

EVOLUTION OF THE INDUS SCRIPT
AND EMERGENCE AND END OF
HARAPPAN CIVILIZATION



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INTRODUCTION

In an effort to decoding the Indus Script on the signboard of the Harappan city of D'R R'atam Raavaa PaaR, I had learnt that the script is based on *attribute*, and not *form*; and, the verbs have played a major role among attributes. All the ten letters of the script of the fort city are verb-based (1). Later, I had murmured for the hieroglyph-letter IS 238 in *The Indus Script* (IS) – विभाजने व (*dividing* for व = w). It would apply for it was my hunch. The idea was a hit and proved right. However, the base-object for the hieroglyph looked like a plank of wood (IS 237). Dividing it into segments to meet some routine requirement did not enter into my head. The letter-base-attribute must be an object other than a wooden plank but looking like a plank in the finished script, I had reasoned. My surmise proved right while looking into the Hazaribagh Script (2, p.91) for deciphering it. The plank of IS 237 was broader and with curved vertical lines in the Hazaribagh Script (HS 65); and, there was also a base-object for word व. It was a time-dividing-tower at Hazaribagh that existed there 7000 years ago (HS 90). The time-dividing-tower (HS 90) was meant to divide the day empirically into 3 – forenoon, noon and afternoon. It shows a significant number related to 28 *nakshatras* in the sky that are covered by the moon in a month of 30.5 days (approx.), and the Sun in a year of 365.25 days. Moon-days formed a month and divided into 4 weeks. The mid-part of the 5.5 m tall cylindrical tower has a pair of parallel lines in its middle that form attribute *dividing*. These indicate the vernal and autumnal equinoxes dividing the year into two segments of 6 months each. This Time-dividing-tower with a band of two parallel lines shown in HS 65 was the letter-base for hieroglyph व initially. The latter turned into a plank for hieroglyph व in IS, nearly 1500 years later. Similar was another case of an odd looking hieroglyph resembling 7 (IS127). No verb-attribute was available for it; nor, was an object with similar look to be considered for a form-hieroglyph. It was fixed by me as घ (Gh) with the help of IS Concordance. HS showed that it was a common object 7000 years ago; and, it was quite varied in shape while in common use then – HS 71, 72, 73 and 74.

HS has a variety of IS equivalents numbering 29. In the script, original true hieroglyph *ray-emitting-sun* has changed into a *letter-indicator* circle connoting letter Sa or Ra. The practice has continued till the arrival of the Harappan culture; and, Ss or Rr equivalent of HS (19) has continued as IS 400 during the Harappan times.

It does not mean, Harappans were working merely on an ancient script without any contribution of their own in the *Indus Script*. The Harappan dwellers of River Sindhu, stretching from Lothal in the south To Ropar in the foothills of Himalayas (Fig.1), not only have preserved the past hieroglyphs but also have made substantial contribution in the evolution of the IS. There are multiple facets of intellectual, scientific and artistic contribution by the Sindhu Valley men, which the hieroglyphs of Indus Script display to the credits of then Sindhu-dwellers between Kabul and Surat. The inhabitants, although spread physically around the Sindhu tract, had knowledge of the *Seven-fires* of Caspian coast another 2000 kilometers away. They had evolved their language, during 500 years, into a veritable medium of communication in and perfected its script into a fascinating work of unparallel art spilled over thousands of Harappan tablets and seals. We shall cover their complex but invaluable contribution to the language and script under EVOLUTION OF THE INDUS SCRIPT.

Use of mined-copper by the in Hazaribagh men since a little before 7000 years ago brought a new pattern in the humanity for the cave-dwellers of Hazaribagh plateau. Copper implement like axe was used to cut the forest to create plough-worthy land for cultivation, J-hooks HS 71-74 suggest. These were the hooks made from twigs or slender branches of trees to drag away light but voluminous canopy or crowns of the trees felled on the ground to create cultivated fields. Local verb attribute for the hieroglyph was *ghaseetana* (to drag), and the tool probably named *Ghaseetan* in then Bhojpuri. An axe is *tangee* in Bhojpuri because equipment looks like a foot-leg combination with its handle. They had a *Time-tower* to mark the seasons, months, and weekdays, and even three parts of a day. It

helped to forecast the seasons in advance to prepare for sowing as well as harvesting. The weapons like tridents and copper-arrow-heads ushered an era of safety and freedom from carnivores. They

were not compelled to live in caves during nights, protected by a fire at its opening to scare the hunting carnivores. Mud-hut villages sprang protected by earthen enclosures (HS 79). Their culture, language and script did not die in the process; but, it only disappeared due to non-preservation. Hazaribagh script is seen as disappeared but the mind, language and script of Sun worshipping *Chhat*-celebrating Bihari of the bygone past has continued till the present day.

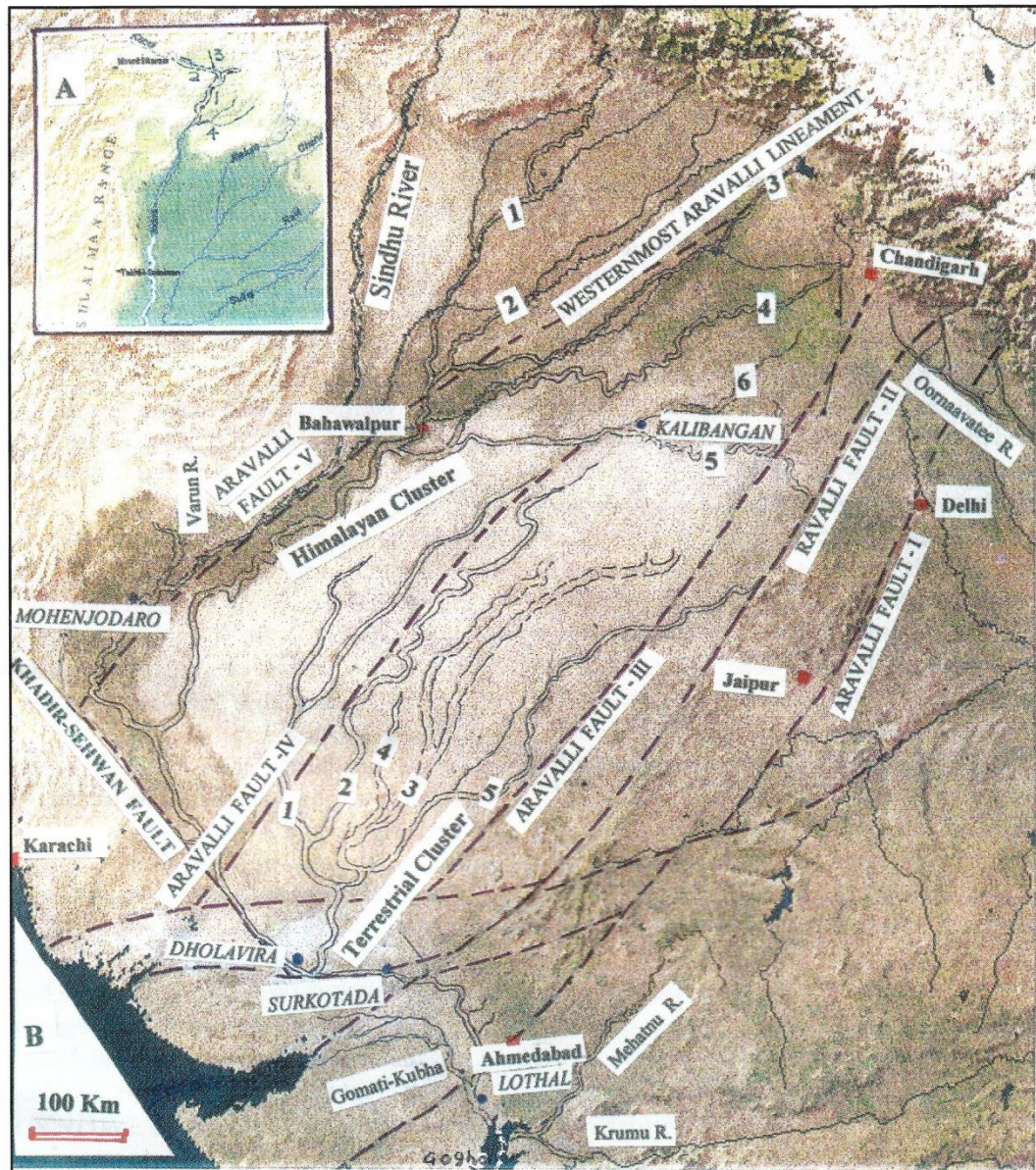


Fig. 1 **Sindhu River System.** *A:* Initial three rivers of upland. *B:* Other rivers. *A:* 1 Sindhu, 2 Rasa, 3 Shvete, 4 Susartu. *B:* Himalayan cluster - 1 Ganga (pair), 2 Yamuna (pair), 3 Sarasvati, 4 Shutudri, 5 Sachata, 6 Parushnee. Terrestrial cluster-1 Marudvridha (pair), 2 Asiktee, 3 Arjikeeya (pair), 4 Vitasta, 5 Shreeshuhee.

First stage of copper revolution did make a major change in the life human species in Bihar around 7000 years ago and later in the Middle East. They shifted from caves to villages, expanded agricultural land and ensured food supply all the year round for hassle-free life after abandoning hunting in the wild. The people, their language as well as script continued in Bihar and rest of India where the knowledgeable Vedic Bards were roaming for strengthening their souls. Memory, logic, command-strength, truth, renunciation and force in the pursuance of righteousness are the properties

of soul operating in a human body. These were the values that were increasing gradually in the knowledge-pursuant Vedic men of India who had discovered north-south movement of the mid-day sun, and its relation with seasons over a hundred thousand years ago. They made an instrument to monitor solar movement 10,000 year ago and classified the year in three segments – rainy, low sun and high sun in a cycle commencing with Sirma [Sir (head)+ R(Sun) +Ma (moon) = first new-moon after summer solstice] (3). 30,000 years ago they divided each into two (2 ; Fig.2), and made the Time-Tower of Hazaribagh 7000 years ago. These intelligent men were behind the early discovery of copper in India, even as cave-dweller when they expressed their acumen through hieroglyphs. People around them followed the bards; and, the Sun-culture of India has lived in India on account these Rishis. Their primary gods were heavenly – Sun, Moon, Dyava-ptrihivee (Sky-Earth) and river gods like Marut and other rivers (2, Fig.1) besides Fire. They saw no use of preserving their script, and made no effort to etch their words in a stone or baked clay pottery. They did so only for their gods like Sky-bull (Taurus Sign) and Moon by carving these on a miniature agate piece (5).

At Kalibangan in the Ghaggar river-bed there are two levels of contrasting cultures. The Preharappan stratum dates as 2900 BC to 2700 BC. There is no script here. Evidence, however, suggests that there was no major change in the use of copper in of India till this period except making some ornaments. Neither was there any striking change in their living pattern of Indians till this period. They used bulls for agriculture, riding and short distance transportation. They were fishing in cutout canoes; and would double them as *Dunav* (HS 58) for transportation of scanty agricultural produce for nearby large habitations or towns. A notable fact brought out by several excavations the Western India is the existence of a widespread cultural milieu of the Preharppan like the succeeding Harappan culture (6). Cultivation culture had dug in and men were prosperous.

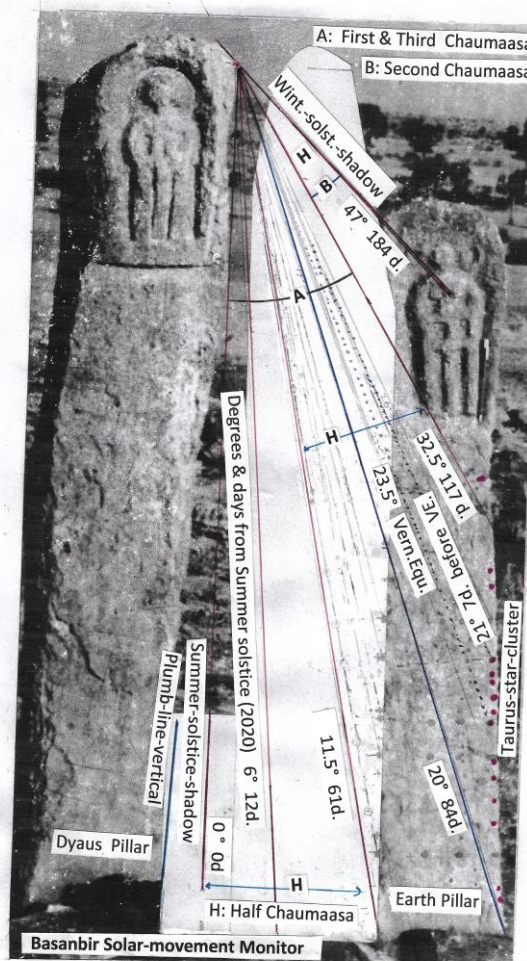


Figure 2: 3 months of the year- Rain (Jargi), Low Sun (Raban) and Long Sun (Jethe Chandu) – continuing for 70,000 years after the invention of the Sirma-based first calendar by the man was divided into six-month-units 30, 000 years ago. Each month as a first half and at second half – at the Dyaavaa-Prihivee pillars of Basanbir. The pillars depicting scratched images of God Daus, Goddess Earth and their children Sun and Moon are Perigodian carvings made during a time-span between 32000 and 20000 years ago. In the original work (2, fig. 7.15, box1 age of the Dyaavaa-Prihivee pillars has been fixed around 24500 years.

In a focused scrutiny of the asterism marks on the Prithivi pillar shows that a close cluster of stars, possibly Beatrix-Beteleguese-Regel-Orion, formed morning asterism at Vernal Equinox when Dyaavaa-Prihivee pillars were erected. The event has repeated lately during Harappan times 4200 years ago, and will repeat again after 26000 years.

In view of the observation above, erection date of the Dyaavaa-Prihivee pillars at Basanbir works out as 30000 years. The carving, anyway, remains in the Perigodian age even though 5500 years older.

At Kalibangan, there is a gap of 200 years, between 2700 BC to 2500 BC, between the disappearance of Preharappan activity and the first Harappan settlement. The gap had brought a second copper revolution in Indian along a long-stretch of River Sindhu. Planks and copper implements were in existence since 5000 BC. Now, men built with the help of the wooden planks and long copper nails an object they called Bagara or Bajara (water-bull royal) – a heavy duty water-transport-boat in contrast to the canoe.

Bajras enlarged fast and attained the size of Noah's Ark soon. Once, Biblical God had ordered his prophet to build a large boat or ark with specifications: "length of the ark shall be 300 cubits (150 m), the breadth of it 50 cubits (25m) and the height of it 30 cubits (15m)". People could travel in such a vessel for thousands of kilometers along the coast. The civilization succeeding the Preharappan was exotic. A very distinct Harappan culture landed in India from western Asia after widespread use of ships. It continues at Kalibangan for 500 years. Harappan men left behind a stock of over 4000 seals and amulets when many of them ended along with their civilization in a phenomenon called *extinction*.

