

Tracing the origins of India

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Introduction:

The pre-history of ancient India seems to be shrouded in mystery. Today, a secular country and the home of some of the most important religions, little can be said with concrete evidence about its past, especially before the Indus Valley Civilization (IVC).

This has thus become a hot topic of debate and controversy among archaeologists and historians alike, and with the uncovering of artifacts and evidences from Archaeology, Genetics, Linguistics and

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Mythology alike, a lot of light is being shedded on this mystery, and what seems to emerge are some shocking facts about this land.

This work tries in the first place to consolidate such data collected by various fields, and also by experiments and inferences made by the author. It also takes into account various theories proposed till date, and with all this information, tries to consolidate and come up with one single theory/hypothesis that details the evolution and cultural and linguistic development of India and the effects it had on the rest of the world.

The Early Languages of India:

Much focus is placed on the linguistic aspects at the initial stage and going forward, Genographic studies, Archaeology and mythology are also explored.

As many linguists have pointed out, the earliest languages in India seem to be two, and these two are the early versions of Sanskrit and Tamil.

Debunking the Aryan-Dravidian Myth:

The Aryan Invasion theory and the Aryan-Dravidian myth, which had been accepted as the theory explaining the presence of a race called “Aryans” and Sanskrit language, ever since the publications of Indologist Max Muller in the 1800s, today has come into serious questioning and examination, and there seems to be an ever-increasing number of Indologists, modern archaeologists and linguists alike who claim that this theory has serious flaws and that the Aryan-Dravidian divide is nothing but a myth.

Also closely related to this theory is the dating of the Indian civilization, in particular the dating of the Vedas, and Puranas, and hence the dating of the Hindu civilization. The Aryan invasion theory claims the Vedas to have originated at around 1500BC, but modern day theorists push it further back, to 3000-4000BC or even more.

Here are few excerpts from “Origins of Vedic Civilization” by Kenneth Chandler:

Excerpt 1 – On the absence of migrations into India:

“As we will see, the Veda was first “cognized,” not by invading races from outside India, but by a people who had lived continuously in India for thousands of years. Also, the dates commonly ascribed to the origin of the Vedic tradition are probably off by many thousands of years.

Archeologists at Harvard, Oxford, and other top universities in the US and Europe are now widely agreed that there was no invasion of India from outside that displaced the peoples of the Saraswati and Indus river valleys.”

Excerpt 2 – On archaeology and the Saraswati River :

In the 1990s, a new wave of scientific evidence, coming partly from satellite photos, geological study, archeological digs, and other anthropological finds began to seriously discredit the old myth.

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Once the rubble of false assumptions was cleared away, a far more simple scientific picture of the origins of ancient north Indian civilization began to emerge.

Professor Colin Renfrew, professor of archeology at Cambridge University, in his *Archeology and Language: The Puzzle of Indo-European Origins*, (1988) gives evidence for Indo-Europeans in India as early as 6,000 BC. He comments:

As far as I can see there is nothing in the Hymns of the Rigveda which demonstrates that the Vedic-speaking population were intrusive to the area: this comes rather. Origins of Vedic Civilization from a historical assumption about the 'coming' of the Indo-Europeans. Professor Schaffer at Case Western University writes in "Migration, Philology and South Asian Archaeology" that there was an indigenous development of civilization in India going back to at least 6000 BC. He proposes that the Harappan or Indus Valley urban culture (2600-1900 BC) centered around the Saraswati river described in the Rig Veda and states that the Indus Valley culture came to an end, not because of outside invaders, but due to environmental changes, most important of which was the drying up of the Saraswati river.

Schaffer holds that the movement of populations away from the Saraswati to the Ganges after the Saraswati dried up in about 1900 BC, is reflected in the change from the Saraswati-based literature of the Rig Veda to the Ganges-based literature of the Itihasa and Puranic texts. He also states that the Aryan invasion theory reflects a colonial and Euro-centric perspective that is quite out of date. He concludes:

We reject most strongly the simplistic historical interpretations...that continue to be imposed on south Asian culture history...Surely, as south Asian studies approach the twenty-first century, it is time to describe emerging data objectively rather than perpetuate interpretations without regard to the data archaeologists have worked so hard to reveal.

Excerpt 3- On the Indus valley Civilization

Anthropologist Brian Hemphill of Vanderbilt University has been studying the human remains of the northern Indian subcontinent for years. He states categorically that his analysis shows no indication of population replacement or large-scale migration. Archaeologist Mark Kenoyer, associate professor of anthropology at the University of Wisconsin at Madison, and co-director of the Harappa Archeological Research project, holds that the invasion theory is completely unsupported by archeological, linguistic, or literary evidence. He writes in an article on the Indus valley civilization:

If previous scholars were wrong about the origin of the Indus people, they also missed the boat when it came to explaining their downfall, which they attributed to an invasion by Indo-Aryan speaking Vedic tribes from the northwest. Archeological evidence simply does not support the thesis of an outside invasion. Kenoyer argues, "it's likely that the rivers dried up and shifted their courses, altering trade routes and undermining the economy." Kenoyer holds that the Indus valley script can be traced to at least 3,300 BC—making it as old or older than the oldest Sumerian written records.

Archaeologist Kenneth Kennedy writes that no Aryan skeletons have been found in the Indus valley that differ from the skeletons of indigenous ethnic groups. All prehistoric human remains recovered

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from the Indian subcontinent are phenotypically identifiable as south Asians. Furthermore their biological continuity with living peoples of India, Pakistan, Sri Lanka and the border regions is well established across time and space.

Scientific archeology, it is now safe to say, no longer gives the invasion theory a grain of credibility. It has lost its supporters among serious scientists. Also, as professor Renfrew argues, there is no internal evidence from the ancient Vedic literature that Vedic civilization originated outside India. The verses of the Rig Veda, the most ancient songs of Vedic tradition, detail many aspects of daily life of the people. There is no hint in this vast literature of a migration or of a history that lies in a homeland beyond the mountains of northern India. All evidence from archeology, anthropology, and Vedic literature indicate that Vedic civilization was indigenous to northern India. Geological data now explains the demise of the Indus and Saraswati valley civilizations in terms of climactic change, bringing an end to the outside invasion theory.

Excerpt 4 – On the Central Asian Origin theory:

In 1990, Thomas V. Gamkrelidze and V. V. Ivanov, authors of the two volume *The Indo-European Language and the Indo-Europeans*, published an article in *Scientific American*, in which they state, “The landscape described by the reconstructed Indo-European proto-language is mountainous—as evidenced by the many words for high mountains, mountain lakes and rapid rivers flowing from mountain sources.” They note also that, “the [proto-Indo-European language] has words for animals that are alien to Europe, such as “leopard,” “snow leopard,” “lion,” “monkey” and “elephant.”” These same words could be used to make the case that the mountainous terrain, and more especially the elephant, monkey, and snow leopard are more commonly found in the region of northern India and the Himalayas. If the words for elephant, monkey, snow leopard, and mountains are in fact more abundant in the Indo-European protolanguage, this would most likely put the proto-Indo-European home somewhere in the Himalayan region of northern India, rather than in the Mountains to the east of the Black Sea. This would tend to support the hypothesis that the Indo-European protolanguage originated in the region of the Himalayas of northern India and Tibet, rather than in the area of central Turkey, where there are few monkeys and elephants.

Excerpt 5 – On Max Muller and the westerner’s view of the Vedic Age:

Max Muller, one of many Christian missionaries to India, was firmly committed to the Biblical account of creation. Muller accepted the date of creation given in the Bible at 4004 BC and the great flood at 1500 BC. This compelled him to date the Rig Veda much later in time than an impartial scientist would have done. Muller had to fit the entire Vedic tradition into a time-frame following the great flood, which Biblical scholars held took place in 1500 BC.

Muller wrote a letter to his wife, dated 1886, in which he said “The translation of the Veda will hereafter tell to a great extent on the fate of India and on the growth of millions of souls in that country. It is the root of their religion, and to show them what the root is, I feel sure, is the only way of uprooting all that has sprung from it during the last 3,000 years.” These are hardly the words of an unbiased scientist. No matter how great Muller’s scholarly reputation, we have to examine his reasons for setting the dates around 1000 to 12000 BC.

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Excerpt 6 – On the estimate of Vedic age:

David Frawley and N.S. Rajaram, in Vedic “Aryans” and the Origins of Civilization, put forward an interesting and compelling theory of the origins of Vedic civilization. Drawing upon a large array of evidence from anthropology, satellite mapping, geology, historical linguistics, and literary study, they have helped discredit the old “Aryan invasion theory” to establish that the Rig Veda was of much greater antiquity than Muller had estimated.

Excerpt 7 – On the age of the Saraswati:

The Rig Veda mentions the Indus river quite often, and it mentions the Saraswati no less than 60 times. Its reference to the Saraswati as a “mighty river flowing from the mountains to the sea” shows that the Rig Vedic tradition must have been in existence long before 3,000 BC when the Saraswati ceased to be a “mighty river” and became a seasonal trickle. Frawley and Rajaram drew the conclusion that the Rig Veda must have been composed long before 3,000 BC. Rajaram writes that the “Saraswati described in the Rig Veda belongs to a date long before 3,000 BC.” He concludes that, “All this shows that the Rig Veda must have been in existence no later than 3,500 BC.” He thus places the beginning of the Vedic tradition “long before 3,000 BC” and its end before 2,000 BC.

The Mahabharata, the great epic of classical Sanskrit, describes the Saraswati as a seasonal river. Since the Saraswati dried up by 1900 BC, the Mahabharata would have to be dated at least before 1,900 BC. Since it was still a seasonal river in 3,000, Rajaram and Frawley put the date of the Mahabharata in 3,000 BC.

Excerpt 8 – On archaeology and Dwaraka and the age of Vedas:

Undersea exploration of an ancient city about half a mile off the coast of Gujarat in India, in 1981, led to the discovery of a city that had been submerged since 1,600 BC. The city is well established to be Dwarka, an ancient city mentioned in the Mahabharata, the great epic of the late Vedic period of Itihasa. The Mahabharata describes Dwarka as built on land reclaimed from the sea. Boulders have been found under the fortified city walls, showing that it was the result of land reclamation. The Mahabharata also mentions that Krishna warned the residents of Dwarka that the city would be reclaimed by the sea. The discovery of a seal engraved with a three-headed animal at the Dwarka site corroborates a reference made in the Mahabharata that such a seal was given to the city. Seven nearby islands described in the Mahabharata have also been discovered. Since archaeological research shows that the city was submerged around 1,600 BC, this would date the Mahabharata at least before 1,600 BC. Again this is a minimum time. Pottery found at the site, inscribed with the script of the Indus valley civilization, has been established by thermoluminescence tests to be about 3,530 years old. The Mahabharata was written toward the end of the classical Vedic period. If we accept Winternitz’s estimates a minimum of 1,500 years lapsed from the beginning of the Vedic period to the Mahabharata, then since Dwarka was submerged by 1,600, this would set the date of the Rig Veda back to before 3,100 BC. This again marks the minimum date of the Rig Veda, and should not be construed as a fixed date. A German scholar and an Indian scholar simultaneously discovered in 1889 that the Vedic Brahmana texts describe the Pleiades coinciding with the spring equinox. Older texts describe the spring equinox as falling in the constellation Orion. From a calculation of the precision of the equinoxes, it has been shown that the spring equinox lay in Orion in about 4,500 BC.

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The German scholar, H. Jacobi, came to the conclusion that the Brahmanas are from a period around or older than 4,500 BC. Jacobi concludes that “the Rig Vedic period of culture lies anterior to the third pre-Christian millennium.” B. Tilak, using similar astronomical calculations, estimates the time of the Rig Veda at 6,000 BC. More recently, Frawley has cited references in the Rig Veda to the winter solstice beginning in Aries. On this basis, he estimates that the antiquity of these verses of the Veda must go back at least to at least 6,500 BC. The dates Frawley gives for Vedic civilization are:

Period 1. 6500-3100 BC, Pre-Harappan, early Rig Vedic

Period 2. 3100-1900 BC, Mature Harappan 3100-1900, period of the Four Vedas

Period 3. 1900-1000 BC, Late Harappan, late Vedic and Brahmana period

Professor Dinesh Agrawal of Penn State University reviewed the evidence from a variety of sources and estimated the dates as follows:

- Rig Vedic Age - 7000-4000 BC
- End of Rig Vedic Age - 3750 BC
- End of Ramayana-Mahabharat Period - 3000 BC
- Development of Saraswati-Indus Civilization - 3000-2200 BC
- Decline of Indus and Saraswati Civilization - 2200-1900 BC
- Period of chaos and migration - 2000-1500 BC
- Period of evolution of syncretic Hindu culture - 1400-250 BC

The Taittiriya Samhita (6.5.3) places the constellation Pleiades at the winter solstice, which correlates with astronomical events that took place in 8,500 BC at the earliest. The Taittiriya Brahmana (3.1.2) refers to the Purvabhadrapada nakshatra as rising due east—an event that occurred no later than 10,000 BC, according to Dr. B.G.Siddharth of India’s Birla Science Institute. Since the Rig Veda is more ancient than the Brahmanas, this would put the Rig Veda before 10,000 BC.

Excerpt 9 – On homo sapiens:

Archeological evidence shows that at 40,000 BC, during the last ice age, groups of hunter-gatherers lived in central India in painted shelters of stacked rocks. There are also sites with rock windbreaks in northern Punjab in India dating from this time. As early as 100,000 BC, there were humans with 20th-century man’s brain size (1,450 cc), and as early as 300,000, Homo Sapiens roamed from Africa to Asia. Evidence of human use of fire dates to 360,000 BC. There is also evidence that

hominids occupied the Punjab region of northern India as early as 470,000 BC. Stone hand axes and other primitive chopping tools found in northern India have been dated to 500,000 BC. Other stone artifacts found in India have been found dating from two million years ago. Remains of the genus “Homo” were found in Africa that are dated between two and a half to three million years ago.

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Thus all these excerpts which for the most part have been backed by scientific findings and mathematical calculations decisively debunk the Aryan myth and suggest that the Vedas and the Indian civilizations is over six to seven Millenia old, originating on or before 3500-4000BC.

The Writing systems of ancient India:

The collection of archaeological artefacts of the Indus valley, and temple inscriptions and other excavations throughout India reveal the presence of 3 written alphabets once used in the Subcontinent:

1. The Indus Valley Script
2. Brahmi
3. Kharosthi

Of these, the Kharosthi script, is claimed to have its origins in West Asia, particularly the Aramaic script.

	'āleṣ	šāḍēh	dāleṣ	nūn	bēṣ	yōd	rēš	wāw	het	sámeḵ	záyin	hē
Aramaic												
Kharoṣṭhī	a	ca	da	na	ba	ya	ra	va	ša	sa	za	ha

	kaṣ	qōṣ	gímel	tāw	pēh		mēm	lámed	šín
Aramaic						Aramaic			
Kharoṣṭhī	ka	kha	ga	ta	pa	Kharoṣṭhī	ma	la	ša

ga	ca	na	da	pa	ta	ba	ja
gha	cha	ṇa	dha	pha	tha	bha	ña

ṭa	ṭha	ḍa	ḍha

The origins of Brahmi and the Indus script are the subjects of hot controversy and debate among scholars.

The Indus Script:



The Indus script has been found in the artefacts in the archaeological remains of the Indus valley civilization, especially found in Harappa, Mohenjodaro, Lothal and a lot of other sites. This script is claimed to be a pictographic script, with over 500 identified shapes, some of them depicting animals, birds, people, shapes etc.

This is also one of the few scripts in the world, that scholars have not been able to decipher completely. As a result, there has been much controversy as to the language the script depicts, as also the decipherment of the script. This will be discussed in later sections of this work, where a novel attempt at deciphering the script has been made.

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The Brahmi Script and its origins:

Consonants

𑀀	ka [kə]	𑀁	kha [kʰə]	𑀂	ga [gə]	𑀃	gha [gʱə]	𑀄	ṅa [ŋə]
𑀅	ca [cə]	𑀆	cha [cʰə]	𑀇	ja [jə]	𑀈	jha [jʰə]	𑀉	ṅa [ŋə]
𑀊	ta [tə]	𑀋	tha [tʰə]	𑀌	ḍa [ḍə]	𑀍	dha [dʱə]	𑀎	ṅa [ŋə]
𑀏	ṭa [ṭə]	𑀐	ṭha [ṭʰə]	𑀑	ḍa [ḍə]	𑀒	dha [dʱə]	𑀓	ṅa [ŋə]
𑀔	pa [pə]	𑀕	pha [pʰə]	𑀖	ba [bə]	𑀗	bha [bʱə]	𑀘	ma [mə]
𑀙	ya [jə]	𑀚	ra [rə]	𑀛	la [lə]	𑀜	va [və]		
𑀝	śa [ʃə]	𑀞	ṣa [ʂə]	𑀟	ṣa [ʂə]	𑀠	ha [hə]		

Vowels and vowel diacritics

𑀡	𑀢	𑀣	𑀤	𑀥	𑀦	𑀧	𑀨	𑀩	
a	ā	i	ī	u	ū	e	ai	o	
[ə]	[aː]	[i]	[iː]	[u]	[uː]	[e, eː]	[əy]	[o, oː]	
𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲	𑀳
ka	kā	ki	kī	ku	kū	ke	kai	ko	kau

The Brahmi script has been found on temple inscriptions dating to the time of Ashoka the Great, and also hve been found in pottery and other underground artefacts, and is claimed to have two variants – a Northern Brahmi and a Southern or Tamil Brahmi.

There have been two competing theories as to the origin of the Brahmi script:

1. Some scholars, such as Georg Buhler, have suggested the Brahmi has its origins, much like Kharosthi, in the Aramaic script of West Asia. These proponents claim that the script had been introduced in India as a result of western migrations or trade contacts.
2. Some group of scholars, including G. R. Hunter in his book "The Script of Harappa and Mohenjodaro and Its Connection with Other Scripts (1934)" claim that Brahmi was a purely indigenous script, owing its origin to the Indus script. The stronghold of this theory seems to be that Brahmi, being used for Indian languages, has an almost different set of alphabets corresponding to a unique set of phonetic sounds, as compared to the Aramaic or other west Asian languages, which lessens the likelihood that the former evolved from the latter. Hunter also details out the derivation of the Brahmi alphabets from the Indus Script, the match being considerably higher than that of Aramaic.

In this regard, the author has performed a simple analysis: The study is to take up each alphabet in Brahmi, compare it with the closest phonetic resemblance in the Aramaic alphabet, and compare it also with the closest resemblance character from the Indus script. The comparison is a feature to feature comparison, the number of curves, vertical and horizontal lines, and slants being compared, and a correlation between Brahmi-Aramaic, and between Brahmi-Indus script is calculated.

A photograph of the initial calculations and comparison is shown below:

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Ka	†† 11000 10010	0.33	AY K	10020 10200	0.66
Kha	7		A _a X		
Ga	11 00200 00200	1.00	I ::::	(100)	
Gha	W V 20020	0.66 0.66 20020	Ii :::		
Nga	I		U L	(100)	
Cha	d P 10001	0.66 11100	U _e E _e	(100)	
Chha	ϕ		R		
Ta	E E 00020	0.66 1000	R _r		
Ttha	H Y	0.33 1000	L		
Nja	h		L _l		
Tta	C X 00010 00200 000		E Δ A	(0.66)	
Ttha	O O		Ai Δ A	(0.66)	
Da	† A 01200 01200	0.00	O Z	(100)	
Dda	6		Au		
Nda	I		Am		
Tha	λ λ 10200	(1.00)	Ah		
Thta	⊙ ⊕ 00101 11001	0.33	F		
Dha	5 ~ 21000	0.66	Q φ		
Dhha	D		C		
Na	I Y 11000 10010	0.33	Z I		
Pa	L 7 10010 10010	0.66		(100)	
Pha	b H 10010 0010	0.66			
Ba	□ 5 22000 11110	0.00		(100)	
Bha	π				
Ma	8 y 00021 00030	0.33			
Ya	J Z 4 10020 03100	0.00		(0.33)	
Ra	3 A 10020 01200	0.00		(0.66)	
La	J L 10010 10010	1.00		(0.00)	
Va	b Y 10010 10001	0.33		(0.33)	
Sha	Δ W 00300 00400	0.00			
Shha	t†† 11010 11100	0.33		(0.00)	
So	d ‡ 10020 13000	0.00			
Ho	† 6 ‡ ‡	0.33		(1.92)	

The result of this analysis is well in agreement to Hunter's conclusion. The correlation between Brahmi and Indus script is around 66%, whereas Brahmi correlates only 31% to the Aramaic alphabet.

Thus, this study decisively eliminates the relationship between Brahmi and Aramaic, and shows a strong connection between Brahmi and the Indus script. Further sections will shed more light on this issue.

The Science of Cymatics and its Relationship to Sanskrit:

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Introduction to Cymatics:

Cymatics is the study of sound and vibration made visible, typically on the surface of a plate, diaphragm or membrane. Direct ocular viewing of vibrations involves exciting inorganic matter such as particulate matter, pastes (both magnetic and non magnetic) and liquids under the influence of sound, although recent research has extended the range of media to include organic matter ¹ and the range of viewing has been extended to include the light microscope.²

The generic term for this field of science is the study of 'modal phenomena, named 'Cymatics' by Hans Jenny, a Swiss medical doctor and a pioneer in this field. The word 'Cymatics' derives from the Greek 'kuma' meaning 'billow' or 'wave,' to describe the periodic effects that sound and vibration has on matter.

The apparatus employed can be simple, such as a Chladni Plate (a flat brass plate excited by a violin bow) or advanced such as the CymaScope, a laboratory instrument co-invented by English acoustics engineer, John Stuart Reid and American design engineer, Erik Larson, that makes visible the inherent geometries within sound and music.

The provenance of Cymatics can be traced back at least 1000 years to African tribes who used the taut skin of drums sprinkled with small grains to divine future events. ³ The drum is one of oldest known musical instruments ⁴ and the effects of sand on a vibrating drumhead have probably been known for millennia.

Chladni demonstrated this seemingly magical phenomenon all over Europe and even had an audience with Napoleon. The French leader was so impressed he sponsored a competition with The French Academy of Sciences to acquire a mathematical explanation of the sand patterns. Sophie Germain (1776-1831), a young French woman, won Napoleon's 3,000 Franc prize in 1816. She wrote a mathematical explanation involving wave-like functions to describe how sound created the geometric patterns. The inference was that sound 'waves' * were responsible for creating areas of vibration and areas of stillness on the surface of the plate. It was believed that the crest of the sound 'wave's caused certain areas of the plate to vibrate while the corresponding troughs caused other areas to remain still. The sand gathered in the still areas. His pioneering book 'Entdeckungen ber die Theorie des Klanges' ⁷ ("Discoveries in the Theory of Sound") was published in 1787 and is still considered an important milestone in launching the science of acoustics.

*The term 'wave' has historically been used to describe sound even though it is a misnomer since sound does not, in fact, travel in waves. Sound propagates spherically or in beams, depending upon frequency. For example, at frequencies audible to humans, 20 Hertz to 20,000 Hertz, the sonic envelope is almost perfectly spherical in its form whereas at frequencies audible to bats and dolphins, above 100,000 Hertz, sound propagates in searchlight-like beams, the beam angle being dependant on frequency. Higher frequencies cause a reduction in beam angle.

Home-based Cymatic experiments:

The author, being impressed by the concept of cymatics, constructed a simple Cymatic tonoscope by using readily available materials such as a balloon as the observing membrane, a pipe used for the sound propagation and salt/sand as the vibrating particles.

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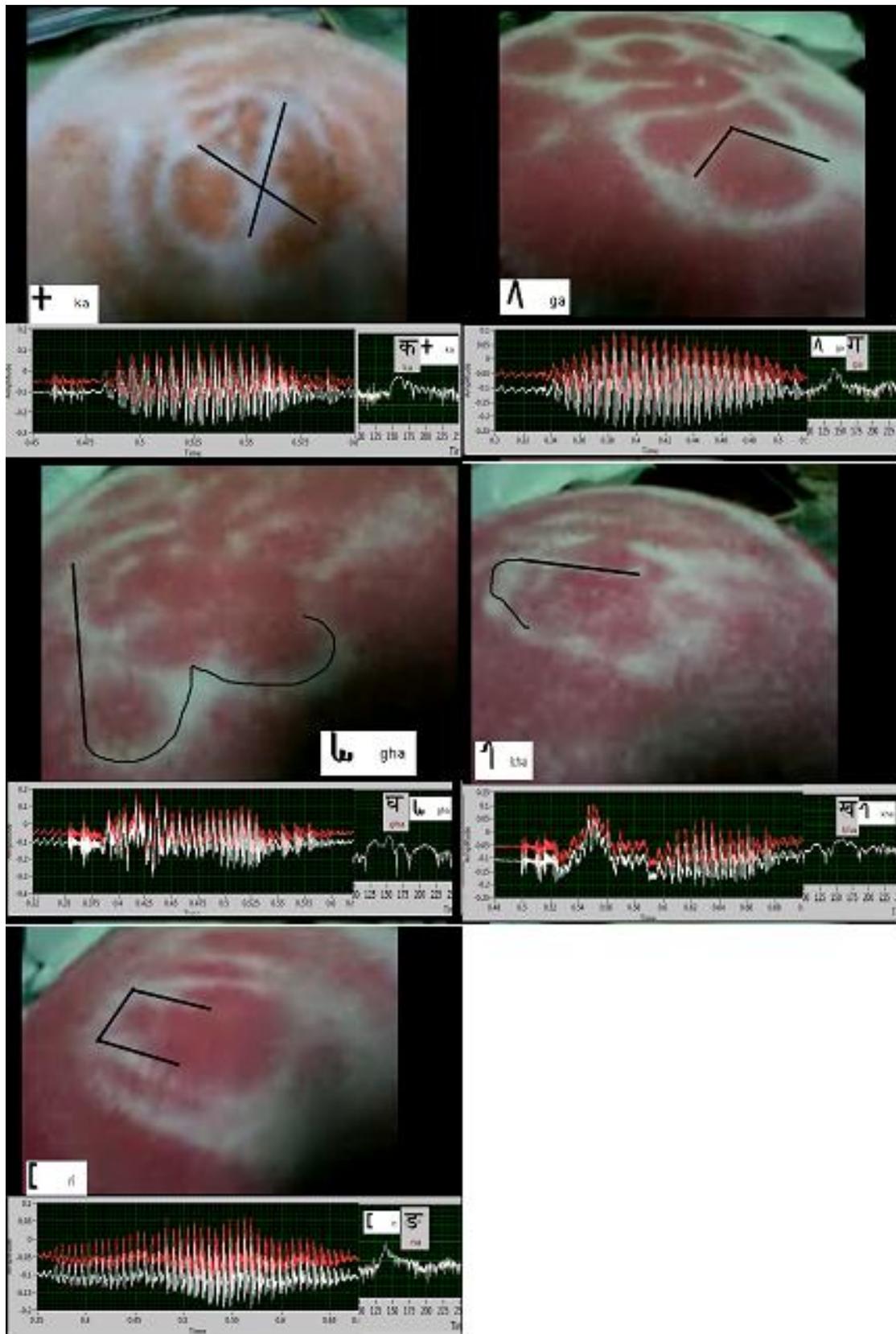
With the apparatus thus set, experiments were conducted that would provide insight into the visualisations of the sounds of the alphabets of Indian languages.

Firstly, the Sanskrit language was taken and the 51 Aksharas (16 vowels and 35 consonants) of Sanskrit, were spoken, each one at a time, and the resulting Cymatic pattern was observed and photographed. These patterns thus observed were consolidated, and pattern for each Akshara was compared to the corresponding shape in the Brahmi alphabet. A few letters not found in Sanskrit, such as the 'f' sound, the African "X" click etc were also recorded. All these are summarized below. Also included with the photograph of each pattern is the Brahmi letter, an outlined shape depicting the similarity between the two, the Devanagari shape for the letter, and also its sound waveform and the frequency spectrum.

