Dravidian is the language of the Indus writing

Clyde Winters

The Indus Valley writing is not a multilingual system of writing. The writing indicates that this population was literate and spoke a Dravidian language. The study also indicates that the Indus Valley writing was not used to write an Indo-Aryan language, because the Aryans did not arrive in India until after 1600 BC.

The Dravidians had their own tradition of writing[1]. It would appear that they introduced writing to the Indus Valley[2–6]. They continued to use this writing on their pottery in South India[7,8] and later punch-marked coins. This is supported by the discovery of writing in South India[2] dating back to before 600 BC.

In a recent paper Srinivasan *et al.*[1] argue that the Indus Valley writing was a syllabic multilingual writing system. Although this is their opinion, it appears that the writing system used in the Indus Valley was also employed in South India and that the language of the Indus Valley script was Tamil[2–4]. They argue that the Indus Valley seals were 'flash cards' used by the Indus Valley population to learn the writing systems[1].

Srinivasan *et al.*[1] believe that they can demonstrate the multilingual nature of the Indus Valley writing by discussing Indus Valley consonants and vowels without describing how they deciphered the language; and they imply that ancient Dravidians wrote in Brahmi and Kharosthi even though Tamili inscriptions are much older than these writing systems[2]. The fact that Srinivasan *et al.*[1] make these claims without explaining their decipherment, makes these totally invalid. In this paper, I will review the evidence that the Indus Valley writing was written in Dravidian, and that there were probably no Aryan speakers in the Indus Valley.

Results

The Indus Valley writing was in Tamil, a Dravidian language[2–5]. It was assumed that the Indus Valley writing was written in a Dravidian language because of the presence of Dravidian speakers of Brahui in the Indus Valley.

The Dravidian people originated in Africa[9–18], they belonged to the C-Group culture of Nubia[19]. The Dravidians were Proto-Saharan people[20]. The Proto-Saharans were the ancestors of the Dravidian, Elamite and Sumerian people[20,21]. These Proto-Saharans shared a common system of writing which first appeared on the pottery and later evolved into a syllabic writing system (Figure 1).

The key to deciphering the Harappan script was the recognition that the Proto-Dravidians who settled in the Indus Valley had formerly lived in the Proto-Sahara, where they used the so-called Libyco-Berber writing[22].

It is clear that a common system of record-keeping was used by people in the 4th and 3rd millennium BC from Saharan Africa to Iran, China and the Indus Valley[22]. The best examples of this common writing were the Linear A script, Proto-Elamite, Uruk script, Indus Valley writing and the Libyco-Berber writing[22]. Although the Elamites and Sumerians abandoned this writing in favour of the cuneiform script, the Dravidians, Minoans and Mande (the creators of the Libyco-Berber writing) continued to use the Proto-Saharan script.

The Sumerian, Elamite, Dravidian and Manding languages are genetically related[21]. This is not a recent discovery by linguists and anthropologists (Figure 2). Lahovary[23] noted structural and grammatical analogies of the Dravidian, Sumerian and Elamite languages. Muttarayan[24] provided hundreds of lexical correspondences and other linguistic data supporting the family relationship between Sumerian and Dravidian languages.

Further research indicated that the Indus Valley writing was related not only to the Libyco-Berber writing, but also to the Brahmi writing. Some researchers claim that the Brahmi writing is related to the Phoenician writing. But a comparison of the Brahmi vowels and Phoenician vowels fails to show any similarity (Figure 3).

Although we fail to see a relationship between the Brahmi and Phoenician vowels, comparison of the Brahmi and Harappan vowels shows complete correspondence[25,26].

Using the evidence of cognate scripts and the analogy between the Dravidian

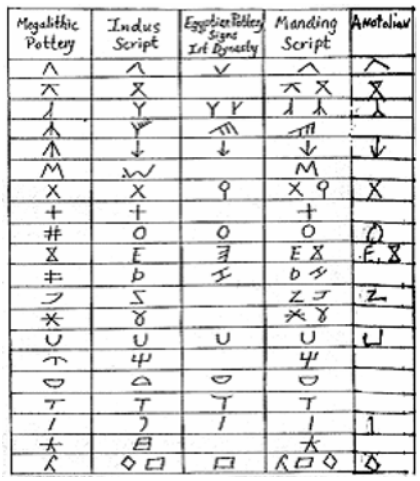

Figure 1. Comparison of pottery inscriptions.