The Harappan seals reveal, main Harappan entrepreneur were non-Vedic in the first place. They were followers of faith-driven Nabi-mazhab or Prophet Cult¹, prevailing in the Western Asia since the days of Abraham of Ur in Mesopotamia (7, 3000 BC?). They were migrant population for the Vedic India. Their seals also indicate their provenance. Various West Asian communities were settled on the Harappan Sindhu Terrain. There were worshippers of the Seven-fires at the cost of Caspian sea², the Jonaps or Mesopotamians hated by Indra³ and also worshippers of Basta (cat)⁴ from Egypt. To the last the animal was as great as Vedic Aditi⁵.

The new settlers joined by the local population brought first industrial revolution in India around 2500 BC. Sindhu Valley had a cluster of small towns and cities between Surat and Chandigarh on account of prosperity brought to the land due to Industrialization. There was a lathe industry at D'R R'atam RaavaapaaR for shaping the large stone cylinders; a large establishment near the then Lakhpat Port was for wood-block sawing to make planks for its shipping to Mesopotamia (Box 1); a grain export hub was at Lothal; a pharmaceutical industry was also there for the healthcare of men and cattle; and, a mould-based-seal casting enterprise existed at Vigekot. It was a religious and cultural revolution as well. Dozens of new gods were added to the existing ones in the Sindhu valley; and, a Yamal cult appeared for the first and last time in India. We deal with this remarkable change in the Indian historical scenario under Harappan Culture. It arrived in India with a bang and then disappeared all of a sudden at the speed of lightning in 1900 BC.

Harappan culture of stupendous prosperity vanished in less than a year hit by a tectonic manifestation in Kachchh that brought Noah's flood to kill these men. We touch upon the topic of Emergence and End of Harappan Civilization very briefly in this work

In organizing work, three facets of detailed and independent information arrive simultaneously. First of these is deciphering of the Hazaribagh Script for linguistic, hieroglyphic and cultural aspect of the Harappan ancestors; the second looks into the catastrophe that had drawn my attention once about the sudden end of the D'R R'atam RaavaapaaR township (1); and, third, a little more in depth enquiry into sentences of the Indus Script for better understanding of the past culture. These are dealt separately for the experts three sections: 1- *The Hazaribagh Script*, 2- *Termination of the Sindhu Drainage*, and 3- *Eight-letter Sentences in the Indus Script*.

Two important Harappan ruins out of the six settlements in Kachchh have no mention in the Historical accounts. These are Fort and Harbor of Lakhpat and the past settlement of Vigekot. Find of the copper moulds related to Harappan times is a valuable discovery from the latter (1.) Details about Harappan Fort of Lakhpat and its dating are available in detail elsewhere (2). Box 1, however, provides some key information about the past Port town of Lakhpat.

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BOX 1

HARAPPAN FORT AND HARBOR OF LAKHPAT

It was October, 16, 1982 when I was very close to the Western Tip of India, in the dilapidated township of Lakhpatt, surveying the rock formations as a geologist. I climbed to one of the sentry posts of Lakhpatt Fort to snap overlapping scenario-frames of the southerly landscape for reconstruction of geology (Fig.9.4). Thereafter, climbing on to the parapet of this fort I asked my attendant to provide shade over the Rolleicord double-lens-reflex camera, and looking through the magnifier, I clicked a couple of photographs. Back to the office at Baroda, the roll was developed, printed and made available for study. While pasting the three frames of the continuous series (Fig.9.5,9.6, 9.7), the middle frame showed strange anomalies, yonder in the photograph lay a fort with a chariot in front. This feature is nowhere seen in the adjacent left or right frames.

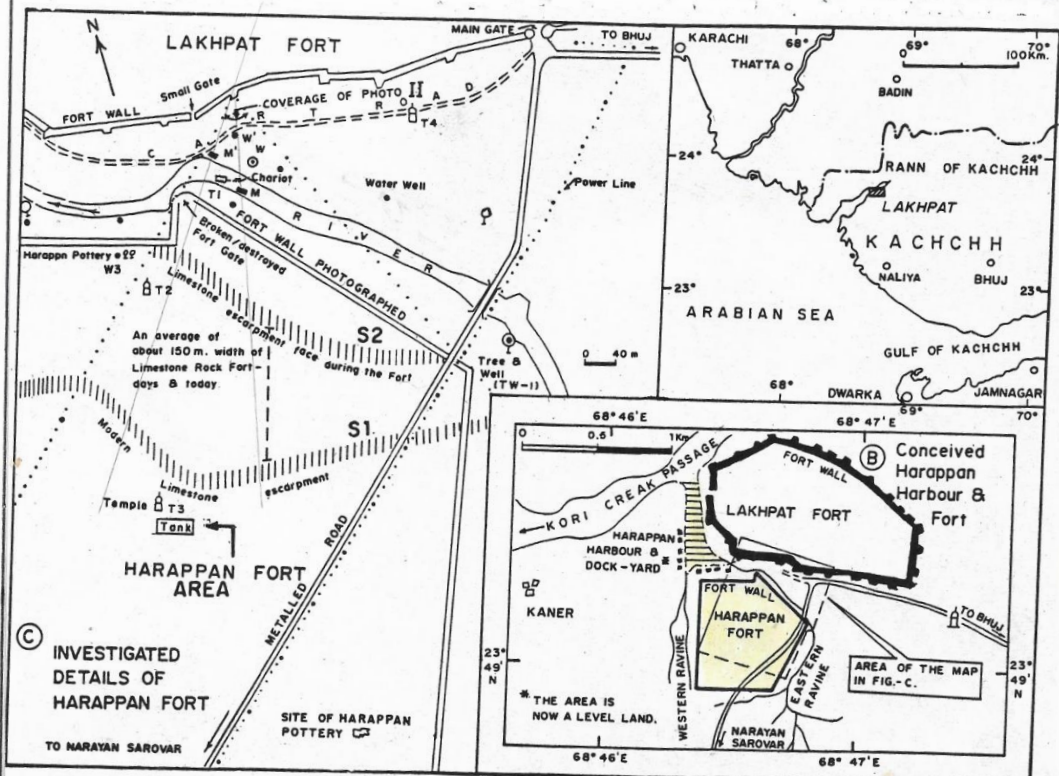
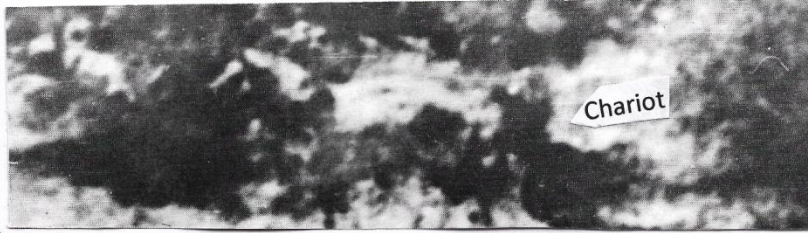
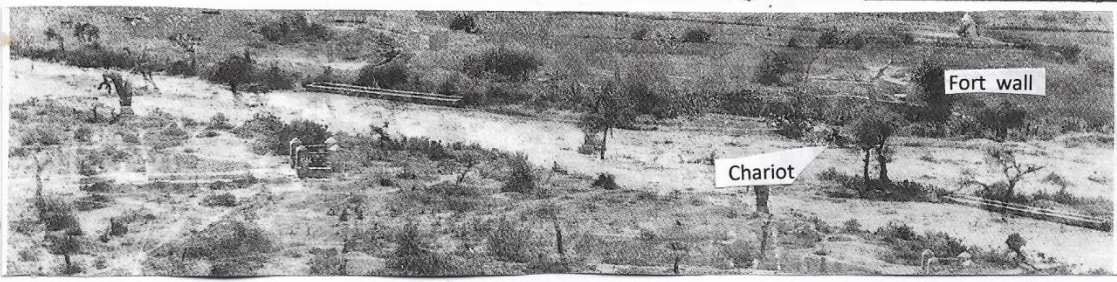


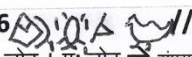
Fig. 9.4 : Features around Lakhpatt Fort. The fort of Harappan times (B) represents a construction when the area was flourishing as a harbour with a dock-yard nearby. Remains of Harappan tank and pottery are seen even now (C). Some features of the Harappan times and today are very different. Limestone escarpment face is one of them. Such a massive shift of limestone-escarpment face may largely be due to human activity in erosion.

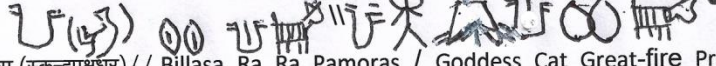
Fort and fort features: The fort has simple walls, broken in the westerly area (Fig. 9.9). It appears to have been abandoned long before the chariot has arrived in the scene since no buildings are seen in the fort. A tank, however, is preserved. Buildings apparently had all collapsed. Two features are distinct in the past. First, the limestone escarp about five meters high today (S1, Fig.9.4) was closer in the foreground those days (S2). Some 150 meters wide rock-patch has been denuded away (dug out) between the present and the day of the fort in the picture. A second feature preserved is that of its pond with part of the walls preserved. Such ponds with raised walls on a sloppy ground preserving water are still found in Rajasthan. The builders of the fort were thus culturally related to Sindh-Rajasthan, it may be inferred.



Harappan Fort
and Chariot

Date of the fort : Just in the foreground of the fort lies a chariot with two horses. A black man with a wrapped body and loose turban is riding this chariot (Fig. 9.11). The spokes of the chariot are seen and probably number six. This object is useful in fixing the age since spoked chariots entered into history in the Middle East around 3.5 Ka and are not seen in the Harappan culture i.e. before 3.9 Ka. This dark man, with a turban, a royal or near royal man, suggest the fall of the Harappan civilization and rise of a dark people after the Harappan regime of Indus Valley. The chariot by itself is quite primitive and the scene could well be around 3.8 Ka.

3 : 71 IC : 6-5 TR: M/ p 40 | 6  लवाण जोनप / इंद्रगण यवनमारक // Lvaan* Jonap/ Indra -men Ionian Killers [जोनप = जोन + प; जोन → संप्रसारण → जवन; ज → य; यवन। Lavaa (Indra) River dwellers = Lavaan – Indians; Yav River (Euphrates) dwellers = Yavan. The two were enemies of each other]. Items 1-3 (8).

4: IS-Index p.204 | 10\11  बिलसा रा रा प्रमोरस / देवी बिलाड़ी महाग्नि प्रमोरस (स्कन्दपक्षधर) // Billasa Ra Ra Pamoras / Goddess Cat Great-fire Pro-Skand \\ अं बिलरसा सप्त अगस हमस / सूर्यवत् बिलाड़ी सप्ताग्नि एवं चंद्रवत् // An Billarrasa Sapt Agas Hamas/Sun-like Goddess Cat is Seven Fires and Moon as well . **5:** Goddess Aditi is Zeus, Horizon, mother, father, son, All-gods.. (Rik 1.89.10.)

Reference




- 1: Jagadishomrityunjay (2019) *Indus Script Deciphered* www.attadhistanam.com, pp. 53.
- 2: -----(1997) *Science of Consciousness*, Attadhistanam, Dehradun – 1, pp. 275.
- 3: -----(1910) *First mnemonic device and calendar of Man*.
www.attadhistanam.com,
- 4: 2, pp. 137-143.
- 5: Jagadishomrityunjay (2011) *Mini-sculpture of Vedic Rain-Bull-God*. www.attadhistanam.com,
- 6: Lal, B. B. (1979) *Kalibangan and the Indus Civilization* ESSAYS IN INDIAN PROTOHISTORY (D.P. Agrawal and D.K. Chakrabarti Eds.), pp. 65-112, B. R. Publishing Corporation, Delhi 11 0052.
- 7: Reader 's Digest (19 83) *Vanished Civilizations*, 319p.
- 8: 1: Jagadishomrityunjay (2020) *Sentences in the Indus Script* www.attadhistanam.com, pp. 27.

जगदीश मृत्युञ्जयः
30. 9. 2020






EVOLUTION OF THE INDUS SCRIPT

The Hazaribagh Script, quite limited in number though, delivered a message during its study: first, HS is older than the Indus Script. It was used by the cave dwellers long before the Ark-era Indus Script was printed on the clay tablets during the Indus Valley Civilization; and, second, there was another centre of this script in the North India where a parallel evolution of the script was proceeding; and due to a communication between the two populations changes in scripts were often similar. A hieroglyph IS 418 suggests that such a centre could only be Kashmir, not the North Indian plains.

HS is dated astronomically to span between 5300 BC and 4900 BC whereas Indus Script covers a period of 2600 BC to 1900 BC. Final form of attribute derived sun in the HS is reached before the men abandoned the cave-living and took to cultivation and village life before 4900 BC. Hieroglyphic script of this kind is unavailable between the HS and the IS. It is possible that the finished form of attribute derived sun of IS too was available around this date in Kashmir in a parallel evolution. It surfaces, however, as printed on clay tablets when business transitions between India and Middle East were at their zenith with beginning of the Harappan civilization; and, the printing technology on clay tablets was maturing.

Types of basic hieroglyphs in the Indus Script number 419 in contrast to around 100 in the HS. Effect of the difference is clearly seen in their a comparison with the Devnagari Script. There are only 52 hieroglyphs comparable to Devnagari in HS and 75 in the IS. What is significant in this context is the multiplicity of the hieroglyphs in IS representing a single letter of the Devnagari script. Some of these show quit independent and forced entry after arrival. Case of S  Sh  , and Sh+  may be taken as example. The former is a *form-script* and the latter *attribute-script*. There is no logical explanation, why a new hieroglyph should be chosen when a comparable old script is available. Both HS-hieroglyph-fonts continue in the IS but their numbers are drastically low indicating their disuse. This also applies to verb attribute related addition in humanoid forms on one hand as well as same verb association with different form, e.g. pierced hole in forms insect as well as fish.

Seemingly, there was a language evolution during Harappan times when famous a work of Sanskrit grammar – Unadi Sutra – was prepared. On account of this work, virtually all words in Sanskrit turn into verb derived. It is seen in D'R R'ATAM RAVAA PAAR that all the hieroglyphs are based on the verb attribute. Possibly a fad arrived those days: put form-based-hieroglyphs to disuse and use only verb-attribute-fonts. This looks like the main cause of multiplicity of hieroglyphs in the IS. In a natural consequence it would also result into an addition of a good number of the joined letters. The process, by itself forms a step in the evolution of the IS.