Tracing the origins of India

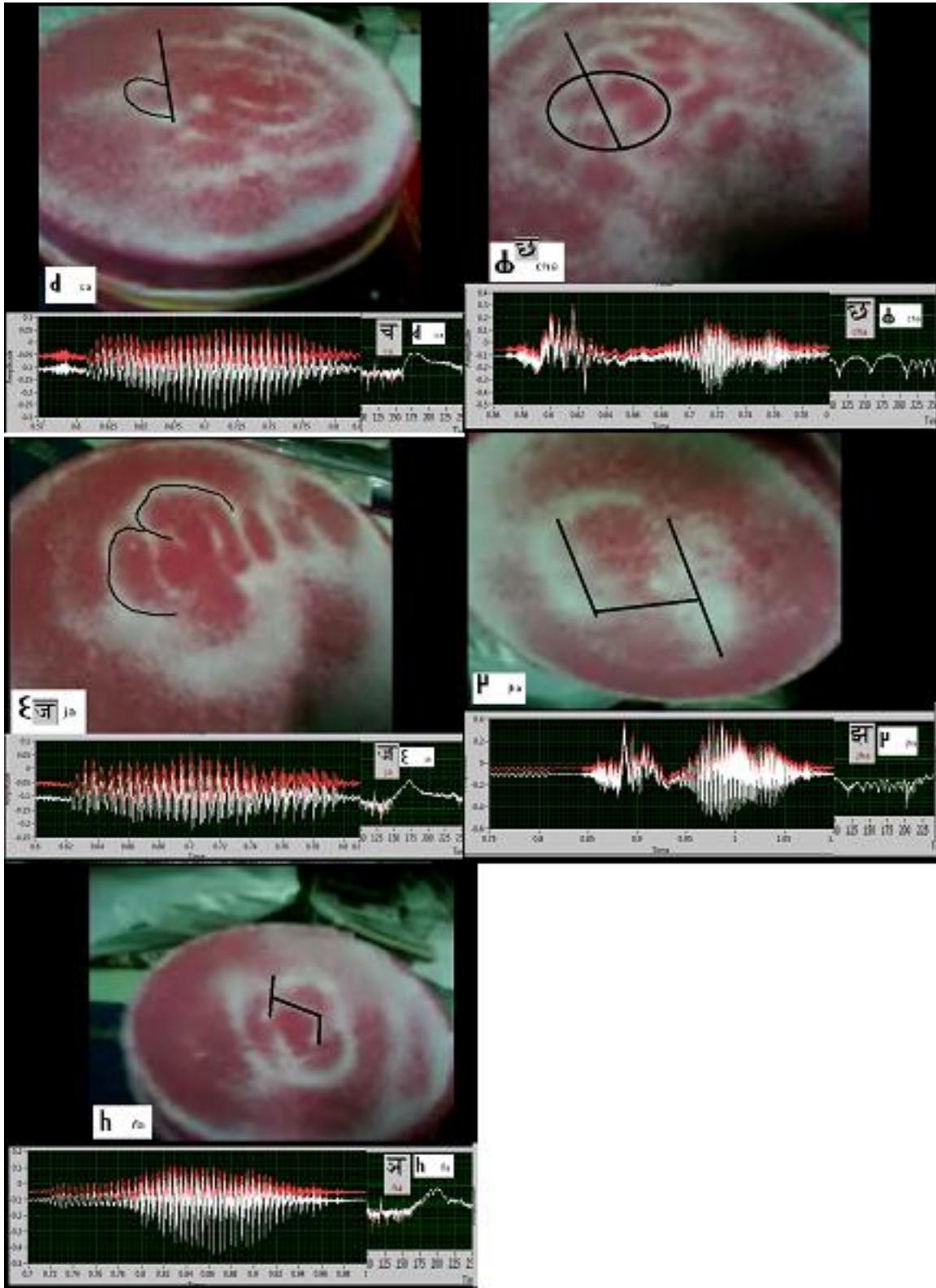
Observed Cymatic patterns - Cymatic patterns of the Brahmi Alphabet

1. Velar Consonants - Ka, Kha, Ga, Gha and Nga



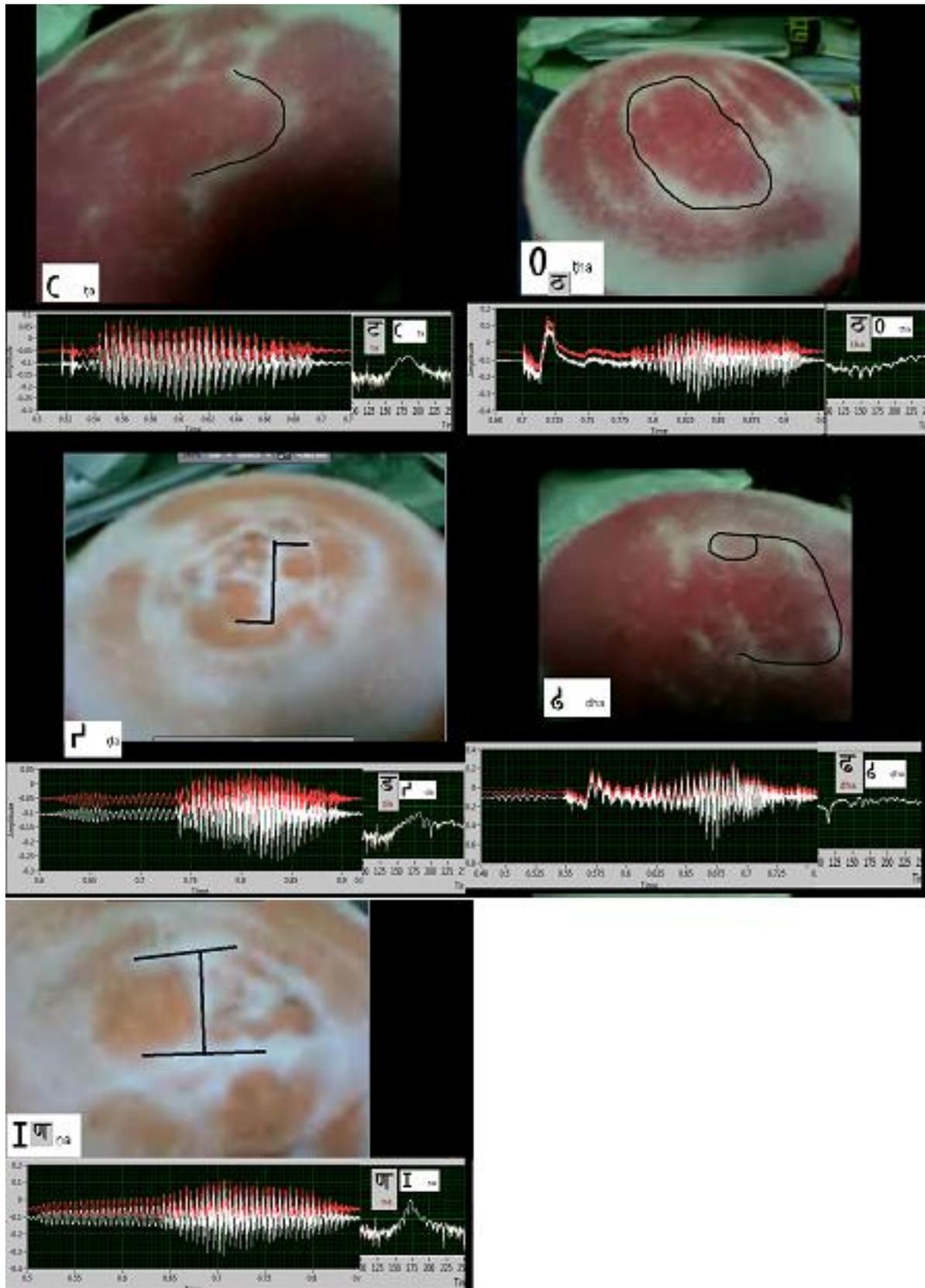
Tracing the origins of India

2. Palatal Consonants – Cha, Chha, Ja, Jha and Nja



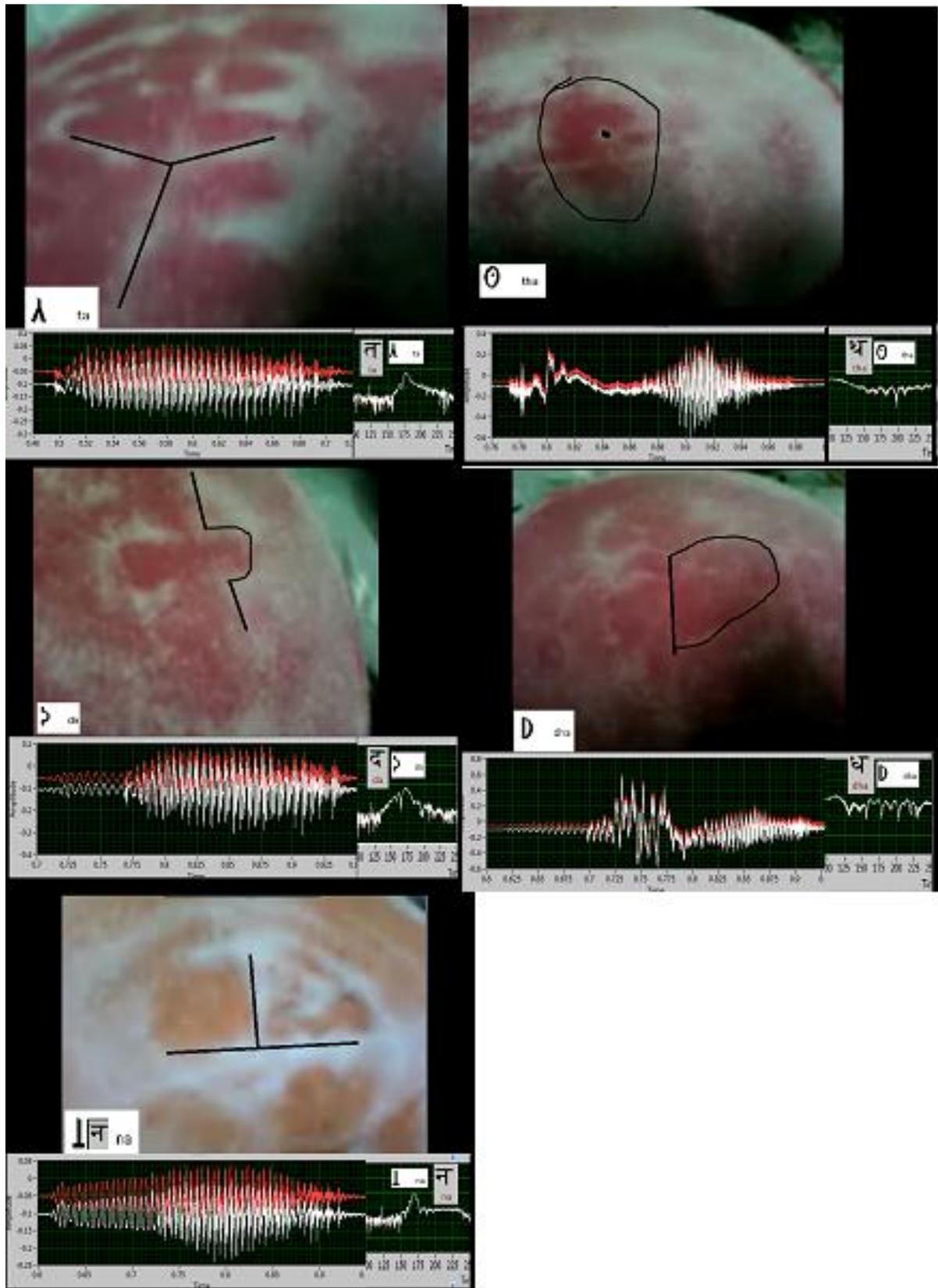
Tracing the origins of India

3. Retroflex Consonants - Ta, Tha, Da, Dha and Na



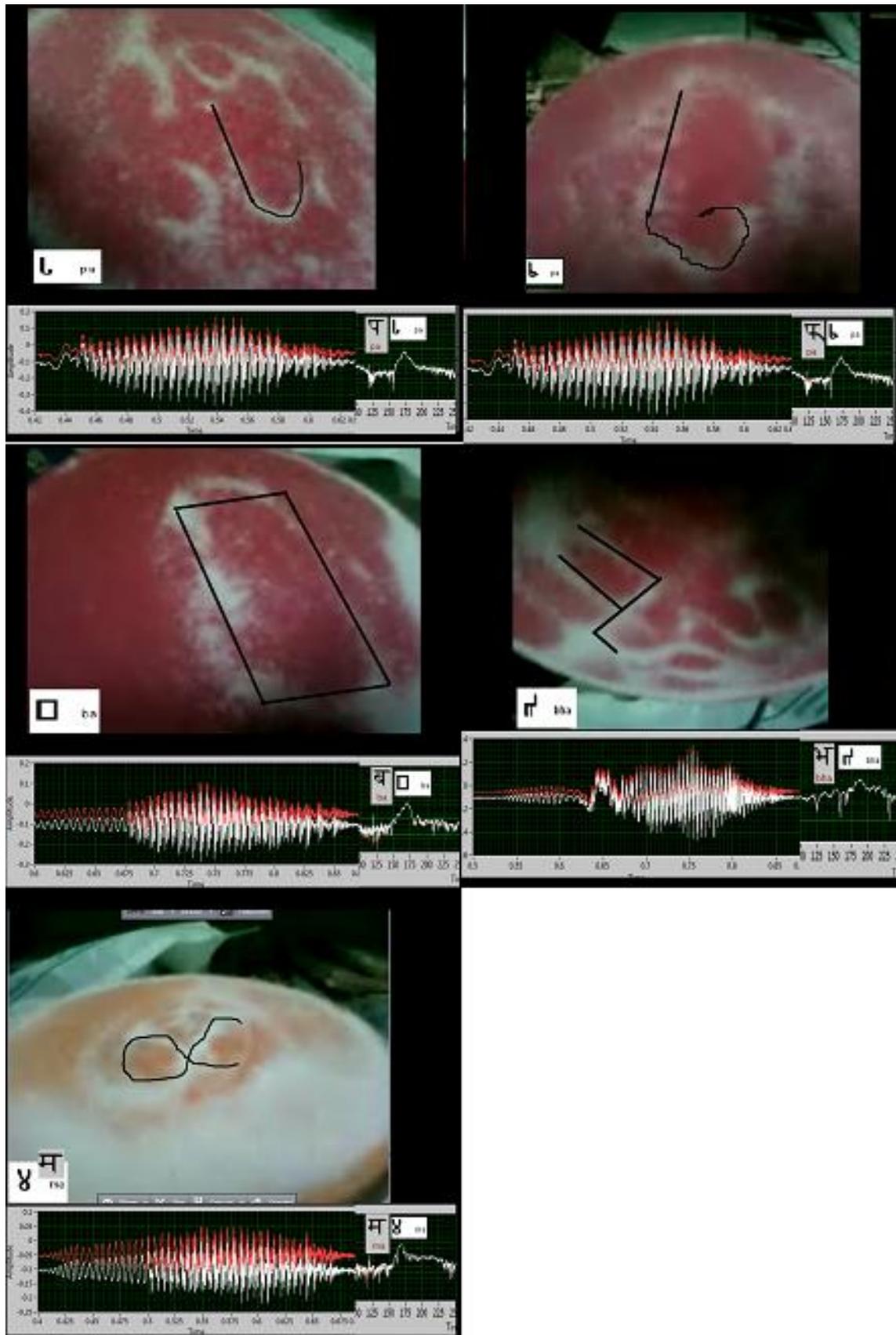
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4. Apico-Dental Consonants - Ta, Tha, Da, Dha and Na



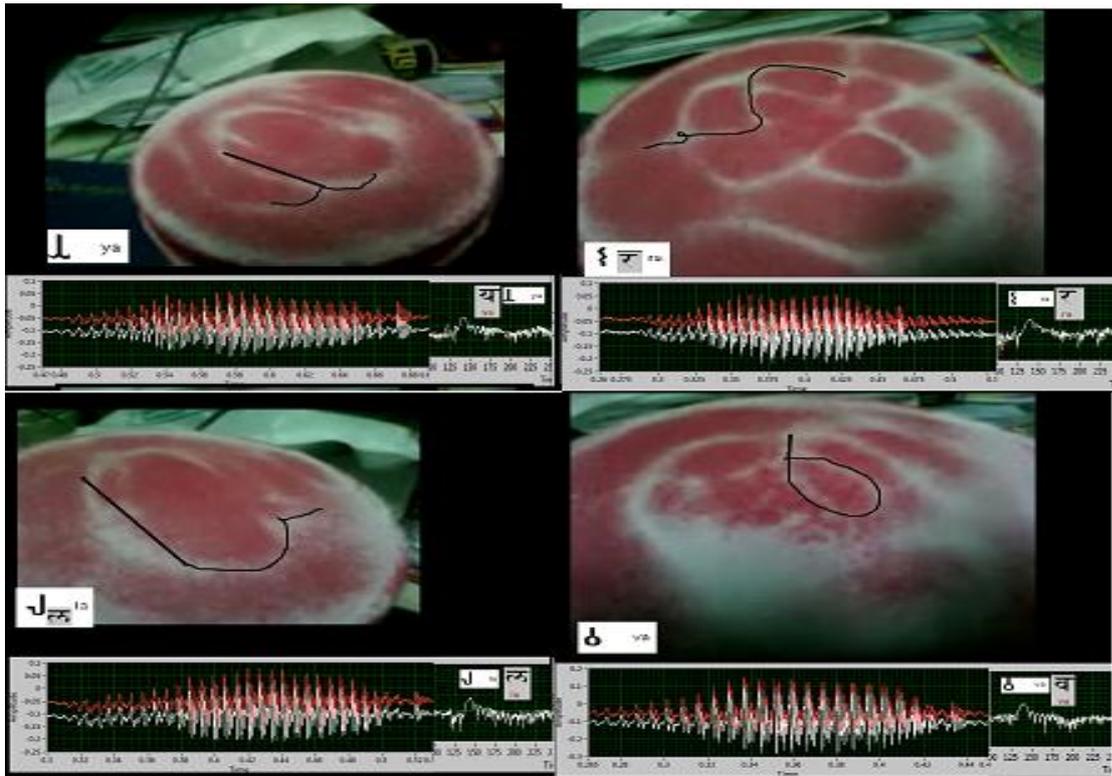
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5. Labial Consonants - Pa, Pha, Ba, Bha and Ma

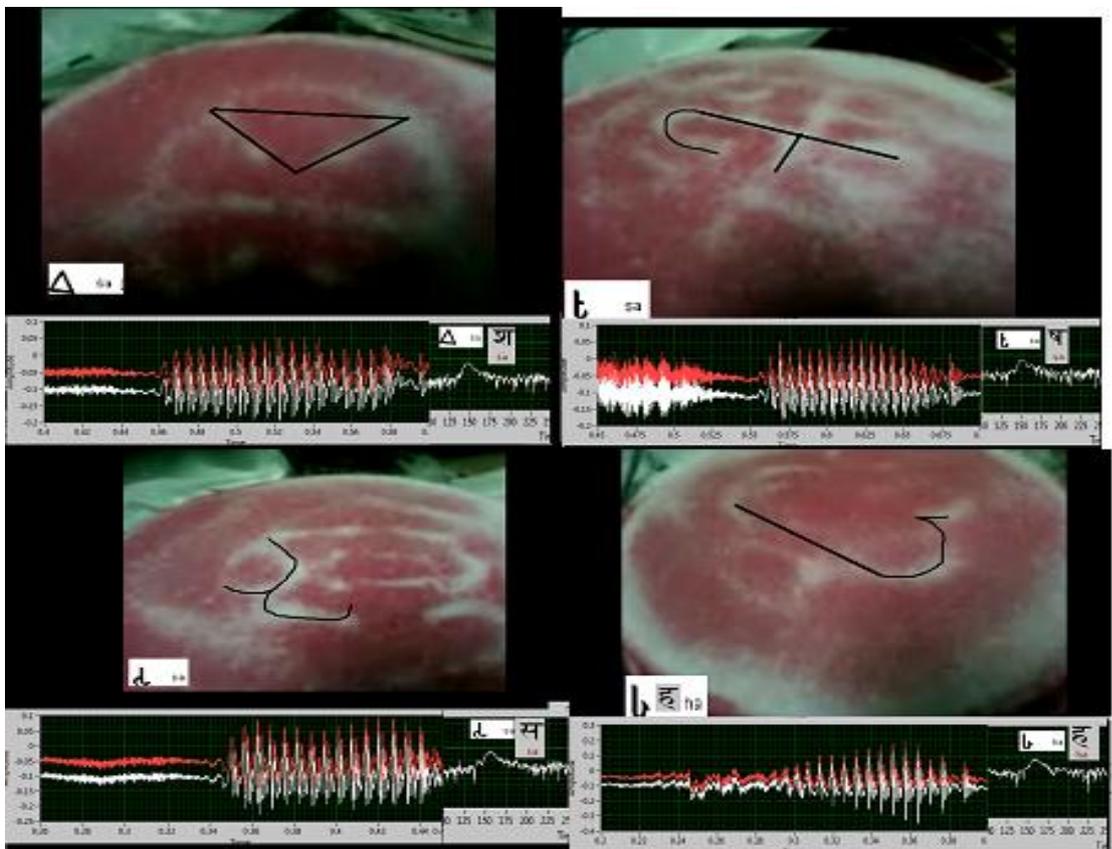


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6. Approximants - Ya, Ra, La and Va

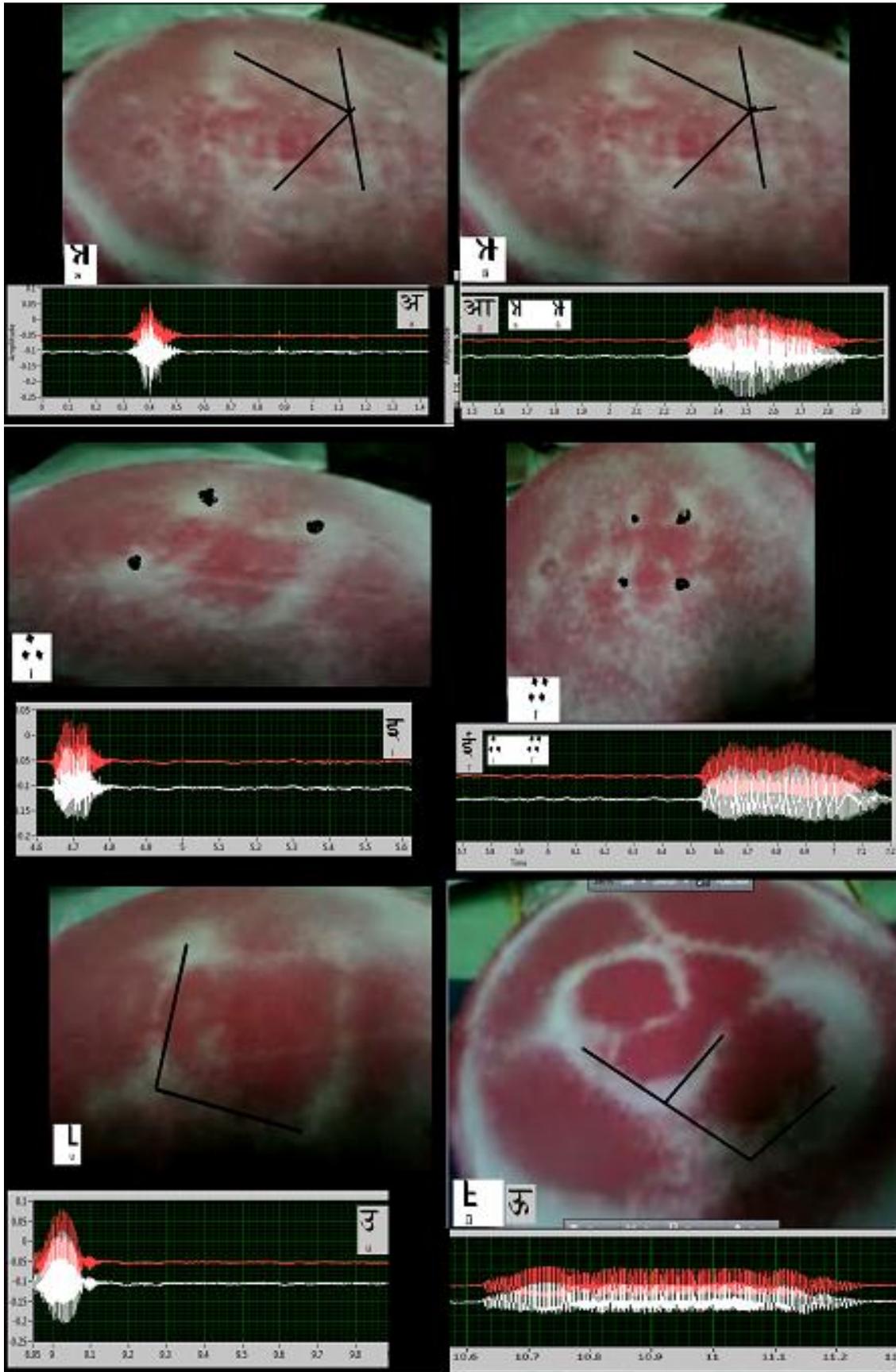


7. Sibilants - Sha, Shha, Sa and Ha



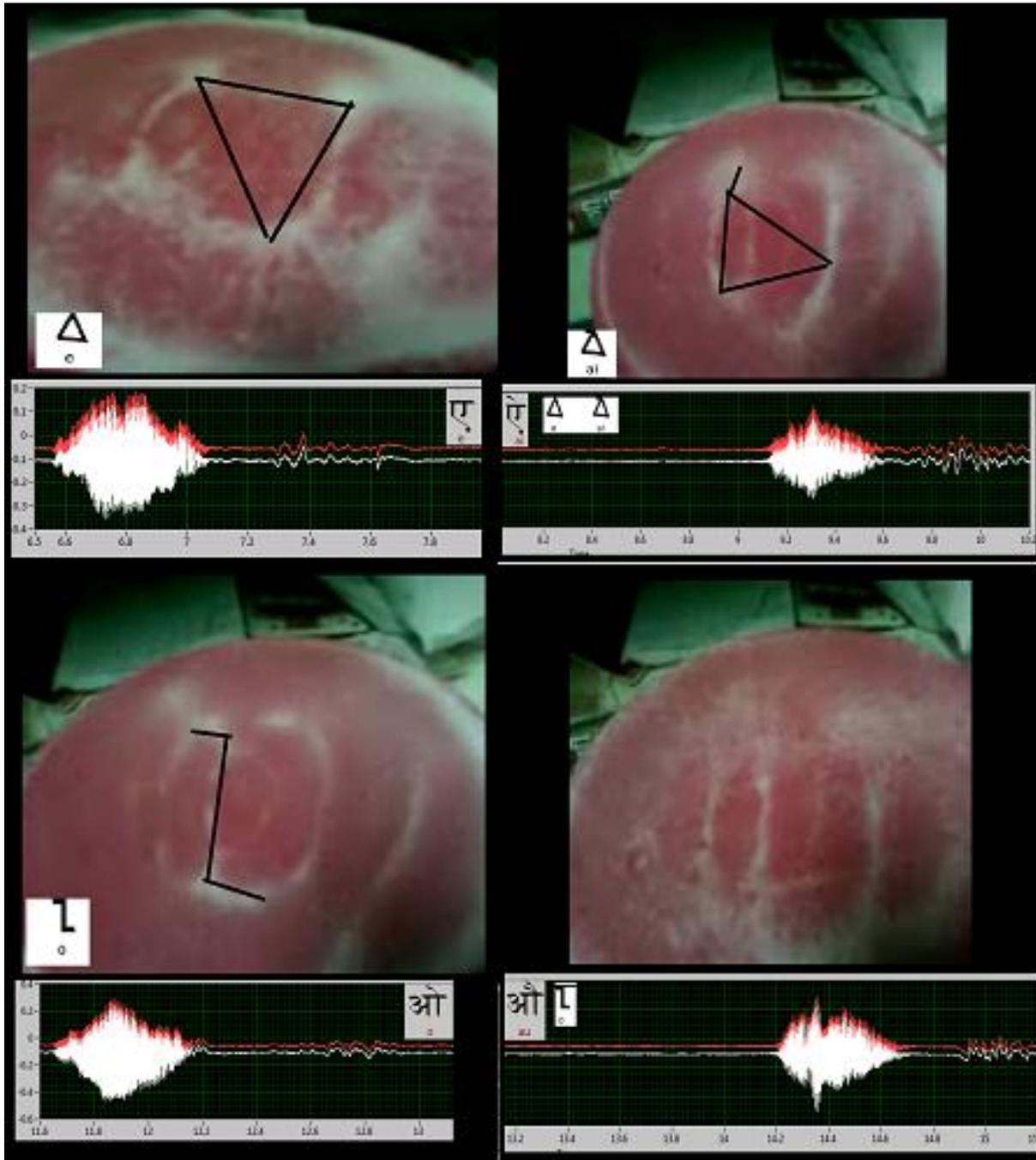
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8. Vowels 1 - A, Aa, I, Ii, U and Uu



