The Decipherment of the Indus Valley Writing

by Clyde A. Winters, Ph.D
The Harappan writing was used in the Indus Valley. In this system of writing the Harappans have left us hundreds of seals and other inscribed documents that tell us much about the civilization of the Harappans.

The Harappan Fish Sign

The Harappan fish has nothing to do with metallurgy or the heavens. This figure is an ideographic sign which equals min ‘glitter, shine, etc.’ in the Dravidian languages.

Asko Parpola believes that the Indus Valley writing is concerned with astrological ideas, especially his association of min with stars. Generally, Parpola believes the Harappan inscriptions are concerned with stars and planets. He fails to understand the real significance of the word because he claims that the Indus Valley inscriptions are written in an aspect of Dravidian, but he uses Indo-Aryan and Middle Eastern religious traditions to interpret the signs, instead of the living religious traditions of the Dravidian people themselves. This makes his decipherment nothing more than smoke and mirrors.

The Harappan seals are wish messages in which the Harappan people would request goodness and right character from their gods. The goal of the Harappan citizen was to acquire aram ‘benevolence’ from his/her God.
The min sign is very popular in the Harappan inscriptions. For example

vey-ga Uss min puka Uss

‘Balance blooms a shining Fate, glory and justice’.

A very famous Harappan seal which has the min in the inscription is the famous ‘Lord of the Beast’ seal now found in the National Museum of India, in New Delhi. This seal was found in the lower town at Mohenjo-Daro.

In the ‘Lord of the Beast Seal we find a three sided deity sitting on a stool in the attitude of a yogi. This figure wears buffalo-horned headdress, bangles, bracelets and a triangular collar. This figure is surrounded by a tiger, an elephant, a buck and a rhinoceros. Some researchers have suggested that this figure may represent Pasupati, ‘lord of the animals’, or Vanaspati ‘lord of the wilderness. But I believe that this seal relates to Yoga, and not Shiva worship.
al ka ke-aṇṇal ye Uss  min Uss

‘[Give to your] servant balance and preserve [his] righteousness, increase
God’s justice (and) illumination (to my) Fate’.

(If we read the inscription from the other direction: uss min ye uss ke-aṇṇal ka al “Fate [provides] illumination,(and) increase God’s Justice. Preserve (my) righteousness and the Glory (of your) servant’.)

The posture of the man in the attitude of a yogi clearly suggest the practice of yoga among the Harappans. The buffalo-horn headdress indicates that this figure was a Dravidian dignitary, i.e., ‘a man with horns’. The association of this figure surrounded by various zoomorphic deities of the Harappans, suggest that this seal encouraged its bearer to train his consciousness for a state of perfect spiritual insight and tranquility, so he could serve his God. The search of the Yogi for discipline of his mind and
body, explains the wish inscription above the yogi figure:’Fate [provides] illumination, (and) increase God’s Justice. Preserve (my) righteousness and the Glory (of your) servant’.

This means that appearance of ‘illumination or enlightenment’ would denote the spiritual insight sought by the yogi.

The min sign can appear as a single character or it can have other Harappan signs attached to it e.g., min-i ‘let it shine’. There are several Harappan signs often associated with min, this signs include and -a-, -i-, and (y)e-. The most popular Harappan sign associated with min is -a-. This sign can also be interpreted as vey ‘blossom, growth, development, Florence, and to come’. In the Dravidian languages ā, is the demonstratives ‘that, he, it’; it can be the ‘come into existence, happen, be, be fit; the verb ‘to come, bring about’; the
interjections pity, regret, wonder, admiration’. As a result, reading the sign

ā min ‘Become phosphorescent’ or ‘Glowing Admiration’. For example,

\[ i \ u \ a \ min \]

‘Thou bring glowing admiration’.

\[ \text{min a i tūtū min ta} \]

‘Glowing admiration give [me] much virtue and illumination’

Another sign frequently associated with min is \(-i-\). The sign \(-i-\), can be the pronouns ‘you, thou’; the particle for the past tense –i, and the

verb ‘to give’. Sometimes –i, can represent the negative, e.g., pa-i ‘do not divide’. In most Harappan inscriptions the –i particle is placed inside of the min figure. Here are some example of the use of –i, with min.

\[ \text{aŋŋal lu min i u i set ta} \]
‘Much righteousness let it shine (and) bring here virtue!’