Changes in the Indus Script, we find, are two types. First, related to the variation in notation like Ra¹, Ra² and associated Ratr³, Ratr⁴ and Raatr⁵ on account of different numeral-indicators (1:  2:  3  4  5 ). The work does not discuss this aspect The Second change relates to the topic of Evolution that is covered here.

In the context with Evolution of the Indus Script a very relevant discovery was made by the author. It relates to the existence of an earlier script of Hazaribagh which has comparable fonts as also different characters. The Hazaribagh Script has too few attribute-forms compared to total in the gate script of D'R R'ATAM RAVAA PAAR in the Indus Script. The phenomenon is related to the process of evolution wherein the form-script recedes and attribute dominates.

The evolutionary trend in the IS has three major topics. The first covers the changes in the fonts from the HS to IS. It is seen many fonts continue from the past HS to the later IS wherein some also shed light on the changes in the later script due to the change in cultural milieu of the later time.. Sun is a common object and represented by a good number in the two scripts. Change in the two hieroglyphs related to sun and the zodiac is significant as it reveals some independent evolutionary changes pointing out cultural divergence in the then populations.

Indus Script has two additional features compared to its predecessor. There an addition of new fonts which have essentially verb attributes besides using a new hieroglyph which is a combination of form and a hieroglyph. Additionally, there is a trend of excelling art-work or calligraphy in the IS, not seen in the primitive HS.

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There is a distinct advantage in inferring the IS because conjunct letters are rare and doubled ones very few. Is *sad* and not *sd* under this rule.

7: Divergent attributes for Sun

Most common and finally finished form of Sun in the IS is that of a bracket with a vertical bar and cross. It represents letter R, and numbers 195. It represents attribute north-south movement of mid-day sun in a similar movement of the zodiac in the sky, represented by brackets. This feature is just an asterisk at Hazaribagh a combination of + and x. It is a picture of pure solar movement without sky. The two populations are surely related because the, sun, zodiacal movement and horizon-boundary is seen in both the scripts up to a certain time (Sec. I-G: HS 53 & IS 384.). Later, probably around 5000 BC, both reject sun. Now 384 turns into 391 with horizon-line intact; and 53 changes into 89 without horizon-line.

II: NEW HIEROGLYPHS IN IS

1: Form Hieroglyphs

These are all used as amenable to joined by proceeding and succeeding letters excepting one – swan

It figures in a single sentence: Ja S Batakhas Sh⁺as (p. 266, l21) meaning Vishnu glides the great Batakas [B=V; Vatak→ Utak = Multichannel = Euphrates]. Accordingly, Duck is a hieroglyph connoting Euphrates – the river of Vishnu according to IS. The other bird hieroglyphs are associated with Puran-Gods Indra (Lava-IS 76), Siva (Kapot = Pigeon – IS 77) and Skand (More = Peacock IS 78, 79). Birds signify a common attribute पलायनम् or flying - IS, 80, 83. Lastly, a mammal also figures as a form Hieroglyph. It represents Egyptian cat god/goddess Basta, discussed earlier.

2: Multiple attributes on a single form: and Vice versa


The IS scribes of the hieroglyphs favored advantage of indicating different letters through varied attributes associated with a single form. For, example a fish sinks fast (बुलः ब), pierced by a harpoon during hunting (भिद भ) and pierced for roasting (छिद छ). Such an approach is seen even for humanoid forms.

Again attribute 'hole' or *Chhid* is common to an insect (IS 55) and fish (IS 70)both. Likewise य a pair has been indicated by an insect (57) and wooden plank (135).

3: Hieroglyph – Form combination

Hieroglyph for अंग is a form of Baku - 7fiire-temple combined with hieroglyph I .

III: PROBLEM OF ARTWORK IN INDUS SCRIPT

The Indus script is by and large a bilaterally symmetrical script on one hand and written by artists on the seals instead of commoners on the other. In a way, these are art-works rather than normal written texts. We often find artistic finish in most cases keeping in view, by the artist, an effort to finish the form symmetrical looking and as a pretty looking as possible. Figure here meets artist's 418 fascination. It is a combination of five hieroglyphs, easily discernible if  read carefully in normal order specified for the Indus Script language –

The figure reads *Baras R 6*. It means Six Ritus or solar seasons of the year (two months each): *Varsha* (rainy), *Sharad* (initial winter – Oct./Nov.), *Hemant* (Snowing), *Sishir* (Frosty Feb./March) *Vasant* and *Greeshm* (June/July). Terrain of the classification is surly Kashmir where such six divisions of the year and snowing is tenable. Here alone intense cold prevails till Shishir_(Frosty Feb. /March), spring begins is April-May, and summer months are June-July.

One has only to make effort discerning the basic letters and their order of arrangement – right to left and down to up.

Nothing of this kind is seen in the Hazaribagh Script. The art work is unique to the Indus Script alone.

I: CARRIED FORWARD HIEROGLYPHS

1: Some hieroglyphs are adapted from HS to IS without change,

				Frequency
A: त (तर्क)	T X	HS-26	IS-137	21
B: घ (घसीट)	Gh	72	127	50+
C: ग (गवेद.)	G	21	328	323

2: Some are partially modified

A: रं	Rr	19	410	1
B: असना / अरणा		31	397	13
C: हग		33	4	2


3: Some are abandoned/missing


A: सस/Sun	90a
B: सस	66


4: Relationship of Sun-forms

Section I : Notes, Observations and Comments - G.

5: Dental S (स/HS 6  IS342 )

Palatal Sh ( (श/HS6 IS358 ) and




Guttural Sh* (S347 ष/ IS )

Sanskrit's above three pronunciations show variation in the hieroglyphs of Hazaribagh and Indus. Form hieroglyph is typically of Sh but use as horizontal to connote S. Horizontal use of the letter is seen nowhere in IS in the same form. But available in IS 229  as a rarity (Freq. 5; now read as सद sad). ष is missing in HS. It is also misusing in naturally spoken Bengali and Bhojpuri suggesting that it is a feature of spoken language in the Eastern India. ष is infrequent letter in Hindi as well as in Rigved where palatal श/ Sh dominates. IS shows a contrast here; it is almost all ष.















Not only has this श/Sh looked only as optional but replaced by ष/Sh* in standard practice. श/Sh is used in Yashas = fame (IS Index, p. 671, l 11) but figures as a standard practice in Jayash*as = Vishnu-fame (IS Index, p. 667, l 4). Guttural sound of ष/Sh* is typical of Arabic wherein Sanskrit Sheish* turns into Sheikh as well.

Dominant use of ष/Sh* in the *Indus Script* suggests, accordingly, a West Asian base of the Indus Script in the usage.

5: Doubled and Conjunct letters

In the HS, there is a doubled P (HS 67) as also a doubled N (HS 76). In the IS, the latter has been picked up as such (IS303) but latter has a symbol correspond to double-symbol of Urdu -  this symbol is anyway, restricted to a single hieroglyph of leaf-connoting form hieroglyph . Doubling has two symbols: to the right is a symbol of joining > and to the left of number . The only other hieroglyph using the symbol corresponds to M (IS 51) Doubling, however, is restricted to very letters. There are no conjunct words in the script like Arabic or Urdu. This is in contrast to Sanskrit, Vedas and their west Asian extension Avesta. Elaborate *Sandhi-rules* are there for conjunction. (Cont. #)

6: Numerals: 1 2 3 4 5

HS	1	2	3	4	5
IS					
HS	6	7	8	9	
IS					
HS	10	11	12		
IS					
HS					
IS					

HARAPPAN CIVILIZATION

Spread, Cult and Mind

There are no words like Indra, Varun or Vishnu in the Indus Script. Only dictionary tells that Indus Script's La is for god Indra, Va and Ba mean Varun and J stands for Vishnu. God Skand is represented by a peacock in the IS because Skand rides over the Peacock as we ride over a horse! There are a bundle of stupid and impossible stories about Indian gods in 18 major and 18 minor Purans. These voluminous books are parallels of Bible or Koran. A comparison is here. A god arrives and instructs Prophet Noah, 600 years old (!), to make an ark and pack in it besides his family seven pairs each of noble and two pairs each of wicked beasts around, and likewise the birds as well. The size of the ark for his family, and all the animals and birds around, as per stupid god of Noah was just 150m long x 50m wide x 30m deep! To the prophet of Islam, Allah instructs "When enquired about the (phases of) moon, tell 'it is for the people to know the time of hajj'"! (K 2. 189). Puran, Bible and Koran are a creation of illogical story-weaving minds of Indo-Mediterranean people between 650 BC to 750 AD. For an intellectual of today these are just condemnable, illogical lies; but, these do preserve a history of human mind, activity and culture. Puranic literature helps us surely to fix the boundaries of the Indus Valley Civilization pretty precisely.

A benediction mantra in an Upanishad addresses god Indra as big river; and, an Upanishad tells us that Indra and Indh (Sindhu) are the same rivers, which a community used to call even as Varun (Var: great+Um(un) River). Among the West Asians these rivers figures by two names in context of trade (1): Meluhha and Dilmun. Of these, Di – Lam- Un or *River- Indra- Reduced* refers to the Gujarat segment of the Sindhu after the disintegration of this once mighty river (Section II). Meluhha (Mel (mel/melek: angel – Turk.) + L'uhha: Indra'Protector) is the same as Vedic Sindhu (Rik.10.75.1). Puranic literature calls Vishnu a lesser Indra; and, when we come across the accepted reality of the time among Harappans, it looks correct. *Ee Rane Ja* (Sec. III, 45) means Vishnu of mighty river Ee or Euphrates. Euphrates is a mighty river, but it was just lesser river in contrast to Sindhu. During the Harappan times Harappa men had the knowledge of Euphrates; and, among the Mesopotamians was precise information about mighty Sindhu and its later segmented stretch Harappan seals also project normal relationship between the two populations through '*Lavaan+ Jonap*' (2, Sl: 71) The saying means 'Indra-men (are) Ionian killers' [Ionian = Mesopotamian]. Communicational oneness between Indus valley and Mesopotamia was a reality of Harappan times.

Though we don't have a single tablet from the area under speculation now, it is not difficult to infer about the northern stretch of the activity of the Indus-Script-men. A Harappan seal indicates six seasons of an area where snowing is rampant. It is fixed as Kashmir. This land was closure to Tashkent on River of this name once than Hazaribagh. (The River is Sir Darya of today). There is a tendency in the Middle East to replace Da with Ta as we move from south to north, e. g. Saudi Arabian *Mohammad* → Turkish Mehemmet. Accordingly, Ta – S' Kant (River- Great Kant) would change to Naag Sakand in Kashmir. Skand Puran is the most voluminous among Purans, suggesting largest number of migrants from semi-desert river Skand at latitude 41°N in India during Harappan times. Almost to the west of Tashkent lies, at the coast of Caspian Sea, the spot of Harappan deity '7Agas', cited 58 times in *The Indus Script*. Latitude 41° N may, therefore, be taken as the northern limit of communication and the influence area of the Indus Valley civilization.

In Summing up, it may be concluded that Harappan people formed a part of most extensive Copper age civilization of Asian continent with a single exclusiveness of their own – possession of amulets of mantras for their well being and destruction of the enemies. Other cultures and civilizations, even if mostly under prophet cult and living the same way, were out of the precincts of the amulet culture.

A large number of amulets are available to infer the practiced cults and worshipped gods by the Harappan Population. It was essentially a prophet cult aiming at attaining Moksh or Liberation from life-death cycle (Box 1); and, its initial propagators were for really experiential K or *Braahman* state which is above the Brahm State and talked in most Upanishads. At this state, arriving after Brahm State while a Yogi is still alive, dissolution of past *Karmas* begins and physical body becomes subordinate to the invisible psychic one, it hides within. To begin with the cult was really on higher rungs of the Moksh ladder when a saying prevailed: *penance for Moksh or walking into fire are equal* (2, Sl, 18). Later a degeneration set in and concept of Moksh turns just into *N⁺i - Pan⁺ Mokhus* (wife-wealth renunciation ;III-56). This step, anyway, has still some harshness to face while taking to ascetic existence after renouncing house-holder's comforts. A degeneration is seen further ,however, promoted by the faithful now "*Bath in large rivers liberates*" said one faithful (2, 44) while the second said "why to have the trouble of long journeys for a big river, *just sacrifice a goat for goddess Indraani+ for Moksh*" (2,Sl 51).

Thus came to an end the initial Moksh cult of the Harappan for promoting stark materialism through practice of lies and cheating in the traditional business and money-lending activity of sly crooks promoted by prophets like Asaram of today who is in the jail in a civilized society against the charges of sex-mongering.

The kind of *gross-mind* operating for a cult on its gods and followers is either positive or negative; there is nothing in between. There is a variation, however in the positive and negative force among Upanishad and Prophetic cults. The former, practicing truth and renunciation, is for the growth of soul and ever positive; and, the other mental frame in the pursuit of wealth and worldly gains for the body-mind-intellect is always negative.

A method was devised by the author to judge the degree of positive or negative level in a cult, based on the vocabulary used in a text-book of a religion (3).By the method cited here and considering the IS text in section III as typical of the Harappan culture we find that: *for each positive word there are 3 negative words in the Prophetic cult of IS at 2250 BC*. In comparison, the negative words increase in Bible and Quran both; in Bible the ratio works out as P1: 3.7N at 1000 BC and in Quran P1: 15.15N at 750 AD.

Copper Age Industrial Revolution of Kachchh

At occasions, a little fire ignites a stack of straw suddenly; soon it is over leaving a heap of ash on the ground while some smoke is hanging in the air still. I am faced with similar situation while reconstructing the topic above. We find heavy lathe-finished stone pillars at Dholavira reminiscent of a very specialized lathe industry of D'R R'atam RaavaapaaR t finishing stone crowns of astronomical pillars in mm-precision (Fig. 1), kilos of copper moulds at Vigekot varying in size within centimeter to millimeter for casting the clay-hieroglyphs or other soft materials (cover), clay-tablet- stickers on the medicine-containers used by a pharmacist who was selling powders and balms for men as well as animals; and, lastly, a leftover population of Jons or Ionians with blue eyes in Chakrata District of Uttarakhand who, I thought, were associated with the wood-plank Industry of Kachchh near Lakhpat port of Harappan times (4).

There was a massive industrialization in Kachchh during the copper-age is evident with material at hand; but these are no more than smoke in the air after the fire is over. We found no lathe at Dholavira capable of finishing the astronomical pillars of D'R R'atam RaavaapaaR weighing over 200 kg. each; nothing is present as reminiscent of a heavy-machinery complex near Lakhpath that turned the Himalayan timber logs into planks for export to aid the ship-industry of Mesopotamia; no relict of a factory casting the copper moulds has been unearthed at Vigekot; and, no Harappan medical store has been exposed by an archeologist in Kachchh or in any Harappan city.