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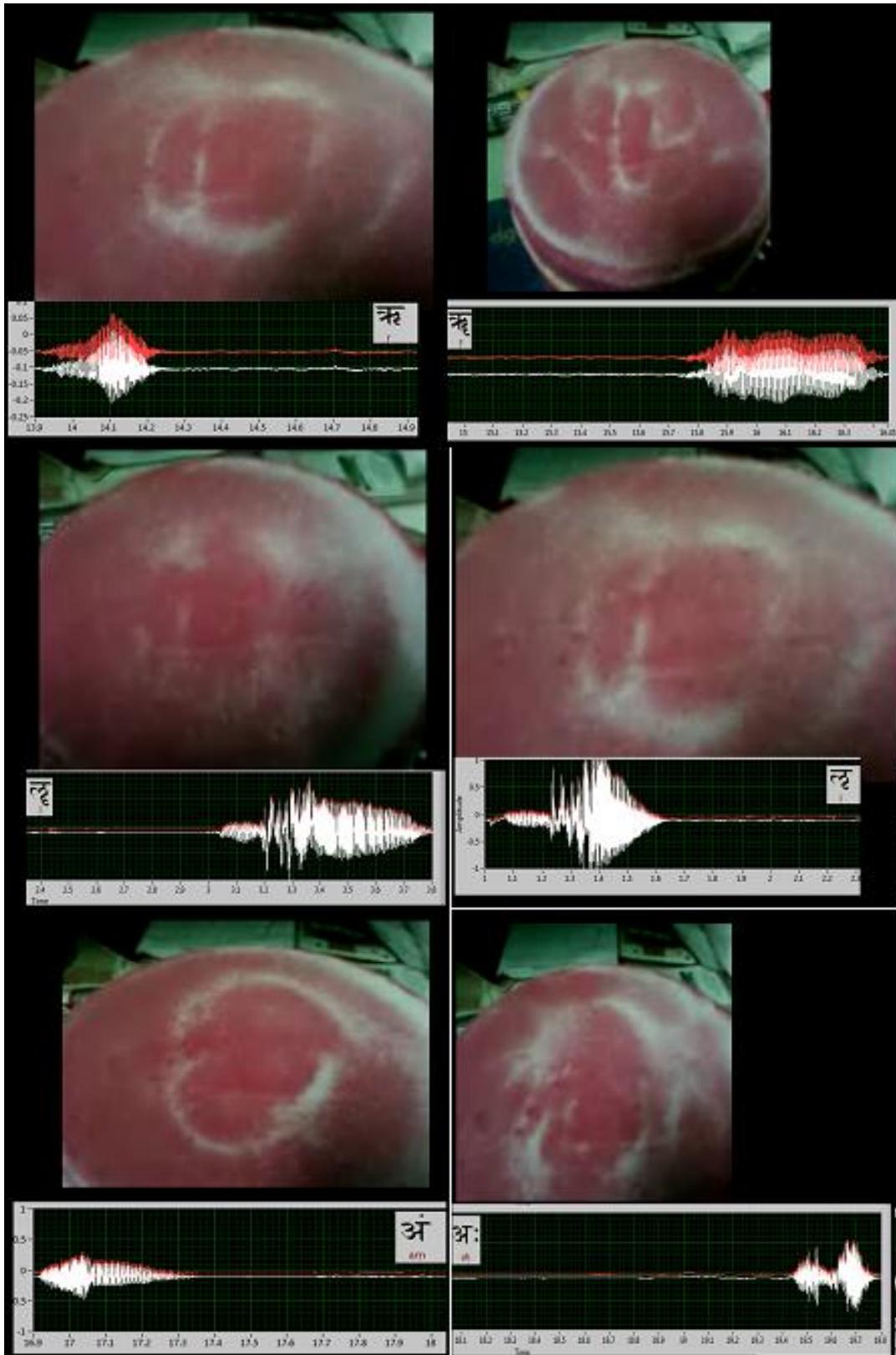
9. Vowels 2 - E, Ai, O and Au



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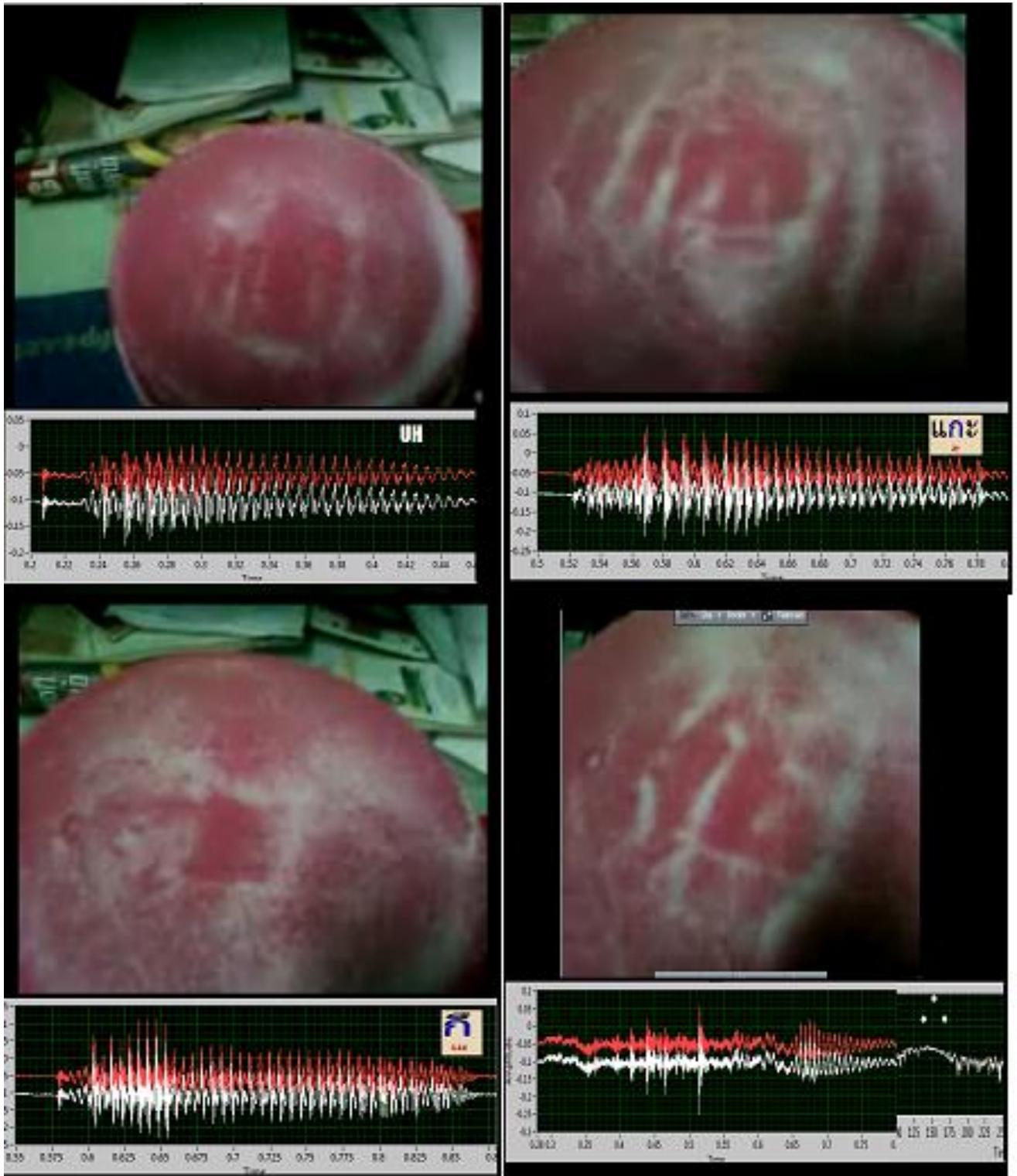
Observed Cymatic patterns - Cymatic patterns of select phonemes not found in the Brahmi Alphabet

1. Vowels R, Rr, L, ll, Am and Ah



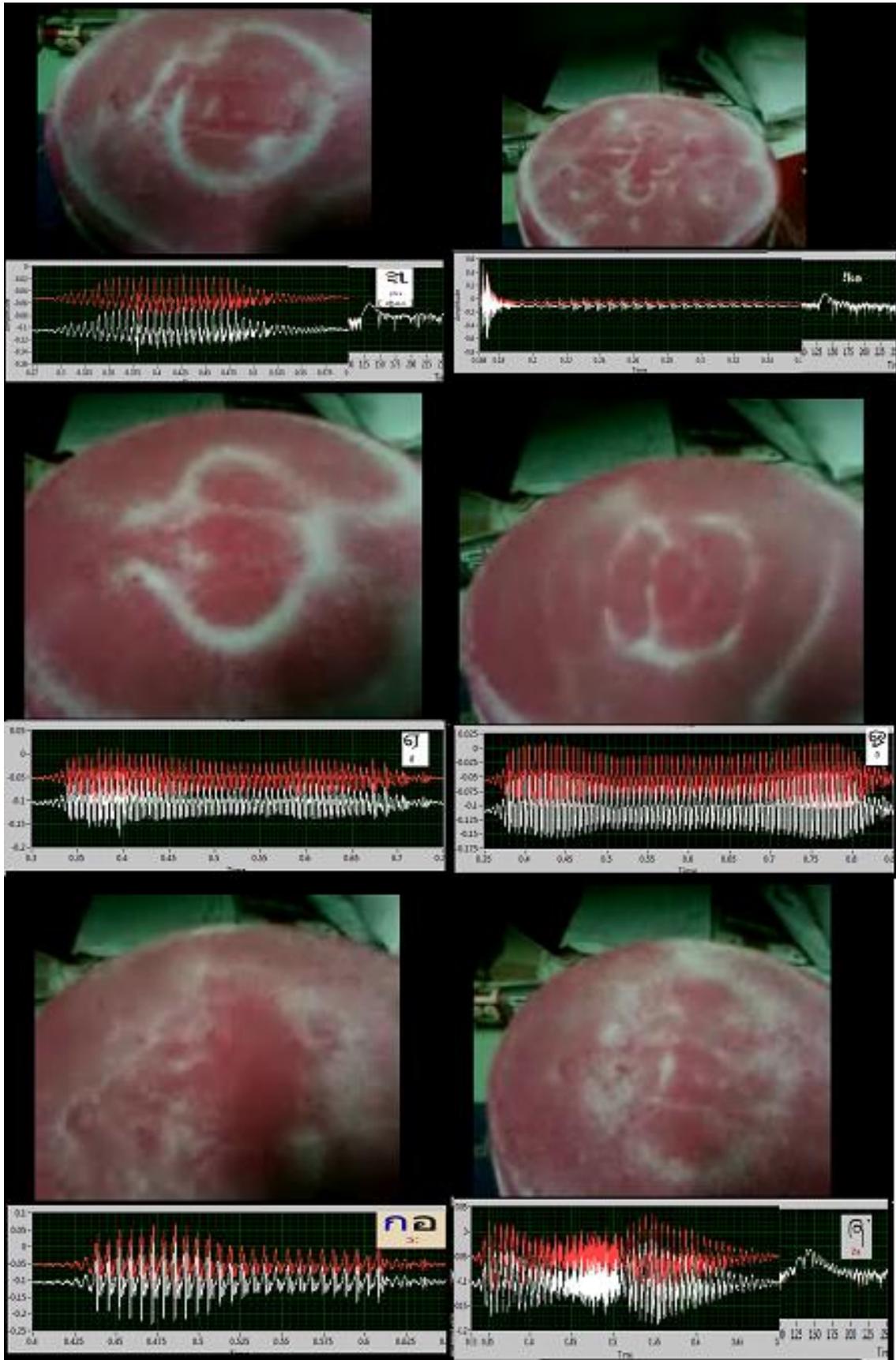
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2. Vowels Uh, Ae, Ew and Gluttural letter (Aytam in Tamil)



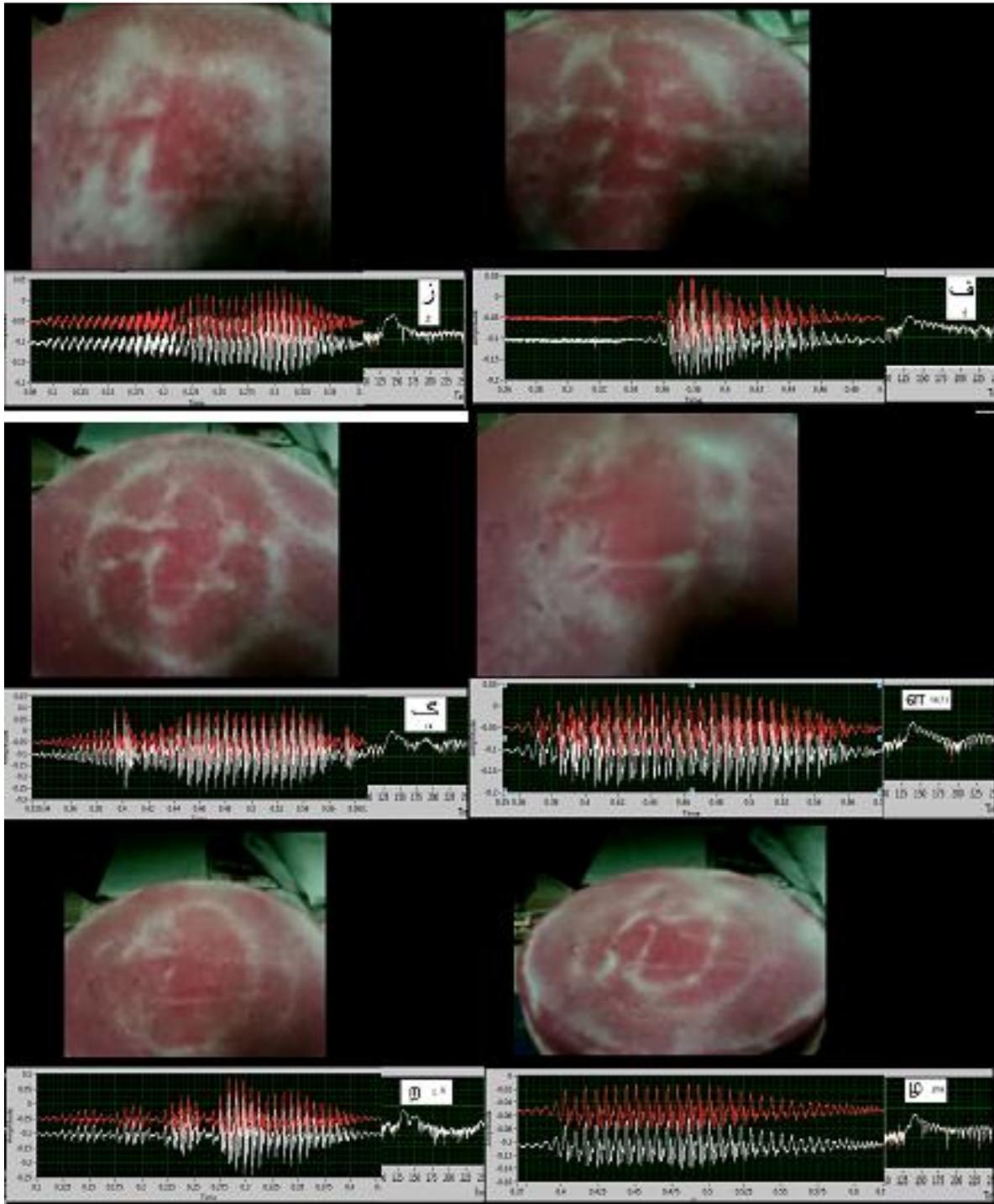
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3. Letters Jna, !Xa (click), E, O, Aw and Za (French Je sound)



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4. Letters Z, F, Guttural Qaf, La, Rra, Zha



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Inferences from the Cymatic Experiment:

As can be seen from the Cymatic patterns above, there exists a correlation between the Letters of the Brahmi alphabet, and their corresponding Cymatic patterns. Though a detailed and professional experiment may throw more light on this matter, this short, crude experiment does enough to show that the Brahmi alphabet was, by some way obtained from cymatics. This also proves and concludes that Brahmi is the only Cymatic alphabet in the world .

The Hindu concept of Bija-Aksharas and Bija-Mantras:

One of the cornerstones of Hindu traditions is the concept of Mantra – groups of sacred syllables and words uttered in Sanskrit, that supposedly have certain effects and can invoke certain Gods. A significant portion of the corpus of Hindu Mantras are the Bija-Mantras. These, literally meaning “Seed” Mantras, are extremely short mantras , mostly consisting of one-syllable, containing a consonant, a vowel, occasionally a semi-consonant and usually terminating with a nasal sound. Few Examples of Bija Mantras are the most sacred Hindu mantra “Om”, The Maya (Delusion) Bija Hreem, Krishna bija “Kleem”, Kali Bija “Kreem”, Saraswati (Goddess of learning and arts) Bija “Aim” and so on. This concept also finds parallels in Buddhist traditions, where a lot of Bija mantras are used, especially in the Vajrayana system followed in Tibet.

Most of the Bija mantras supposedly do not have a lexical meaning, and hence are supposed to obtain their powers through their very sound. The Hindus view each of the 51 Aksharas of the Sanskrit language as a Bija Mantra, associated with a deity.

All these probably suggest that Sanskrit has a carefully handpicked collection of alphabets, each one claiming to have a distinct power of its own, and Sanskrit as a language developed from these Bijas, going forward from single Bijas to words, and from words to sentences.

It also shows that the Brahmi alphabet was more than a writing system. It was a system of visualization of the Bijas, a system of representing the dieties of each Akshara Bija, which was carefully created , letter by letter. This could have been done in one of two ways:

1. By physical Cymatic experiments, where by pronouncing the Sanskrit alphabet, the pattern would manifest.
2. By some sort of meditation/revelation – as has often been mentioned in Hindu scriptures, especially by the Rsgis (Sages) and Seers.

The above observations and inferences also seem to indicate that the Brahmi alphabet, could not have been derived from any other alphabet, as it was derived from nature itself, in the form of cymatics.

As a testimony to this concept, pictured below is the collection of paintings of the Hindu Akshara Devathas, or deities responsible for each alphabet of Sanskrit.

संस्कृत अक्षर देवता

The image displays a collection of 40 Hindu deities, each associated with a specific Sanskrit character. The deities are arranged in a grid, with a central Sri Yantra mandala. The characters are: Row 1: क, ख, ग, घ, ङ; Row 2: च, छ, ज, झ, ञ; Row 3: ट, ठ, ड, ढ, ण; Row 4: त, थ, द, ध, न; Row 5: प, फ, ब, भ, म; Row 6: य, र, ल, व, श; Row 7: ष, स, ह, ष, ष; Row 8: ष, स, ह, ष, ष.

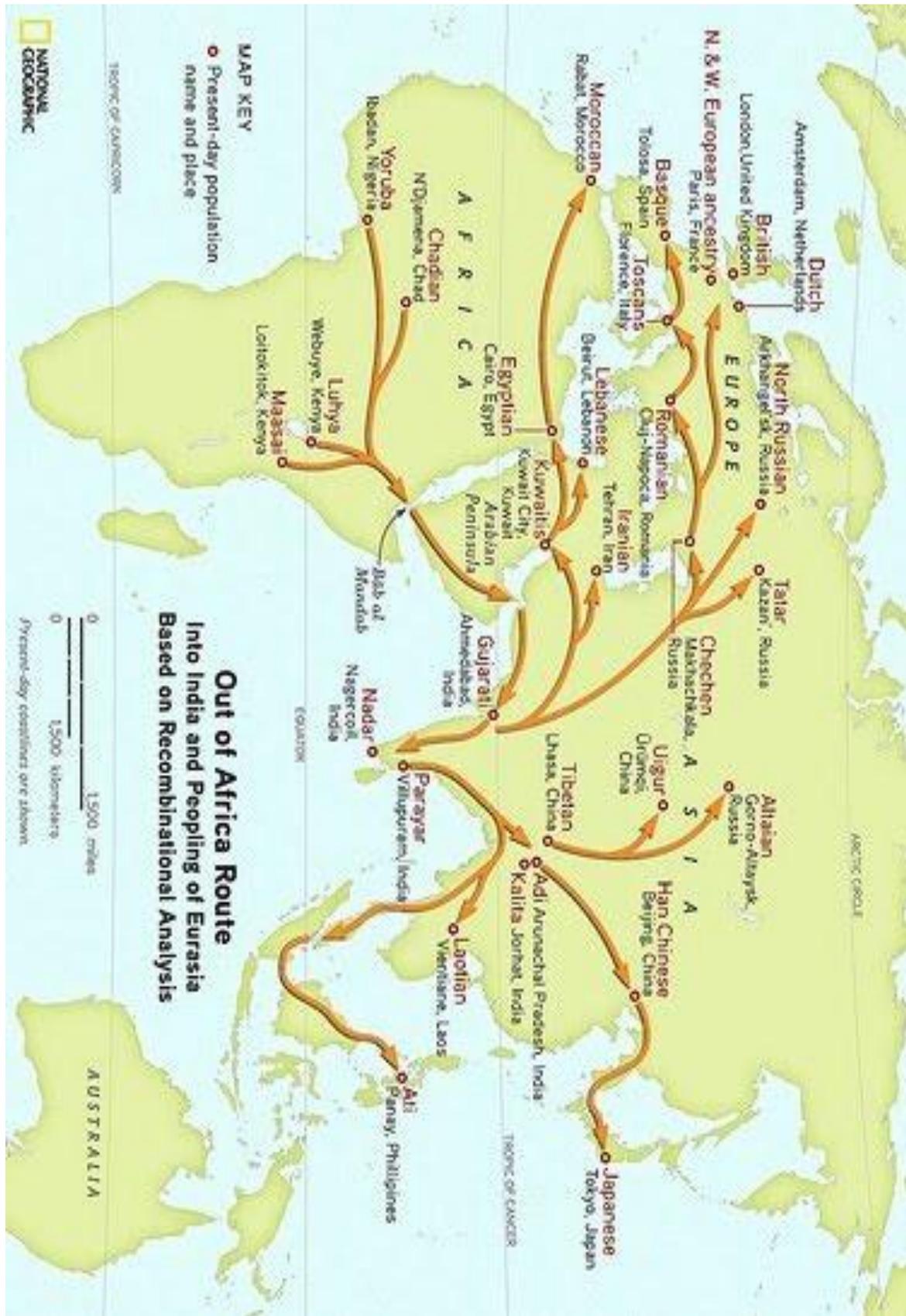
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Genographic Studies – The Out of India Route

The study of migration of humans using DNA haplogroups. Also called Genographics, gives some vital clues about the development of culture and languages. Shown below are few of the maps, detailing the DNA Haplogroup composition worldwide (by J.D.McDonald) and within India[1], and also showing the order of haplogroup formation:

1. [Phylogeographic distribution of mitochondrial DNA macrohaplogroup M in India SUVENDU MAJI, S. KRITHIKA and T. S. VASULU*]

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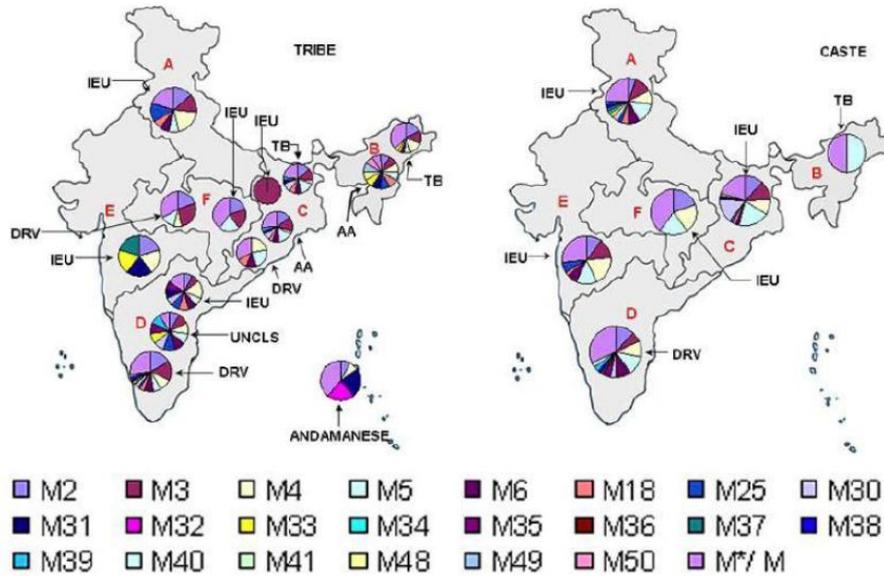
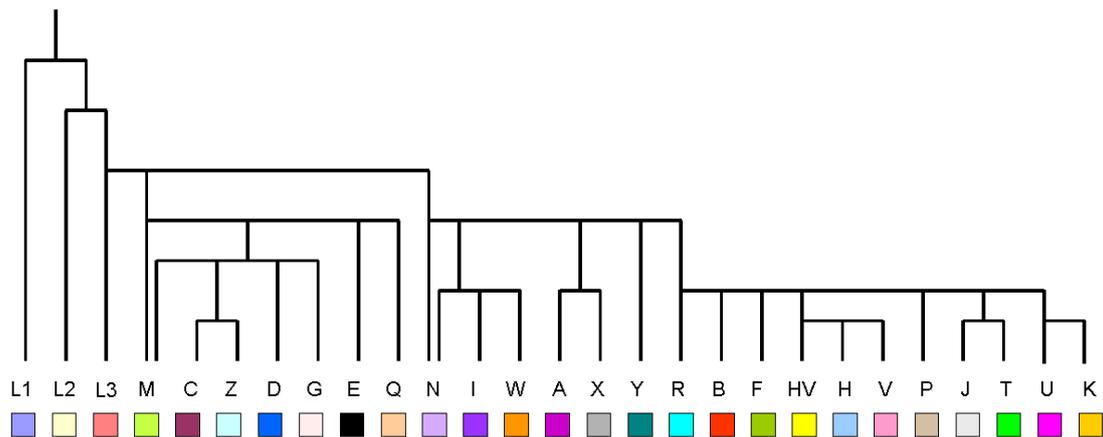


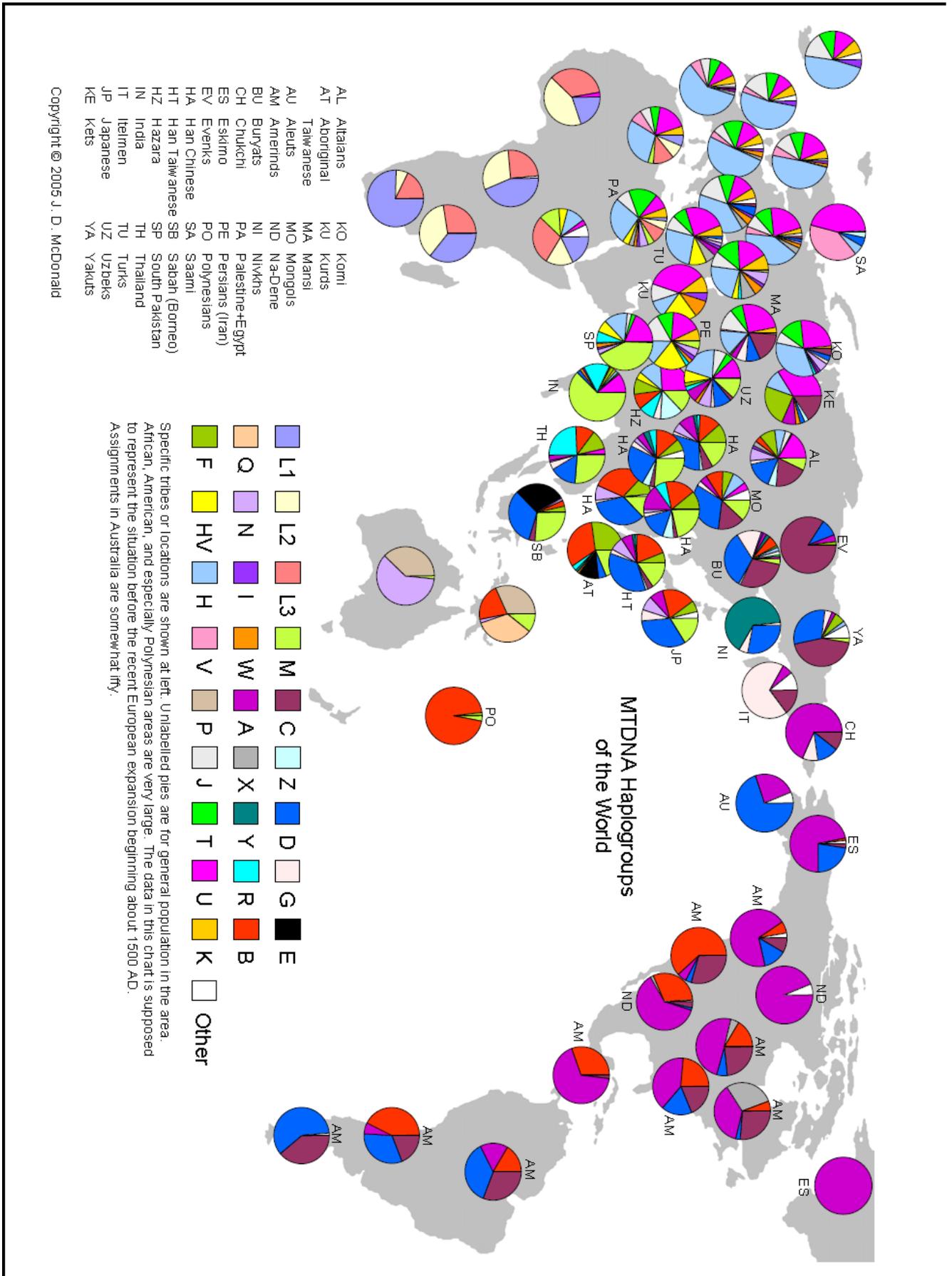
Figure 4. Distribution of the sub-haplogroups of M across the six regions of India. A, Northern; B, North-Eastern; C, Eastern; D, Southern; E, Western; F, Central IEU, Indo-European (IEU); TB, Tibeto-Burman; AA, Austro-Asiatic; DRV, Dravidian