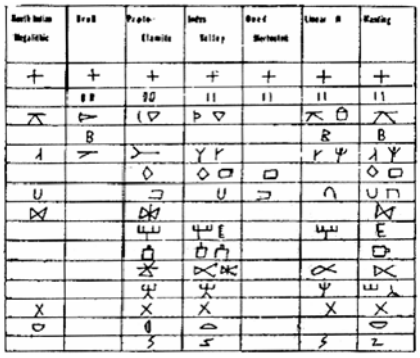

Figure 2. Comparison of writing systems.

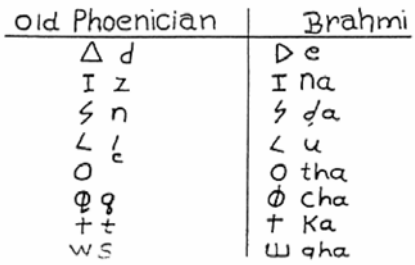

Figure 3. Comparison of Brahmi and Phoenician vowels.

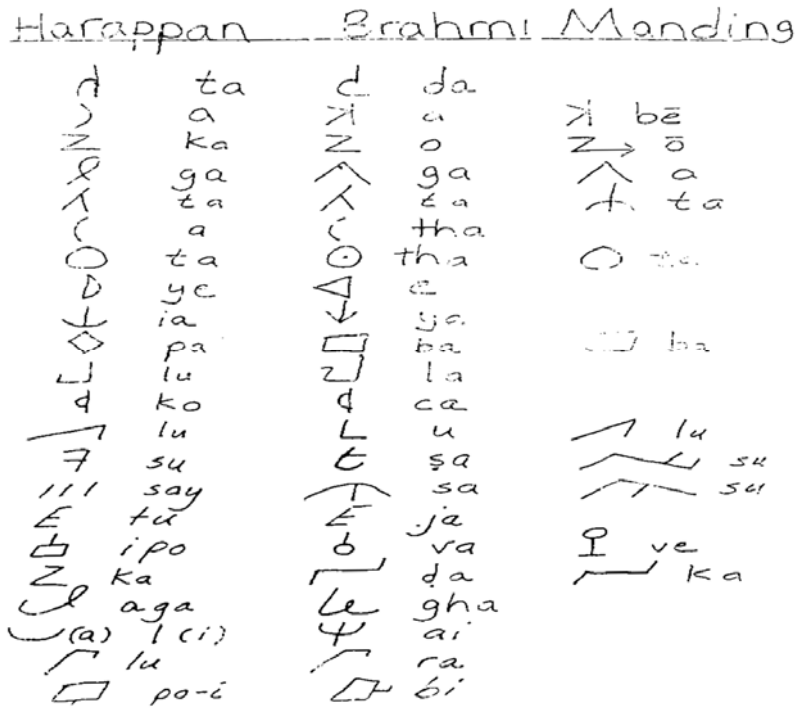

Figure 4. Comparison of Harappan, Brahmi and Manding signs.

Figure 5. A unicorn seal. Note the manger under the head of the god.

language and the languages spoken by people using cognate scripts[2–5], three assumptions could be made leading to the decipherment of the Harappan writing.

1. It was assumed that the Harappan script was written in the Dravidian language.

2. It was assumed that the Dravidian language shares linguistic and cultural affinities with the Elamites, Manding and Sumerians – all of whom used a similar writing system. This led to a corollary hypothesis that the Harappan writing probably operated on the same principles as the related scripts, due to a probable common origin.

3. It was assumed that as the Harappan script had affinity to the Proto-Manding writing (Libyco-Berber) and the Manding language, it could be read by giving these signs the phonetic values they had in the Proto-Manding script as preserved in the Vai writing, since the northern Manding languages like Bambara and Malinke were genetically related to Dravidian languages like Tamil. The discovery of cognition between Vai and Harappan signs, and the corresponding relationship of sign sequences in the Harappan and Vai scripts helped lead to a speedy reading and decipherment of the Harappan signs.