There is no use of reconstructing the past through imagination for the topics listed above. A logical question needs answer, however. For the lathe-finishing of a 200 Kg stone pillar, we need

Fundamentals of Harappan K, Yamal or Moksh Cult

I was educated while in undergraduate class about the energy equation behind the atom bomb - just a kilo of radioactive metal produces energy of thousands of kilograms of TNT. It is a junk-piece of information in my mind continuing for decades though learnt respectfully by a lad me. Only rare few make nuclear bombs; for rest of the human species, the information is a tinsel of no use. Such is also the case with the information below related to the vital energy of consciousness used for killing and devouring a man or god during Harappan culture, now extinct. It is of little use to the commoner of the day in the materialistic world. However, in the spirit of science and scientific information I touch upon the topic, albeit as an abstract of the exhaustive knowledge in the Hindu Religion and a guiding beacon in Upanishad and Gita that are several rungs above the prophet-propelled Western religions of Faith.

It has been pointed out that the land of Asia and Africa west of Indus as also the colder latitudes fall in low consciousness zones where faith and community cults – Christianity, Islam or Communism – prevail¹. It is also possible to fix approximately the deficiency of consciousness in the colder latitude of Bordeaux compared to Gujarat².

India is high-consciousness-energy segment¹ where a trait of practicing Yog evolved some 5000 years ago and led to acceptance of three fundamentals about our living self **keeping any and every god** out of picture: **first** the living body is bi-componential – an ephemeral physical-body of matter that hides within a perennial soul-body continuing birth after birth; second, **karmas** of positive, negative, good or bad deeds have their **fruits** fixed and continuing on soul-body meant for action by a neutral **destiny** whose attributes lie beyond the human intellect; and, third, only high consciousness **minds** in the perennial body qualify for enrolling themselves for practicing and attaining higher states of human consciousness commencing with Yogi³. These **minds** could either be of Kshatri or Brahmin category (with strength to adhere to truth and morality without caring for life). Female, business-transacting and servile mindsets with worldly targets and socially conditioned goals do not qualify to enrol themselves as Yogis. Yogis **select sacred soils** for dwelling and **practice**, innately, non-indulgence in social gatherings.

Yogi is a person who holds null-mind-state from 30 minutes to even days with certain physiological changes in the body⁴. He comes across four mental frames while moving from Yogi through Moksh States⁵: Firstly his mind, like any commoner, is multi-indulgent – remembering and reacting individually in love, hates, likes and dislikes. This mind disappears suddenly in the second or Brahm or *half-spirit-state* State⁶ wherein neutrality prevails and sex-attraction dies. Physiologically, the state is related to activation of Cerebellum. At maturity, the Brahm and Brahm-mind die even while a person is alive⁷. This is the third or Harappan-K or Brahma or *full-psyche* state in a yogi, which has several steps of maturing during many years to follow. Two important features related to the body are notable in the K-state: one, the sex turns gallant again but is nonphysical; two, the space-time melt and faces of the long-past are seen fitted on the now living bodies, and inviting indulgence for the fulfilment of past karmas; and, three, acts of killing and devouring, known as Prajna, set in response to the past bodies - wherein the living bodies of **K** and his *karma-pair* are just a conduit from the present to the past bodies⁸, and the chakras⁹ play a vital role in the energy-transfer-requirement. Who kills and eats who¹⁰

follows a rule in a transacting pair – *Satyamev jayate or the truth-alone-wins while a deceiver dies*. When all the Karmas of his past-life are consumed in the pursuance of the Prajna for years, there arrives a parallel of the Brahm state once again. It is called Moksh. Now, the Jeevaatma and cerebellum¹¹ together turn the spinal-canal into a consciousness-digestive-system. A Yogi attaining this state performs his duties related to food-requirement of invisible **creator gods**. He kills created invincible rascal gods for their food. The energy in the latter is too high to win over him in Prajna¹² even by using a couple of goddesses. Prajna has its limitations. Energy-potential of the **K** is limited to the combined energy of the *Yamal* (god-goddess pair). Moksh-state is *Aditi* - paired system with the spinal-canal working as consciousness-digestive-system. A Moksh-attaining can devour rascal gods as a tiger devours a massive gaur. **Invincible Aditi is goddess Galaxy**.

On June 4 '20, my grandson Vyal, graduating in Engineering, wanted me to answer his two questions: first, has consciousness mass? And, second where is the apparatus in a human body that stores and holds its energy. In response to the first, was my narration of an incidence of May 1980. An enraged me threw a brick-piece to hit a dog; but, it did not reach the animal as it ran away fast. However, the dog died within ten minutes. We can explain the phenomenon this way: even though the physical brick-piece did not hit the dog, its psychic component generated by me hit the dog; and, its energy severed the soul of the animal from its body. Energy of a moving body always has two components that actuate the force and a commensurate action after hitting a target. These are mass and velocity. Since the dog died hit by a psychic brick-piece, *mass* is a component of consciousness.

For the second question I showed him a freak image of partially decayed psychic body of aYogi¹³ photographed on a spot where physical self was non-existent. **The Yogi** had died there in Samadhi years ago. The photograph shows mesenteries connecting head and shoulders on the side of the two ears besides in the frontal part. These remain invisible and non-photographable in a living person. "This is the organ related to consciousness-energy" I explained to him. To detail the organ, I brought on the screen my sketch¹⁴. We were struck by the phenomenon that followed. The decayed Yogi, left behind in the space-time long long ago, behaved like a living man with a mind even on that day. My sketch disappeared from the screen after a few second, replaced by the original image. "Universe is just a consciousness field (Brahm) say Upanishad "I repeated a saying for him. Also he got educated, men of Yogi-state of consciousness don't die; I was in communication with my father 28 years after death¹⁵; **and**, I follow without failing the tradition of Hindu Ritual of offering regard and food to the ancestors during **pitripaksh** (*Ancestor's Fortnight*).

1: Evolution of Psychic Self and Regime, Sc. Con. Suppl.
2: Structure of Soul, p.82.; 3: Yogi, Brahm and Higher States of Consciousness.; 4: Sc. Consc. p. 13, box-2.1.: 5=3; 6 = 4, p. 240-243.; 7: Brihadaranyakopanishad 4.4.18 – 21 & *The Gods* p.10.; 8: *The Gods*; 9 idem p.286, fig.2. ; 10: idem, p.132.; 11 = 1, Fig.3 (jeevatma =A); 12: =8, p.284.; 13 = 3 cover page; 14 = 3, p.4, fig.B.; 15 = 8, p. 51.

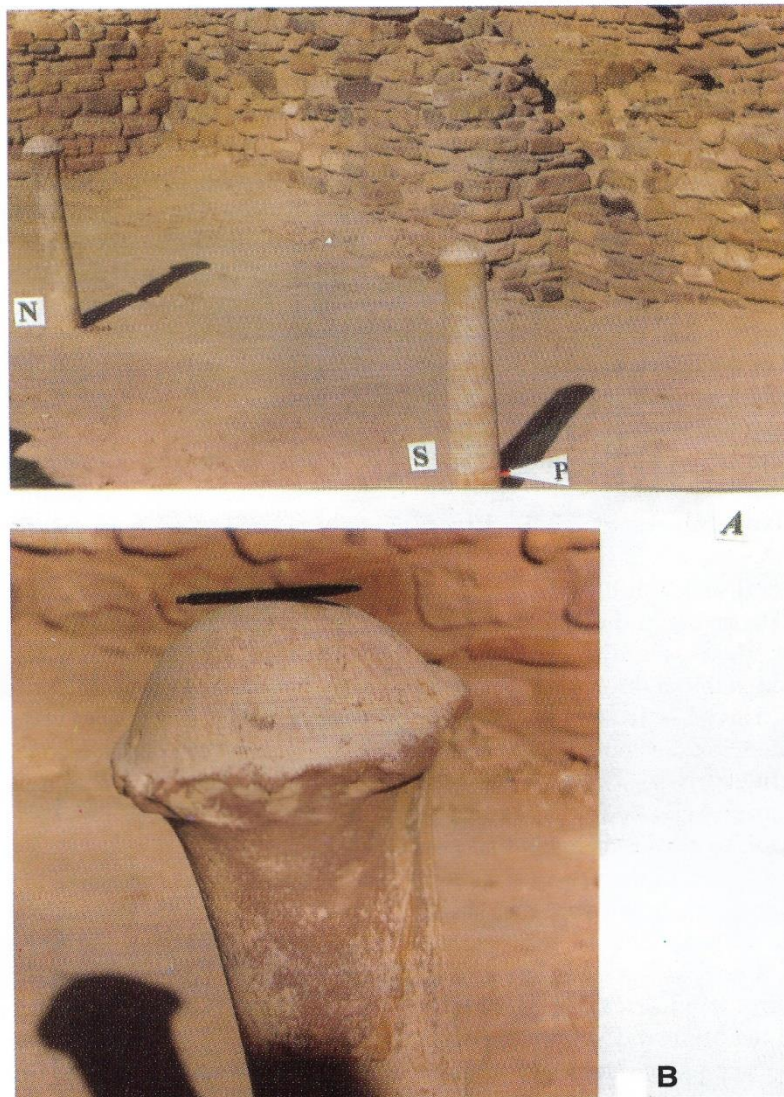


Fig. 1 Stone chronometer in the solar movement house of Dholavira. *A: View of the room, B: Crown of Northern pillar.* The lathe finished Sualings or solar pillars, oriented north-south, were kept in a room about 5m high. A circular beam of sun fell in the room from a hole vertically above the southern pillar S in a 5m high ceiling. Position of site on $23^{\circ}52'35''\text{N}$; $70^{\circ}12'04''\text{E}$ is almost half a degree north of Tropic of Cancer. On summer solstice (21st June), shadow from the crown of pillar S fell on point P between the marks below and above. On winter solstice (21st December), crown of northern pillar N exhibited a shadow of its head on the rim (Incl. $\sim 47^{\circ}$). Due to their morphological similarity with male genital organs Sualings became Siv-lings in Pauranic tales.

plenty of sustained driving power on one hand and heavy- toothed wheel and gear-mechanism on the other. We can guess, the former came from the bull and the latter from copper castings. No massive copper-wheel was discovered at Dholavira excavation site. Again, if such sophistication in the equipment building existed those days, it would also have been used for a mechanical-saw driven by bull-power near the Sindhu Bank close to the then port of Lakhpat. We haven't come across physical evidence, till date, about existence of such an establishment. . Use of massive copper equipment in Kachchh is not proved by physical evidence. The scarce metal was picked up from the sites of destruction of massive equipment and re-used, it appears. Only it could be collected from the

foundry-sites where meager quantities were spread over large areas. This is the case of Vigekot center which is yet to be excavated.

Beginning and End

The Kalibangan excavation suggests that there is gap of almost 200 years between the termination of Preharappan settlement at 2700 BC and beginning of Harappan activity at 2500 BC (5). At Dholavira, base of Harappan settlement is a hundred years older.

Seemingly there is a gradual change in the mindset of older penance-pursuants on the path of real Moksh-attainment and the later materialistic business community believing that Moksh is attainable just by sacrificing a goat. The Indus Script and Vedic culture were pre-existing and had a positive-mind-culture. IS tablets help show that they represent newly added negative cult in the Vedic milieu to begin with, and incorporated a further deterioration later. One thing is certain, any way, the tablets – mostly amulets initially – weren't a trait of the Vedic cult.

Amulet and Tablet cult arrived from the west where notations of various types were in use earlier (6). Indus script was just another tool to give an easily communicable form to the ideas in then Prophetic cult. If, we go for estimating the number of people practicing the cult and who were using the amulet, tablets and seals, it looks they were quite scanty. There are only around 3000 pieces used in the Indus Valley habitations in 500+ years. The number represents nearly 20 generations; and the collection studied the *Indus Script* means that the amulets were under possession of no more than in 150 families in any generation. Possibly the living Harappan seal-cult-people were no more than 300 in any generation over the whole stretch of Sindhu tract. They were the 'heads' governing the gross population in a situation comparable to *half a million British ruling over 3.7 billion men in India, Burma and Ceylon in 1905*.

Harappans were not a part of Indian Vedic culture. Prominent Vedic gods like Indra and Varun have no Purans pertaining to them; and, most prominent personality of Purans – Skand – has no hymn in Rigved. Exalted Puran cult deity *Vishnu of Euphrates* has a single verse in Rigved depicting him as a river god of three channels (Rik. 1. 154.2, very likely Euphrates, Tigris and Tharthar Wadi).

Death of the Harappan culture was drastic and instantaneous in Kachchh like a man shot in the head. A standing he falls on the ground within seconds. On the geological scale it was a period of just a week or two when bubbling industries of this vital land were ravished at the centers Dholavira, Vigekot, Lakhpat and Nakhtarana; and, a mighty Sindhu breathed its last. Its waters spilled to form a coversheet of 12, 000 square kilometer on the *terra firma* of Kachchh. A Kachchh Lake came into existence just in two weeks.

When I conceived of a massive destruction of the Harappan township of D'R R'atam RaavaapaaR giving no time for the human activity after the event, I had believed it to be the only cause of preservation (7). I figured the preservation of the gate-script only due to lack of human activity in the area after the earthquake. It did not occur to me, then, that the area was a few meters above the Rann-surface; and, even if there was no human activity, erosion would wash away the script into the Rann. How could a layer of sediment deposit over the letters at a place where activity of erosion is the only possibility? The answer to the question was in my head on a further probe about the Dholavira earthquake activity in connection with this work and elaborated in Section II. In nutshell, gorgeous watery Sindhu sank in to a graben created by simultaneous activity of Khadir-Kori Creek Fault, Aravalli III and IV and Mainland Fault when D'R R'atam RaavaapaaR was raised to ground.

River Sindhu sank into Kachchh Lake that rose to 15m above MSL in a week or two. The catastrophic event sank completely the townships of Vigekot, D'R R'atam RaavaapaaR and Surkotda in a week or two. The southerly leftover river was much reduced in volume and hence called Di -Lam- un (Reduced Indra River). It maintained its course to sea via Lothal and was a source of trade to Mesopotamia.

There was a total loss of Industry and prosperity in Kachchh and further north due nothing available for the Industry and for export at Lakhpat. It did affect the common people of the land, but not much. More affected Harappan- seal-holding people were no more than a few hundred in the area. With business gone, they turned into farmers in the nearby lands; and, were lost into anonymity subsequently. Harappan culture died, thus, within a decade after the Dholavira Earthquake.