Simplified Tree of Mitochondrial Haplogroups



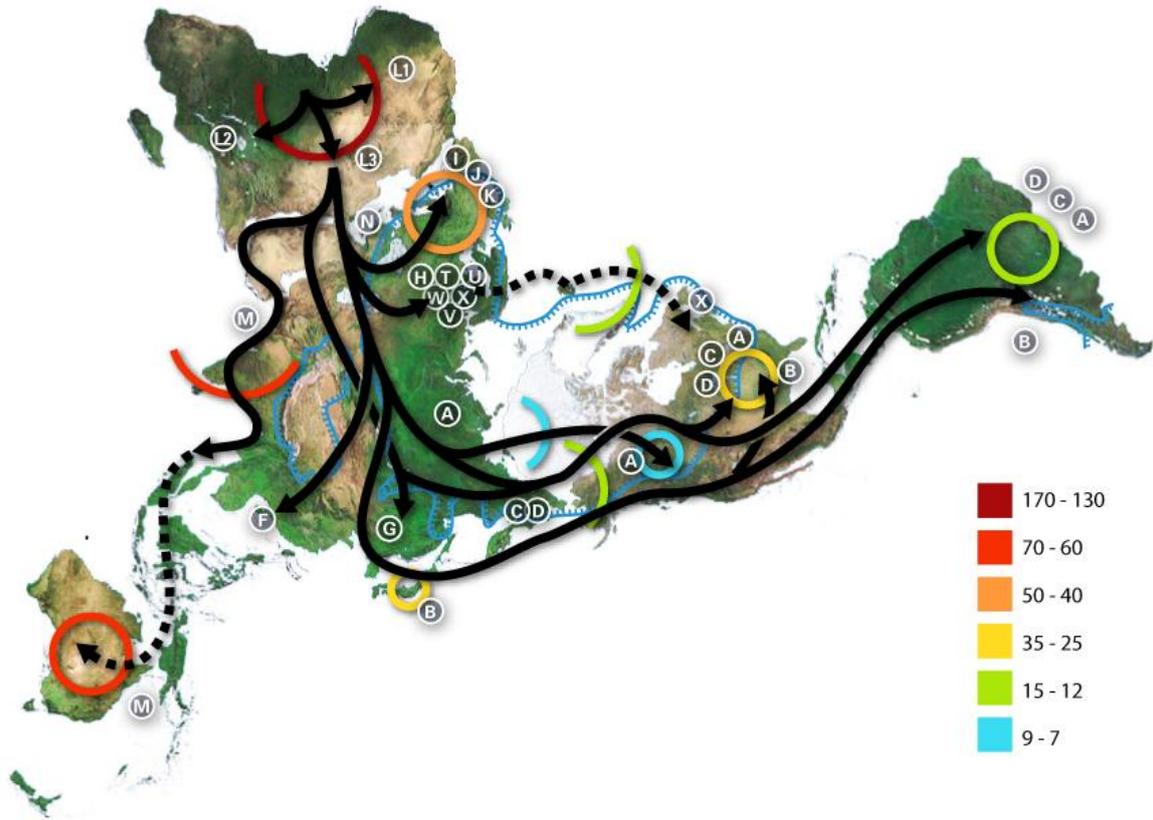
Note that unlike the Y-Chromosome Haplogroups, the ones for the Mitochondrial DNA are not related in a simple way to alphabetical order. This is due to the historical nature

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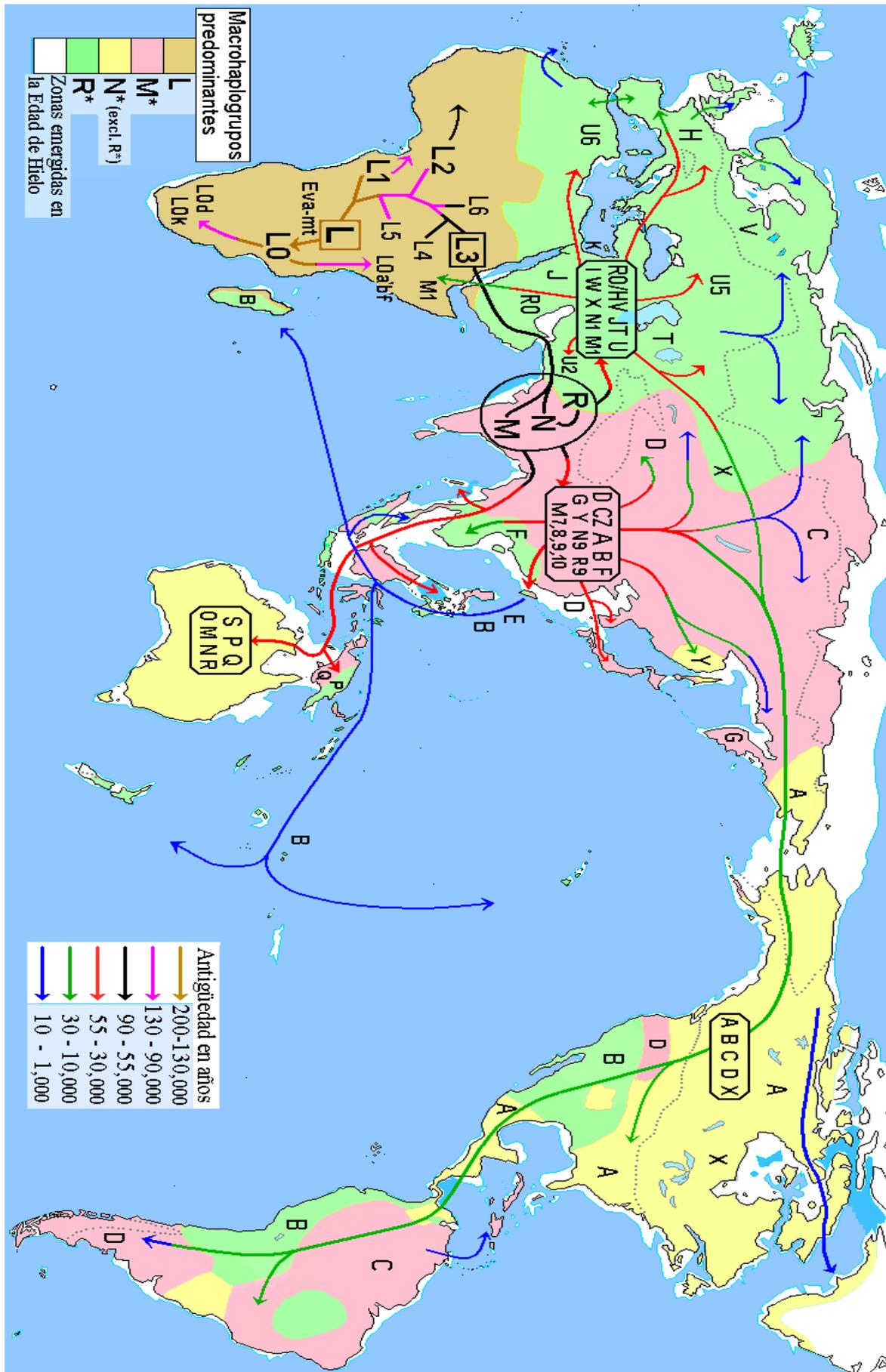


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A thorough analysis of the maps presented above reveal certain vital interpretations:

1. The modern man first originated in Africa, and L (L0,L1,L2 and L3) were the first haplogroups.
2. When humans moved out of Africa, the first place they landed seems to be India, explained by the presence of M and N twin haplogroups in India. This raises few questions, on the route they took to India:
 - a. There is no presence of the primitive M or N groups in Arabia. This shows that either coastal migration route through Arabia is less likely, or there are no descendants of those humans who chose to stay back in Arabia (they could have been passers-by, with their next destination being Persia-India).
 - b. There is a presence of N haplogroup in Australia, explaining the indigenous tribes. This could not have been a direct route from Africa as the Indian Ocean was almost unsafe to travel for those primitive people. The only route possible seems to be via India.
 - c. This could possibly hint that there was a submerged continent called Lemuria or Kumarikandam , as suggested heavily by Tamil literature and modern historians alike, between East Africa, India and Australia. More about this will be discussed in the later sections. But, the existence of such a continent would imply that the humans migrated from Africa to Lemuria and Lemuria to India, and that the said Lemuria would be the birthplace of the M and N haplogroups.
3. The proponents of the proto-human theory, such as Meritt Ruhlen and Bengtsson suggest that when humans migrated out of Africa, they had a primitive language with them, and this could be dated at around 100,000 years ago.

Mitochondrial Haplogroups – Short Descriptions

A – Haplogroup A originated in Asia about 60,000 years ago and is still prevalent there today. When found in the Americas, haplogroup A is considered to be Native American. The Peruvian mummy known as the Ice Maiden is haplogroup B

B – Haplogroup B originated in Asia about 50,000 years ago. As opposed to haplogroup A and the other haplogroups prevalent in Native Americans, haplogroup B is conspicuously absent from the Northern Siberian population, although it is found in other Central and South Asian populations.

C – Haplogroup C developed about 60,000 years ago and is found in Siberia and Northern Asia in addition to the Native American populations. Haplogroup CZ is also found in Eurasian populations.

D – Haplogroup D, developed approximately 60,000 years ago and along with haplogroups A, B, C and X is considered to be Native American. In addition, we find haplogroup D today in Northern and Eastern Asia.

E – Haplogroup E is very rare and elusive. Very little is known. It has been detected in the Malay Peninsula, the Sabah of Borneo, coastal Papua New Guinea as well as sparsely in Taiwan and the Philippines and on some islands.

A small concentration is found today in Argentina. A previously identified Columbian group is now believed to be a reverse mutation from haplogroup C.

F – Haplogroup F has descended from haplogroup R in Eastern Asia. Today it is found in China and Japan, but not in the Americas.

G – Haplogroup G is found almost exclusively in Northeast Siberia, in particular among the Koryak and Itelmen people and also among the indigenous inhabitants of Kamchatka.

H – Haplogroup H, including HV and preHV, the most common haplogroup in

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Europe, is found in nearly 50% of the population. It developed about 20,000 years ago, before the advent of farming, and is thought to have spread along with agriculture. It is also common in the Middle East and Northern Africa. Pre-HV is prevalent in the Middle East, particular in Arabia.

I – Haplogroup I originated approximately 30,000 years ago someplace in Eurasia. Today, it is found in the Mediterranean, the Arabian lands and in Europe. It is thought to have been one of the first haplogroups to inhabit Europe.

J – Haplogroup J originated about 45,000 years ago in or near Mesopotamia and migrated into Europe. Haplogroup J is associated with the spread of farming and herding in Europe. The highest populations are found in the Near East, Europe, Caucasus and North Africa. Subgroups of J are found in Jewish populations.

K – Haplogroup K, part of the super-haplogroup UK, originated approximately 15,000 years ago in Asia and expanded westward into Europe. It first appeared when Europe was repopulated after the end of the last glacial maximum.

Descendants today live in Western Europe. Today, nearly 1/3 of the people with Ashkenazi Jewish ancestry belong to haplogroup K.

L – Haplogroup L is the haplogroup most closely associated with mitochondrial Eve, the haplogroup from which all other haplogroups are descended.

Haplogroup L1 originated 150,000 years ago in Africa from haplogroup L0 which is extinct, and is currently found in Western and Central Africa. Nearly one third of Africans have haplogroup L2 which developed about 70,000 years ago.

Because of its prevalence, it is the most common haplogroup found in African-Americans today. Haplogroup L3 gave rise to haplogroups M and N from which all of the world's non-African population descends.

M – Haplogroup M descended from haplogroup L3 about 80,000 years ago.

Haplogroups M and N were the two haplogroups believed to have migrated from Africa into the rest of the world, and from whom all non-African's are descended to day. Ancestors migrated to Asia about 60,000 years ago, populating Southern Asia. Subgroups of haplogroup M include M subgroups, C, D, E, G and Z.

N – Haplogroup N descended from L3, but originated about the same time as M. Haplogroup N is important because it is the mother haplogroup for most of Europe's haplogroups, as haplogroups R, N1, A, I, W and X are all descendant haplogroups.

R – Haplgroup R is found throughout Asia and Eastern Europe, from the Ural Mountains to Japan. Haplogroup R also spawned haplogroups B, U, F, HV and V.

X - Haplogroup X is found in Europe and Asia, and is believed to have migrated to the Americas about 15,000 years ago, probably across the land bridge that once connected Alaska to Russia. Today haplogroup X is found in small numbers in the Native American population.

Influence of Sanskrit language on environment and human health

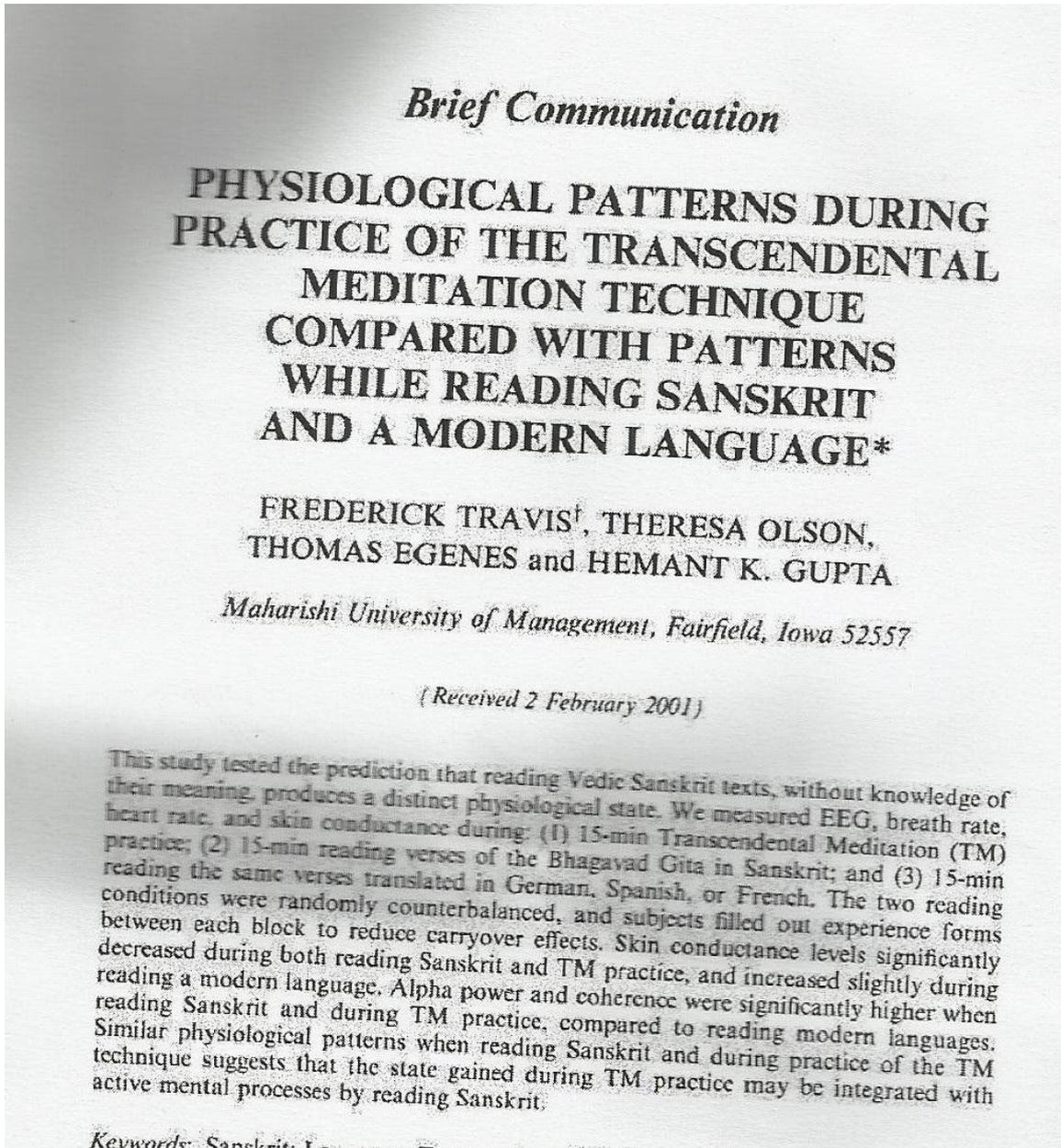
There is a long history of claims that Sanskrit language is a very powerful language and that its sounds, and words have effect in controlling/modifying the natural elements as well as human health.

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The tradition of Mantra chanting are a testimony to this claim, as Hindu scriptures detail in length the efficiency and power of Mantras, the way to chant them, and the precaution and austerities to be undertaken while doing so. Some mantras are even recited by Hindus till date following the procedures given by such accounts.

As outlined in the previous sections, the concept of Bija Mantra, typically consisting of single syllable non-lexical sounds, are believed to work using the very power of their sound, this again owing to the claimed power of this language.

There has been little scientific backing to these claims, though in recent times significant number of studies have been done, with positive results regarding the powers of Sanskrit. One such study that reveals vital clues on Sanskrit's influence on human health is one conducted by Travis et al. Few snapshots of the results obtained by him are presented below:



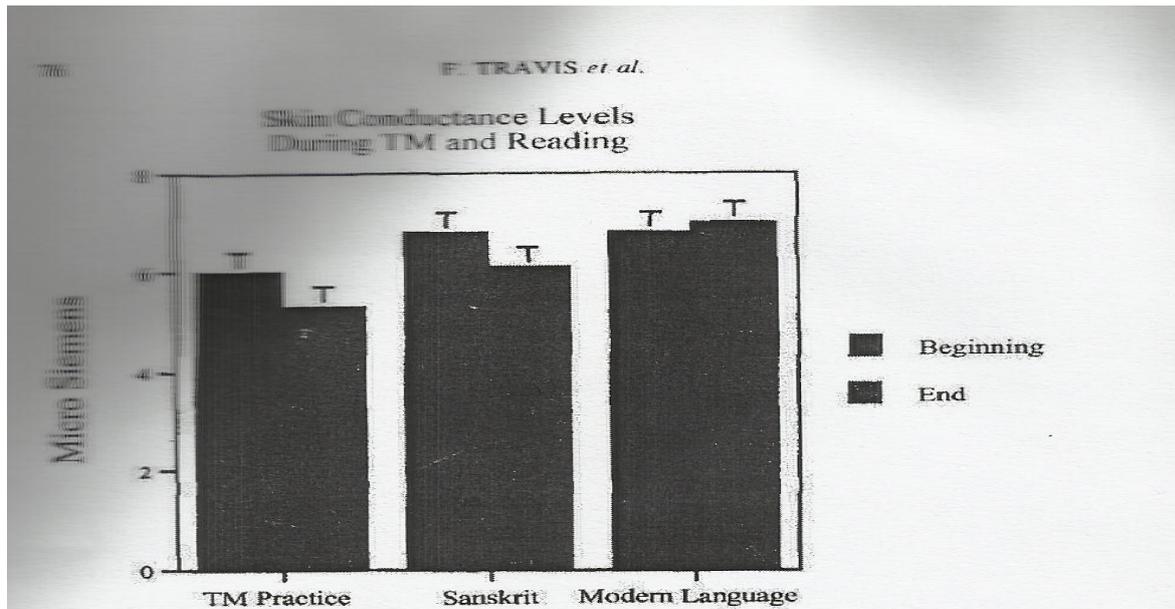


FIGURE 1 Skin conductance levels during reading Sanskrit, TM practice, and reading a modern language. Skin conductance levels decreased during reading Sanskrit and the Transcendental Meditation practice from the beginning (solid bars) to end (grey bars) of the 15-min periods. There was no significant change during a modern language.

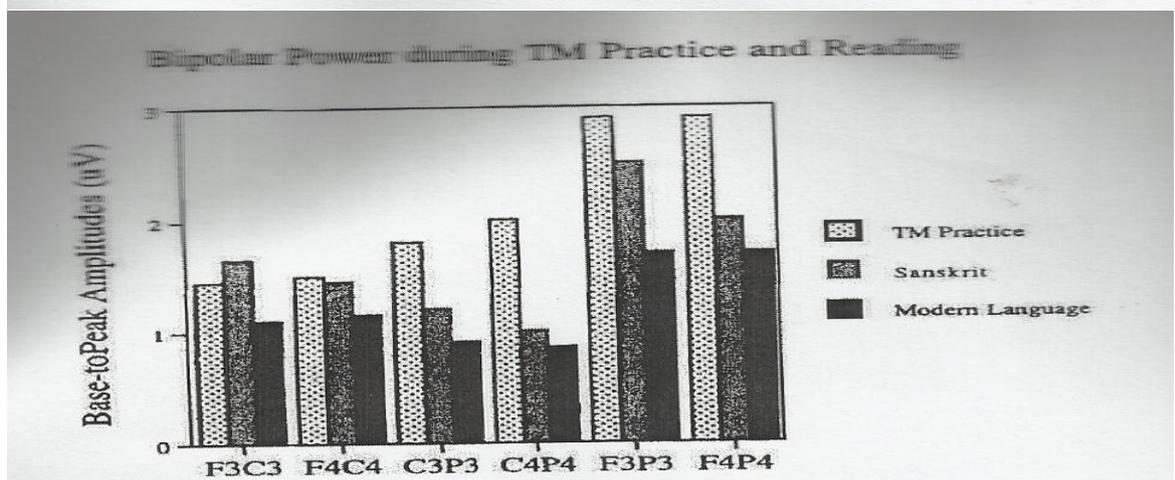


FIGURE 2 EEG power during reading Sanskrit, TM practice, and reading a modern language. EEG alpha power at frontal-central, central-parietal and frontal-parietal bipolar pairs were similar during reading Sanskrit (grey bars) and during TM practice (dotted bars), but significantly higher than reading the modern languages (solid bars).

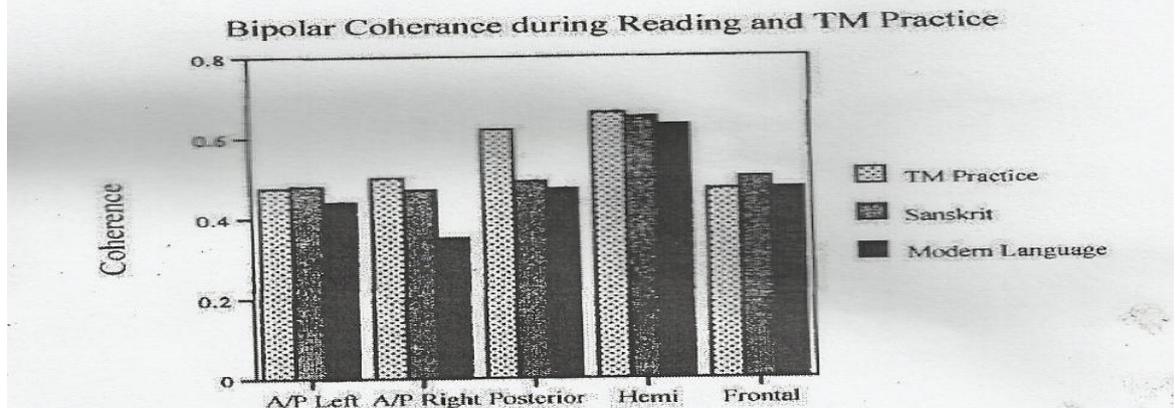


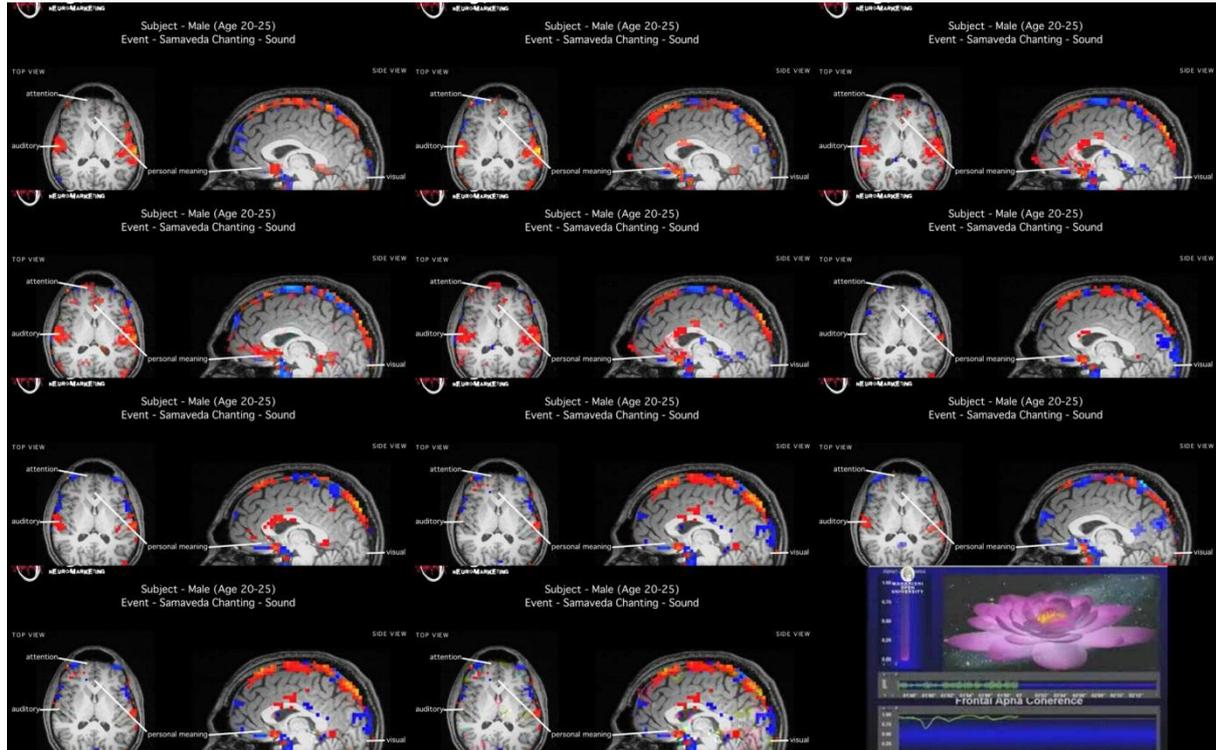
FIGURE 3 EEG coherence during reading Sanskrit, TM practice, and reading a modern languages. Anterior/posterior and frontal coherence was similar during reading Sanskrit (grey bars) and TM practice (dotted bars), but significantly higher than reading the modern languages (solid bars).