This made it possible to use symbols from the Manding-Vai script to interpret Harappan signs. The only difference was that when interpreting the phonetic values of the Harappan script, they were to be read using the Dravidian lexicon. The terms used to express the translation of Harappan signs were taken from Burrow and Emeneau's *Dravidian Etymological Dictionary*. Once the seals were broken down into their syllabic values, we only had to determine if the Harappan term was a monosyllabic word, or if it was a term that was made up of only one syllable[3–5].

A comparison of the Harappan signs, Brahmi and Vai writings showed that the signs had similar phonetic value. It is the similarity in phonetic value that allows us to read the Indus Valley writing use Vai signs[26].

Many would-be deciphers of dead languages have assumed that we cannot read ancient languages using contemporary or comparatively recent time–depth lexical material. This is a false view of archaeological decipherment. For example, Jean Champollion used Coptic to read the Egyptian hieroglyphics; and Sir Henry Rawlinson, used Galla (a Cushitic language spoken in Africa) and Mahra (a South Semitic language) to decipher the cuneiform writing.

Moreover, we know from the history of the cuneiform writing that several different languages (Eblate, Elamite, Sumerian, Assyrian, Akkadian, etc.) were used in the cuneiform script. This meant that if cuneiform could be used to write different languages, why could the Proto-Saharan script not be used in ancient middle Africa (and later Asia and Europe), to write genetically related languages like the Manding and Dravidian groups (Figures 1 and 2).

The decipherment of the Harappan seals[2–5] showed that they did not contain the names and titles of their owners. They are talismans, with messages addressed to the Harappan gods requesting blessings. This is in sharp contrast to the Mesopotamian seals which were used for administrative and commercial purposes.

The Harappan seals illustrate that the Harappan believer wanted from his god: (1) a good fate, (2) spiritual richness, (3) virtue, (4) humility and (5) perserverance[27]. They were protective amulets found in almost every room in the city of Mohenjo-Daro.

The Harappan writing was read from right to left. Figure 5 depicts the average Harappan seal and its talismanic formula: depiction of Deity X (in this case Maal/Mal) as an animal, and then the votive inscription written above the deity.

The manger, under the head of Maal is made up of several Harappan signs. It reads Puu-i- Paa or 'A flourishing condition. Thou distribute (it)'.

The Harappan seals were often found by archaeologists in a worn out condition. The fact that the seals often had holes drilled at the back, suggests that they were tied with a string and hung around the neck or from belts (Figure 6).

The importance of the Harappan seals as amulets is attested too by the popularity of wearing totems among the Dravidians. During the Sangam period (of ancient Dravidian history), the warriors and young maidens wore anklets with engraved designs and or totemic signs. Moreover at the turn of the century, in South India, it was common for children to wear an image of Hanuman around their neck; whereas wives wore a marriage totem around their necks as a symbol of household worship.

In the Harappan worldview animals were used in many cases to represent characteristics that human beings should exhibit. As a result the bird was recognized as a symbol of the highest love, due to devotion to its offspring; and the elephant due to its strict monogamy symbolized the right attitude towards family life and social organization.

The principal Harappan gods are all depicted on the Harappan seals. The main god of the Harappans was the unicorn. The unicorn probably represented Maal (Vishnu or Kataval). This god was held in high esteem by the cowherds and shepherds. Other Harappan gods were represented by the water buffalo, humped bull, elephant, rhino, tiger and mythological animals (Figure 7).

The crescent-shaped horns of the oxen or castrated bull on some Harappan seals may represent the mother goddess 'Kali'. The lunar crescent shape of the oxen's curved horns recalled the lunar crescent which was the primordial sign for the mother goddess.

Siva was probably represented by the the short-horn bull. The elephant on the Harappan seals may have represented Ganesa/Ganesha, the elephant-headed god of India. In the 'Laws of Manu', it is written that Ganesha is the god of the 'shudras', the aboriginal population of India. The Tamilian name for the elephant god is 'Pillaiyar, palla and veeram'. The hunter figure on Harappan seals wearing the horned headdress and armed with a bow and arrow may have been Muruga, the son of Uma.

Pillaiyar is considered the shrewdest of animals. He is associated with harvest time, abundance and luck. The appearance of mythological animals on the Harappan seals may refer to Pillaiyar or Ganesha in one of his many transformations.