Other min signs with ligatures include tu min tu ‘to experience glowing purity’, ii min-i ii ‘thou give illumination, thou give it (now)!’ For example:

Uss tu tu pu-ga e tu ta

‘Fate (is) to experience glowing purity. Mayest thou flourish [here and] give [me] virtue!

The Harappan seals were found at many Harappan sites. These seals were massed produced and we find many seals with the same inscription. Many of these seals have been published by researchers at the following web site: http://www.harappa.com/indus2/index.html
ANCIENT DRAVIDIAN: AN INTRODUCTORY GRAMMAR 
OF HARAPPAN WITH VOCABULARIES

- Clyde Ahmad Winters

Introduction

Scientists have the responsibility to make scholars aware of the decipherment methods used to assess ancient records. As a result we can never fully understand Harappan Society or history for this matter, without an understanding of the Indus Valley/Harappan writing. The purpose of this monograph is to help the student of Harappan writing/history obtain an understanding of the Harappan script and show them how to interpret the signs.

Harappan writing is written in an aspect of Dravidian similar to Tamil. This supports Mahadevan (1986) and Fairser (1986:115), view that the Harappan language might be related to the Tamil-Karnadā language. Moreover Parpola (1986), has also discussed the homonymy between Harappan and Dravidian words.

The Harappan seals are amulets or talismans requesting some form of blessing for its bearer, from his personal god. These inscriptions were formed by a simple word, or by the addition of introductory elements.

In the Harappan script the same sign can serve both as a noun and verb.

The discovery of seals in almost every room in many excavated Harappan buildings by anthropologists, suggest that the knowledge of writing was widely used in the Indus Valley. This view is supported by the fact that inscriptions are found on many artefacts discovered at Harappan sites including pottery, axes and copper plates. (Parpola 1975)

This article is written for beginners. It is a short concise 'text book' with practical exercises.

This article has been designed to meet both the needs of the student in the classroom setting as well as the private student. The article is divided into three parts.

It also has exercises. Once the student completes these lessons he should be able to read most, if not all the Harappan seals.

To use this text effectively the student must memorize the basic 62 syllabic signs and select lexicographic Harappan signs. The student should also pay strict attention to the sections on nouns, pronouns, verbs and adjectives which must be committed to memory.
Ancient Dravidian: An Introductory Grammar of Harappan with Vocabulary

Aryan farmers from eastern Anatolia were settled at Mehrgah in Baluchistan. From here Renfrew (1987) believes the Indo-Aryan speakers migrated into Pakistan and later North India. The Indo-Aryan languages were, according to Renfrew (1987), later influenced from the northwest in the second through first millennia B.C. by non-I.E. speakers. D’ikoven (1985), on the other hand believes that the Balkan-Carpathan region was the Indo-European (I.E) homeland. He believes that the spread of the Indo-Aryan speakers was not from Asia Minor into the Hindukush region. According to D’ikoven (1985:143), the Indo-Aryan migration was across forest-steppe and deciduous forest zones into the Hindukush.

The Vedic Aryans are associated with the Painted Gray Ware (PGW) ceramic tradition of northern India (Lai 1954). The beginning of the PGW phase has been extrapolated back to 1000 B.C. (Raman 1978:119). J.P. Joshi (1978), during his excavations in Haryana and Punjab around PGW dating to 1300-1600 BC. The radio-carbon dates from PGW is far too late to support an Indo-Aryan hypothesis for the Harappan language.

Recent research in the Indus Valley indicated that the Indus River was much wider and had more tributaries over 3500 years ago. For example, evidence suggest that the Sabarmati river or one of its branches once flowed near the site of Lothal. (Fairsevis 1975) This drying up of rivers in the Indus Valley probably caused the north Indian Dravidians to migrate southward. This would explain the spread of Harappan culture into Gujerat, Punjab, Haryana and parts of western Uttar Pradesh between 1700-1000 BC. The major centres of Harappan habitation in Gujerat were Saurashtra and Kutch before they became semi-arid.

It would follow from this hypothesis that by the time the first waves of Indo-Aryans arrived in the Indo-Iranian borderlands ecological conditions had improved, and Indo-Aryans began to settle areas formerly occupied by Dravidian speaking Harappans. Other Dravidian speaking groups living in isolated villages in the Punjab and Haryana, probably allowed Indo-Aryan tribal groups to settle in their urban centres. This would explain the association of BRW with PGW in the Punjab dating to 1000-1300 BC. (Singh 1982:xii) It would also explain the mention of the highly developed civilization of the non-Indo-Aryan speakers in the Rig Veda.