Reference

- 1: Asthana, S (1979) *Indus – Mesopotamian Trade: Nature of Trade and Structural analysis of Operating System* ESSAYS IN INDIAN PROTOHISTORY (D.P. Agrawal and D.K. Chakrabarti Eds.), pp31-47, B. R. Publishing Corporation , Delhi 11 0052.
- 2: Jagadishomrityunjay (2020) *Sentences in the Indus Script* www.attadhistanam.com, pp. 27
- 3: Jagadishomrityunjay (2015) *Evolution of the Psychic Self and regime*, in Sc. Cons. Suppl. www.attadhistanam.com, pp 12.
- 4: Jagadishomrityunjay (2019) *Is man hit by a new Wave of extinction.* www.attadhistanam.com, pp 15.
- 5: Lal, B. B. (1979) *Kalibngan and the Indus Civilization* ESSAYS IN INDIAN PROTOHISTORY (D.P. Agrawal and D.K. Chakrabarti Eds.), pp. 65-112, B. R. Publishing Corporation , Delhi 11 0052.
- 6: Reader 's Digest (19 83) *Vanished Civilizations*, 319p.
- 7: Jagadishomrityunjay (2019) *Indus Script Deciphered* www.attadhistanam.com, pp. 53.

SECTION I

THE HAZARIBAGH SCRIPT

There was an article in a newspaper in 1995 about an ancient, prehistoric script of Hazaribagh in the caves there, written by a school teacher of the town. The discovery of the cave script was almost at the same time when the Indus Script came to notice. The script provided in the article shows clearly that several hieroglyphs of the Hazaribagh Script are the same as in *The Indus Script* standardized in the mammoth volume of Mahadevan on THE INDUS SCRIPT. The script of the article was lifted from the paper for the *Science of Consciousness* (p.91, fig. 6.1) to point out that several forms in the Hazaribagh Script were comparable with those in the Harappan language of Western India; and, to suggest that the culture communicating through the language of the Indus hieroglyphs was far more extensive geographically than evident from *The Indus Script*. The Harappan language and culture extended not only up to Mesopotamia in the west but to Hazaribagh in the Ganges Valley, 1500 kilometers to the east of the Indus Valley excavations.

The Hazaribagh Script has 92 characters – all single hieroglyphs – no sentences (Fig. 1). It lies in a land where the present language is essentially Bhojpuri – now a dialect of Hindi; which grades eastwardly it into Bengali. Influence of Persian or Sanskrit seen in the Harappan culture seems to be minimal in the region during those days; possibly movement of the people for long distances was quite limited then. Bhojpuri and Bengali, therefore, form the basis in the work for inferring sounds and words of the Hazaribagh script.

Objects portrayed in the hieroglyphs are mostly earthly and essentially non-nonliving. Animals are absent but human figures are three – a dancer and two divine. The latter portray gods moon and bull. Moon is also sketched as heavenly object to denote word Kham (sky) besides a slender crescent denoting the day of the first or last moon before no-moon nights. Most common object of sky, however, is Sun figuring in largest number – 11. It is in four forms: 1- conventional ray-emitter of Ra in Egypt (1); 2- round or near round circle without rays but classifiable still as *form-hieroglyph* (5), its further modified form used as time-indicator (1), a circle moving in the zodiac to denote its transformation into attribute-hieroglyph (3); and; lastly, as an asterisk free of a form-connoting feature (1).

Among the earthly objects most common are the hooks corresponding to the hook of the Indus script (ISn. 127). Four in numbers, these have varied shapes. Then, there are number related notations (8) for 1,2,3,4 6, and 12. Presence of a symbol indicating *Sixth-moon-date* is a significant feature related to numbers. *Lolark Chhath* is a live festival of Bihar even today. It marks the beginning of dwindling Sun and onset of winter in the province in *Kartik - Sudi* (November). Think! The Sun Festival of the Land dates back to 7000 years.

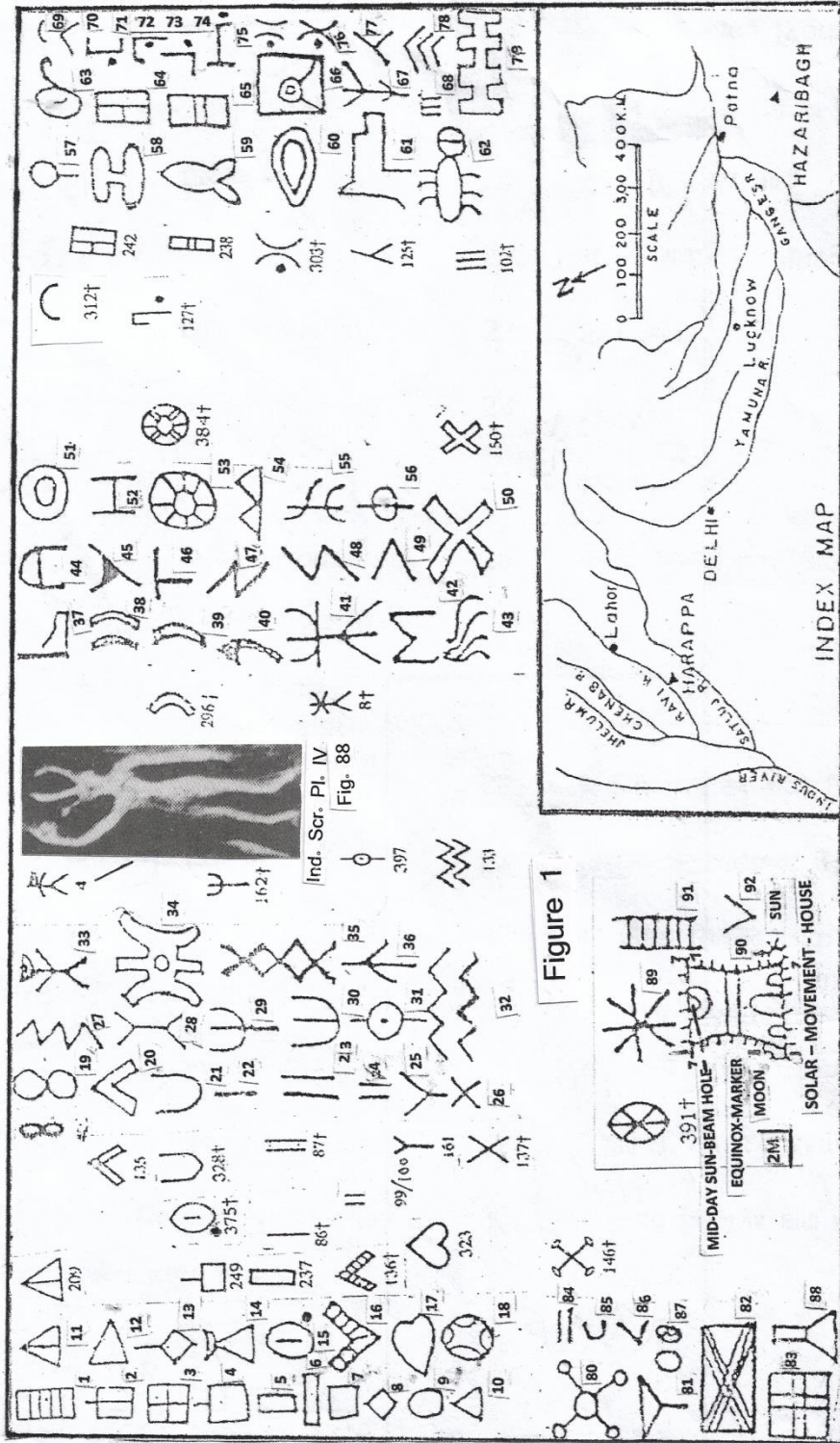
After decoding the Indus Script (1, 2), it was possible to infer the meaning of all the Hazaribagh hieroglyphs with fair degree of certainty invoking Bhojpuri and Bengali, and the background of ancient astrology practiced in India. The subsequent text presents the results of the attempted decipherment.

Explanatory notes, observations and comments are seen as essentials for a better understanding of my interpretation and are quit relevant from language or historical point of view. These follow the subsequent title HAZARIBAGH HIEROGLYPHS.


































Key numerals in the script, as noted above, are only a few. These follow the *Notes, Observations and Comments*. There are fairly large numbers of hieroglyphs – 32% - that compare well with *Indus Script*. These are noted after the topic of numbers. Even a larger number of characters represent *Devnagari Script Equivalents*. This figures in the subsequent text. A topic *Copper Chronology* is provided at the end of the section to highlight antiquity of the ancient script .

1: *Indus Script Deciphered* (2019), 2: *Sentences in the Indus Script* (2020) www.attadhistanam.com


INDIA




HAZARIBAGH HIEROGLYPHS


- 1:  ज J [जीना Stairs]
- 2:  वा Vaa [जल Water]
- 3:  च Ch [चौमैदान Big field]
- 4:  व V [वज़न Weight]
- 5:  श Sh [शहतीर Plank]
- 6:  स S [Same, Horizontal]^A
- 7:  म M [मैदान Field]
- 8:  म M [मकान House / मस्ज VI P मज्जति To Drown]^B
- 9:  ड D [डह - शिवलिंग Siva-cobble]
- 10:  ख Kh [ख: आकाश Sky]
- 11:  खा Kha [खा Devour]
- 12:  त्रि त्रय Three
- 13:  माँ Ma [Mother]
- 14:  खम Kham [आकाश Sky]
- 15:  डा Da [डा/डागा Drumstick]^C
- 16:  छठ Chhath [Sixth day after crescent moon]^D
- 17:  प P [पत्ता Leaf]
- 18:  अ अयन Ayan [Zodiac]
- 19:  स्स या रँ Ss or Rr^x
- 20:  य Y [यमल Pair]^E
- 21:  ग G [गवादिनी Manger]^F
- 22:  अ/1 A/1
- 23:  आ Aa
- 24:  इ/2 I/2
- 25:  फ F [फुनगी, कनखी Branch]
- 26:  त/4 T/4
- 27:  6
- 28:  ध Dh [धड़ देह शरीर Body]
- 29:  त्रिशूल/ 3 Trident/ 3
- 30:  गा Gaa [गवेन्द्र Big bull]
- 31:  असंनआ Asum-n-aa [सूर्यग्रहण Solar Eclipse]^G
- 32:  त T [तरंग Wave]
- 33:  हग Hag [ऋषभ देव Bull god]^H


34: सम/रन/ रा Sum/Run/ Ra

 [रमता रवि Sun moving
in the Zodiac]^l


35:  12


36:  अउ औ Au Ou

37:  झ Jh [झख-मार]
Fishing-tool


38:  टट Tat [ठठ / Utensil]^l


39:  ट T [टेकनी Support-Stick]^k


40:  आ Aa [आरी Saw]


41:  हम Ham [चंद्रदेव Moon god]


42:  उ U [उर Breast]

43:  चौपाया/ 4 Cattle/ 4

44:  मइईदार मचान Perched-hut

45:  नद Large watery river^l

46:  तिराहा Tri-junction


47:  3


48:  3


49:  2


50:  क्ष X [क्षतविक्षत Highly injured]

51:  ग G [गदा Mace]


52:  समायन Samaayan^N


53:  सम/रन/ रा Sum/Run/ Ra
[रमता रवि Sun moving
in the Zodiac]


54:  खख Khakh [महामारक Great-killer]


55:  न N [नर्तक Dancer]


56:  असमा Asamaa [Summ. Solst.]^o


57:  असम Noon-Sun^P


58:  दुनाव Double-boat^Q

59:  म M [मछली Fish]


60:  ट T [टांगी (भोजपुरी) Axe]


61:  मृग(णी)-शिर Doe-head^R




62:  कीड़ा Insect



63:  कुंभड़ा (कोंहड़ा) Pumpkin


64:  किवाड़ Door


65:  विभाजने व
कालविभाजन घर Time-dividing house


66:  ख सस [मध्यान्ह
Noon^S]

67:  अ A [अप्प Water]^T
68:  ए E 3 - 69:  च Ch

70:  उ U (Notation)  चंद्र


71 - 74:  घ Gh [घसीटन Dragger]^U


75:  (न(न) N(an) [घंटा Bell]

76:  न्न Nn


77:  न N [नदी River]


78:  ओ O (Notation^V)


79:  बाड़ा Enclosure


80:  सम/रन/ रा Sum/Run/
Ra [रमता रवि Sun
moving in the Zodiac]

81:  खा Devouver


82:  जोती जमीन Cultivated land


83:  चौराहा road-crossing

84:  बराबर Equal

85:  डोड्आ Wooden bowl

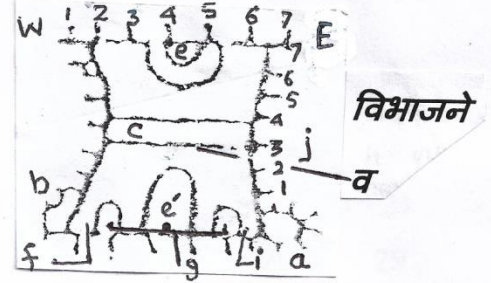
86: 2

87:  अधसमसं: राबॉ - Winter Solst.^w

88:  खश A plant with frag. roots

89:  रन रा र Run Ra R Sun^x

90: कालविभाजन घर Time-
dividing house



a: सूर्य Sun as *Classical*
form hieroglyph

b: Moon

c: Equinoctical year-
equal-divider


e: Noon-sun-marker


f: पूर्वान्ह Forenoon

g: मध्यान्ह Noon

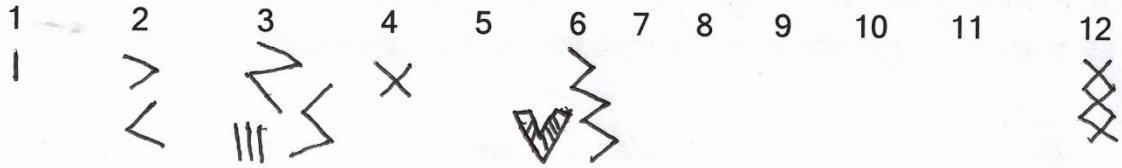
i: उत्तरान्ह Afternoon

j: Weekdays

91:  सीढ़ी Ladder

92:  प P [पत् IP पतति To
Fall]

Numerals



Indus Script Equivalents

4 == 249 5 == 237 8 == 261 10 == abs. replaced 11 == 209 12 == 233 (part) 15 (notation) == 375 17 == 231 19 414 20 == 135 21 == 328 22 == 86 23 == 83 24 == 99/100 25 == 161 26 == 137 29 == 162 31 == 397 32 == 133 39 == 296 41 == 8 42 == 192 (partly) 50 == 150 68 == 102 69 == 312 70 == (notation, unnumbered) 72 == 127 75 == 303 77 == 125 80 == 146.