Writing was never lost among Dravidian speakers in South India. The earliest writing appeared on South Indian megalithic ceramics. These signs were the same as those of the Indus Valley signs[2,7,8].

Indus Valley-type signs continued to be produced throughout India, especially South India as evidenced by the appearance of these signs on megalithic pottery, burial urns and palm leaf manuscripts. The evidence, when we considered the cermaic scripts, showed an unbroken history of writing from Harappan to contemporary times.

Archaeologists agree that black and red ware (BRW) unearthed on many South Indian sites is analogous to Indus valley BRW used by Dravidian-speaking people in South India[28]. The BRW style has been found on the lower levels of Madurai and Tirukkampuliyur[7,8]. Lal[19] showed that the South Indian BRW was related to Nubian ware dating to the Kerma dynasty. This is supported by the appearance of Harappan signs on India pottery (Figure 8). Lal[8] also found that 89% of the graffiti marks on the megalithic red-and-black ware had an affinity to Indus Valley signs. This indicated that the Indus Valley writing should be read from right to left. This view was later confirmed by Mahadevan[29] in 1986.

Singh[28] believes that BRW radiated from Nubia through Mesopotamia and Iran southward into India. BRW is found at the lowest levels of Harappa and Lothal dating to 2400 BC. Nayar[30] proved that BRW of Harappa had affinity to predynastic Egyptian and West Asian pottery dating to the same time-period.

After 1700 BC, at the end of the Harappan civilization, BRW spread southward into the Chalcolithic culture of Malwa and Central India down to Northern Deccan and eastward into the Gangetic Basin. The BRW of the Malwa culture occupied the Tapi Valley Pravara Godavari and the Bhima Valley. In addition, we found that the pottery used by the people at Gilund, Rajasthan on the banks of the Bana River, was also BRW (http://bestindiatours.com/archaeology/harappan/Gilund.html). This indicates that the people at Gilund, like other people in North India at this time were Dravidian speakers, given their pottery. If this is so, the building where the 'bin' containing the cache of BMAC seals was found pro-

Figure 6. Perforated boss on the back of many seals.

Figure 7. Seals depicting the Harappan gods.

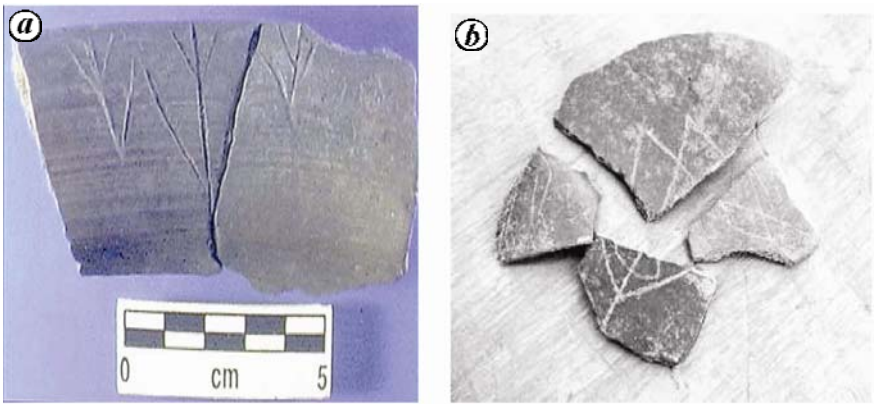

Figure 8. ***a***, Indus pot from Revi. ***b***, Adichanallur urn, Tamil Nadu.

bably represented a warehouse where exotic objects imported from Central Asia were stored. Let us not forget that Central Asia was a major centre for Harappan copper and tin for hundreds of years[31].

Gurumurthy[32] found, like Lal before him, that the graffiti on South Indian pottery was engraved with Harappan signs. He found that the Tamil Nadu pottery graffiti agrees with Brahmi letters dating back to 1000 BC. This further supports the view that continuity existed between Harappan writing and Brahmi–Tamili writing discovered in South India.

The recent discovery of a Tamil–Brahmi inscription at Adichanallur is interesting (Figure 9) because the site is dated between 1500 and 500 BC by thermo-luminescence[2].