Tracing the origins of India

The results shown above provide some vital clues to the functioning of the Sanskrit language, which as already outlined in the previous sections, was considered by the ancient Indians to be something more than a language. It was a set of carefully picked syllables each of which had its own effect, and such syllables were strung together to form words and sentences.

There have also been many other studies on the same lines, and many of them hold convincing results that Sanskrit is the only language that has effects on the human system as well as in the environment.

Shown below are the EEG recordings of brain activity on recitation of Sama Veda chants in Sanskrit.



Etymological studies on Sanskrit and Tamil

There has been a lot of proposals, articles and other publications worldwide, regarding grouping of languages into language families, and families into macro-families, and such proposals are best explained by conducting etymological studies on the concerned languages.

There are a lot of articles in particular, that relate Tamil or a proto-Dravidian (early form of Tamil), to various languages around the world. Some of these are listed below:

1. David McAlphin outlines the relationship between Tamil and the ancient Iranian language of Elamite
2. Dr. Alfred Toth in "Are all Agglutinative languages related to one another?" explores the connections between Tamil, and various other agglutinative languages worldwide, including

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more than 30 languages such as Hungarian, Sumerian, Maori, Malay, Japanese, Thai, Aymara, Caucasian Hebrew, Uralic, Chukchi and many others.

3. M.S.Victor in his “Babylonian Thamizh” details out the various linguistic, archaeological and mythological connectins between Tamil and the various civilizations of West Asia, in particular the Babylonians, the Sumerians and the Semites, including the Egyptians. He has also discussed elaborately on the connections between Hebrew and Tamil, and the presence of Hebrew root-words in Tamil.
4. Susumu Ohnu in “The genealogy of the Japanese Language” has discussed the relationship between Japanese and Tamil, and Prof. Kambe has also suggested such a connection(http://articles.timesofindia.indiatimes.com/2011-01-18/chennai/28356882_1_kama-professor-gakushuin-university) .
5. Andrew Butcher in “AUSTRALIAN ABORIGINAL LANGUAGES: CONSONANT-SALIENT PHONOLOGIES AND THE ‘PLACE-OF-ARTICULATION IMPERATIVE’” mentions of a possible connection of Tamil to the Australian aboriginal languages and other languages like Chukchi. He says “ **Perhaps most similar to Australian languages are the Dravidian languages of southern India. Tamil, for example, has five places of articulation in a single series of stops, paralleled by a series of nasals, and no fricatives (thus approaching the Australian proportion of sonorants to obstruents of 70% to 30%). Approaching the question from the opposite direction: according to the latest WHO data on the prevalence of chronic *otitis media* (Acuin 2004:14ff), Aboriginal Australians have the highest prevalence in the world – 10-54%, according to Coates & al (2002), up to 36% with perforations of the eardrum. They are followed – at some distance – by the Tamil of southern India (7.8%, down from previous estimates of 16-34%) to develop.**”
6. An article in the website, <http://arutkural.tripod.com/tolcampus/drav-african.htm> details the cultural and linguistic relationship between Tamil and Africans.
7. An article in <http://viewzone2.com/ancientturksx.html> by Gene Matlock, suggests the connections between Tamil, Turkic and the Mayan languages.

On these lines, the author was inclined to take up global etymological studies, for a few words to start with, and observe the connection of Tamil to other languages. To start with, two words “Hand” and “Eye”, and the set of personal pronouns (I, you, he/she/it, we you, they) were chosen, and the etymological counterparts were listed out as follows:

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THE PRONOUN “I”

KHOISAN: **tii* || *ŋ* ~ *na* ~ *ni* || **mi* ~ **ma*
 NILO-SAHARAN: **akʷai*
 KORDOFANIAN: **ʝi*
 NIGER-CONGO: *i* ~ (m)*i* ~ (n)*i* || *a* ~ (n)*a*
 AUSTRALIAN: **ŋay*
 INDO-PACIFIC: *na* || *ta* || *ka* || *ya* || *bo* ~ *mo* || *u* ~ -*w*
 MIAO-YAO: **ku(ŋ)* || **weg* || **ia*
 AUSTROASIATIC: **ʝoo* || **eŋ* || **i*
 DAIC: **ku* || **ʝi* ~ **ya* ~ **i*
 AUSTRONESIAN **aku* || **a(ŋ)kən*
 FORMOSAN: **aku*
 MALAYO-POLYNESIAN: **aku* || **a(ŋ)kən*
 BASQUE: *ni* ~ *neu*
 CAUCASIAN: **əʃ* || **nǝ*
 WEST: **se* ~ **sa*
 EAST: **swo* ~ **zu(n)* || **dī(n)* ~ **du* ~ **tu*
 †HURRIAN: *se* ~ *es*- || -*iw**w*
 †URARTIAN: *ješə* ~ *šo* || -*u*
 †HATTI: *se* ~ *es*-
 BURUSHASKI: *je* ~ *ja* || *mi* ~ *mo* || *aiya*
 NAHALI: *juo* || *egge*
 SINO-TIBETAN: **ŋa* || **-ka*
 CHINESE: **ŋo*
 KAREN: *ja* (< **ŋa*)
 TIBETO-BURMAN: **ŋa* ~ **ŋay* ~ *aŋ* ~ *aŋ-ka* ~ *ka-ŋa* || **-ka*
 YENISEIAN: **ʔaj*
 NA-DENE: **šwǝ*
 HAIDA: *tʰa* || *tea* ~ *día*
 TLINGIT: *khut* ~ *hutt*
 EYAK: *chuu* || *hítak*
 ATHABASKAN: **šwǝ*
 AFRO-ASIATIC: **an* ~ **anaku* || *ʔ* ~ *a* || *u* || *i*
 †ETRUSCAN: *mi* ~ *mi-ni*
 †SUMERIAN: *ma*
 KARTVELIAN: **me(n)* || **xw-*
 DRAVIDIAN: *yan* || *i* ~ *y-* || *ka* ~ *kan* || *ut*
 ELAMITE: *u* ~ *un* ~ *u-* || -*kə*
 INDO-EUROPEAN: **me* || **eg* || **k*
 URALIC-YUKAGHIR: **me* || **k*
 ALTAIC: **mi* ~ **bi*
 KOREAN-JAPANESE-AINU: *mi* || *na*
 GILYAK *ni* ~ *n̄*-
 CHUKCHI-KAMCHATKAN: -*m* || -*ka*
 ESKIMO-ALEUT: -*ma* || -*ka*
 AMERIND: *na(ʔ)* || *ʔi*
 ALMOSAN: **me-*
 KERESIOUAN: *hino* || *iʔi*
 PENUTIAN: *nV* || *ʔi* ~ *hi*
 HOKAN: *na*
 CENTRAL AMERIND: *nV*
 CHIBCHAN: *na* || *hi* ~ *i*
 PAEZAN: *na* || *i*
 ANDEAN: *na* || *hi* ~ *i*
 MACRO-TUCANOAN: *hi* ~ *yi*
 EQUATORIAL: *nV* || *hi* ~ *he* ~ *yi* ~ *e*
 MACRO-CARIB: *awe* ~ *owi*
 MACRO-PANOAN: *nV* || *i* ~ *e* ~ *ye*
 MACRO-GE: *nV* || *he* ~ *i*

THE PRONOUN “YOU”

KHOISAN: **ʔi-* || **ʔu*
 NILO-SAHARAN: **ini* || *u*
 KORDOFANIAN: **ŋa* ~ *ŋə* ~ *ŋo*
 NIGER-CONGO: *u* ~ *o*
 AUSTRALIAN: **nu-rrə* ~ **nurra* ~ **numpalə* [d] || **ku-rrə*
 INDO-PACIFIC: *ki* || *te* || *mi* ~ *pi* || *nik*
 MIAO-YAO: *ʔmne* || *ñew*
 AUSTROASIATIC: **be(n)* [d] || **pe* ~ *pa* || **yi* || **inaa*
 DAIC: *su* ~ *sí* ~ *sí* ~ *sau* || *mo* ~ *mu* ~ *mai*
 AUSTRONESIAN
 FORMOSAN: *kamu* ~ *amu* ~ *imu*
 MALAYO-POLYNESIAN: *kamu* ~ -*miv*
 BASQUE: *zuek* ~ *zuek*
 CAUCASIAN:
 WEST: *sʷa* ~ *sʷe* ~ *fe*
 EAST: *šu* ~ *zu(r)* || *biti* ~ *bišti* ~ *bissi* || *mezi* ~ *mize* || *kün*
 †HURRIAN: *we* ~ -*w* ~ -*ü* ~ -*ô*
 †URARTIAN: -*w* ~ -*aw*
 †HATTI: *we-*
 BURUSHASKI: *ma* ~ *mai* ~ *maimo*
 NAHALI: *lā* ~ *lāla* || *nēko* ~ *nāko* [d]
 SINO-TIBETAN: **naŋ* ~ *na* ~ *njo* ~ *nia*
 CHINESE: *njo* ~ *nja* || **kwə(j)*
 KAREN: *na*
 TIBETO-BURMAN: **naŋ* ~ *na*
 YENISEIAN: **ʔu* ~ **ʔəw* || **kə* ~ *ʔək-*
 NA-DENE: **wr*
 HAIDA: *dalen* ~ *dalunga*
 TLINGIT: *gigwann* ~ *yehwenn*
 EYAK: *liahšū* || *kajjuku*
 ATHABASKAN: *ʃan*
 AFRO-ASIATIC: *t(ə)* || -*kum* ~ -*kun* ~ -*kin*
 †ETRUSCAN:
 †SUMERIAN: *za*
 KARTVELIAN: (*s₁*)*tkwen-*
 DRAVIDIAN: **nim* ~ *nim* ~ *num* || -*tir*
 ELAMITE: **ni* ~ *nin* ~ -*ni* || -*ti*
 INDO-EUROPEAN: -*te*
 URALIC-YUKAGHIR: *tə* ~ *tit*
 ALTAIC: *ta*
 KOREAN-JAPANESE-AINU: -*s-i*
 GILYAK *či*
 CHUKCHI-KAMCHATKAN: **tur* ~ *turx-* ~ -*tə-k*
 ESKIMO-ALEUT: -*s-i* || -*ti-k* [d] ~ -*ti-t*
 AMERIND: *mak* ~ *mik*
 ALMOSAN: **ke-*
 KERESIOUAN: *ʔis* ~ *hǝsu*
 PENUTIAN: *makam*
 HOKAN: *makaʔ* ~ *mal*
 CENTRAL AMERIND: *ʔima* ~ *yim*
 CHIBCHAN: *mi* ~ *mu*
 PAEZAN: *paje* ~ *bü*
 ANDEAN: *mi* ~ *mai*
 MACRO-TUCANOAN: *mue* ~ *musa* ~ *mixsa*
 EQUATORIAL: *amos* ~ *mungui*
 MACRO-CARIB: *moki* ~ *amo*
 MACRO-PANOAN: *ami* ~ *mikuan* ~ *mil*
 MACRO-GE: *ma* ~ *makajja*

As can be seen in the “hand” example, most language families, etymologically bear a similarity with Tamil (*kai*), in that most of them have a guttural (such as *k/g*) and/or a vowel (such as *e/i/ai*). Similar relationship can also be found for the “Eye” example.

The author has also made listings of certain selected languages which may show etymological relationships. One such listing involves 12 “golden” languages – Tamil, Sanskrit, Nahuatl, Zulu, Hebrew, Turkish, Georgian, Thai, Chinese, Malay, Enga-matukar, and Bagandji, to cover the diverse families/macro families of Dravidian, Indo-European, Amerindian, Niger-Congo, Afro-Asiatic, Ural-Altai, Dene-Caucasian, Daic/Austro-Asiatic, Sino-Tibetan, Austronesian, Papuan-trans New Guinean, and Pama-Nyungan languages respectively. This listing is shown below, and it consists of a select number of commonly used nouns, verbs, adjectives, pronouns, prepositions, and prefix/suffix/inflexions for Tense, Number, Gender and Possession.

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LINGUISTIC LISTING AND STUDY OF 12 GOLDEN LANGUAGES - SAI VENKATESH

ENGLISH	NAHUATL	ZULU	HEBREW	KARTELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI	
NOUNS													
mother	huatzinco	umama	ממא	deda	anne	माता	தாய்	母亲	Mūqīn	Māe	ibu	men	ngam aka
father	tatzintli	ubaba	מאבא	mama	baba	पिता:	தந்தை	父亲	Fuqīn	Phx	bapa	mam	nira-mang
son		indodana	בן	shvili	oḡlum	पुत्रः	மகன்	儿子	Ézī	Butr chāv	anak	son	nu-ngaba
daughter	chuatlora	indodakazi	בן	k' alishvili	kiz	पुत्री	மகள்	女儿	Nū'ēr	Lok šāv	anak perempuan	alpain	ngal-ngaba
woman	chuatl	urnfazi	נשה	k' als	kadin	नारी	பெண்	女人	Nū'ren	Hying	wante	pain	nhuungka
brother	nocatruan	urnmowethu	מא	dzma	kardes	अग्रजः	சகோதரன்	哥哥	Cēgē	Phō chāv	abang	matu	babba
sister	icnetrua	udade	מא	dis	kardes	अनुजा	சகோதரி	妹妹	Māimel	Ng'ng šāv	kakak	lu	biyakain
child	conetl	urnmwana	תל	bavshvi	gocuk	शिशुः	குழந்தை	孩子	Hāizi	Dēk	kanak-kanak	alpainim	muurpa
grandmother	coltzizihua	ugogo	מא	belbia	büyükanne	मातामहि	பாட்டி	奶奶	Nānai	Yāv	nenek	bagebage	pa ngabuy
grandfather	coltzizihua	ubabamkhu	מא	babu a	dede	पितामह	தாத்தா	爷爷	Yēye	Phē	duduk	bagebage	ta derde
boy		urnfana	בן	bichi	erkek	बालकः	பையன்	男孩	Nānhāi	Dēkchāv	budak	aim natun	marl
girl	conetl	intombazan?	מא	gogona	kiz	बालिका	பெண்	女孩	Nū'hāi	Sāv	gadis	alpain natun	ialang
fire	tletl	urnlilo	מא	ts'er'khli	yanqin	अग्नि	தீ	火	Huǒ	Fl	kebakaran	yau	kunka
water	atl	arnanzi	מא	tsqali	su	जल	தண்ணீர்	水	Shuǐ	Nā	air	nub	nguyuku
land	xolal	urnhabathi	מא	mtsais	arazi	भूमि	நிலம்	土地	Tǔdì	Thudin	tanah	tan	mariti
wind	yeyecarne	urnoya	מא	k'ari	rūzār	वायु	காற்று	风	Fēng	Lm	angin	tim	bohon
sky		izulu	מא	Sky	goklyuzo	आकाशः	ஆகாசம்	天空	Tiānkōng	Th'xng'ā	langit	sulungau	
milk		ubisi	מא	rdze	sūt	दूध	பால்	牛奶	Niúniú	Nm	susu	sus	nggabunuy
bread	paratzin	ishikwa	מא	puri	ekmek	रोटि	ரொட்டி	面包	Mānbāo	Khmrpang	roti	bread	manhu
fruit	xochicualli	istheho	מא	khilis	meýe	फल	பழம்	水果	Shuǐguǒ	Phl mī	buan-buahan	agrinun	
house	cali	indlu	מא	sakhil	ev	गृह	வடு	房子	Fāngzi	Bān	rumah	house	goron
car		imoto	מא	man'ana	araba	वाहन	கார்	汽车	Qìchē	Rth	kereta		gurruwiti
money	totruin	imall	מא	p'uli	para	एक	பணம்	钱	Qūān	Ngain	wang	gutgut matar	garardin
tree	cuahuitl	urnuthi	מא	khe	edāy	वृक्षः	மரம்	树	Shù	Tnni	pokok	ai	wilin
river	atlaco	urntula	מא	mdinare	nehir	नदी	ஆறு	河	Hé	Mānā	sungai	bururuk	paaka

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LINGUISTIC LISTING AND STUDY OF 12 GOLDEN LANGUAGES - SAI VENKATESH

ENGLISH	NAHUATL	ZULU	HEBREW	KARTELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI
mountain	cuatlata	intaba	רֶבֶת	mt's	dağ	पर्वतः	மலை	山	Shān	Phūkheā	gunung	did
country		izwe	אֶרֶץ	k'veqana	ülke	देश	நாடு	国家	Guójiā	Prathēś	negara	lahan
city		ididiobha	קָרָה	k'alak'i	şehir	नगर	நகரம்	城市	Chéngshì	Mejūng	bandar	
language	totlatol	ulimi	לשון	ena	dil	भाषा	மொழி	语	Yǔ	Phās'ā	bahasa	maljin
forest	cuatlatal	ihlahi	לַיִשׁ	tois	orman	वन	காடுகள்	森林	Senlín	Pā	hutan	garang kaskik
sun	tonatli	ilanga	שֶׁשׁ	mze	güneş	सूर्यः	தூய்பன்	太阳	Tàiyáng	Dwng xāthir'Ahđ	bulan	kalam
moon		iryanaga	לַיִל	nt'vare	ay	चन्द्र	சந்திரன்	月亮	Yuèliàng	Dwng cānthr'f		thungka
flower	xcochtli	imballi	לְבַנָּה	flower	çiçek	पुष्पं	மலர்	花	Huā	Dxkni	bunga	kakoi
dog	chichitli	inja	כִּלְבֵּי	dzaghlil	köpek	शुनकः	நாய்	狗	Gǒu	Sunākh	anjing	gaun
cat		ikati	חִתּוּב	kata	kedi	माजिरः	பூனை	猫	Māo	Məaw	kucing	kasi
animal	yolcatli	isliwane	חַיָּוִת	ts'khoweluri	hayvan	पशु	மிருகம்	动物	Dòngwù	Sarw	haiwan	lamang
monkey		inkawu	קָפָר	Monk ey	məymun	वानरः	குரங்கு	猴子	Hóuzi	Ling	monyet	
book	artox	incwadi	סֵפֶר	tsigni	kitap	पुस्तक	புத்தகம்	书	Shū	Hinangšūx	buku	book
gate		isango	קָוֶשׁ	karloche	kapi	द्वार	வாயில்	门	Mén	Pratō	pintu	
God		inkkosi	אֱלֹהִים	ghmert'i	Tanni	देवः	கடவுள்	上帝	Shàngdì	Phracēā	Tuhan	
cow		inkomazi	בָּקָר	dzrokha	inek	गायः	மாடு	牛	Niú	Wəw	lembu	wilimurr-garang
hand		isinxele	יָד	mkhriy	el	हस्तः	கை	手	Shǒu	Mdx	tangan	karta
leg		umlenze	לֶג	p'ekhi	bacak	पाद	கால்	腿	Tuǎ	Khā	kaki	neu
face	ixayac	ubuso	פָּנִים	sakhe	yz	वदनं	முகம்	面对	Miān duì	Bināā	muka	nau
eye		iso	עַיִן	t'valis	göz	नेत्रः	கண்	眼	Yǎn	Tā	mata	matau
ear		indlebe	אָזְנוֹ	quris	kulak	श्रवण	காத்	耳	Ēr	Hā	telinga	kududu
nose		ikhala	אָרָז	ts'khviri	burun	नासिका	வாசனை	鼻子	Bīzi	Cmāk	hidung	nidu
head	itzontecotl	ikhanda	קֶפֶל	up'rosi	kafa	शिरः	தலை	头	Tóu	Həw	kepala	garmanu
hair		urwele	שֵׁשׁ	t'mis	sag	केशः	மயிர்	头发	Tóufā	Phm	rambut	huhulun
body		urzimba	גִּבּוֹר	skeulis	ycut	देह	உடல்	身体	Shēnt'ē	Rāngk'āy	badan	
neck		urngala	קִּישִׁים	kisris	boyun	श्रीवा	கழுத்து	颈部	Jīng bǔ	Khx	leher	burau
mouth		umlomo	פִּי	pirshi	agiz	मूत्रः	வாய்	口	Kǒu	Pak	mulut	awau
												yalka

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ENGLISH	MAHUATL	ZULU	HEBREW	KARTELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI
morning		isasa	גַּחַשׁ	dilit'	sabah	प्रातः	காலை	Shàngwú	Txn chēā	pagi	tidom mami	gabbutapbut
afternoon		intanbarra	מִשְׁמַחַת	nakhevarshi	öğleden	माध्याह्न	பிற்பகல்	Xiàwú	Bāy	petang	rayaray	gawor
evening		ukukhwa	עֶרֶב	saghamos	akşam	सायंका	மாலை	Huānghū	Txn yēn	petang		
night	yohuuali	ubusuku	לַיְלָה	gharnis	gece	रात्रि	இரவு	Yè	Khūn	m alam	tidom	langiti
day	tonal	lianga	דֵּי	dgheshi	gün	दिन	நாள்	Rì	Mān	hari	nal	nardai
month	metzli	inyanga	שָׁנָה	t'vis	ay	मास	மாதம்	Yuè	Deūxn	bulan		gakgalak
year	xihuitl	uryaka	שָׁנָה	tseil	yil	वर्षः	ஆண்டு	Nián	Pt	tahun	bras	
bird		inyoni	קָוֶה	p'riwvelis	kuş	पक्षिः	பறவை	Niǎo	Nk	burung	mam	landilyan
meal	tlacualli	impuphu	מִנְחָה	kveba	yemek	भोजन	உணவு	Cān	Xāfār	m akan		
music		urnculo	מִשְׁכָּח	musika	müzik	संगीत	இசை	Yīnyuè	Phelng	muzik		
vegetable		urnfino	מִשְׁכָּח	bostneulis	sebze	शाक	காய்க்கறி	Shūcài	Phak	sayur-sayuran		danganjin
science		isayensi	עֵלְמָה	met's'nieredq	bilim	विज्ञान	விஞ்ஞானம்	Kēxué	Wichyāśśstī	sains		
maths		izibalo	מַתְמָטִיקָה	mat'em atikis	malem atik	गणित	கணக்கு	Shùxué	Lefh	malem atik		
arts		ubuciko	מַחְנֵה	arts	sanat	कलाः	கலை	Yìshù	Silpa	seni		
VERB												
to answer	otlananquili	-phenudula	מַשָּׁל	pasukhis gad	cevaplama	उत्तरं वद	பதிலளிக்க	Huídá	Tñ ca txb	menjawab		yayi
to ask	tlahliantia	-buza	שָׁאַל	vr'khovo	sormak	पूछ	கேட்க	wān	Tñ ca Khx	bertanya	ngasum ayalk	mgorhga
to be	yez	-ba	הָיָה	iqos	olmak	भव	இரு	Shì	Pēn	menjadi		yur-naliny
to begin	peh	-gala	הִתְחַלֵּף	datsqos	başlamak	आरंभस्व	தொடங்க	Kāishǐ	Tñ ca relim fē	m em ulakan		
to buy	tlacoa	-thenga	קָנָה	qidva	satın almak	क्रिप्रा	வாங்க	gǔomǎi	Tñ ca sūx	m embell	dad	
to come	huitz	-za	הָיָה	mova	gelmek	आजातः	வர	lái	Tñ ca maā	datang	manigwaiso	perpa
to cost		-biza	מִשְׁכָּח	ghirebulaba	m aliyet	मूल्यं	விலையடாக	chéngbēn	Sēiy kñā chī	kos		
to do	chinua	-enza	מַשָּׁל	gavaker'ot	yapmak	करु	செய்ய	zuò	Ca thā	melakukan	nganage	ngalyanggi
to drink	izque	-phuza	מַשָּׁל	daleva	ipmek	पिब	குடிக்க	hē	Tñ ca dūm	m lum	ngam ulfng	binggorkga
to eat	cuaz	-dia	מַשָּׁל	chama	yemek	खाद	சாப்பிட	chī	Tñ ca kin	m akan	wanimig	dayi
to find		-thola	מַשָּׁל	ipovos	bulmak	मिल	கண்டுபிடிக்க	zhǎodǎo	Pheux nā	mencari		yow tija

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ENGLISH	NAHUATL	ZULU	HEBREW	KARTWELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI	
to fly		-ndiza	קוף	p'rena	uçmak	डोया	பறக்க	飞	fei	Thì ca bin	terbang	fly	bilma
to forget		-khozha	מנש	davitsqos	unutmak	विस्मर	முறக்க	忘记	wàngjì	Thì ca lùm	melupakan	manalalaya	boxlyra
to get	tlali	-latha	לרלל רר	mis'aghabad	almak	लभस्व	பெற	得到	dédào	Thì ca qī rābō	mendapatkan		mayi
to give	macaz	-nika	מל	mists'es	vermek	यच्छ	கொடுக்க	给	gěi	Pheùx nì	memberi	panau	nawundi
to go	hui	-hamba	מלל	tsasvla	gitmek	गच्छ	செல்ல	去	qù	Pi	pergi		pari
to help	tlapalehuiaiy	-siza	מלל רר	rat'a daekimyaradim	satraya	सहाय	உதவு	帮助	bāngzhù	Pheùx chuy	membantu	numam	
to listen	caqui	-zwa	מלל	movusminot	şuyru	श्रुपु	கேட்க	听	tīng	Fang	mendengar	timonga	ngandi
to live	neniti	-zwa	מלל	ts'khovreba	yaşamak	जीव	வாழ	住	zhù	Carnt' chawit	hidup	madongana	ngilingka
to love	tlazotiliz	-thanda	מלל	miqvars	sevirmek	स्निह्य	அன்பு செய்ய	爱	ài	Thì ca rak	cinta		ngal mumi
to mean	quihzozequi	-sho	מלל	nishnans	demek	उद्दिश	அதாவது	意思	yìsi	Him'ay thung	bermakna		
to open		-vula	מלל רר	gakhnas	açmak	उद्घाट	திறக்க	打开	dǎkāi	Pheùx peid	membuka	ngafe	dangarrh
to order	tequitiaya	-khuza	מלל	sheidzleba s' siparş	आदिश	आदिश	வாங்க	订购	dīngdù	Kar şang s'ix	memeritahkan		
to pay	tlaxtlahuilia	-khokha	מלל	gadaikhados	ödeme	प्रयच्छ	கொடுக்க	支付	zhīfù	Thì ca txing t'	membayar		
to play	mahuilia	-dlala	מלל	unda r' amas' gynamak	koymak	क्रिड	விளையாட	玩	wán	Thì ca lèn	bermain	play	majyan
to put	tlaliln	-beka	מלל	daagenos	koymak	स्थापय	வைக்க	把	bǎ	Thì ca nà	meletakkan	nganagengalgera	
to rain	quihuiuz	-na	מלל	to tsivims	yağmur	वर्ष	மழை	下雨	xià yǔ	Fn	hujan	rain	
to read		-funda	מלל	tsakti' khwis	okumak	पठ	வாசிக்க	阅读	yuèdú	Kar şan	membaca	te	
to search	temoa	-cinga	מלל רר	dzebnis	aramak	अन्वेषण	தேட	要搜索	yào sōus	Pheùx khññā	mencari	kaibo	liwo
to see	itta	-bona	מלל רר	vikhilor	görmek	पश्य	பார்க்க	看	kàn	Pheùx dū	melihat	ngatayiongo	ithu
to send		-thuma	מלל	gaag'zavnos	göndermek	प्रेषा	அனுப்ப	发送	fāsòng	Thì ca şng	menghantar	dudau	jowkga
to show	teihitia	-bukisa	מלל רר	rat'a nakhor	göstermek	दर्शय	காண்பிக்க	显示	xiǎnshì	Pheùx şeedng	menunjukkan	ngangau	jutta
to sing		-cula	מלל	m'ainst' mgh' şarku	çarku	गाय	பாட	唱	chàng	Ca'rx ngphelm'enyanyi	menyanyi	wabi	bugandi
to sleep	cochitiz	-lala	מלל	dzilis	uyku	निद्र	தூங்க	睡觉	shuìjiào	Pheùx kār n'xtidur	tidur	ngain	ngma
to speak	tlatooyza	-khuurna	מלל רר	s'aubari	konusmak	वद	பேச	说话	shuōhuà	Thì ca phud	bercakap	ngagamukgakai	
to stay	cahua	-sala	מלל	darci' ena	kalmak	विचर	தங்க	留	liú	Thì ca xyù	tinggal	madonggo	dup ba
to swim		-hianba	מלל	baaababa	yüzemek	तर	நிந்த	游泳	yóuyǒng	Kar wáy nà	berenang		lini ma
to take	quixtia	-thatha	מלל	miighnos	almak	गृहण	எடுக்க	采取	cǎiqǔ	Thì ca chí	mengambil		ga-ndi