Comparable Hieroglyphs 29 out of 92: 32%

Devnagari Script Equivalents

Vowels:

Body अ आ उ ए औ

Notations | (अ) | (आ) || (इ) ^ (उ) (ओ)

Consonants

क ख ग घ
 च छ ज झ
 ट ठ ड ढ
 त त्र थ ध न
 प फ ब भ म
 य र ल श ष ह
 द (मुण्डारी): जल

53 out of 92 Hier. 58%

Notes, Observations and Comments

A: सकार के तीन उच्चारण हैं: दंत (स), तालव्य (श) और मूर्धन्य (ष)। सिन्धु चित्रलिपि में ये तीनों हैं - । हजारीबाग लिपि में खड़ी शहतीर = श और पड़ी = स। ष का अभाव।

B: दर र र अतम रवापार में मस्ज अर्थ में प्रयुक्त¹।

















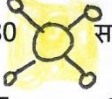

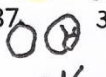



C: प्रचलित डागा डा आधारित । डा + का (स्वार्थ); का → गा।

D: छटपर्व अब भी बिहार में प्रचलित।

E: चित्र से शहतीर का जोड़ा लगता है युग्म।

F: गवादिनी (नांद): गव + अदिनी संयोजित (समास) = गाय के खाने का बर्तन।

G: There are 12 hieroglyphs in the Hazaribagh script related to Sun and zodiac; and, almost

Hazaribagh Script	Indus Script
I - 18:  अयन	146  रर
II - 19:  संसन	147  ररर
III - 31:  असनआ	380  र
IV - 34  रमता रवि	384  र
V - 53  सम/रन/रा	391  र
VI - 56  असमआ	396  अरर(?न्यून)
VII - 57  असम	397  अरणा
VIII - 66  ख सस	398  अरअउ
IX - 80  सम/रन/रा	399  अरआओ
X - 87  अधसमसं/राबाँ	400  र
XI - 89  र रमता रवि	
XII - 92a  सम सन	

स - S versus र - R for सूर्य Sun

In the case of IS text all the sun-related hieroglyphs connote only letter **R** between numbers I and X. The morphology and notation of Sun in the HS is quite varied suggesting possibility of different words for different set of hieroglyphs. There are four primary groups in the HS: first, a ray-emitting Sun (90a); second, plain round ones (19, 31, 56, 57 66); third, round ones associated with zodiacal movement (34, 53, 80); and, fourth – an asterisk (89).

It is not known how were the four varieties of sun were named in past Bihar where Sun is god *Sooraj* these days. The moving solstice sun on the head is *Sirrama* (Mundari) or *Bachar-R* (Bengali) – Sun or Protector moving **R** on the head. This is attribute form of Sun, *Ran*, linked to verb-root *रन्* (move), and declined रा Ra. Even for the ray-emitting sun Egyptian *Ra* may be adapted. For the others *सम* or Sun may be appropriate usage. But, additional text is missing in the HS to check or verify it.

similar number is in the Indus Script. However, there is a contrast between the two. The morphology and notation of Sun in the HS is seen as quite varied suggesting different words for different hieroglyphs. In case of IS, the text in the amulets suggests that all the sun-related hieroglyphs connote only letter **R** for Sun between numbers I and X.

There is no sun-related hieroglyph in the HS that is replicated in the IS. However the near-equivalents are shown by the same colour in the left text-box above. A notable

difference in the solar- movement- attribute the two scripts is absence the of the solstice element of the HS in the IS. The HS 89 and IS 147 are surely related in terms of solar movement; but, the latter lacks horizontal ray of HS indicating equinox-events.

H: The figure is identical with Indus Script 4 except its upward pointing hands instead of the down-pointing in the latter. It is a head added to fig. 28; and, distinct and younger in time and design from humanoid figs. 41 and 55. It denotes the simultaneous emergence Bull-worship culture in India and outside after the domestication of Bull [and men representing Prophets of God Bull Go/G in India, or Ilah (Turkish) and Allah (Arabic)]. A figure of Nabi of Bull god is affixed in Fig.1 from Ind. Script.

I: See G.

J: In many cases the base-word is lost but the derived one survives. For example सर्पिणी (= सर्पिण + ई) is a common word but its base सर्पिण is absent in the dictionary. ठरेरा (=टटेरा of HS) meaning copper/brass utensil-maker is current; but, its base-word ठर (= टट of HS) meaning copper implement or artifact, is absent in the dictionary. The HS word suggests use of copper for making artifacts of the metal by the local population. Three of these figure through hieroglyphs: 1- *aaree* (saw, 40), 2- *trishool* (trident, 29), and 3-*donga* (dug-out wooden bowel 85). Normal thick profile of typical donga is absent; it's quite thin and looks like a metal bowel. Fishing hook was not discovered by then, fishing equipment (37) suggests. As a common practice in India during the early half of the last century, children in the villages used an acacia-thorn and pierced an insect or very small fish as bait instead of metal hook.

K: Corresponding hieroglyph of the Indus Script (IS 296) is more curved. Seemingly, millennia old Hazaribagh-derivation-base of the hieroglyph was in the oblivion by that time.

L: The original hieroglyph denoting a river and its tributary is overturned in the hieroglyph to make a bowel filled with a liquid having concave surface – डा (=Water in the मुंडारी language).

M: Mace and axe were the first implements made from the mined copper. The first was for beating the ingots into utensils and the second for cutting trees or slaying the animal.

N: लकड़ी के फट्टों से निर्मित उत्तरायण-दक्षिणायन-सिरमा-राबां दिवस जानने का यंत्रा

O & P: Two positions of sun one denoting noon-sun (P) where Sam (Sun) is preceded by अ and the other Summer Solstice where an अा is added to this combination. In Bhojpuri prefix आ is अ[आकाश (हि०) = आकास (भो०) & पाताल (हि०) = पताल (भो०); suffix आ remains आ उदाह० बनिया (हि०) बनिया (भो०). Hazaribagh-Harappa dialect continues in Bhojpuri; it is altered in Hindi.

In असम prefix अ = आ; hence असम = sun-maximum (Noon); and, असमा = sun-maximum-maximum (Summer Solstice).

Q: A *Canoe-pair* made after joining two of these together - a larger one for rowing and an accompanying smaller for transporting goods.

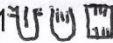
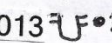
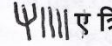

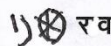
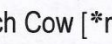
R: Nakshatra (नक्षत्र) *Mrigshiras* or star Lambda Orionis, meaning, literally, as sketched as a hieroglyph, a deer/doe head. It lies 49.8° to the west of *Asvini* (Beta Arietis) figuring in the prayer of Assurs (Rigved: 1.57.1.) and appearing as morning star at the vernal equinox when HS prevailed. Based on the dating by the precession of the equinoxes the date of the event was around 1500 BC (Ip. 16) when *Asvini* was morning star. Precession of equinoxes is at a rate of 76 years for 1°; and, accordingly, *Mrigshiras nakshatra* was a morning star of *Hazaribaghh area around 5300 BC*. Estimated time of Hazarigh settlemet was around 5300 to 4900 BC (when *Mrigshiras* vanished in the haze of sun on vernal equinox).

Corrected ¹⁴C date for the Kalibangan strata is 2500-2000y BC (Harappan) and 2900-2700 BC (Preharappan) in the Ghaggar Riverbed (II). There is no script in the Preharappan settlement; but, the Indus script is common in the Harappan debris (III, p. 155-159). Some seals there read *Khagasa*¹ (Killer Cow), *God*² *Sun*, *E Trisool* O Trident (Siva)³, *E Ri Gh Gh S O Sun* great killer⁴, *Ra Va*: and *An aa Kha Bh O*⁵ and *Ee G EeG* Milch Cow⁶ Inference from the seals is obvious. At the Hazaribagh settlement we are dealing, without any doubt, with the same *trident-wielding* (29), *killer* (Kh-kh: 54) and *devourer* (11, 11) people of Bull-cult, who dominated later the Harappan level of Kalibangan. There is a gap of nearly 2000 years between these two settlements following the same culture and-cult.

I: Jagadishomrityunjay (2003) *Vedic River Systems* ONGC Bull. 40,1, pp. 1-61.

II: Lal, B. B. (1979) *Kalibangan and the Indus Civilization*, Essays in Indian Protohistory (D.P. Agrawal and D. K. Chakrabarti Eds.) pp. 65-97, B. R. Publishing Corporation, Delhi 11052.

III: Mahadevan, I. (1977) *The Indus Script* Archeological Survey of India, New Delhi, 829 p.

1: Kalibangan: 8012 100111  गोसा *Kha gosa** = Killer Cow 2: 8071 10013  God *Sun* (Tantric notation) 3: 8031 102602  *E Trisool* O Trident (Siva) 4: 8029 100101  *E Ri Gh Gh S O Sun* great killer. 5: 8044 10011  *Ra Va*, Sun the master. 6: 1817 20 20101  *EeG* Milch Cow [*misinghieroglyph]

S: Doubled Sun (very bright sun) in the apical position of sky denoting noon-time.

T: Clearly indicates down to up sequence in the reading: smaller sized down-arrow-head symbolizing half P (प) is followed by a bigger for full P (प) in अप्प.

U: Varied pulling devices used on the ground (for the light canopy segments) made from cuttings of tree-branch-joints. There is no term for it these days. It was an attribute hieroglyph घसीटन (dragger) like बेलन (rolling pin). Most effective of these figures in the Indus Script is for letter Gh (IS127).

V: उ ऊ ओ।

U: राबौ is Mundaari word for the Winter Solstice. In the word reduced or fallen sun is on the right and the full-sun on the left suggesting right left-to-left reading in the language for उत्तरायण.

X: The hieroglyph has equinoctial element owing to its location at the Tropic of Cancer. Indus Script, prevailing in Mohinjodaro – Harappa (28° to 30°N) eliminates this attribute because it becomes less relevant in marking the event. Moreover, in the alluvial plains there are seldom elevated mounds to mark the equinoctial East-West Shadow of a pole from a rising sun on the horizon.

Copper Chronology and the Hazaribagh Script

Cave hieroglyphs of the Hazaribagh culture have very useful tools to date the period when the population of the writers of the language lived in the cave. One of these is discussed already – astronomical dating. Their time-dividing-house (HS 90) has a significant number related to 28 *nakshatras*¹ in the sky covered by the moon in 30.5 days (approx.) and Sun in 365.25 days. The mid-part of the 5.5 m tall cylindrical tower has a pair of parallel lines for marking the vernal equinox; and, there is a deer-head indicating the index nakshatra those days was *Mrigshiras*. The date for their cave-dwelling works out approximately as 5200 BC continuing up to around 5300 to 4900 BC (when *Mrigshiras* vanished in the haze of sun on vernal equinox). The HS arrives between

these two dates; and, it disappears too. Man has been a cave-dweller since long before this date; and, there is no doubt that it was only the knowledge of hieroglyph that hit the cave dwellers of Hazaribagh around 5300BC. Possibly the initial hieroglyph was invented by the Indians around this date when the sun was sketched as ray-emitter *form-hieroglyph*; and, the knowledge was shared by the cave-dwellers of Hazaribagh with the others in the country. Sun at the foot of the *time-tower* of Hazaribagh has this form; and, multiple shapes of *ghaseetan* or dragger-twig (HS 71-74) too belong to this date. Soon, however, another revolution followed. Letters replaced form-hieroglyphs, A standard ञ Gh replaces Ghaseetan and turns into a single letter ञ /S or र / R. Attribute hieroglyphs also arrive simultaneously. A cow is no more a form but a *gavaadani* or cow-eating vessel (manger); and, Siva is not just a cobble (HS 9) but also a Trident (HS 29) because he was also represented by a trident-wielding-nabi (prophet/priest) of the god.

Arrival and changes in the hieroglyphs of Hazaribagh are associated with use of copper by the cave dweller for weapons, instruments and utensils. Although copper occurs in the nature in metallic form and discovered around 6500 BC² its natural occurrence is rare. Such large quantities as used at Hazaribagh are from its ore which produces the metal after roasting. Hazaribagh area has copper ore deposits; and the cave dwellers had discovered the metal after roasting was a reality. However, this date is a bit too old from such a use of copper in the Middle East around 3700 BC³.

In view of the above antiquity of discovery of the copper-ore-assaying in Hazaribagh Plateau around 5000 BC, 1300 years before its extraction from the ore in the Middle East, India becomes the first country in the world to use copper and the date of copper-age. Also, the true script denoting words *Kha-m* (HS14, Sky) or Kh-S-S (HS66, brightest- sun-sky = Noon) of Hazaribagh is older by a 1000 years than the first known appearance in Mesopotamia³. Additionally, a Bihari Babu like Nitish, Chif Minister of Bihar, who celebrates Chhat-festival of Bihar every year, may feel happy that he is continuing the oldest tradition of the worship of God Sun on the earth commencing before 7300 years ago.

From *Historical and Archeological* point of view *Time dividing-house* (HS90) is a unique and oldest astronomical notation illustrating a man-made monument for dividing time for the day (3 units), month (28nakshatras) and Year (4 quarters of 3 months each – VE to SS, SS to AE, AE to WS and WS to VE). It would be worthwhile to replicate this Hieroglyph as an insignia-monument in a prominent place of Hazaribagh by the Chief Minister of the state.

Now a moot question: Why did the writing disappear from the cave before arrival of the next morning *nakshatra Rohini* in 3500 BC or some other star when the deer-head was lost in the haze of morning sun. *Answer is simple: impact of copper age*. Men had discovered a formidable weapon system of copper arrow-heads and copper trident to hunt and protect him from the wild beasts and carnivores. Agricultural fields were there and so were the herds of cattle in the areas outside the caves. He now made earthen enclosures for the safety of the community settlements; and, for himself he made thatched huts within this safe enclosure.

The event brought an end to the cave dwelling and hieroglyphs together by 4900 BC.

- 1: *Muhoortchitamani* of Raamaachaarya (Sanskrit,), Nakshatra Prakaran.
- 2: Bridgman, R. (2002) *1000 Inventions and Discoveries*, A DK book, 256p.
- 3: Reader Digest's *Vanished Civilizations*, 320p.

SECTION II

TERMINATION OF SINDHU DRAINAGE

Mightiest and longest River System of the Western India-Pakistan-Afghanistan existed during the Vedic period (1). It logged a distance of over 1500 kilometers between Kabul and Gogha where after it joined the sea. It was a channel of 21 major tributaries between rivers Kabul and Narmada. The Rigved-people called it Sindhu. A Keeper of the Solar-Movement-House of the Prehistoric town *Dar R Atam Ravaapaar* (near the present location of Dholavira in Khadir Island of Kachchh) described the river in detail to a bard of Rigved (Rik. 10.75.1). The latter composed a verse in the prayer of Sindhu. Based on the verse, the author drew the course of the Rivers between Kabul and Narmada (1, fig.16; 3, fig.1). The river, ruling the Vedic Land between 6.5 Ka and 3.5 Ka, entered Kachchh after its seven Himalayan tributaries had joined it; and, left the land for Harappan locality Lothal in Gujarat after another cluster of seven water arteries poured into it (Fig. 1). Another seven rivers had joined the channel beyond Lothal before it fell into Sea between Gogha and Surat.