Satyamurthy (Archeaological Survey of India (ASI)) has dated[2] the inscription to 500 BC. Sampath has tentatively read the inscription as 'Ka ri a ra va[na] ta'. This inscription is interesting because the date for the site would place the writing at an age hundreds of years prior to the introduction of Brahmi writing in India.

It is no secret that the megalithic sites of India have yielded many inscriptions that agree with signs associated with the Indus Valley writing. Moreover, it is no secret that Lal[8] was able to learn the direction for the writing of the Indus Valley script by studying cognate sites on South Indian pottery.

Since the date of this inscription is very early, it suggests that it may be written in the Tamil of the Indus Valley seals. I decided to test this hypothesis by attempting to read the Adichanallur inscription based on my decipherment of the Harappan writing. The Adichanallur inscription has five singular signs and two compound signs (5&6). We will read the inscription from left to right.

Figure 9. Inscribed pot from Adichanallur.

Reading the signs from left to right we have the following: (1) *ta*, (2) *na*, (3) *ka*, (4) *I*, (5) *tata*, (6) *uss vey* and (7) *gbe*. Signs 2 and 7 are not normally found in the corpus of Harappan signs. As a result, I had to refer to the Vai inscriptions which I have used over the years to find the phonemic values of the Harappan signs. In Vai, the term gbe, means 'righteousness'.

The transliteration of the inscription therefore reads: Ta na ka i tata uss-vey gbe. The translation of the inscription is the following: 'Tanaka, give him greatness, open (up for his) Fate righteousness'. The term tata, can be read as greatness or father. So we might also read the inscription as follows: 'Thou father Tanaka, (will have a) Fate blossoming Righteousness'.

These readings of the Adichanallur inscription are tentative[2]. This epigraphic finding and others make it clear that the history of writing in India must be re-written. The epigraphic evidence from South India indicates that the Indian writing has a continuous history spanning from the Indus Valley times down to South Indian pottery and later Tamili writing[2].

Yet, the fact remains that the inscriptions from this site are older than any Brahmi inscriptions. It stands to reasoning that these inscriptions may be read syllabically, rather than as an alphabet. This would explain the economy of signs used to write this obituary. I look forward to reading by 'experts' in this area.

The punch-marked coins of India also show the continued use of Indus Valley signs after the decline of civilization in the Indus Valley. Rajgor[33], gives a detailed history of punch-marked coins in India dating from 600 BC to the rise of Magadha around 400 BC.

Kalyanaraman[34] provides a detailed discussion of the relationship between the punch-marked coins of India and the Harappan writing. As can be seen from Figure 10, the punch-marked coins and Indus Valley signs are similar[35].

It is also interesting to note that Thapliyal in *Studies in Ancient Indian Seals*, found that many Indian seals from the 3rd century BC to the 7th century AD, portrayed animals, with an inscription above the animal (just like in the case of the Harappan seals), which was indicative of the religious views of the owner of the seal. This evidence supports our finding that these seals were worn (or carried) by the Harappans to help them remember their goals, and to obtain guidance from their deity.