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ENGLISH	NAHUATL	ZULU	HEBREW	KARTVELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI
to taste		-nambitha	גַּסְרִינְיָא	gasrinjya	tadi	रसय	ருசிக்க	品尝	Pheùx fhm r̄s	merasai		
to tell	quilia	-tshela	קַוִּילִיָּא	vur'khra	söylemek	उक्त	சொல்ல	告诉	Tñ ca b̄xk	memberitahu		ngili
to thank	tlazochcarnal	-bonga	מַתִּינִי	didi madlobdtešekkür	başlamak	உதயவாத	நன்றி	感谢	Kh x̄ Khxbkhu	terima kasih	Kuyanamok	
to think	nenilia	-cabanga	נִמְנִיָּא	vip'ik'rot'	düşünmek	चिन्त	என்று	想	Tñ ca khid w̄berkir	berikir	ilo gire	Jamen na
to travel		-hamba	מְסַלֵּחַ	gamg zavreb	seyahat	प्रयाण	பயணிக்க	旅行	Tñ ca deinh	melancong		parngka
to try		-zama	מִסַּחֵחַ	ts'diloben	denemek	यत्	முயற்சிக்க	尝试	chángshì	mencuba		
to understand	ahchicacaln	-qonda	מִסְתַּמֵּחַ	unda gvesm daniamak	denilmek	अवगत	பரிந்து கொள்	了解	Tñ ca Khēac	memahami		dalmendal
to visit		-vakasha	בָּקַשָּׁה	etsveva	zıyaret	अनुब्रज	வருகை	访问	Pheùx Khēac	melawat		
to wait	chia	-linda	מַחְנֵה	Iodini	beklemek	प्रतीक्ष	காத்திருக்க	等待	Txng rx	menunggu	mai dop	gokgo
to work	tequiti	-seberza	מְעַמְּלִים	mushaabis	çalışmak	उद्योग	வேலை	工作	gōngzuò	bekerja	urat nage	w'oertke
to write	tlacuiloz	-bhala	מִסְתַּכֵּחַ	datsera	yazmak	लिख	எழுத	写	xiě	menulis	girenggo	dilh
PRONOUNS												
I	ni	ngi	אֲנִי	me	ben	अहं	நான்	我	Phm	saye	ngau	apa
You	ti	u	אַתָּה	tk'ven	sen	त्वं	நீ	您	Khun	anda	ong	impa
He	-	u	הוא	man	o	सः	அவர்	他	Khēā	Bellau	i	ahu
She	-	u	היא	man	o	सा	அவள்	她	Thex	Bellau	i	ahu
It	-	u	הוא	ligi	o	त्त	அது	它	Mān	ia	i	ahu
We	ti-h	si	אֲנַחְנוּ	ch'ven	biz	वयं	நாம்	我們	Reā	Kami	ngo	ngego
Thee	an-hvmitz	ni	הוא	shenda	sana	स्य	உன்னை	你	Cēā	tiga	ong	ngonggo
They	h	ba	הם	isini	onlar	तैः	அவ்வ	他們	Phwk Khēā	mereka	i	bogo
Me	nech	ngi	אֲנִי	Me	beni	मम	என்னை	我	Chān	Me	ngau	ngasapa
him	qui	m	הוא	mas	onu	त्	அவ்வ	他	Khēā	dia	i imi	ngathu
her	qui	m	היא	msi	onu	ता	அவ்வ	她	Thex	bellau	i imi	ngathu
us	tech/amech	si	אֲנִי	us	bize	अस्मान्	எங்களுக்கு	我們	Reā	kita	us	ngego
them	quim	ba	אֲנֵיהֶם	m'ac'	onlar	तान्	அவ்வ	他們	Phwk Khēā	mereka	hebedi	bogo
My	no	mi	אֲנִי	ch'erni	benim	मम	என்னுடைய	我的	Kh'ng chān	saye	ngahaung	ayi
your	mo/ammo	kho	הוא	tk'veni	szin	त्वं	உங்களுடைய	உங்கள்	Kh'ng khun	anda	om	ma

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ENGLISH	MAHUATI	ZULU	HEBREW	KARTVELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI	
his	ii	khe	היש	misi	onun	तस्य	அவருடைய	他的	Tā de	Khng Khēd	belau	wa	athu
her	ii	khe	היש	misi	onu	तस्याः	அவளை	她的	Tā de	Thex	belau	i imi	athu
its	ii	khe	היש	misi	kendi	तस्य	அதனுடைய	其	Qi	Khng m an	yang		athu
our	to	ifhu	היש	ch'veni	bizim	उस्माकं	நம்முடைய	我們的	Wōmen d	Kh xng reā	Kami		ay/ingayi
their	iin	bo	היש	m'a'i	onlarin	तेषां	அவர்களுடைய	他們的	Tāmen d	Kh xng phwk	mereka		athathu
this	imn	io	היש	am	bu	एतत्	இந்த	这	Zhē	Mī	ini	this	mahan
that	on	lowo	היש	rom	o	तत्	என்று	这	Gāi	Thō	bahawa	that	gahan
these	imritin	laba	היש	am	bunlar	एतानि	இந்த	这些	Zhèxiē	Hèlǎnǐ	ini		mahan
those	nonque	labo	היש	im	bu	तानि	அவர்கள்	那些	Nàxiē	Hèlǎnǎn	mereka		gahan
here	nian	apha	היש	ak'	burada	तानि	இங்கே	这里	Zhèlǐ	Thō nī	di sini	mani	ihki
there	ortpa	apho	היש	ik'	orada	तत्रः	அங்கே	那里	Nǎlǐ	Thō nǎn	terdapat	mana	wathana
everybody	nodthlaca	abantu bonk	היש	qvelas	herkes	सर्वाः	எல்லோருக்கும்	每个人	Měi gèrén	Thuk khn	semua orang		wuyawu
anybody	acca	ubani	היש	vinme	kimse	यादेश	யாறையும்	任何人	Rénhèrde	Khur *	sesiapa	tamat	
sombody	acca	ubani	היש	vinme	birisi	कश्चन	யாரோ ஒருவ	有些人	Yǒuxiēr	Bāng khn	sesorang	milo	
nobody	arracah		היש	aravin	kimse	न	யாராலும்	沒有人	Méiyǒu r	Mīnā khir	tiada siapa yang		
everything	mochi	konke	היש	qvelap'eri	her sey	सर्व	எல்லாம்	一切	Yīqiē	Thuk xyāng	segala-galanya		giyak gyak
anything		utho	היש	arap'eri	bir sey	किमपि	ஏதாவது	什么	Shénme	Sing di	apa-apa	ta mani	
something	itla	ukunto	היש	raghats'	bir sey	किञ्चित्	ஏதாவது	某物	Mǒu wù	Bāng Sing	bāsesuatu	milo	
nothing	arnitlah	ee	היש	arap'eri	hipbir sey	न	ஒன்றும்	无	Wú	Mīnā xari	apa-apa	ti	wihya
yes	quernah	ewe	היש	di'akh	ewet	आं	ஆம்	是	Shì	Chī	ya	awo	ngayi
no	ahno	hayl	היש	araris	hayir	न	இல்லை	沒有	Méiyǒu	Mī	tiada	ti	kila
who	aquin	ubani	היש	vin's'	kim	कः	யார்	谁	Shuí	Khur	yang	haiyai	wintyika
whom	aquin	ubani	היש	vis	kimē	कं	யாரை	其中	Qīzhōng	Khur	siapa		wintyika
what	lten	ni	היש	ra	ne	किं	என்ன	什么	Shénme	Sing thō	apa	hanant	jahan
which	lten	phi	היש	romelits'	hangl	किं	எது	哪	Nǎ	Sūng	yang		jahan
whose		kabani	היש	ronlits	kimin	कस्य	யாருடைய	谁	Shuí	Khur	yang		

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where	can	phi	גֵּוֹרֵם	sadats'	nerede	कत्रो	எங்கே	哪里	Naiṛ	T'hān	mana	where	wintya
why	tlica	elani	עֵלָנָה	racom	neden	किमर्थ	ஏன்	为什么	Weishéŋ	Thān	mengapa	hanat wai	minha manti
how	quanin	ngani	קָוָן	rogor	nasil	कथां	எப்படி	如何	Rūhē	Xyāngri	bagaimana	tagtag	baninngna
how many	quezqui	kangakanan	קָוָן	t'u ramdeni	kaç	कति	எத்தனை	多少	Dubshāo	Ki	berapa banyak	həp'yaɪ	banribin
when	icauac	nini	קָוָן	rodetsat's	zaman	कदा	எப்போது	何时	Hé shí	Mejux	apabila	mam han	jam bay
ADJECTIVES													
black		-mnyama	גַּחַשׁ	shawi	şyah	काल	கருப்பு	黑色	Heisè	St dá	hiam	black	borwlin
white		mhlōphe	בָּהַ	t'et'ri	beyaz	श्वेत	வெள்ளை	白	Bāi	Khāw	putih	kabakab	no-daw-na
red		borwu	דָּמָה	tsir'eli	kırmızı	रक्तः	சிவப்பு	红色	Hóngsè	St dæng	merah	garan	nu-wirntma
green	zoxoxotic	luhlaza	קָוָן	mstwane	yeşil	हरितः	பச்சை	绿色	Lǜsè	St Kheiyw	hijau	airaun kaimayin	
blue		-luhlaza	קָוָן	lur'ji	mavi	नील	நீல	蓝色	Lān sè	Stāngəin	biru		
yellow		liphuzi	גַּחַשׁ	qv't'eli	sari	पीत	மஞ்சள்	黄	Huāng	St hēlūxng	kuning	yan	
grey		mponga	קָוָן	nats'risp'eri	gri	धूम	சாம்பல் நிற	灰色	Huīsè	St theā	kelabu	wā	
happy	tipahpaqui	enama	קָוָן	bednieri	mutlu	सुखेन	மகிழ்ச்சி	快乐	Kuāilè	Yindr	gembira	pyanago	mrimpiya
angry	cualanta	-thukuthele	קָוָן	gabrazebuli	kızgın	कपित	கேடும்	愤怒	Fēnnù	Korh	marah	brunsa	kurika
afraid		-esaba	שׁוּמָה	eshinia	korkmuş	भीत	பயந்த	怕	Pà	Klāw	takut	ngarerago	
sad		dabukile	גַּחַשׁ	samtsukharo	üzücü	दुःखः	வருத்தம்	伤心	Sh āngxīn	Setvci	sedih	ibo ningo	wayngala
worried		engerile	אֲשַׁפְּרֹעַבִּים	ashp'or'ebis	endişeli	चिन्तया	கவலை	担心	Dān xīn	Klūmci	bimbang	ninago	moxr-ma
nice		mmandi	תָּמָה	amazi	güzel	समीचीन	நன்றாக	漂亮	Piāoliang	Dt	bagus	gagin	mamnakbun
old	huehue	dala	שׁוּמָה	tslis	eski	पुरातन	வயதான	老	Lǎo	Kēā	lama	sise	
new	yanauic	sha	שׁוּמָה	akhali	yeni	नूतन	புதிய	新	Xīn	Hirñ	baru	haun	labulin
young	teipocatl	sha	קָוָן	akhalgazrda	geng	युवक	இளம்	年轻	Niāngqīng	Pinūm	muda	haun	yarnulan
tast		-shesha	קָוָן	strap'i	hızlı	शीघ्रः	வேகமாக	快	Kuāi	Rwadrēw	paritas	duba	gabarn-na
slow	yooyolictzin	donda	קָוָן	neli	yavaş	मन्द	மெதுவான	慢	Mān	Chā	melambatkan	ttok	lappany
hot	totonqui	shisa	דָּה	ts'kheli	sıcak	उष्णः	கூடான	熱	Rè	Rxn	panas	wanahan	worrobobo
cold		makhaza	קָוָן	ts'ivi	soğuk	शीतलः	குளிர்ச்சியான	冷	Lēng	Yēn	sejuk	madid	ngeswngex
sw eet		mmandi	קָוָן	Sweet	tatlı	मधुरं	இனிப்பான	甜	Tiān	Pwān	manis		

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satby		itswəyi	nhə	mariliani	huzlu	लवण	உப்புசலைய	咸	Xián	Khəm	masin	mas
full		-gcewele	mla	sruili	tam	पूर्ण	முழு	满	Mǎn	Təm	penuh	
empty		-ze	pa	ts'arieli	boş	रिक्त	காலியான	空的	Kōng de	Wāng pèià	kosong	
many		ningi	o'ra	beyri	çok	बहुनि	பல	许多	Xūduō	Hāy	banyak	Kasik
big		hueli	heta	didi	buyuk	बृहत्	பெரிய	大	Dà	Hāy	besar	dabok
small		ncane	po	mts'ire	küçük	अल्प	சிறிய	小	Xiǎo	Lək	kecil	natur
good		cuali	rio	kangi	ya	शोभन	நன்மை	好	Hǎo	DT	baik	uyan
bad		arnocuali	-bi	ts'udi	kətu	दुष्कर	மோசமான	坏	Huài	Mi dr	buruk	ayan
square			paama	moedanze	kare	चतुरः	சதுரம்	方	Fāng	S'feliym	persegi	
round			hə	garshemo	yuvanak	वर्तुल	சுற்றிலும்	圆	Yuán	Rxb	pusingan	
wide		banzi	pa	pa'arto	geniş	विस्तृत	அகலமான	高	Kuān	Kwāng	luas	
tall		de	heta	tal	uzun boylu	उन्नत	உயரமான	高	Gāo	Sung	tinggi	malain
beautiful	cualtzin	-həbəzeka	no	lamazi	güzel	सुन्दर	அழகான	美丽	Měilì	Swyngān	cantik	garofian
ugly		bi	pa	makhinji	çirkin	करूप	அசரிங்கமான	丑	Chǒu	Nā kəliyd	hodoh	
alive		-phille	o'na	ts'ots'khalia	canlı	जीवित	உயிருடன்	活着	Huózhě	Mt chwit xyd	hidup	
dead	mihcatzitzin	file	na	mkvdari	ölü	मृतः	இறந்த	死	Sǐ	Tāy	mali	mataman
easy		lula	hp	adwill	kolay	सुलभः	எளிதாக	容易	Róngyì	Mūāy	mudah	
difficult	chuhitic	lukhuni	hp	rt'uli	zor	कष्टः	கஷ்டமான	困难	Kùnnān	Yāk	sukar	
correct		lungisa	lpa	garnosts oreb	düzeltmek	सम्यक्	தவறு	错	Jiūzhèng	Kāēkhi	membetulkan	
wrong		ngalungile	pa	arastori	yanlış	असत	ஒன்று	一	Cuǎwǎ	Phid	salah	
one	ce	nye	tnx	ert'i	biri	एकः	ஒன்று	一	Yī	Hn'ung	satu	one
two	orne	kabif	o'ay	or	iki	द्वे	இரண்டு	二	Èr	Sxng	dua	aru
three	yeyzi	thathu	hp	sam	üç	तीणि	மூன்று	三	Sān	Sām	3 tol	
four	nahui	-ne	pa	orkh	dört	चत्वारि	நான்கு	四	Sī	Sī	empat	yawaiyawa
five	macuili	-hlanu	pa	khut'	beş	पञ्चः	ஐந்து	五	Wǔ	Hā	lima	numau tahalik
six	chiuacena	nandathu	hp	ek'vsi	altı	षड्	ஆறு	六	Liù	Hk	enam	kukun tahalik
seven	chicome	sixerhe	pa	shvdi	yedi	सप्तः	எழு	七	Qī	Cēd	tujuh	kukun aru
												tiapatpa

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eight	chicuei	isibhozo	חַמִּישׁ	rva	sekiz	अष्टोः	எட்டு	八	Bā	Peed	delapan	tahaik	aiti
nine	chitnahui	lithoba	טֵשׁן	ts'khra	dokuz	नवः	ஒன்பது	九	Jiǔ	Kēā	sembilan	kukun yawai	naipra
ten	matlactli	ishumi	עָשָׂר	at'i	on	दश	பத்து	十	Shí	Sib	sepuluh	numau aruru	tinpa
zero			אֶפְסָר	nulovani	sifir	शून्य	பூஜ்ஜியம்	零	Ling	Suný	sifar		
PREPOSITIONS AND CONJUNCTIONS													
and	huan	na:	-I	da	ve	च	மற்றும்	和	Hé	Leea	dan	do	
as	quen	ngoba	מָן	rogorts'	gibi	इति	என	如	Rú	Ni Rhnathì	sebagai		
at		-eni	אֶזֶ	ze	at	तस्मिन्	இல்	在	Zài	Thì	pada		no
but	pero	kodwa	בְּאֵר	magram	ancak	तु	ஆனால்	但	Dàn	Tāe	tetapi		
by	parolthaya	ngu	מִן	mier	tarafından	तेन	மூலம்	通过	Tōngguò	Doy	oleh		wakban
down		phansi	מֵעֵל	K'vemor'	aşagi	अध	கீழ்	下	Xià	Lng	turun	dom	munya
for		ngerakaya	בְּעֵי	amist'vis	iqin	तुं	திருமணம்	为	Wéi	Sānrāb	untuk	han	wu
from	on	-eni	מִן	s atsqisi	ibaren	तस्मात्	இருந்து	从	Cóng	Cāk	daripada	a	untu
in	tlahtec	e...-eni	בְּתוֹךְ	tsels	iqinde	अन्तरं	இல்	在	Zài	Ni	dalam	ilonio	lerna
into			בְּתוֹךְ	shevida	iqine	अन्तरं	உள்ளே	到	Dào	Rhāpi	ke		
like	iuhqui	okwa-	מִן	mostsons	gibi	इव	போன்ற	喜欢	Xǐhuan	Chēn	seperti	ebo	ngonongga
near	inatnuac	eduze na-	בְּרֵיב	akhlos	yakin	समीपं	அருகில்	近	Jìn	Kīl	berhampiran	se sek	laru
next	itech	eceleni kwa-	בְּרֵיב	shemdeg	sonaki	परः	அடுத்து	下	Xià	T x pi	seterusnya	sirina	
of		nga-	בְּ	sak'art'velos	arasinda	तस्य	உள்ள	的	De	Khxng	daripada		
off			מִן	Off	Kapall	तस्मात्	இருந்து	离	Lí	Pid	off		
on	ipan	ku-	בְּ	on	uzerinde	तस्मिन्	மீது	上	Shàng	Bn	pada	ta	ngani
onto			בְּ	g adatan a	uzerine	तस्मिन्	மீது	到	Dào	Pi yang	ke		
out		phandle	מִן	garet'	djşari	बाहिः	வெளியே	出	Chu	Xxk	keluar		
over		-mbozile	בְּ	meti	fazla	समाप्तं	மேலே	以上	Yǐshàng	Māk kwā	lebih		magu
past			בְּ	tsarsuli	germiş	गत	கடந்த	过去	Guòqù	Xdit	lalu		
since	icari	emuva kwa	מִן	m as shemdeg	beri	अतः	தொடங்கி	自	Zì	Tāngtāe	sejak		
than		kuna	בְּ	vidre	göre	तस्मात्	காட்டிலும்	比	Bǐ	Kwā	daripada		

Tracing the origins of India

LINGUISTIC LISTING AND STUDY OF 12 GOLDEN LANGUAGES - SAI VENKATESH

ENGLISH	NAHUATI	ZULU	HEBREW	KARTVELIAN	TURKISH	SANSKRIT	TAMIL	CHINESE	THAI	MALAY	MATUKAR	BAGANDJI
to	kuā/	ukuba	לך dan	karşı	दं	கொடுத்தும்	對	Duì	Pi yang	kepada		Ri
up	icuayoliqpa	enhia	הַיָּמִין	mde	yukan	उपरि	上	Shàng	Khùn	up	lam kask	darpa
with	ica	na	בְּעִתָּהּ	ert'ad	ile	सह	合	Tóng	D'wv	dengan	ida	ampala
NUMBER												
abs -	add aba-		add eb									
tin/meth,	, o-, ama-	add -Om	after n,		add							
add -s	poss -huan	or izin-	before case	add ler	add	add -kal	nil	nil	nil	nil	nil	nil
GENITIVE												
add	add				add							
nom/ot/olan					add							
add 's	mol'n	use of	use לְךָ	add is	add nin	add m or	add utalya	de	add kong	add -	add y-, r-, w-	add
										ku,m,u,kau,nya	ay,i,m,a,athu	
ACCUSATIVE												
add	add											
neeh/nitz/qui	add											
m'teeh/am eeh	ngi/kum/si/	use mX				add m or						
nil	/quim	niba	before obj	nil	nil	add ai	nil	nil	nil	nil	nil	nil
PRESENT TENSE												
			add י -		add -i, -	add ami,						
			מְעַשֵּׂה,	add v-,a-,ā-	af, ef, -	asi, ati,	add iren, irai					add -yem, -
			מִמְּךָ, מִי	y-,ā-,ā-,	if, -if, -	amah,	iran, iral, from,					n, -ya,
(s)	NIL	S+ya+V	fp	and -eb	ur, ūr	ata, antah	ireer, iringal	nil	nil	nil	nil	nil
PAST TENSE												

Tracing the origins of India

The Core Hypothesis:

Based on the various experimental results shown above, and on the corroboration of the research outputs of many scholars, and based on a little reasoning, the author has come up with a hypothesis, that attempts at explaining the migration of humans out of Africa into India, the development of Sanskrit and Tamil, and subsequent cultural and linguistic developments. This will be referred to in this article as “the core hypothesis”.

In this section various versions and forms of the core hypothesis, all sharing the same theme and the same bottomline, will be presented.

The Core Hypothesis – A Story Line

hypothesis	points to note/inferences/evidence
• Humans originated in Africa.	genography
• 1. Migrated towards asia	genography
a. Through sea	highly improbable, though possible
b. Through Arabia	no supporting evidence
c. Through lemuria	most likely, but no concrete evidence yet
2. developed a primitive language - language A	if 2. before 1., then A spreads throughout africa, hence mother of all non-cymatic languages... else languages in africa viz. nilo-saharan, niger-congo and khoe may not have resemblance to A. etymology would help.
spread into interior africa	natural process...
• Reached india mainland	genography
• Lemurians inhabit Australia - aborigines ?	most likely explanation for origin of aborigines. Language etymology would help.
• Lemuria.flourishes.	no strong evidence. Perhaps some connection with andamanese ? Etymology may help.

Tracing the origins of India

- **Advanced civilization by this time, spread throughout mainland india** **natural occurrence given point 9**

- **Developed religion, from animistic to more subtle, civilization, and music** **astronomical references, mythology and advanced nature of later saraswati and indus civilizations**

- **Acoustics developed, sound studies, cymatics, yantra as cymatic images, effect of sound in nature, and superhuman forces** **prominence and importance attached to sound in vedic religion**

- **Development of bijaksharas, cymatic sound alphabets, Birth of Sanskrit from cymatics.** **early cymatic evidences.**

- **Evolution of Sanskrit mantras, vedic period, evolution of vocabulary of Sanskrit, and grammar. Sanskrit as a language rather than a compilation of secret syllables and sounds. Influence of language A is seen, as Sanskrit uses a lot of words from A, modifies them such that the pronunciation of the word creates its effect. Ex. Varshaya - to rain, from Varuna (water), creates effects of clouds darkening.** **cymatic evidences, early stage though, and tamilish words in rg vedic corpus as pointed by loganathan**

- **Speakers speak both A and Sanskrit, puranas/itihasas period, Sanskrit too difficult to use, hence the language A is revamped, improvised, with new features, vocabulary and grammar improved, influence of Sanskrit is seen. This becomes Proto-Dravidian aka Tamil.** **astronomical references in mythology, references to river saraswati which later dried up. Sanskrit influence on tamil as seen in tholkappiam**

Tracing the origins of India

- Continued use and development of Sanskrit and tamil simultaneously. Same set of people have developed both and use both. No separate races/ groups as aryan and dravidian
- natural.. Complementary usage.. Sanskrit was complex but had potential powers used to communicate with nature and supernatural.. tamil was simplified yet retaining sufficient sophistication... dropped all complex features and was ideal vernacular language... both used complementarily for different purposes, without rivalry
-

- Some reason, probably, submerging of Lemuria, causes people to migrate - first wave of migration. People set foot on Mesopotamia. Akkadian civilization established with tamil dominance. (usually for sake of convenience 1 of the 2languages used to be dropped gradually by migrants).
- influences of tamil on semitic culture and languages, early polytheis deities in west asia, theory as given in babylonian tamil by victor
-

Elamite develops in Persia - during first/second wave

elamo tamil hypothesis/ similarity of elamite to tamil

- Population spreads and also inhabits Sahara, north Africa, Egypt. Tamil dominance observed. First hieroglyphic script. Pictorial tamil.
- influence of tamil observed in passing remarks by victor. More evidence needed, mainly through cultural artifacts.
-

- Second wave of migration, from india to Mesopotamia, forms sumeria, contemporary to akkad. Also nomadic people from both waves seen in west asia, canaan, Syria etc... tamil dominance. Cuneiform develops.
- as given in babylonian tamil, victor
-

Tracing the origins of India

- Migration also to central asia and europe - no central culture, mostly nomadic - forms basis of hunns, basques, finns, lapps, etc. tamil dominance. most likely explanation for ural-altaic family and linguistic isolates in europe. Etymology would help.
-

- Migration also to east and north asia - china, paleo-siberia, japan. Also migration to Indochina, southeast asia and Australia. Tamil dominance. tamil influence on japanese language and culture, also possible explanation for ainu, nivkh etc.. More evidence on these... maybe etymology of austronesian, tai kadai, will help.
-

- People cross bering sea and enter America from east Siberia. Establish American Indian culture, predominant ones are maya and Aztec. most likely explanation for mayan culture. Tamil/sumerian influences strongly seen. Etymology may strengthen the view.
-

- Indus valley civilization with equal tamil/Sanskrit dominance. First rebus hybrid script combining cymatic Sanskrit shapes (later evolves as brahmi), and pictographic rebus tamil characters, both complementarily used to write names and short messages and details in seals, signboards etc. indus artifacts, most likely explanation for indus script, should be proved by cymatic isolation and successful rebus reading of inscriptions. Tamil influence as observed by mahadevan and parpola, sanskrit influence as seen by subhash kak.
-

- Location shifts continue to take place in Mesopotamia, sumer and akkad dynasties, Assyrian kings, etc. first signs of monotheist religion, later becomes Judaism. as in babylonian tamil, victor
-

Tracing the origins of India

- Again migration to nearby areas like Persia - Sanskrit dominance. early records of persian vedic practices, old persian language, and such traces in parsism
-

- Locationwise shift in language, as people unwilling to master 2 languages. Gradual decline of tamil in north india. South india retains both. explanation for proven dravidian concentration in south and also in pockets in pakistan/afghanistan.
-

- Buddha lives. Buddhism and parsism rises. Parsism influences later semitic religions and concept of monotheism. Korea is inhabited by Mongolians. historical records and estimates. Proven likeliness of persian ahura mazda with syrian ashur etc..
-

- Buddhism spreads rapidly to south and southeast asia, pali evolves. Vernacular languages on the rise. Southeast asian cultures flourish. historical records
-

- Third wave of migration - the indo Europeans towards Greece and Europe, Sanskrit dominance. Also Buddhism spreads more into china japan and Mongolia. Languages like Tocharian, tibetan and scripts like siddham, soyombo, ranjana, Tibetan, etc. from brahmi. explanation for spread of indo european languages throughout eurasia and europe, and buddhist influences in orient.
-

Tracing the origins of India

- **Periods of war and conquests within Eurasia, huns, greek and roman cultures and civilization develop. Origins of celtic and Norse.** **explanations for establishment of kingdoms and states in Europe.**
-

- **Judaism evolves. The first alphabets evolve out of Egyptian glyphs - Meroitic, Aramaic, Phoenician, Syriac etc.. Meanwhile, Semitic languages, Old Arabic, Hebrew, Aramaic evolve.** **historical records**
-

- **Greek develops. In India Brahmi gives rise to daughter scripts like Nagari, Gupta, Grantha, Pallava, Kadamba etc. A derivative of Aramaic, Kharosthi enters India through Persia.** **historical records and explanation of reduced use of Kharosthi**
-

- **Roman Empire, period of Julius Caesar, more evolution of European languages.** **historical records**
-

- **Christ lives. He speaks Aramaic, Hebrew, Greek.** **historical records**
-

- **Development of Christianity. Most of West Asia, Canaan, follow monotheist religion. Arabia still followed Saivite based polytheist religion. Dynasties in India and China, Southeast Asia develop as Indian colonies.** **historical records, and Sayer ul Okul of Arabia**
-

- **Roman Empire at its zenith. African kingdoms in Mali, Songhay, Nubia, Ghana etc.** **historical records**
-

Tracing the origins of India

- Mohammed lives. Islam is founded.