The Time-span of River Sindhu System was fixed between 6.5 Ka to 3.5 Ka. The latter denotes the terminal verse of Rigved in an Assur country of those days around Svarvatee, Tapee or Surat. The former date, however, descend down to of 8.5 Ka marking the base of an earlier Ashvina drainage. The upper datum of the Sindhu too was revised downward in a later work (2) considering the impact of the Ka transgression in Kachchh and correlated with <10M sea-level-stand in Kachchh (1, fig. 7). It was conceived "Sindh and Gujarat were affected more drastically by 4Ka transgression. ... The long course of Indus, joining Mohinjodaro with Lothal through Dholavira and Surkotda, came to an end." (2, p. 246)." Accordingly, the upper time-limit of Sindhu drainage gets revised down to 4Ka. Preservation of Indus Script of the gate of Harappan Township *Dar R Atam Ravaapaar* had a confirmatory signal (3). The script, once on the signboard of the town, was under a thin veneer of sediments, as seen by me during the excavation. It was assumed that the sea-waters inundated the area soon after the *killer earthquake* way back 3900 years ago.

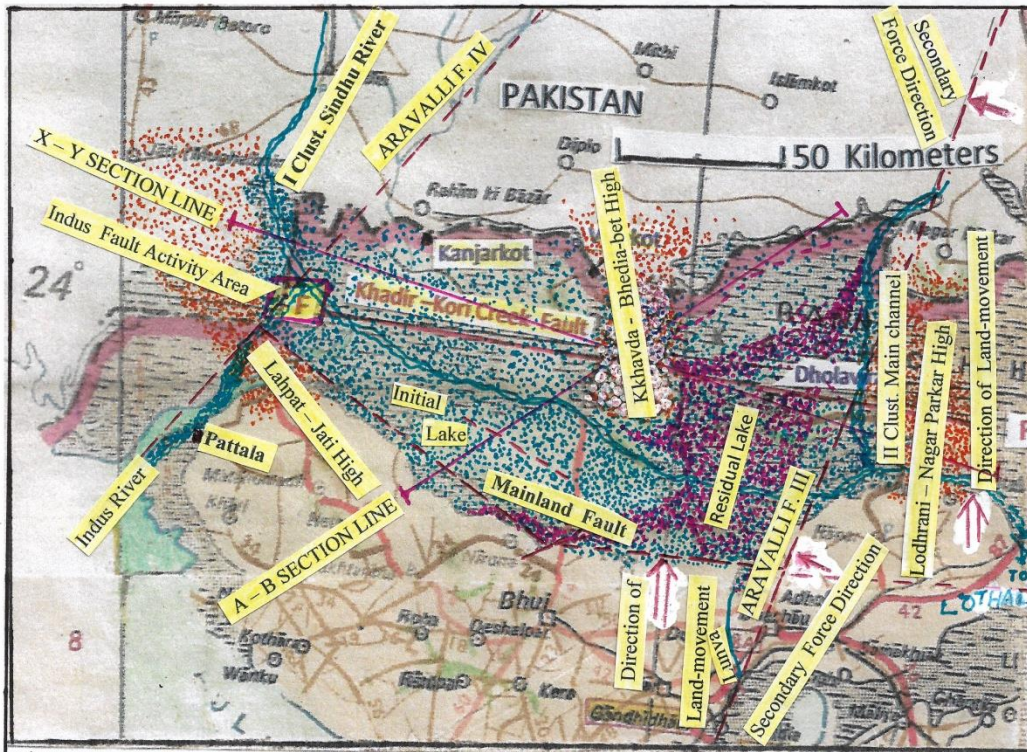
The conjecture above, however, relates to a time when Space Imageries of Pakistan was not available and the Google Earth of today was non-existent. Now, the latter suggests that the past surmise was in error; the Arabian Sea did not inundate the area, and the high-stand-lines of 15m and <10 m relate to an event connected with the formation of a lake at the termination of the Sindhu Drainage (Box 1, Figure 1). The sequence of events in this context runs as below.

The activity of the earth movement related to the killer earthquake of Dholavira on account of Fault F - F was not confined to the this fault alone(3). It was a major geological event due to northwardly moving Indian Plate (Fig. 1). Aravalli Fault III, the Mainland Fault and Aravalli Fault IV were also jolted by the secondary force created by the northerly movement; and, the land-block between these and F-F faults formed a graben or rift-valley all of a sudden the night *Dar R Atam Ravaapaar* was raised to ground (Fig. 1 B, C)).

Waters of Sindhu's two river clusters poured in the graben to form a *Kachchh Lake* that rose to the level of a pre-existing Pureshaani riverbed (14 ka) which was draining into the Gulf of Kachchh (1, fig.7; Fig. 1 A, B, C). The 15 M High-stand was the shore-line of Kachchh Lake around 3.9 Ka. The lake drained into Gulf of Kachchh through Luna Channel (Box 1 C). Water was lost forever in the past channel of Sindhu beyond Kachchh, setting the Harappan port of Lothal dry. This was the end of Sindhu through its fragmentation and emergence of Lake Kachchh around 3.9 Ka.

Lake Kachchh did not continue later for long, however. Around 2.5/2.4 Ka arrived another local activity of Fault Aravalli IV in Indus-Fault-activity area (Fig. 1). It formed a new river - *Indus* – that drained the waters of an extensive lake Kachchh Lake into the Arabian Sea; and, it joined Old Sindhu from north. A port Pattala came into existence around Kotesvar, facilitating Alexander to sail to Persian Gulf in 326 BC (4). Now was left behind a *Residual Lake* around 2.4 Ka (Fig.1, 2 Box 1C):

1: Jagadishomrityunjay (2003) **Vedic Rive Systems** ONGC Bull., 40,1, pp. 1-61. 2: ---- (2007) **Catastrophes during Rigved Natural Hazards** Ind. Geol. Cong. Pp. 233-46. 3: ----Ind. Scr. Dec. www Att. 4: Early Civiliation. ISBN 085685301 1



A Formation of Kachchh Lake (3.9 Ka) and its draining out in Indus-Fault-Activity Area (2.4 Ka).

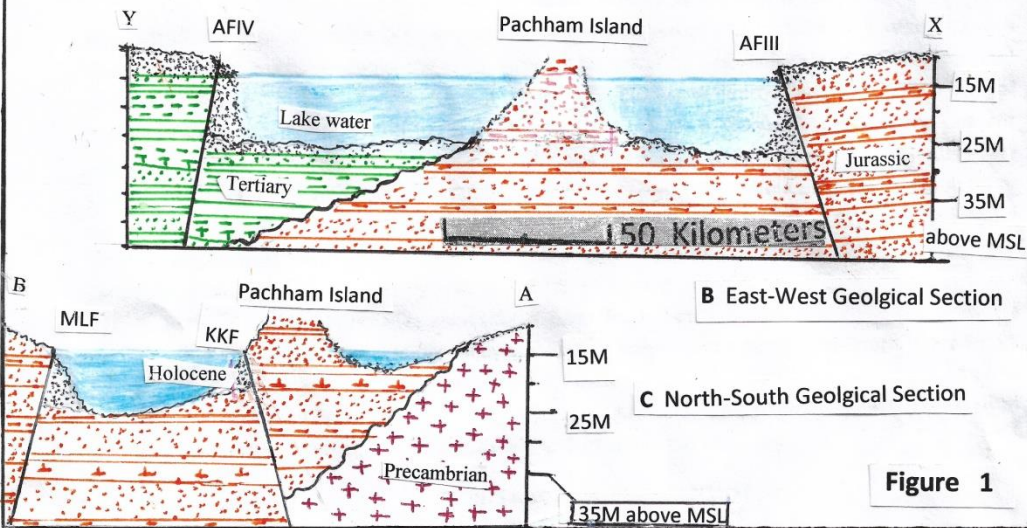


Figure 1

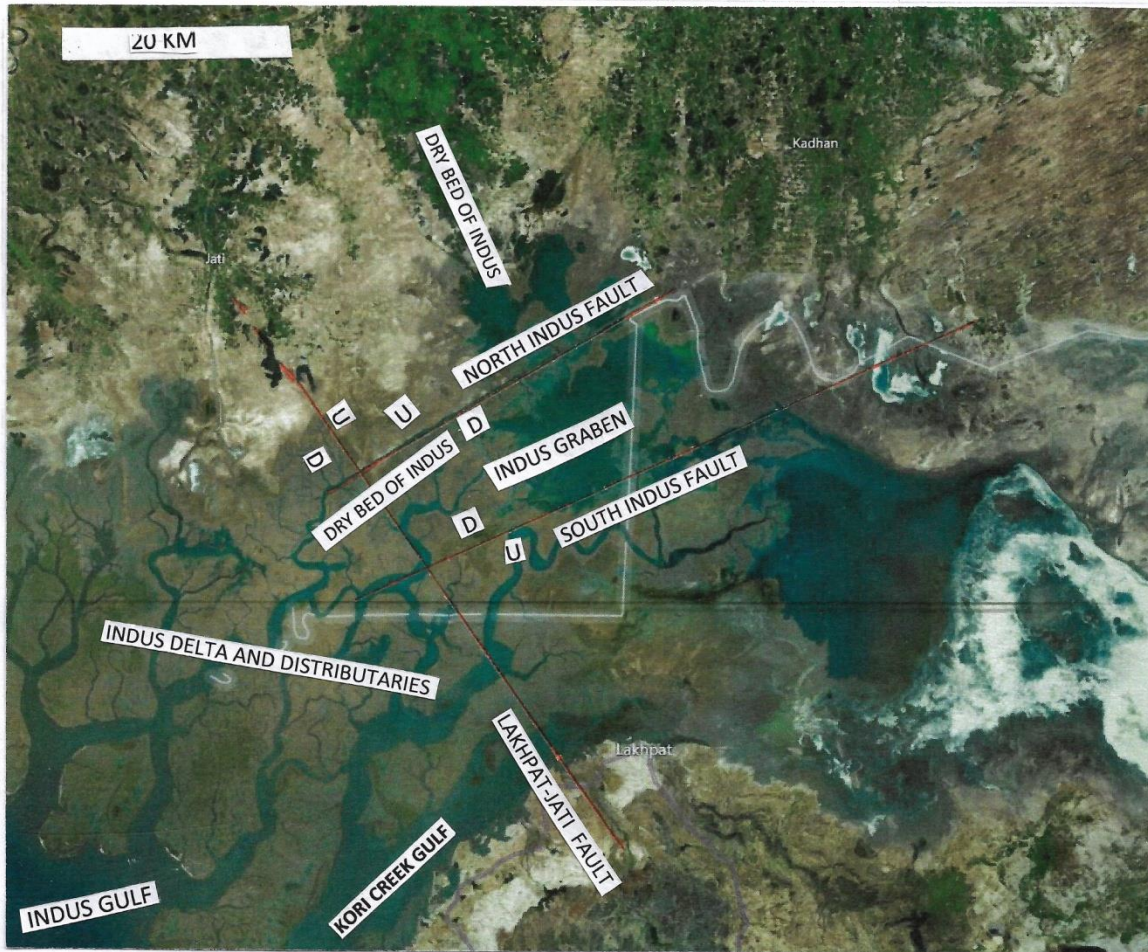


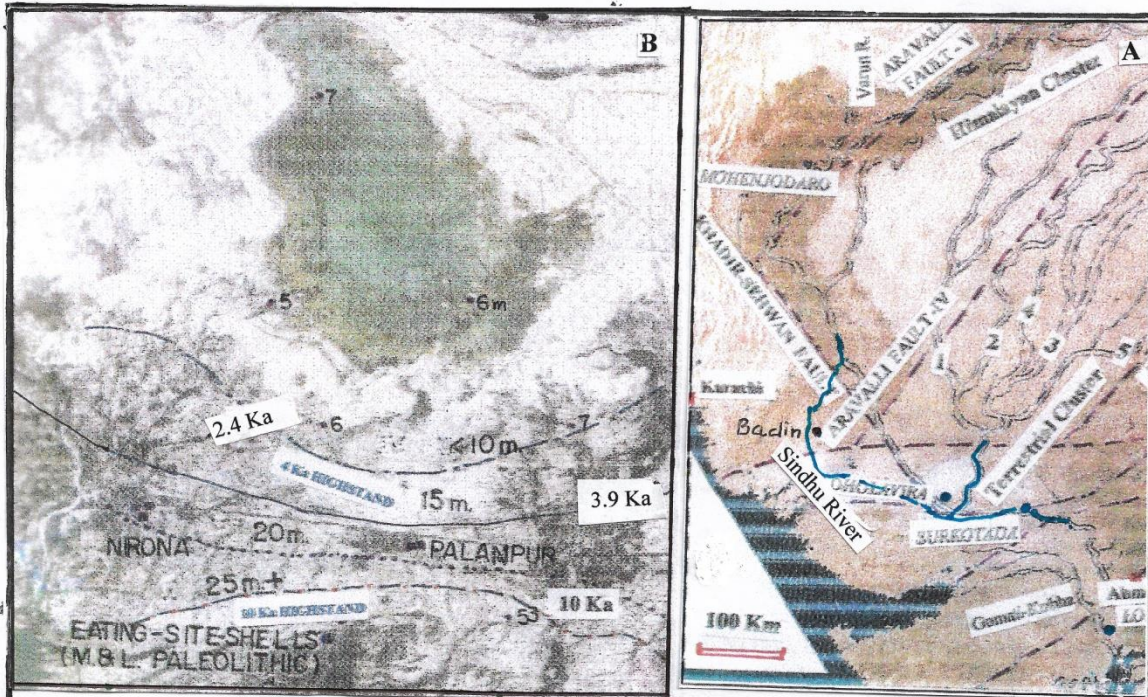
Figure 2: Destruction of Kachchh Lake and Formation of Indus Delta adjacent to Kachchh.

Kachchh Lake was formed in 1900 BC by the activity of the four major faults – Aravalli III & IV, Mainland and Khadir-Kori Creek – when Sindhu disappeared and Kachchh lake appeared with its surface-water-level 15m above the MSL. There is historical proof, Alexander the Great returned to Susa by a flotilla in 326 BC via Indus after his last victory. The journey was first to the port of Pattala in Kachchh; and, thereafter to Persia via sea-route. In 325 BC Kachchh Lake was non-existent while River Indus connected Takshashila in the Himalayan foothills to Pattala at sea. The Indus route to the sea was well known to the sailors in 325 BC and the river was possibly existent since 500 BC or earlier. A small delta with barren mud-flats and distributaries are seen west of Kachchh. These end up in Indus Gulf. Indus is no more present in the area; it shifted to the west of Badin in later centuries, leaving behind the dry channel of the first Indus river between Badin and Kachchh.