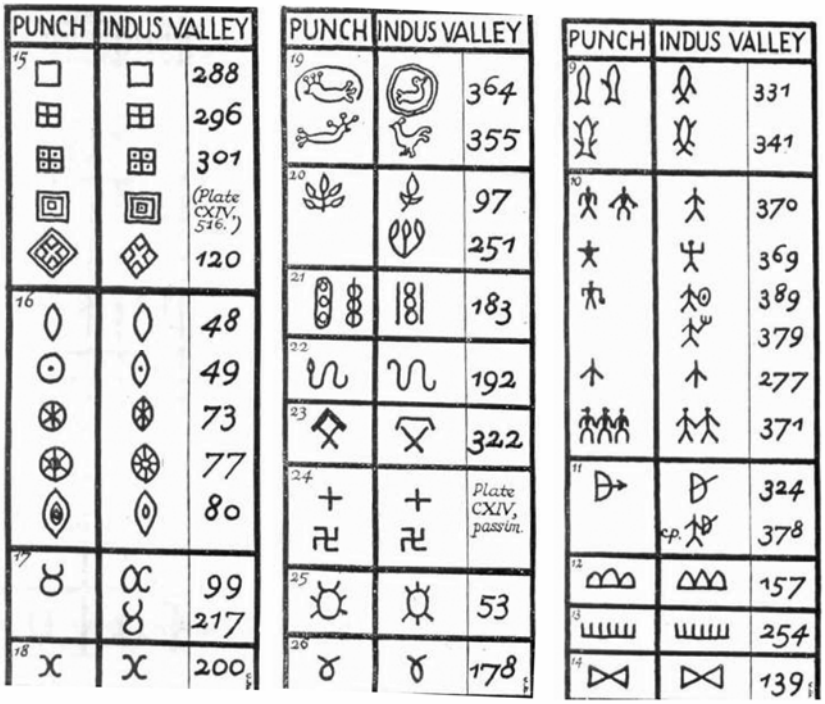

Figure 10. Comparison of punch-marked coin signs and Indus Valley writing.

Discussion

Controversy has surrounded the identity of the Indus Valley writing. While the Indus Valley script was a system of writing[36,37], the seals were 'wish statements' or 'talisman'[36].

We can read the Harappan signs by giving them the same sound values as the Vai writing[2–5]. The Vai speak a Mande language.

The decipherment of the Indus Valley writing allows us to understand its grammar[4,5], and we have a dictionary of Indus Valley signs to read the Indus Valley seals[6]. We are able to do this because the Mande languages are related to Sumerian, Elamite and Tamil[3,20–22,24]. The Indus valley signs were assigned the phonetic value of similar signs in the Vai writing. This comparison indicated that the Indus Valley signs and Brahmi signs were analogous. This test illustrated that the writing systems were genetically related.

The decipherment of the Indus Valley writing[2–6] indicates that the Brahmi script is a descendent of the Harappan writing. Many scholars have suggested continuity between the Harappan script and the Brahmi semi-alphabetic writing. Hunter and Langdon believed that there was a connection between Harappan and Brahmi writings. Moreover, Mahalingam has made it clear that the Brahmi script was probably invented to write non-Aryan languages.

Other points supporting this view are the Boustrophedon style of writing the Harappan signs, and the Asokan inscriptions at Yerragudi in Andhra Pradesh. Evidence of Brahmi being written from right to left comes from Sinhalese inscriptions, and early coins from Eran.

Some scholars dispute the theory that a continuity exists between the Harappan and Brahmi scripts. This is false. The Brahmi and Old Phoenician share similar shapes, but the characters lack phonemic agreement (see Figure 3). The origin of the Brahmi writing is Ethiopic.

Srinivasan *et al.*[1] argue that there were Indo-European speakers in the Indus Valley[37]. However, there is no evidence of this population living in the Indus Valley during Harappan times.

Archaeological and linguistic evidence indicates that the Dravidians were the founders of the Harappan culture which extended from the Indus Valley through northeastern Afghanistan and into Turkestan[2–5]. The Harappan civilization existed from 2600 to 1700 BC. The Harappan civilization was twice the size the Old Kingdom of Egypt. In addition to trade relations with Mesopotamia and Iran, the Harappan city states also had active trade relations with the Central Asian peoples. The Indus Valley people cultivated millets[38].

To compensate for the adverse ecological conditions, the Harappans first settled at sites along the Indus river[39–41]. The Dravido-Harappans occupied over 1000 sites in the riverine Indus Valley environments, where they had soil and water reserves[40]. The Harappan sites spread from the Indus Valley to Ai Kharnoum in northeastern Afghanistan and southward into India. In Baluchistan and Afghanistan, Dravidian languages are still spoken today. Other Harappan sites have been found scattered in the regions adjacent to the Arabian Sea, the Derajat, Kashmir and the Doab.

The Indus region is an area of uncertain rains because it is located on the fringes of the monsoon. Settlers in the Indus Valley had to suffer frequent droughts and floods. Severe droughts frequently occurred in the Indus Valley and so the people dug wells to ensure for themselves a safe supply of water. To compensate for the adverse ecological conditions, the Harappans settled at sites along the Indus river.