Arabian polytheism, with much

resistance is finally overthrown.

Monotheism established throughout west
asia.

historical records and explanation for mecca's

resistance to mohammed, as quipped by p.n.oak
etc

The Core Hypothesis and related assumptions

ASSUMPTIONS	POSTULATES	INSPIRATION
LEMURIA MIGHT HAVE EXISTED	INDIA HAD THE FIRST ADVANCED CIVILIZATION	GENOGRAPHICS - OUT OF AFRICA THROUGH ARABIA TO INDIA IBM & NGC
BRAHMI AND INDUS SET-A ARE IDENTICAL	LANGUAGE "A" WAS THE FIRST HUMAN PRE-LANGUAGE, ORIGINATING DURING AFRO-ASIAN MIGRATION	GENOGRAPHICS - OUT OF INDIA THEORY
HUMANS MIGRATING TOWARDS ASIA CARRIED A PRIMITIVE LANGUAGE WITH THEM - ASSUMED AS "A" AFRO-ASIAN MIGRATION OCCURRING EITHER THROUGH COASTAL ASIA MAINLAND OR THROUGH LEMURIA, AND TERMINATING IN AUSTRALIA	TAMIL (DRAVIDIAN) WAS THE FIRST FULL LANGUAGE (FULL GRAMMAR, LITERATURE ETC) TO HAVE BEEN DEVELOPED FROM LANGUAGE "A" AND HENCE THE FIRST INDIGENOUS LANGUAGE	DENIAL OF ANY INFLOW OF PEOPLE INTO INDIA USING GENETICS AND SUBSEQUENT ELIMINATION OF ARYAN INVASION MYTH.
ETYMOLOGICAL RELATIONS EXIST BETWEEN TAMIL AND MANY OLD LANGUAGES OF THE WORLD, ESPECIALLY AFRICAN LANGUAGES	SANSKRIT HAS A SCIENTIFIC ORIGIN (CYMATICS/ WAVE GENETICS/ REVELATIONS) AND THUS WAS THE FIRST ACQUIRED (NON-INDIGENOUS) LANGUAGE TO HAVE BEEN DEVELOPED.	ORIGINS OF VEDIC CIVILIZATION, KENNETH CHANDLER
	THE WHOLE OF SOUTH ASIA WAS INHABITED BY ONLY ONE SET OF PEOPLE WHO HAD BOTH SANSKRIT AND TAMIL SIMULTANEOUSLY, IMPLYING THAT ARYAN-DRAVIDIAN DIVIDE IS VALID ONLY FOR LANGUAGES AND NOT PEOPLE.	REDISCOVERING ANCIENT BONDS BETWEEN CIVILISATIONS - COME CARPENTIER DE GOURDON
	SANSKRIT WAS USED SOLELY FOR RELIGIOUS/ METAPHYSICAL PURPOSES AND TAMIL WAS USED SOLELY AS A VERNACULAR LANGUAGE AND SIGNIFICANT INFLUENCES CAN BE SEEN IN EACH OTHER	VEDIC ELEMENTS IN THE ANCIENT IRANIAN RELIGION OF ZARATHUSTRA - SUBASH KAK
	ALL LANGUAGES IN THE WORLD AS OF TODAY CAN BE CLASSIFIED INTO TWO - CYMATIC AND NON-CYMATIC	PRESENCE OF MAJORITY OF HINDU TEXTS IN SANSKRIT AND HINDU NAMES FOLLOWING SANSKRIT WORDS.
	CYMATIC LANGUAGES ARE THOSE DESCENDED FROM SANSKRIT, THOUGH NONE OF THESE DESCENDANTS PURELY OBEY CYMATIC PRINCIPLES	RIG VEDA AS ARCHAIC TAMIL - LOGANATHAN
	NON-CYMATIC LANGUAGES ARE THE DESCENDANTS OF LANGUAGE "A" - CAN BE FURTHER CLASSIFIED INTO TWO - OLD AND NEW	SUMERO TAMIL - LOGANATHAN
	OLD NON CYMATIC LANGUAGES CLAIM DIRECT DESCENT FROM LANGUAGE "A" AND THUS ARE SISTER LANGUAGES TO TAMIL, AND THESE ARE MOSTLY AFRICAN INDIGENOUS LANGUAGES	INFLUENCE OF SANSKRIT GRAMMAR AND PRINCIPLES ON THOLKAPPIAM
	NEW NON-CYMATIC LANGUAGES ARE DESCENDANTS OF TAMIL AND HENCE FORM A DAUGHTER LANGUAGE RELATIONSHIP.	BABYLONIAN THAMIZH - M.S.VICTOR

Tracing the origins of India

THE FACT THAT ALL LANGUAGES COME UNDER CYMATIC AND NON-CYMATIC CAN BE ATTRIBUTED TO FOLLOWING REASONS: 1. RETENTION OF LANGUAGE "A" AS HUMANS MIGRATED. 2. MIGRATION OF HUMANS FROM INDIA TO THE REST OF THE WORLD. 3. TRADE EXCHANGES, AND LATER MIGRATIONS BY INDIANS LIKE SUMERIA, GREECE, EGYPT, JAPAN, MESO AMERICA ETC. THERE WAS A DEFINITE PHONETIC SCRIPT FOR SANSKRIT, THAT HAD A CYMATIC ORIGIN, CALLED BRAHMI, ALSO CALLED "INDUS SET-A"

TAMIL ROOT WORDS IN HEBREW LANGUAGE - M.S.VICTOR

A FREQUENCY ANALYSIS OF INDUS SCRIPT - SUBASH KAK

THE TAMIL LANGUAGE WAS WRITTEN USING A PICTOGRAPHIC SYMBOLS AND REBUS WRITING, AND THIS IS CALLED "INDUS SET-B"

INDUS SCRIPT - ASKO PARPOLA

THE INDUS SCRIPT IS AN AMALGAMATION OF THE SET-A AND SET-B SCRIPTS. THIS IS CALLED THE "TWO-SET" THEORY

ENTROPY, INDUS SCRIPT AND LANGUAGE - RAJESH RAO

THE LATER SCRIPTS OF INDIA ORIGINATED FROM INDUS SET-A, WHILE SET-B FELL INTO DISUSE. RELATION BETWEEN SET-A AND WEST ASIAN SCRIPTS LIKE ARAMAIC IS ONLY A MATTER OF COINCIDENCE.

WHO WERE THE FATHERS OF THE MAYAS - AN INDO-TURK BASED ANALYSIS

THE INDUS SCRIPT HAS LITTLE OR NO RELATION WITH OTHER SIMILAR PICTOGRAPHIC SCRIPTS LIKE EGYPTIAN, CHINESE, SUMERIAN OR MAYAN.

OBSERVED GREATER CONCENTRATION OF DRAVIDIAN LANGUAGES SPEAKING PEOPLE IN SOUTH INDIA

LINGUISTIC SIMILARITIES OF SANSKRIT AND TAMIL WITH OTHER LANGUAGES OF THE WORLD SUCH AS HEBREW, SUMERIAN, ELAMITE, JAPANESE, MAYAN, EUROPEAN LANGUAGES, PERSIAN ETC CAN BE ATTRIBUTED TO THESE LANGUAGES AS BELONGING TO EITHER OF THE HUGE LANGUAGE FAMILIES, AND THIS BEING BROUGHT INTO EFFECT BY MULTIPLE WAVES OF HUMAN MIGRATIONS OUT OF INDIA.

SANGEETHAKALPADHRUMAM - MUTHIAH BHAGAVATHAR

LINGUISTIC DIFFICULTIES IN HANDLING TWO LANGUAGES CAUSED A LOCATION SHIFT IN LANGUAGES ORIENTING THE DRAVIDIAN LANGUAGES TOWARDS SOUTH INDIA, AND CAUSED THE SUBSEQUENT RISE OF PRAKRIT/PALI AND THE OTHER REGIONAL VERNACULARS IN INDIA

SOUTH INDIAN MUSIC - SAMBAMOORTHY

INDIAN MUSIC CLAIMS ORIGINS FROM SOUNDS OF NATURE AND SUBSEQUENT CYMATIC OBSERVATIONS. THIS LED TO MUSIC BEING USED IN TWO WAYS, A RESTRICTED FORM WITH FEW NOTES (3-5) SEEN IN SAAMA GANA, AND A MORE MELODY ORIENTED FREE FLOW FORM BEING USED IN ANCIENT TAMIL FOLK MUSIC, CALLED PANNS. INDIGENOUS DEVELOPMENTS ON BOTH FORMS CONTINUED GIVING RISE TO THE SONG FORM, UNTIL THE ISLAM CONQUESTS, WHERE INDIAN MUSIC BIFURCATED INTO HINDUSTANI AND CARNATIC, HINDUSTANI BRINGING IN SIGNIFICANT PERSIAN INFLUENCES.

DNA WAVE BIOCOMPUTER - PIOTR GARJAJEV

SANSKRIT LANGUAGE HAD A DIRECT RELATION TO THE NUCLEOTIDE CODON PATTERNS IN THE "JUNK" DNA REPORTED TO CAUSE A BIOLOGICAL INTERNET THROUGH WAVE GENETICS BASED HYPERCOMMUNICATION, AND THIS RELATIONSHIP OCCURS AS A DIRECT CORRESPONDENCE OF THE SOUND WAVE PATTERNS OF SANSKRIT ALPHABET AND THE SOLITON BASED WAVE PATTERN OF READING THE DNA CODES. THUS SANSKRIT SACRED SECRET SYLLABLES CALLED MANTRAS WERE USED TO DIRECTLY AFFECT THE DNA FOR BOTH CONSTRUCTIVE AND DESTRUCTIVE PURPOSES. ANCIENT INDIAN CIVILIZATION ALSO SCALED GREAT HEIGHTS IN SCIENCE AND TECHNOLOGY, MOST NOTABLE ACHIEVEMENTS BEING NUCLEAR WEAPONS OF MASS DESTRUCTION, AIRCRAFT, ILLUSORY TECHNOLOGIES. THESE WERE ACHIEVED USING SOUND IN THE FORM OF MANTRAS AS OPPOSED TO THE ADVANCED MATERIAL TECHNOLOGY OF TODAY.

THE ANCIENT PEOPLE ALSO KNEW TO RAISE/LOWER THE LEVELS OF CONSCIOUSNESS AND THESE ARE OUTLINED IN THE KUNDALINI BASED YOGA SYSTEM. THIS ALLOWED THEM, MOST NOTABLY RISHIS OR SAINTS TO INTERACT WITH MYTHOLOGICAL FIGURES WITH SUPERHUMAN POWERS AT HIGHER LEVELS OF CONSCIOUSNESS, CALLED DEVAS.

Tracing the origins of India

EXPERIMENTS	POSSIBLE OUTCOMES	INFERENCES
CYMATICS - VISUALISATION OF SANSKRIT ALPHABET AND COMPARISON WITH BRAHMI/SET-A PATTERNS	CYMATIC PATTERNS ARE CONSISTENT AND MATCH WITH BRAHMI	CONCLUDE THAT INDUS SET-A DERIVES FROM CYMATICS, BUT NEED NOT IMPLY THAT SANSKRIT, THE SPOKEN LANGUAGE HAS A CYMATIC ORIGIN.
MATCHING OF SOUND WAVE PATTERNS WITH DNA-SOLITON PATTERNS	CYMATIC PATTERNS ARE CONSISTENT, BUT DO NOT MATCH WITH BRAHMI	INDUS SET-A DOES NOT HAVE A CYMATIC ORIGIN, BUT MAY HAVE ORIGIN IN WAVE-GENETICS OR SOMETHING ELSE, OR COULD BE A RANDOM SET OF PATTERNS.
ETYMOLOGICAL COMPARISONS OF ANCIENT AND MODERN WORLD LANGUAGES	CYMATIC PATTERNS ARE NOT CONSISTENT.	NOTHING CAN BE CONCLUDED.
ATTEMPT TO DECIPHER THE INDUS SCRIPT CONSISTENTLY	SOUND WAVE PATTERNS RESEMBLE DNA SOLITON PATTERNS	SANSKRIT DEFINITELY HAS EITHER AN ORIGIN/ INFLUENCE ON DNA PATTERNS AND HENCE MANTRAS WERE USED TO AFFECT THE DNA
	SLIGHT RESEMBLANCE (TIME/FREQUENCY DOMAIN) BETWEEN SOLITON-DNA AND SANSKRIT SOUND WAVES	MAY INDICATE A RELATIONSHIP BETWEEN SANSKRIT AND DNA PATTERNS, BUT NO CONCRETE PROOF
	NO RESEMBLANCE	SANSKRIT HAS NO RELATIONSHIP WITH DNA PATTERNS, AND HENCE MANTRAS COULD NOT AFFECT THE DNA, HOWEVER MANTRAS MIGHT AFFECT THE CONSCIOUSNESS LEVELS
	ETYMOLOGICAL RELATIONSHIP IS FOUND	CONCLUSIVE EVIDENCE OF ALL LANGUAGES FALLING INTO TWO CATEGORIES, CYMATIC AND NON-CYMATIC
	NO ETYMOLOGICAL RELATIONSHIP FOUND	NO CONCRETE EVIDENCE OF RELATION BETWEEN WORLD LANGUAGES
INDUS SCRIPT GIVES MORE THAN 50% CONSISTENCY		TWO SET THEORY OF INDUS SCRIPT IS PROVED.
NO CONSISTENCY OBSERVED.		TWO SET THEORY IS NOT PROVED, INDUS SCRIPT MAY BE FULLY PICTOGRAPHIC, OR FULLY PHONETIC.

This version of the Core Hypothesis includes additional information on Indus script, and on junk DNA codons, which will be explained in later sections.

The Core Hypothesis in slides, listing out the various Migration waves, and their cultural, linguistic and religious impact

HISTORY OF INDIA - 1

- ⦿ HISTORY OF ANCIENT INDIA CAN BE CLASSIFIED INTO 2 MAIN PARTS – VEDIC AND PURANIC
- ⦿ MOST EUROPEAN SCHOLARS DUE TO LACK OF ANY WRITTEN VEDIC/PURANIC RECORDS DATE THE BEGINNING OF INDIAN CIVILISATION TO ABOUT 1500 BC. AS EXPLAINED BY SUBHASH KAK ET AL. THIS IS DUE TO A FUNDAMENTAL MISCONCEPTION THAT THE GREAT FLOOD OCCURRED AT AROUND 2000 BC AND HENCE ALL ACTIVITIES SHOULD HAVE TAKEN PLACE ONLY AFTER THAT.

HISTORY OF INDIA - 2

- THERE ARE CERTAIN EVIDENCES, APART FROM ARCHAEOLOGY THAT SUGGEST THAT VEDIC/PURANIC INDIA EXISTED BEFORE 3000 BC.
- SATELLITE IMAGERY SHOWS THE SARASWATI RIVER BED (NEARBY THE INDUS RIVER) AND EVIDENCES SUGGEST THAT IT DRIED AT AROUND 3000 BC.
- THE MAHABHARATHA, A CLASSIC PURANA TALKS ABOUT EVENTS INVOLVING THE SARASWATI RIVER. THIS SHOULD HAVE BEEN POSSIBLE ONLY WHEN THE SARASWATI RIVER EXISTED. HENCE THE PURANIC PERIOD SHOULD HAVE DEFINITELY EXISTED BEFORE 3000 BC. AS A MINIMUM, LET US SUPPOSE A PERIOD OF 4000-3000 BC.
- POSITIONS OF STARS AS SUGGESTED BY THE PURANAS ALSO CONFORM TO THIS TIME PERIOD, HENCE ADDING EXTRA EVIDENCE TO THE POINT.

HISTORY OF INDIA - 3

- THE VEDIC PERIOD HAD TO DEFINITELY BE BEFORE THE PURANIC, AS THERE IS MENTION OF VEDAS IN THE PURANAS.
- MOST VEDAS REFER TO SARASWATI RIVER, WHICH WAS ALSO VENERATED AS A GODDESS.
- VEDAS TALK ABOUT SARASWATI AS A "MIGHTY FLOWING RIVER", WHICH SUGGESTS THAT THE VEDIC PERIOD SHOULD BE MUCH EARLIER THAN 1500 BC OR EVEN 3000 BC, AND EVEN BEFORE THE PURANIC PERIOD.
- A REASONABLE APPROXIMATION WOULD HENCE BE 5500BC TO 4500BC.
- ARCHAEOLOGICAL FINDINGS SUCH AS HARAPPA, DWARAKA AND MEHRGARH ALL CONFIRM TO THIS THEORY WITHOUT OBJECTIONS.

ARYAN VS DRAVIDIAN

- ◉ AS SEEN EARLIER, ARYAN/DRAVIDIAN THEORY IS A MYTH.
- ◉ THE INDUS VALLEY CIVILISATION (3000-2500BC) AS SUGGESTED BY WINTERS, INDICATES DRAVIDIAN PRESENCE AND THE DEITIES DEPICTED ARE WELL IN ACCORDANCE TO ARYAN PRINCIPLES.
- ◉ RELIGIOUS AND OTHER CULTURAL OBSERVATIONS INDICATE THAT THE ARYANS AND DRAVIDIANS SHARED COMMON THOUGHTS AND PRACTICES, SO MUCH THAT THEY CANNOT BE THOUGHT OF AS SEPARATE CULTURES/ RACES.
- ◉ LINGUISTICALLY THOUGH THEY ARE DISTINCT, THE REASON FOR WHICH WILL BE SEEN LATER.

THE INDIC THEORY

- ◉ SINCE ALL THEORIES PROPOSED SO FAR ARE INCOMPLETE IN SOME WAY, AN ATTEMPT IN PROPOSING A COMPLETE THEORY, CONSISTENT WITH ALL EVIDENCES, IS MADE
- ◉ THIS THEORY, CALLED INDIC THEORY IS EXPLAINED HENCEFORTH.

PHASE 1 - MIGRATION

- ◉ WHILE BIOLOGICAL EVIDENCE TELLS THAT HUMANS ORIGINATED IN AFRICA, GENETICS SUGGESTS THAT AFTER AFRICA, THE SECOND PLACE HUMANS SET FOOT WAS ON THE INDIAN SUBCONTINENT.
- ◉ HOW DID THE HUMANS REACH INDIA FROM AFRICA?
 - ◉ 1. WAS INDIA CLOSE TO AFRICA AT THAT TIME?
 - ◉ 2. BY SEA ??? (LESS LIKELY)
 - ◉ 3. THROUGH WEST ASIA.

THE EARLY LANGUAGE

- ◉ THE EARLY HUMANS, WHO WERE POSSIBLY HUNTER-GATHERERS AND CAVE DWELLERS, REACHED INDIA, AND ALSO EXPLORED TO OTHER PARTS OF EUROPE/ASIA/AFRICA.
- ◉ THESE PEOPLE POSSIBLE HAD A PRIMITIVE LANGUAGE WITH THEM, ONE THAT POSSIBLY INVOLVED VERY FEW PHONEMES, BASIC VOCABULARY, SOMETHING SIMILAR TO THE PIRAHA LANGUAGE OF S.AMERICA

AGRICULTURE

- AS THE HUMANS EXPLORED ASIA, THE CLIMATE AND ENVIRONMENT, WAS FOUND TO BE MORE CONDUCTIVE THAN AFRICA, THUS LEADING TO MORE MODERATE LIFESTYLE SUCH AS AGRICULTURE.
- LANDMASSES ABUNDANT IN RESOURCES LIKE INDIA AND TURKEY MADE PEOPLE TO LEAD A SELF-SUFFICIENT LIFE.

ORIGIN OF RELIGION

- THE EARLY HUMANS WERE QUITE LIKE TODAY'S TRIBALS WITH MOST RELIGION COMPRISING OF NATURE WORSHIP, AND PRIMITIVE PRAYER FORMS INCLUDING SACRIFICES.
- AS THE CIVILISATION MATURED RELIGION BECAME MORE CLEAR AND SOPHISTICATED. THIS WENT HAND IN HAND WITH SCIENTIFIC AND ARTISTIC ADVANCEMENT.

INDIA AND ACOUSTICS

- AS THE "INDIANS" ADVANCED SCIENTIFICALLY, THEY SEEMED TO BE FOCUSED ON THE SCIENCE OF ACOUSTICS.
- THIS IS ALSO SEEN IN THE CONCEPT OF "NADABRAHMA" BEING REPEATEDLY MENTIONED IN SCRIPTURES.
- THE INDIANS ALSO SEEMED TO BE INTERESTED IN THE SCIENCE OF CYMATICS, THE SCIENCE OF VISUALISATION OF SOUND.
- THUS THEY REALIZED THE VIBRATIONS IN ANY SOUND, AND IN PARTICULAR, THE SOUNDS OF THEIR "PROTO-INDIAN" PRIMITIVE LANGUAGE.
- THEY ALSO LEARNT THAT SOUNDS COULD BE USED TO CONTROL THINGS AND EVENTS, LIKE RAIN, MEDICINE, ATTACKING OPPONENTS ETC, A SCIENCE THAT MODERN DAY WORLD IS YET TO MASTER.

BIRTH OF SANSKRIT

- THE MOST POTENT OF SYLLABLES WERE ALL COLLECTED TOGETHER AND AN ALPHABET WAS FORMED. THIS WAS THE GENESIS OF SANSKRIT.
- THE FACT THAT SANSKRIT COULD NOT HAVE BEEN DERIVED FROM ANY OTHER LANGUAGE AND IS A COMPILATION OF SOUNDS, IS PROVED BY CYMATICS UNDER 2 CASES:
 - 1. THE CYMATIC SYMBOL FOR SANSKRIT VOWELS ARE THE RESPECTIVE VOWEL SHAPES WHEN WRITTEN DOWN AS ALPHABET.
 - 2. THE CYMATIC SYMBOL FOR "OM", THE MOST SACRED SYMBOL, IS THE SRI CHAKRA, A MYSTIC PATTERN OF INTERLEAVING TRIANGLES AND CIRCLES, REVERRED IN HINDUISM.
- MOST VOCABULARY IN SANSKRIT IS FORMED JUST BY STRINGING TOGETHER SYLLABLES THAT HAD THE SAME OR RELATED EFFECT OF THE OBJECT IT DESCRIBED. FOR EXAMPLE, THE HINDU GOD OF DESTRUCTION WAS CALLED RUDRA, SIMPLY BECAUSE THE 'RA' SYMBOL REPRESENTED FIRE/DESTRUCTION ETC. ALSO RELATED IS RAUDHRAM, THE WORD FOR ANGER.

ADVANCEMENT OF SANSKRIT

- ◉ AS SANSKRIT MATURED, IT ALSO ACQUIRED A COMPACT GRAMMAR, ONE THAT NASA TODAY CLAIMS TO BE MOST COMPACT AND SUITABLE FOR PROGRAMMING.
- ◉ PEOPLE STARTED USING SANSKRIT, WHICH WAS SINCE THEN USED FOR COMMUNICATING WITH THE DIVINE, ALSO AS A VERNACULAR.
- ◉ PEOPLE REALISED THAT SANSKRIT WAS NOT AN EASY LANGUAGE TO MASTER AND COMMUNICATE ESPECIALLY WITH THE LOT OF TOUGH CONJUNCT CONSONANTS AND SEMI-CONSONANT COMBINATIONS LIKE ARDRA, DHVIJA, OORDHVA, DRAKSHA ETC. AND ALSO WITH THE LARGE NUMBER OF INFLECTIONS TO BE LEARNT TO MATCH WITH CORRECT NUMBER, PERSON AND GENDER.

EARLY TAMIL

- ◉ ALL THESE LED PEOPLE TO DEVELOP A SIMPLER VERNACULAR LANGUAGE
- ◉ THE PHONOLOGY OF SANSKRIT WAS TONED DOWN TO ELIMINATE MUCH OF THE HARD AND COMBINED CONSONANTS AND ADAPTED FOR TAMIL, HAVING 30 (12 VOWEL + 18 CONSONANT) IN ALL AS OPPOSED TO 51 (36 CONSONANT + 15 VOWEL) IN SANSKRIT.
- ◉ THE VOCABULARY ALSO WAS SIMPLIFIED, WITH MUCH BEING RETAINED FROM THE SIMPLE PROTO-INDIAN LANGUAGE.
- ◉ THE GRAMMAR ALSO WAS SIMPLIFIED BY USING AN AGGLUTINATIVE SYSTEM WHERE CERTAIN PREFIX/SUFFIXES WERE ADDED TO WORDS TO REPRESENT TENSE AND NUMBER, PERSON OR GENDER. EX. PADITHAN, PADITHAI, PADIKKIRAI, PADIPPAI. THIS WAS AN EASIER SYSTEM COMPARED TO SANSKRIT INFLECTIONS

SANSKRIT AND TAMIL

- THUS SANSKRIT AND TAMIL WERE LINGUISTICALLY DIFFERENT, EACH FORMED WITH A DIFFERENT PURPOSE. THIS IS WHAT WE PERCEIVE TODAY AS ARYAN AND DRAVIDIAN.
- THOUGH LINGUISTICALLY IN TWO DIFFERENT FAMILIES, THE CULTURES ARE NOT DISTINCT, AND THERE WAS ONLY ONE “INDIAN” CULTURE.

SANSKRIT AND TAMIL

- EVEN HINDU MYTHOLOGY TALKS ABOUT THE CONTEMPORARY EXISTENCE OF SANSKRIT AND TAMIL, AS IS EVIDENCED BY THE STORIES INVOLVING LORD KARTHIKEYA, WHO IS PERCEIVED AS A “TAMIL GOD”, AND ALSO BY CHARACTERS LIKE SAGE AGASTYA, A TAMIL SAINT ALSO VENERATED AS ONE AMONG THE SAPTHA RISHIS.
- AT THIS STAGE IN TIME (TILL 4000 BC), HUMANS HAD SET FOOT ON ALMOST ALL REGIONS OF THE PLANET, AND EACH HAD THEIR OWN TRIBAL-LIKE CULTURES AND PRIMITIVE LANGUAGE, MOST LIKELY SIMILAR TO PROTO-INDIAN

PHASE 2 - MIGRATION

- AT THIS TIME (AROUND 4000BC), THE INDIANS STARTED TO MIGRATE TO PLACES OUTSIDE INDIA. THIS CULTURALLY AFFECTED THE VARIOUS PLACES INDIANS SET FOOT, LEAVING AN UNMISTAKABLE IMPRINT IN TERMS OF LINGUISTICS, CULTURE AND RELIGION.
- THIS WILL BE BRIEFLY OUTLINED NOW.

PERSIA

- ONE OF THE EARLIEST IN THE SERIES OF MIGRATIONS WAS PERSIA. THIS IS PROVED IN MANY CASES, MOST NOTABLY,
- 1. SIMILARITY OF PERSIAN WITH SANSKRIT
- 2. EVIDENCES OF PERSIANS FOLLOWING MANY PRACTICES SIMILAR TO VEDIC AND PURANIC PERIOD.

MESOPOTAMIA

- ⦿ THIS WAS THE NEXT REGION OF MIGRATION.
- ⦿ THE MOST NOTABLE INDIAN INFLUENCE ARISES FROM SUMERIA, WHERE THERE IS A STRIKING LINGUISTIC SIMILARITY TO TAMIL, AS LOGANATHAN POINTS OUT, AND HAS RIGHTLY BEEN NAMED "SUMERO-TAMIL".
- ⦿ THE SUMERIAN CULTURE, OFTEN CREDITED WITH THE EARLIEST IN CIVILISATIONS, WRITING ETC, WAS PERHAPS WHOLLY A MIGRATED INDIAN CULTURE, AS EVEN MANY EPICS LIKE THE EPIC OF GILGAMESH SHARE A LOT OF SIMILARITIES WITH INDIAN COUNTERPARTS.
- ⦿ SIGNIFICANT INFLUENCES, MOSTLY RELIGIOUS (POLYTHEIC) CAN ALSO BE SEEN IN ADJACENT REGIONS LIKE AKKADIAN ETC.