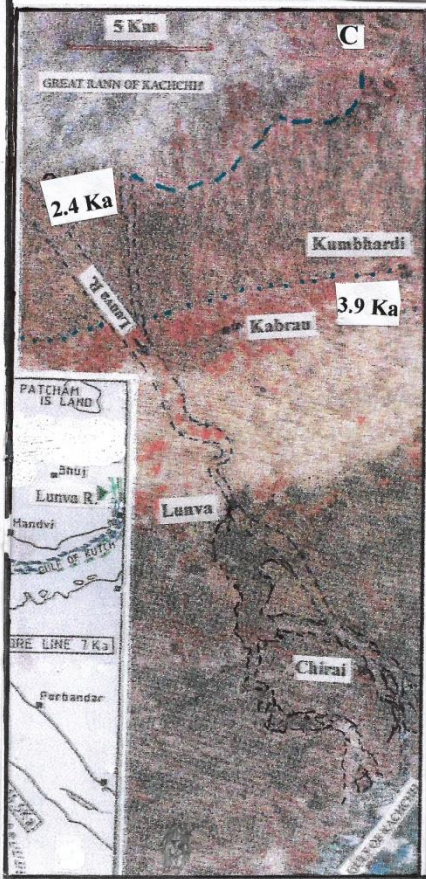
Activity of two Indus Faults and Lakhpat-Badin Fault was responsible for the end of Kachchh Lake. Around 500 BC, a graben or rift valley was created between the North and South Indus Faults besides down-throwing of the western-block along Lakhpat-Badin Fault. Indus waters now poured in the Arabian Sea. Water level of the Kachchh Lake was 15m above MSL. It also drained rapidly in to sea, leaving the Kachchh-Rann-Surface, mostly 6 to 8 m above the MSL, dry.

CREDITS AND ACKNOWLEDGEMENTS

Google Earth forms the base-map for the inferences above. I acknowledge their contribution.



BOX 1



The manuscript of the Vedic Rivers Systems (ONGC Bull., V. 40. N. 1) was completed in 2002. The last of the Vedic River Systems discussed therein – Brihatsapsindhu system – existed between 6.5 Ka and 3.5Ka; and was composed of three river-clusters (*idem* p.42-44, fig. 16). Westernmost of these clusters was essentially in Afghanistan-Pakistan. Space imagery of a larger scale could not be obtained for Pakistan, those days, for reconstruction of the river courses of Pakistan precisely. Entry point of the Indus in India (made of the first cluster), and its confluence with the second cluster [] was speculative, therefore (Fig. A). It is now available through the Google Earth; and, we learn that then river flowed in north-south direction to the west of Badin; and the mighty river made of all is seven tributaries was adjacent to the town. Etymologically Badin also means a town on the Indus ($Va + D$: Vad = Mighty or Great River; In = Indus). The error is rectified in the work while dealing with the terminal phase of the Sindhu River System (A).

The Google Map also brings out another, unexpected error in the study. It is related to the inferred sea-level changes in Kachchh during the recent past (p.21, fig. 7, Box-1B). The 10 Ka high stand of the sea in the Palanpur-Nirona area is 25+m. There are two successive low stands at 15 and < 10 m below this level. The latter is 7m to 3 m above the surface of the Rann of Kachchh. It correlates with a sea-level-rise of 4 Ka. As per the features in the Google Map, a higher terrain existed between Lakhpat and Jafi in Pakistan around 4 Ka; and, formed a barrier for the Sea to enter the area after 10 Ka high stand. The 15m and 10 m high-water-stands of Kachchh, therefore, even though geographically extending over 60 Km between Nirona and Lunva is a **local feature** unrelated to sea-level change (BC).

The only local body of such an extensive dimension could be a lake of the size of Rann of Kachchh that came to exist here during or after the Indus River System. It cannot exist during the time span of the river Sindhu, supporting the growth of five Harappan townships in Kachchh. It post-dates the Harappan Civilization; and, associated with destruction of Sindhu River System is an obvious. The stands depict tectonic events at 3.9 and 2.4 Ka.

SECTION III

EIGHT-LETTER-SENTENCES IN THE INDUS SCRIPT

Occurrence in the Text: Locality, page-number & line

[M: Mohenjodaro H: Harappa C: Chanhudaro L: Lothal Kalibangan
O: Other sites W: West Asian Finds]

1: M 39-9 लवाण-आब जगरा ए खा



लवानद-जल भयद वैष्णव हे खाऊ । [लवाण = लवा रण = लोथल के आस पास का इन्द्र या वरुण नदी]

2: M 41-1 थाईरत्रस बोथ षष्ठश स



अग्नित्रय-यज्ञशाला (निमित्त = बलि के लिए) छठा नरबोथ (बोत = ऊंटशावक)। [थाई: बैठक, संदर्भ में यज्ञशाला]

3: M 42-16 रद द्रन ब रपप



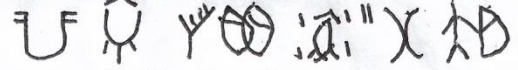
सूर्य-दंशक द्रन (नगाड़ावादक) सह सूर्य महामारक । [द्र = छोटा नगाड़ा; रद विलोम दर र का, अर्थ वही]

4: M 51-10 ए राचतुष्पदम डहत्रिशूलप अं म्म



हे राचतुष्पदम (वृषराज) डहत्रिशूलप (डफलीवाले मारक शिव) चन्द्र।

5: M 51-13 डहन्नी बुओ रीह एगुस



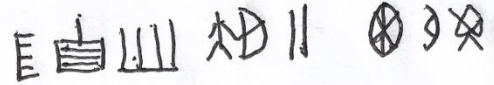
हंत्री शिवानी हे बुद्ध-महासूर्य* हे गु: (वृष)। [* प्रबुधों में महासूर्य]

6: M 51-14 वससे बुजद्वादशयस



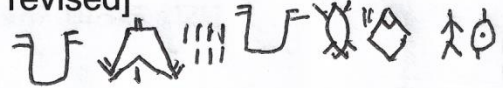
(हे) ग्रामदेवी 12 बकरे (आप के लिए)।

7: M 51-16 कलर आडह ओ* वप



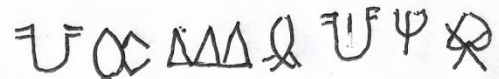
ब्राह्मण इन्द्र-सूर्य महाडफली-वादक हे वरुण मारक । [* Indus Script (189) में अ के स्थान पर ओ का सूचक, now revised]

8: M 55-5 अरणाह पीजस 7-अगस



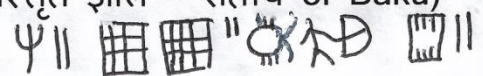
सूर्यग्रहणदेवता पीडद विष्णु सप्तर्चि।

9: M 55-7 कत्रिशूलसा बुखद्रस



ब्राह्मणी-शिवानी धूनी-खद्र: (आकाश जैसी विस्तृत झील = सप्तर्चि of Baku)

10: M 58-33 आख डहकी वव आत्रिशूल



महामारक महावरुण महाशिव। [डहकी : 1- डह = नगाड़ावादक देव = शिव 2- स्वार्थ में क → डहक 3- स्त्रीलिंगप्रत्यय ई डहकी]

11: M 59-5 थत्रयत्रयबी^{रात्र} बुज 12स^{अग्नि} घायलकरनेवाली नौदेविया^{अग्नि} (तन्निमित्त) 12 नर बकरे। [थ for थुर्वा: घायलकर्ता]

12: M 59-22 त्रयना-आब च पप डहड त्रयना-आब (सिंधु: हर-इन्द्र-वरुण निर्मित) तथा महापंशु (विनष्टक) महानगाड़ावादक (शिव)।

13: M 59-25 प्पव रबम ब जदफ महापंशु (विनष्टक) वरुण मालिक चंद्रमा सह मुक्तक विष्णु । [दफा अरबी दूरहटाना]

14: M 61-3 त्रार अउ-आच्छादित सा पा छठ ब षस लुसचन्द्रत्रिरात्रि देवी पालक-छठ सह चंद्र [लुसचन्द्रत्रिरात्रि = अंतिम-प्रथमचंद्र 3 चंद्ररहित रातें; षस = शश = शशि]

15: M 61-11 गरा म्मोद्रीन अहपस वृषराज (तंत्रमें) लुसत्रयचन्द्र (मध्य) विनष्टक (2) दिन।

16: M 61-15 ए अहीगराख क खअम हे। देवावृषराजखष ब्राह्मण ख-अम (खष - अम = मारक चंद्रहीन अमावस रातें)।

17: M 61-33 कल कची-6 ब सह ब्राह्मण इन्द्र सह सहाय्य (देव)। [ऋषिषष्ट - सुकेशा, सत्यकाम, सौर्यायणी, अश्वलायन, भार्गव और कबंधी]

18: M 62-1 अरौरत्रसा बु भ 12 दाफ सूर्यग्रहण में अग्नित्रय बु (धूनी/हवन) भयद 12 बलाभगानेवाले (आदित्य)।

19: M 62-9 रात्रद्रभ प्पघासधरा नगाड़े की शोरवाली भयद त्रयाग्नि अतिविनष्टक घातक धरा।

20: M 65-5 पसा आउनह टस दुरिता महागरीबी-दाता शिव।

21: M 66-4 र डही बु भ जखस सूर्य (देवी) शिवानी धूनी (यज्ञ-अग्नि) भयद जख-देव। [जख-देव: कच्छ के जखाउ भाग में बसे पुरा-बस्ती देवता, जिसका चिन्ह ऊर्ध्व-हस्त है]

35 : M 87-10 अरणा डयाणीभ वत्रिशूलस
दूर्यग्रहण डाइन भयद वरुण शिव।

ॐ ॐ ॐ "ॐ ॐ ॐ

36 : M 91-26 रत्र ए बस रा रा सह
त्रायाग्नि हे वरुण महाग्निदेवी सह।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

37 : M 92-14 अं ब 7अगः खा आह
सूर्य सह सप्ताग्नी खाऊ महादेव।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

38 : M 94-14 रात्र अं बु गरा ए अगः
अग्नि-सूर्य होम वृषराज हे आग (देव)।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

39 : M 97-22 द अंप 12 आषस प
दंशक सूर्य विनष्टक -12 महामारक विनष्टक।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

40 : H 98- 3 नुक ल आपक गराल

नुदक (प्रेरक) ब्राह्मण इन्द्र महाबाधक वृशराज लयक। [पश् XU बांधना]

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

41 : H 98-20 अंपी अंई गरा ए 7 अगस
पीडद सूर्य अंई (देवी सूर्या) वृषराज हे सप्तर्ची।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

42 : H 98-21 पी रात्रबु भदाफ नह (नः)
पीडद अग्नित्रयहवन भयद हमारा मुक्तक।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

43 : H 98-28 डई रात्रबु गरा ए खा
शिवानी त्रयाग्निहवन वृषराज हे खाऊ।

44 : H 100-5 12 बुगरा-ए-रात्र 3 नस
12 बुगरा-ए-रात्र (12-राशियाँ) 3 गणदेवता/गणेश।

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

45 : H 100-27 ईरणी ज पाहमस

ईरणी (ईनदवासी) विष्णु पालक चंद्र। [ईनद = Euphates]

46 : H 101-10 पीद्रखल 7क्ष प

पीडद-मारक-इन्द्र सप्तविष्णु पंशु(अदिति के सात पुत्र; आठवां त्याज्य मार्तण्ड)।

47 : H 105-2 ऋबु खम गरा ए नह (नः)

देवीसूर्या हवन मारक चन्द्र वृषराज हे हमारे।

48 : H 105-8 ऋ रात्र-अंन भगरा ए खा

देवीसूर्या रात्रि के सूर्य चंद्रमा भयदवृषराज हे खाऊ।

49 : H 127-25 अं ब गराथ हमस नह (नः)

ॐ ॐ ॐ ॐ ॐ ॐ ॐ ॐ

सूर्य सह वृषराज रक्षक चंद्र हमारे।

50: C 148-27 6 ब रार3म 5स त्रिशूल

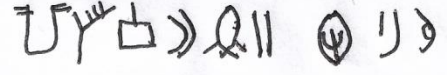


6 वरुण समेश त्रिरात्रि पंचदे शिव।

51: C 148-28 6 अंओनअबू जर्राह

ढलतासूर्य पूर्वज बलिकर्ता [उन (न्यून) तद्धित ओन; अबू: अरबी पितृ -पूर्वज]

52: L 149-10 लवा रत्र आबध व हस



इंद्रनद अग्नित्रय महाबधी वरुण हसी (अपमानक).

53: L 149-19 क्ष अं वा अं ओखर अंस प



क्ष (क्षयक) सूर्य अथवा सूर्य ओखर (निश्चयात्मक उ+खर तद्धित ओखर) परम-
खरबंदा सूर्य पार लगाने वाला विनष्टक।

54: L 154-4 गराखासा प्रथमद्वादश ब सह

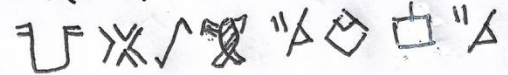
वृषराजखाऊदेवी द्वादश राषियों में प्रथम वरुण सहाय्य।

55: L 154-18 गराखासा प्रथमद्वादश ब सह



वृषराजखाऊदेवी द्वादश राषियों में प्रथम वरुण सहाय्य।

56: K 155-5 णी ब पणी म्मोक्षस



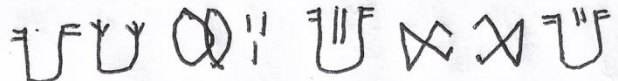
स्त्री सह धन मोक्ष।

57: K 156-4 लवासा 2क प्रमोर ए ए



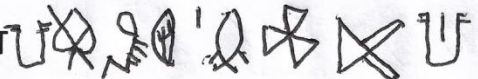
लवादेवी ब्राह्मणद्वय स्कंदीय महाकम्पक।

58: K 156-15 सीद दसी 3र षस



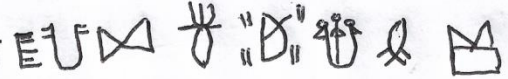
आलसी सड़ता अग्नित्रय मारता।

59: K 156-19 सा सद त्रयत्रय बा रात्र ओखरकस



देवी सदनौमाता अग्नित्रय दृढखरब्राह्मण।

60: K 156-31 उ ब गपरापर डौ रोगा इडस प



चंद्र सह गपरापर वृष महानोकेमहान् डौ (हुंकारते) वृषराज नादक विनष्टक।

61: W 156-31 प्पारवा 3 ब व त्रिशूलस



पालक सूर्या देवी 3 बृहस्पति वरुण शिव ।