The mature Harappan civilization can be divided into two variants – the Sorath Harappan and the Sindhi Harappan[42,43]. The Sindhi Harappan sites were characterized by elaborate architecture, fired brick construction, sewage systems and stamp seals. These have been found in Gujarat, Kutch, the Punjab, Haryana and Uttar Pradesh. The major Sindhi cities include Mohenjodaro, Lothal, Rangpur, Harappa, Desalpur, Shirkotada, Manda, Ropar, Kalibangan and Chanhudaro.

The Sindhi Harappans possessed a script as well as massive brick platforms, well-digging, a system of weights and measures, BRW, metal work and beads[42]. The Harappans were masters of hydraulic engineering.

They were a riverine people that practised irrigation agriculture. They had both the shaduf and windmills[41]. In the Harappan sites domestic quarters and industrial areas were isolated from each other.

The Sorath Harappan sites lacked stamp seals, ornaments and elaborate architecture. Sorath is the ancient name for Saurashtra. The Sorath Harappan sites are located in Saurashtra, Kulli and the Harappan style of Baluchistan and Gujarat.

The Dravido-Harappans occupied over 1000 sites in the riverine Indus Valley environments, where they had soil and water reserves[40].

Due to changes in the environment of the Indus Valley, much of the area became more arid. This led to many Harappans migrating out of the Indus Valley into India, to settle in Gujarat, Punjab, Haryana and other parts of western Uttar Pradesh between 1700 and 1000 BC.

It was in Gujarat that the Dravidians probably first came into contact with the Aryans. Here we find examples of the plain grey ware (PGW) used by the Indo-European speaking peoples of India[7,44]. According to Lal[7], the Vedic Aryans are associated with PGW. The beginning of the PGW phase has been extropolated[45] back to 1000 BC.

After 1700 BC, with the end of the Harappan culture BRW spread southward into the Chalcolithic culture of Malwa and Central India, down to northern Deccan and eastward into the Gangetic Basin. Joshi[46] during his excavations in Haryana and Punjab found PGW dating between 1600 and 1300 BC. The radiocarbon dates for PGW are far too late to support an Indo-Aryan hypothesis for the Harappan language[46].

The users of BRW in Gujarat between 1700 and 100 BC, were in communication with the Dravidians of the Malwa culture[47]. The BRW people of the Malwa culture occupied the Tapi Valley, Pravara Godavari and the Bhima Valley[47]. As a general rule the BRW horizon precedes the PGW period[28]. The PGR period is associated with the Indo-Aryan speakers.

Here on the Gangetic Plains we see the emergence of PGW[44]. The presence of PGW points to the probable first contact between the Proto-Dravidians and the Indo-Aryans.

Conclusion

The Indus Valley writing was in a Dravidian language[1–5]. The Dravidians originated in Africa and were associated with the C-Group people[15,16,19]. The Dravidians share genetic material with the Africans[17,18].

The decipherment of the Harappan seals indicates that the seals and copper plates/tablets are amulets or talismans[2–6]. They are messages addressed to the Dra-

vidian gods of the Harappans, requesting for the bearer of the seal the support and assistance of his god in obtaining 'aram' (benevolence). As a result, each animal figure on the seals was probably a totemic deity, of a particular Dravidian clan or economic unit that lived in the Harappan cities. As a result, even though the Harappans had different gods, each was seen by his followers as (1) a god having no equal, (2) a god having neither *karma* (desires) nor aversion and (3) as a god who is the ocean of *aram*.

The Harappans believed that man must do good and live a benevolent life so that he could obtain 'pukal' (fame), for his right doing(s). Through the adoption of benevolence an individual would obtain the reward of gaining the good things of life in the present world – and the world beyond. In general, the Harappan seals indicate that the Harappans sought righteousness and a spotlessly pure mind. Purity of mind was the 'sine qua non', for happiness 'within'.

The megalithic population of South India continued to use the Indus Valley script and also cultivated African millets[17,33]. In South India, the Dravidians continued to use the Indus Valley writing which they called Tamili to inscribe pottery, write on leaves and in caves[2,7,8]. The Tamili inscriptions are from an earlier period than Brahmi writing[2].

The Indus Valley inscriptions were written in Tamil. It was a syllabic writing system related to linear Elamite writing and Proto-Sumerian seals[21,22]. The Indus Valley writing was probably not used to write the Indo-Aryan language because the Aryan speakers did not arrive in India until after 1600 BC (refs 40 and 41).

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