EGYPT

- ⦿ THE NEXT MAJOR INFLUENCE COULD BE SEEN IN EGYPT, WHERE THE MYTHOLOGY SHARES A LOT OF COMMON FEATURES WITH INDIAN MYTHOLOGY.
- ⦿ LINGUISTICALLY, THE INDIAN MIGRATIONS AFFECTED MUCH OF THE REGIONS TRAVELLED BY THEM, THUS EITHER EVOLVING INTO A NEW LANGUAGE, OR AFFECTING THE ALREADY EXISTING LANGUAGES, WHICH THEMSELVES EVOLVED FROM BASIC TRIBAL LANGUAGES.

MESO-AMERICA

- ◉ MOST SURPRISINGLY, RECENT EVIDENCES HAVE ALSO FOUND STRIKING SIMILARITIES BETWEEN INDIAN CULTURE AND THOSE OF THE MAYANS, ESPECIALLY IN TERMS OF BUILDINGS AND LANGUAGES, SUGGESTING STRONGLY THAT INDIAN MIGRATIONS THROUGH THE PACIFIC IS THE ONLY POSSIBLE SOLUTION. MUCH MORE RESEARCH IS TO BE DONE ON THIS, THOUGH.

CHINA

- ◉ THE INDIAN INFLUENCE ALSO EXTENDED EASTWARD, ESPECIALLY IN CHINA.
- ◉ THE CHINESE CULTURE HAS ITS ORIGINS AT ABOUT 2000 BC. THERE ARE A LOT OF STRIKING CULTURAL AND MYTHOLOGICAL SIMILARITIES BETWEEN CHINESE AND INDIAN CULTURES, AND LINGUISTIC SIMILARITIES HAVE ALSO BEEN OBSERVED. THERE ARE ALSO RECORDED INSTANCES IN HISTORY WHERE CHINESE KINGS WERE INTERESTED IN THE VEDAS AND PURANAS.

PHASE 3 – LINGUISTIC SHIFTS

- ◉ AFTER THE END OF THE INDUS VALLEY CIVILISATION PERIOD (~2000 BC), A DECLINE IN THE USAGE OF TAMIL AS A VERNACULAR IN NORTH INDIA COULD BE OBSERVED, THIS OWING PROBABLY WITH THE EFFORT REQUIRED IN LEARNING TWO LANGUAGES (SANSKRIT AND TAMIL). HOWEVER THIS WAS NOT THE CASE IN MOST OF SOUTH INDIA.
- ◉ MOST PEOPLE IN NORTH INDIA STARTED TO USE SANSKRIT AS THE VERNACULAR FOR SOME PERIOD OF TIME UNTIL THEY AGAIN REALIZED THE PROBLEM OF DIFFICULTY IN MASTERING SANSKRIT.
- ◉ THIS TIME THEY RESORTED TO EVOLVING A SIMPLE VERNACULAR LANGUAGE AND THIS WAS GENERICALLY CALLED PRAKRIT.

PRAKRIT

- ◉ EACH REGION OF INDIA HAD ITS OWN VERSION OF PRAKRIT/ PALI. THESE WOULD AT LATER TIMES GIVE RISE TO THE MANY VARNACULAR LANGUAGES THAT WE SEE IN THE INDIA OF TODAY, SUCH AS GUJARATI, MARATHI, BENGALI, SINDHI, HINDI, KONKANI, SINHALA ETC.
- ◉ MEANWHILE IN THE DECCAN REGION OF SOUTH INDIA, NEW LANGUAGES CONTINUED TO EVOLVE SUCH AS TELUGU AND KANNADA, FROM THE FEATURES OF BOTH SANSKRIT AND TAMIL. THIS LED TO FURTHER DECLINE IN TAMIL, WITH THE ONLY MAJOR TAMIL SPEAKING POPULATION NOW CONFINED TO SOUTHERNOST PARTS OF INDIA, MODERN DAY TAMILNADU, KERALA AND PARTS OF SRI LANKA.

PHASE 4 - MIGRATION

- ⦿ AT AROUND 1200-1000BC, THE NEXT PHASE OF MIGRATIONS STARTED.
- ⦿ THIS TIME, THE FIRST MIGRATION OCCURRED EUROPE, WITH THE MOST NOTABLE INFLUENCES ON THE MYTHOLOGY OF GREECE AND ROME AND ALSO ON MOST OF THE EUROPEAN LANGUAGES.
- ⦿ SIGNIFICANT INFLUENCES WERE ALSO SEEN IN TURKIC AND MONGOLIAN REGIONS.
- ⦿ AT THIS POINT OF TIME ZOROASTRIANISM WAS BORN IN PERSIA.

BUDDHISM

- ⦿ AT AROUND 700-600BC, BUDDHISM WAS BORN IN INDIA. THIS LED TO A LOT OF INFLUENCE MOSTLY TOWARDS EAST AND SOUTH EAST ASIA, SUCH AS CHINA, JAPAN, KOREA, THAILAND, CAMBODIA, BURMA ETC.
- ⦿ THIS WAS ONE OF THE HIGHEST POINTS OF INDIAN INFLUENCE ON RELIGION.

RELIGIOUS INFLUENCE

- HINDUISM, OWING TO A VAST LITERARY COLLECTION AND A VAST SPAN OF TIME PERIOD, HAS ACCUMULATED NUMEROUS VIEWS OF GOD AND METAPHYSICAL THEORIES AND PHILOSOPHIES.
- THESE CAN BE CLASSIFIED INTO TIME AS "WORLD VIEWS".
- AS POINTED OUT BY SUBHASH KAK, MOST OF THE RELIGIONS AND MYTHOLOGIES IN THE WORLD HAVE BEEN HEAVILY AND DIRECTLY INFLUENCED BY HINDU WORLD VIEWS, AND EACH TEND TO TAKE SOME ASPECTS/ PHILOSOPHIES AND EXPOUND ON THEM.
- FOR EXAMPLE, PARSISM TAKES THE CONCEPT OF SUPREME FIRE GOD, AGNI; SEMITIC – CONCEPT OF AROOPA BRAHMAN; GREEK/ROMAN, EGYPTIAN MYTHOLOGIES – POLYTHEISM AND DEITIES FOR SPECIFIC THINGS SUCH AS LEARNING, THUNDER, WAR LOVE ETC..

HINDU WORLD VIEWS

- 1. SOUND AS ENERGY, NADABRAHMAN, OM AND AKSHARA –MANTRA.
- 2. VEDIC – FUNDAMENTAL FORCES AS SOUND COMBINATIONS, MANTRAS
- 3. PURANIC – DEITIES, MANTRAS, AVATARAS
- 4. SHANMATHA – SHAIVA, VAISHNAVA, SHAKTHA, GANAPATHYA, SAURA AND KAUMARA
- 5. TANTRIK – BIJA MANTRAS, YANTRAS, TANTRA PRACTICES

Tracing the origins of India

Inferences from the Core Hypothesis:

1. While Africa is the cradle of Human evolution, India, and possibly Lemuria, is the cradle of Human Culture and Civilization.
2. Language first originated among L3 haplogroup, which was later carried by M and N haplogroups, as they migrated out of Africa.
3. The first language, was nothing but a collection of grunts, growls, hoots, and monosyllabic words, termed language "A". The people who stayed back in Africa developed languages from this "A", and those are the tribal languages spoken today in Subsaharan Africa.
4. This language, ultimately evolved into Tamil, and when Humans migrated out of Lemuria/India into Australia/Pacific, carried a primitive form of Tamil with them, and developed it into the Pama-Nyungan/ Austronesian languages etc.
5. Meanwhile, the people who settled in India/Lemuria, developed the primitive Tamil, into a very sophisticated and classical language, and there were a lot of poets and story-writers, all of whom later took part in the Sangams conducted by the Kings.
6. In due course, the people of India, who also advanced spiritually, could perform acts such as meditation, and Dhyana, thus exploring higher realms of consciousness, and they also advanced in the sciences, such as plant cultivation, acoustics, etc. Few people also migrated out of Lemuria/India to various places, as suggested by Genographic studies.
7. The people of India hence, either by experimentation, or by meditation, discovered certain sounds, that had effects on themselves and on the surroundings, and formed a collection of such sounds. This formed the Sanskrit Alphabet. At this time society also developed, Kingdoms emerged.
8. At this stage, those people were able to string together such alphabets to form words, and words were formed in such a way that, the mere pronunciation of the word, would give the effect of its meaning. These people also adopted few words from Tamil, and modified them to get this result.
9. Due to development of metaphysical knowledge and Sanskrit, the Indians followed a very sophisticated religion, Hinduism, and were able to witness a lot of events in their lives, which would be recorded for posterity as the Puranas, such as Ramayana and Mahabharata.
10. People also started migrating out of India, as a result of Lemurian submersion/Saraswati river drying up etc. , which ultimately caused a location shift of languages, with North India seeing the decline of the Tamil language.

The Junk DNA and Sanskrit – A Digression

In recent years, a team of scientists from Russia, led by Prof. Gariaiev, uncovered certain vital facts on the part of human DNA, that scientists erstwhile called "the Junk DNA", and were able to prove that this DNA, provides significant clues to the evolution of humans, and the team also concluded that the Junk DNA possibly encodes a language, much similar to the Human spoken language. The

Tracing the origins of India

author here has an intuition that this could possibly be Sanskrit, though, thorough research has to be done to prove/disprove this intuition.

Following are some extracts from Gariaiev's work: [The DNA-wave Biocomputer Peter P. Gariaiev*, Boris I. Birshtein*, Alexander M. Iarochenko*, Peter J. Marcer**, George G. Tertishny*, Katherine A. Leonova*, Uwe Kaempf ***.]

Abstract

This paper reports experimental work carried out in Moscow at the Institute of Control Sciences, Wave Genetics Inc. and theoretical work from several sources. This work changes the notion about the genetic code essentially. It asserts: -

1) That the evolution of biosystems has created genetic "texts", similar to natural context dependent texts in human languages, shaping the text of these speech-like patterns.

2) That the chromosome apparatus acts simultaneously both as a source and receiver of these genetic texts, respectively decoding and encoding them, and

3) That the chromosome continuum of multicellular organisms is analogous to a static-dynamical multiplex time-space holographic grating, which comprises the space-time of an organism in a convoluted form.

That is to say, the DNA action, theory predicts and which experiment confirms,

i) is that of a "gene-sign" laser and its solitonic electro-acoustic fields, such that the gene-biocomputer "reads and understands" these texts in a manner similar to human thinking, but at its own genomic level of "reasoning". It asserts that natural human texts (irrespective of the language used), and genetic "texts" have similar mathematical-linguistic and entropic-statistic characteristics, where these concern the fractality of the distribution of the character frequency density in the natural and genetic texts, and where in case of genetic "texts", the characters are identified with the nucleotides, and ii) that DNA molecules, conceived as a gene-sign continuum of any biosystem, are able to form holographic pre-images of biostructures and of the organism as a whole as a registry of dynamical "wave copies" or "matrixes", succeeding each other. This continuum is the measuring, calibrating field for constructing its biosystem.

Tracing the origins of India

Kumarikandam – The cradle of Human Civilization ?

In this section, the author tries to reconstruct the map of Kumarikandam/Lemuria from given references in literature, and goes on to discuss the possibilities of the existence of such a landmass, and its impact on Human culture and civilization.

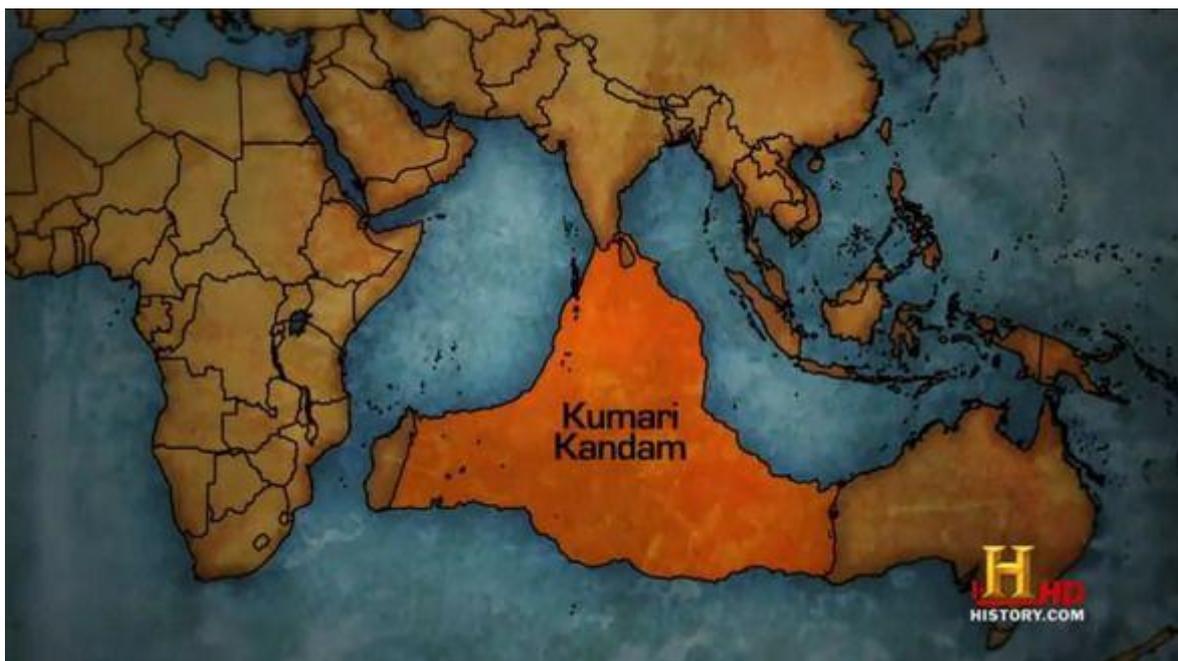
The existence (or not) of Kumarikandam, a landmass to the south of Indian subcontinent has been a highly controversial and a much debated topic of Indian and western scholars alike.

There are scattered references in [Sangam literature](#), such as [Kalittokai](#) 104, to how the sea took the land of the [Pandiyan](#) kings, upon which they conquered new lands to replace those they had lost. There are also references to the rivers Pahruli and Kumari, that are said to have flowed in a now-submerged land. The [Silappadhikaram](#), one of [the Five Great Epics of Tamil Literature](#) written in first few centuries [CE](#), states that the "cruel sea" took the Pandiyan land that lay between the rivers Pahruli and the mountainous banks of the Kumari, to replace which the Pandiyan king conquered lands belonging to the Chola and Chera kings (Maturaikkandam, verses 17-22). Adiyarkkunallar, a 12th century commentator on the epic, explains this reference by saying that there was once a land to the south of the present-day [Kanyakumari](#), which stretched for 700 *kavatam* from the Pahruli river in the north to the Kumari river in the south.

This land was divided into 49 nadu, or territories, which he names as seven coconut territories (*elutenga natu*), seven Madurai territories (*elumaturai natu*), seven old sandy territories (*elumunpalai natu*), seven new sandy territories (*elupinpalai natu*), seven mountain territories (*elukunra natu*), seven eastern coastal territories (*elukunakarai natu*) and seven dwarf-palm territories (*elukurumpanai natu*). All these lands, he says, together with the many-mountained land that began with KumariKollam, with forests and habitations, were submerged by the sea.

These ideas gained notability in Tamil academic literature over the first decades of the 20th century, and were popularized by the [Tanittamil Iyakkam](#), notably by Dravidologist [Devaneyya Pavanar](#).

Researchers agree on the shape of Lemuria/Kumarikandam to be as follows, this image taken from the archives of the History Channel:



Tracing the origins of India

The author, assuming the existence of this landmass at a definite time in the past (maybe from 150,000 years ago onwards), and assuming the migration of humans from Africa onto Lemuria and from there to India, attempts at sketching the map of Lemuria along with its 7 regions.

1. The Kumarikandam was roughly triangular in shape as shown above, with connections to Madagascar, South India and Australia.
2. The tamil literatures mention of seven groups of Nadus or countries, each with 7 states each. The seven Nadu are – Thenga, Kurumpanai, Munpaalai, Pinpaalai, Kunakkarai, Madurai and Kundra Nadu.
3. The first regions the humans migrated outwards should have been South/Southeast from Madagascar, as only such a migration can explain the presence of Australian N haplogroup.
4. This region, the southernmost part of Lemuria, was quite cold, as it was far away from the equator, and at the same latitude as South Africa and Australia. This could have led to a lot of stunted palm trees growing there. This area, the author suggests, is the “Kurumoanai Nadu” or the country of the stunted palm trees. This was also the first region to get submerged under the sea. Parts of this land are seen in modern day Mauritius, Mascarene islands etc.
5. Tamil literatures also mention few mountain ranges in the Lemurian continent, significant of them being the Meru mountain. These mountains, are claimed to have been in the centre of the Lemurian landmass, starting from central modern Sri Lanka and going southwards. This should have been “Kundra Nadu” or the land of the mountains. These mountains were also the source of the great rivers Kanni, Kumari, Pahruli and Peru.
6. Some of the people who occupied kurumpanai migrated northwards. This accounts for the presence of M and N haplogroups in India. During this Northward migration, the people encountered a heavy desert on the western half of the Lemurian landmass. This was approximately around the equatorial region, and also coincides with the geographical concept of deserts being on the western sides of continents. This desert, called “Paalai” in Tamil, was so huge that the Lemurians named it under two regions “Munpaalai” or the front desert, (which was the southern half, and the earlier one encountered by the humans), and “Pinpaalai” or the back desert (the northern half). Parts of the Paalai Nadu are today seen in the British Indian Ocean territory.
7. At the same latitudes of the Kundra and Paalai Nadu, on the eastern coast was the “Kunakkarai Nadu”, or rightly, “the Country of the east coast”.
8. Northwards to the Paalai countries were fertile regions, which had a lot of backwaters, beaches and a tropical climate, much similar to modern day Kerala, Maldives and Lakshadweep. These lands, had an abundance of coconut cultivations, and were rightfully called “Thenga Nadu” or the land of the Coconuts. As people migrated northwards from Kurumpanai, Kundra and Kunakkarai Nadu, they became more and more civilized, and in the northernmost parts of Lemuria and India, the people were the most civilized, with sophisticated societies, kingdoms and religion.
9. To the north of the Kunakkarai Nadu was the mighty “Madurai Nadu”, or the sweet country, a vast empire of the Pandyan kings, that housed the Three Tamil Sangams. This land was the last to be submerged by the sea.

Tracing the origins of India

Based on these conclusions, the author has sketched a world map, which marks the indigenous and native tribes of various regions of the world, and which also includes Kumarikandam with its various countries, mountains and rivers, and important towns. This map is presented below:

Tracing the origins of India

Now, the author attempts to rewrite the Core hypothesis, this time including the Kumarikandam assumption:

1. While Africa is the cradle of Human evolution, Lemuria, is the cradle of Human Culture and Civilization.
2. Language first originated among L3 haplogroup, which was later carried by M and N haplogroups, as they migrated out of Africa.
3. The first language, was nothing but a collection of grunts, growls, hoots, and monosyllabic words, termed language "A". The people who stayed back in Africa developed languages from this "A", and those are the tribal languages spoken today in Subsaharan Africa.
4. The speakers of "A" migrated out of Africa, and settled in Kurumpanai region of Lemuria. This is where the first agriculture and pastoral life started to appear. This is also where Tamil rose from A to become an independent language.
5. Further migrations took place to Paalai, Kundram and the Kunakkarai lands. Here, the first elements of religion, Intellectual and emotional pursuits, and the seeds of Sanskrit were sowed. Here, people started forming groups, societies, as they acclimatized to the various natural and climatic conditions of the region.
6. At this stage, the first deluge occurred, where Kurumpanai and parts of Paalai and Kunakkarai were washed away. This forced people to move Northwards, to the Thenga and Madurai regions of Lemuria and into India. At this stage, Tamil was at an advanced stage. Even Sanskrit was developing fast.
7. The First Sangam occurred, at the southern tip of Madurai land, in Then Madurai or South Madurai. At this stage Hindu religion, and Sanskrit had developed, and there are literary references to Hindu Gods such as Shiva and Murugan being invoked here, possibly by the use of Mantras.
8. Northward migrations continued, and people had occupied most of India. People also migrated outwards of India to the West and northwest into central Asia and Europe, eastwards into the Far east and America, and southeast towards Indochina and the Pacific. As people migrated they carried with them Sanskrit and Tamil, which in due course, corrupted to form the vernaculars. Meanwhile the deluge in Lemuria continued, and this time most of Paalai, Kundram, Kunakkarai, and parts of Madurai were washed away.
9. The second Sangam was held in Kapatapuram, then, seemingly the Southeastern tip of the Lemurian remains. This Sangam witnessed a lot of advancements in Tamil literature.
10. As people continued to migrate outwards and into many places around the world, the deluge in Lemuria continued this time washing away most of Madurai and Thenga Nadu, giving almost the present shape of India and the Indian Ocean islands. In mainland India, however, Sanskrit and Tamil witnessed rapid growth, and the Varna (caste by profession) system was established. Many events also occurred and many great people like the Rishis and Kings lived in this period. All this would be later recorded in the Vedas, Upanishads etc., which also served as a source of scientific knowledge, both physical and metaphysical. The North Indian civilization primarily revolved around the Saraswati, Sindhu and the Ganga rivers, whereas in South India, the Chera, Chola and Pandya kings continued to rule.
11. Hinduism reached its zenith, and there were a lot of events happening that would be later recorded in the Puranas and Itihasas. This was the age of the Ramayana and Mahabharata, witnessing fierce wars, and title and ego clashes, and the destruction of evil by the good.

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And, as modern research proclaims, advanced technologies, such as invisibility, stealth attacks, aircraft, nuclear warfare etc were used in the Mahabharata. (Readers are advised to visit this link: <https://www.youtube.com/watch?v=c8TV2G0iyGE> to know about the atomic warfare used in Mahabharata). There are also convincing evidences that state that the Mahabharata, though it had its epicenter in North India, was a global war and witnessed kings, princes and warriors from many regions around the world.

12. The end of the Mahabharata saw a vast devastating destruction of land, property, culture, and knowledge. Most people including the three castes of Kshatriyas (warriors), Vaishyas (traders and merchants) and Sudras (Artisans and workers) were destroyed. But according to the law of the land Brahmins (priests/scientists), Women, children and few other people were spared from the destruction of the war.
13. The remnants of this war, started a civilization in north India, mostly from scratch, though they did retain some of the knowledge of the languages of Sanskrit and Tamil, and few scientific principles. This civilization is known today as the Indus Valley civilization.
14. In due course, however, people migrated from the Indus valley towards the Ganges valley, and it was in these people that the Decline of Tamil had started. These people used Sanskrit itself as a vernacular tongue, but the complexity of this language finally led to the use of a simplified version, Pali being used, which ultimately broke down into various regional vernacular languages. Meanwhile, South India continued with the Triumvirate of Chera, Chola and Pandya kingdoms, and there was little change in the linguistic or cultural situation. Both Sanskrit and Tamil continued to develop.
15. The final wave of migrations started from India, this time moving towards Europe. This would give rise to the Indo European family of languages.
16. The Third Sangam was held, in modern day Madurai. This was also the time of the rise in Buddhism and Zoroastrianism.

An Alphabet-based feature analysis: A digression

As an additional work, the author also carried out statistical analysis of the alphabets of various writing systems. This analysis works as follows:

1. First, a writing system is chosen and an alphabet /shape from this is chosen.
2. The numbers of vertical, horizontal and oblique lines, and the number of curves and enclosures present in that alphabet are noted and tabulated. For example, the Roman letter "A" has 1 horizontal, and 2 oblique lines, and 1 enclosure. "B" has 1 vertical line, 2 curves and 2 enclosures.
3. This procedure is then repeated for all alphabets under that writing system.
4. Steps 2 and 3 are repeated for many writing systems around the world.
5. The results are tabulated and presented below:

A FEATURE BASED ANALYSIS OF THE MOST POPULAR PRESENT AND HISTORIC WRITING SCRIPTS

TITLE	VERTICAL	HORIZONTAL/OBLIQUE	CURVES	ENCLOSURES	TITLE	VERTICAL	HORIZONTAL/OBLIQUE	CURVES	ENCLOSURES
ROMAN	96.2%	61.5%	69.2%	53.8%	ETRUSCAN	90.9%	59.1%	77.3%	45.5%
TAMIL	181.0%	123.8%	9.5%	266.7%	PHOENICIAN	100.0%	72.7%	72.7%	31.8%
KANNADA	12.5%	96.9%	62.5%	378.1%	MONGOLIAN	70.0%	30.0%	50.0%	135.0%
DEVANAGARI	108.6%	128.6%	28.6%	171.4%	ORIYA	48.0%	4.0%	16.0%	236.0%
ARABIC	21.4%	28.6%	67.9%	150.0%	BURMESE	7.4%	7.4%	3.7%	196.3%
BRAHMI	94.4%	47.2%	36.1%	80.6%	BALINESE	115.4%	7.7%	7.7%	384.6%
BATAK	5.6%	77.8%	33.3%	88.9%	SOYOMBO	137.5%	143.8%	56.3%	106.3%
GEEZ	53.3%	26.7%	33.3%	100.0%	BENGALI	83.3%	76.7%	80.0%	156.7%
GUJARATI	62.5%	21.9%	15.6%	187.5%	KHMER	224.0%	40.0%	32.0%	260.0%
GURUMUKHI	87.1%	122.6%	6.5%	187.1%	LAO	133.3%	9.5%	9.5%	309.5%
THAI	177.4%	25.8%	74.2%	264.5%	GRANTHAM	157.1%	103.6%	10.7%	253.6%
PAHLAVI	60.0%	46.7%	13.3%	106.7%	PHAGS PA	204.2%	212.5%	45.8%	29.2%
MANDAIC	42.1%	68.4%	68.4%	105.3%	ARAMAIC	100.0%	61.9%	47.6%	61.9%
SAMARITAN	75.0%	50.0%	112.5%	87.5%	PALLAVA	89.3%	3.6%	17.9%	214.3%
S ARABIAN	40.9%	36.4%	72.7%	163.6%	CHAM	23.8%	33.3%	28.6%	342.9%
IOTIC	79.2%	83.3%	75.0%	41.7%	SIDDHAM	78.3%	87.0%	39.1%	147.8%
RUNIC	105.0%	5.0%	215.0%	5.0%	SHARDA	90.9%	104.5%	36.4%	127.3%
UYGHUR	83.3%	38.9%	61.1%	94.4%	DHIVES	9.5%	4.8%	9.5%	290.5%
REDJANG	7.1%	7.1%	378.6%	7.1%	LEPCHA	27.3%	59.1%	40.9%	200.0%
KHAROSHTI	40.9%	45.5%	36.4%	136.4%	LIMBU	35.0%	85.0%	60.0%	155.0%
CREE	70.0%	60.0%	120.0%	50.0%	TOCHARIAN	33.3%	61.1%	261.1%	83.3%
HIRAGANA	63.9%	97.2%	50.0%	130.6%	AHOM	66.7%	5.6%	61.1%	200.0%
TIBETAN	133.3%	72.2%	122.2%	133.3%	AVESTAN	30.0%	30.0%	25.0%	255.0%
JAVANESE	331.3%	100.0%	25.0%	300.0%	SUNDANESE	6.3%	243.8%	250.0%	12.5%
RANJANA	172.7%	104.5%	13.6%	177.3%	CHINESE	261.1%	305.6%	255.6%	122.2%
MALAYALAM	96.7%	46.7%	3.3%	266.7%	BUHID	7.1%	207.1%	171.4%	7.1%
SINHALA	4.3%	13.0%	34.8%	326.1%	BAYBAYIN	21.4%	7.1%	53.6%	285.7%
TELUGU	5.0%	10.0%	195.0%	270.0%	LONTARA	6.3%	6.3%	368.8%	6.3%
SYRIAC	81.8%	90.9%	95.5%	40.9%	FRASER	100.0%	33.3%	66.7%	66.7%
HEBREW	70.4%	63.0%	55.6%	55.6%	GOTHIC	113.3%	6.7%	186.7%	6.7%
NABATEAN	90.9%	36.4%	40.9%	81.8%	COPTIC	50.0%	50.0%	38.9%	166.7%
SOGDIAN	15.0%	40.0%	45.0%	120.0%	TAGBANWA	8.3%	16.7%	58.3%	283.3%
HANGUL	93.3%	113.3%	33.3%	13.3%	NUSHU	113.3%	13.3%	373.3%	113.3%
CYRILLIC	90.0%	46.7%	70.0%	56.7%	YI	153.8%	100.0%	92.3%	169.2%

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