtue diminishes slightly. Emperors rise to dominance. Wars become frequent and weather begins to change to extremities. Oceans and deserts are formed. Agriculture, labour and mining become existent.” It is known that 22000 to 14000 years ago was a period of climatic extremity with the last major advancement of ice sheets conditions of the Pleistocene epoch with 18000 years ago being conditions of severe aridity and cold. Also the Holocene epoch from 25000 to 10000 years before present witnessed the start of environmental processes such as soil formation and plant successions, which are ultimately the roots of planting and agriculture.

“Dvapara Yuga: People become tainted with Tamasic qualities. Diseases become rampant. Humans are discontent and fight each other. Vedas are divided into four parts.” It is known that significant global warming of 4-5 degrees Celsius of the last 15,000 years, marks the recovery of the earth from the last ice age. Moreover, Epidemics caused by viruses began when human behaviour changed during the Neolithic period, around 12,000 years ago, when humans developed more densely populated agricultural communities. This allowed viruses to spread rapidly and subsequently to become endemic. Viruses of plants and livestock also increased,

and as humans became dependent on agriculture and farming, diseases such as potyviruses of potatoes and rinderpest of cattle had devastating consequences.

“Kali Yuga: Age of darkness and ignorance. People become sinners and lack virtue. They become slaves to their passions. Society falls into disuse and people become liars and hypocrites. Knowledge is lost and scriptures are diminished. Humans eat forbidden and dirty food. The environment is polluted, water and food become scarce. Wealth is heavily diminished. Families become non-existent.” We can clearly observe these effects in many ways - deforestation, global warming, air pollution, malnutrition and starvation, rising atheism, increase of crimes, suicides etc.

Thus, the four Yugas clearly coincide with descriptions in literature, as well as terrestrial changes and astronomical changes like the precession of equinoxes. These give a precise account of developments in humanity and civilizations to the present age.

Interestingly, the four Yugas combined describe only a portion of human existence. Before the first Yuga Kritha and after the last ie Kali, exists a period known as Satya - often erroneously used interchangeably with Kritha Yuga. It is said that Kalki will appear at the end of Kali Yuga and will usher in the Satya era. However, nowhere is it said that Kalki will destroy all mankind - Kalki is far from a Pralaya scenario where all creation is wiped out. Rather, Kalki, like other Avatars Krishna, Rama etc, will only wipe out evil, punish the wicked and reward the good. Thus, humanity will continue even after Kalki and the end of Kali. This age will be that of Satya, of right conduct, of less materialism, and increased interest in spiritual pursuit. However, this will also mean less interest in libido and progeny, and would slowly decrease human population, as is seen today in some countries like Japan. The average age of alive human population will gradually increase, and with reduced progeny, the 14 races will slowly come to a halt. In this manner, humanity will wipe itself out.

With the understanding of Vedic Timescales, we now consolidate various facets of wisdom elaborated in previous articles, in context of Vedic Wisdom, in the following order.

1. The Universal Pure consciousness Advaita which is the only Truth and Bliss Itself, which is Amma.
2. Amma creates the world as much as a dreamer creates a dream world. This is unreal and is a play of Maya. As the first step, ways of perceiving truth from the false world are formulated - these are the four Vedantas, forming the Kutas of Shodashi.
3. The four expand to form 16 stages - these are the stages involved in the journey from the false world to liberation and Truth. These are mindsets and perceptions, and thus correspond to the 16 MBTI personality types.
4. From the 16, with a perspective of simultaneous existence or Drishti Srishti, 9 Avaranas or enclosures are created - these form the Brahmanda or macrocosm. This is in a conceptual level, like a blue print. The structure formed is the Sri Yantra.

5. From the 9 Avaranas, various concepts called Aksharas arise - These represent the fundamental periodic table of the universe at a conceptual level. Later on, these will manifest through sound energy as various phonemes. The language thus formed is the Vedic Chandas - ancestor to all languages, and perfect through cymatics.
6. From the 9 Avaranas, the 9 numbers arise - these are fundamental energy modes that can affect an individual. Each number has a different property based on its symmetry features. ([viXra:1808.0138](#))
7. The 9 numbers give rise to the seven frequencies - this forms the basis for spectrum of discernible colors as well as the gamut of discernible music notes in an octave. These frequencies have the capacity to activate energy centers called Chakras which then help in spiritual progress and physical wellbeing.
8. From the nine numbers, all of mathematics arises, as algebra and geometry. Specific relations between numbers create golden ratios, which could then expand into fractals. The ultimate creation of the numbers is the perfect and symmetrical Lie Group E8.
9. The E8 acquires physical significance as the 8 Charges formed as states of a 3 Qubit system, with the 3 qubits being chaotic signals, which are components of the universal wavefunction called fundamental vibration Pranava. These 8 are the 8 Vasus.
10. E8 symmetry is broken by creating a non-zero Higgs value. This is the very first step of physical creation, and all levels until now were only conceptual and informational. The asymmetry causes big bang, inflation, dark energy, dark matter, and creation of subatomic particles and the states of matter. These until creation of solar system, are outlined as the 12 Rudras.
11. Chemical elements are formed, and they combine to form molecules and macromolecules. These have capacity of sustenance and signaling, represented as Life and Sense, or the Ashvini Devas, and is the origin of life.
12. The variety in the universe is captured by the 12 Adityas represented as different regions or the zodiac. Analyzing and studying their features leads to Astronomy and Astrology. Together Adityas, Ashvini, Rudras and vasus form the 33 Devas or Vedic Deities.
13. The fundamental life macromolecule RNA is now studied as the Genetic Code, taking a 22 alphabet subset of the Aksharas. These alphabets are mapped to proteins and various mechanisms within the body, and lead further to noncoding DNA understanding. ([viXra:1808.0259](#))
14. From basic life, one arrive through evolution at the most complex organism - the human being, who contains within himself the entire macrocosm as the microcosm or Pindanda. Thus, the concepts of Brahmanda are now rendered as equivalents. This is the fundamental knowledge that leads to medicine and healthcare.
15. From the human being system, one goes to anthropology - the earliest human and peopling of races given by the 14 Manvantaras, studied through haplogroup genealogy.
16. From the Manvantaras, one studies how different languages are born, and subsequently create religions through divine manifestations. Thus, we have the 48 manifestations of Amma. The 48 are individual religions that can lead a person to spirituality by purifying the mind.

17. The 48 manifestations fit within the 16 stages, and are mapped to Aksharas, Avaranas, Numbers, Brahmanda, Pindanda, Manvantaras, Devas, Vedas and Science. In this perspective, they yield back the 16 stages and 4 Vedas that can take us out of the Maya world and back to the Truth of Advaita. Thus, the cycle of wisdom is complete.

As a concluding section, the following builds up on point 6, and gives certain features of each of the nine numbers. First, the decimal number system is neither arbitrary nor a feature unique to humans. The numbers reflect energy sources to the earth through the Navagrahas.

One is fundamental consciousness itself. All mathematical numbers can be constructed from 1 and the operator +. In fact, all operations can be constructed from +, such as inverse subtraction, or repeated addition leading to multiplication, division and higher powers. 2 gives a sense of creation and multiplicity. 2 gives balance as the 2 points on a given axis. As numbers progress from 1 to 9, their face value increases, but the contribution to growth decreases. 3 is a third more than 2, but 5 is only a fifth more than 4. This affects their intensity of symmetry and asymmetry, nine being the least powerful. Any number beyond nine is too insignificant to be considered, so one moves to the next category, in the tens place.

3 is the first asymmetric number, the minimum required to be non collinear. Thus 3 represents information through asymmetry and entropy, and associated growth. 4 renders a sense of completeness to 3. What 3 started, 4 takes forward - the decay and disorder that entropy can give over passage of time. 4 also denotes the maximal information state ie wisdom. 5 is the exploring of new territory, ie third spatial axis, after the completion given by 4. Thus 5 is about expansion and conquest. 6 denotes harmony and balance. It counteracts the asymmetric triangle 3 with a counter triangle again of 3. Yet, the decrease in growth means 6 is definitely less powerful than 3. 7 denotes asymmetry again, but too weak to contribute to growth as 3 did. Instead, asymmetry of 7 induces activity, a change in status quo. 8 produces balance, just like 4, but also takes the activity of 7 to completion - produces the results of activity. Finally 9 can be rendered as symmetric or asymmetric, but either way is too weak. 9 is best known as the finisher of the number system - signifying auspiciousness, conclusion and death.

These properties of numbers are inherent to the digits themselves and characterize a number, apart from its face value. Since the digit properties only take into account growth and not individual face value, for multi digit numbers, all digits are taken as equal face value, and sum of digits will give the characteristic property of the number. This is the basis of numerology.