The second and minor wave of Indo-Aryans probably entered northern India around 1000-800 BC. This would explain why almost all of the dependable PGW dates cluster around 800 - 350 BC. (Aryawal & Khurjan 1974:132)
By the advent of the second Indo-Aryan migration the Dravidians were weakened by drought and famine and they were easily defeated and pushed out of the Gujarat. The PGW folk pushed the Dravidians into the Dekkan.

Due to the early Dravidian presence in Northern India there is a Dravidian substratum in Indo Aryan. There are Dravidian loans in the Rig Veda, even though Aryan records of this work were situated in the Punjab, which was occupied around this time by the RS BW using Dravidians.

Emedene and Burrow (1962), have found 500 Dravidian loan words in Sanskrit. The number of Dravidian loans in Indo-Aryan are expected to reach 750.

Indo-Aryan illustrates widespread structural borrowing from Dravidian in addition to the lexical loans. For example, Kulper (1967) has noted the increasing frequency of dravidian type retorflex consonants in Indo-Aryan. Southward (1977), has also recorded the Dravidian structural features borrowed by the Indo-Aryans.

There are numerous examples of Indo-Aryan structural borrowings from Dravidian. For example, the Bengali and Oriya plural suffix -ra is analogous to the Tamil plural suffix -ra. Both of these suffixes are restricted to names of intelligent beings. (Chatterjee 1970:173) Oriya borrowed the -gula plural suffix from the Dravidians. (Mahaputra 1983:67)

The syntax of the Indo-Aryan languages is ambivalent because of the Dravidian influence on these languages. As a result, they represent SOV, and SVO traits. For example, although the Indo-Aryan word order is SVO, it has a dual complement system reflecting the SVO and SOV patterns. Kulper (1974), observed that the Sanskrit left-located complement syntax illustrated by the compiler & results from a Dravidian influence. Kothehandaraman (1968), has shown how the comparators in Nepali, in Bengali boli, in Oriya boli and in Marathi marhun are explained by Dravidian.

This suggests that the Dravidian influences on Indo-Upan results from a former vast bilingual belt in ancient India, which led to the Indo-Aryan adopting of Dravidian traits into Indo-Aryan. Kothehandaraman (1988:199), is positive that the linguistic evidence indicates widespread Dravidian settlement up to Nepal in the Himalayan shoulders, through Bengal and Orissa in the east and Maharashtra right above Karnataka in the western zone.

Tamil has preserved the proto-Dravidian phonemic and morphemic systems. Tamil is also closely related to the vocabulary of the Harappan inscriptions.
BLACK AND RED WARE

Archaeologists agree that the BRW industry unearthed on many south Indian sites suggest the former presence of Dravidian speakers at these sites. (Lal 1960) The BRW style has been found at the lowest levels of Madurai and Tirukkampuliyur.

B.B. Lal (1963), has observed that the BRW discovered in Nubia, dating to the Kerma dynasty of Kush was genetically related to the BRW of Megalithic India. Today many scholars suggest that this style of pottery, which dates back to 400 BC, may have radiated from Nubia through Mesopotamia and Iran Southward into India. (Singh 1982)

The earliest occurrence of BRW in South Asia, occurs on the Kathiawad peninsula, parallel ware has been found at the lowest levels of Harappa and Lothal dating to 2400 BC. (Rao 1972) Dr. Nayar (1977), has shown that the Harappan BRW has affinities to predynastic Egyptian and West Asian BRW dating to the same period. Rao (1972), has established the continuity of the BRW industry.

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 Plain. The BRW of Gujrat between 1700-1000 BC, was in communication with the Dravidians of the Malwa culture. The BRW prevails in the Malwa culture occupied the Tapi Valley, Pravara Godavari and the Karna valleys. As a general rule the BRW horizon precedes the PGW period. (Singh 1982:x11)

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

Graffiti, on the pottery from Swat chuchistan agrees with the Harappan signs. Graffiti is also a regular feature of South Indian pottery of all types found on many megalithic sites, especially in the southwestern part of Karnataka and the eastern section of Tamil Nadu. The megalithic pottery was found in pit-burial sites and round houses. This graffiti tradition is associated with the BRW tradition.

The graffiti on the BRW also supports the Dravidian speakers as the ancestors of the Harappans. Lal (1960), illustrated a link between the Harappan writing and the south Indian megalithic BRW. Lal (1960), found that 89 percent of the marks agrees with the Harappan script.

The survival of the graffiti/Harappan symbols from the Harappan Chalcolithic pottery to the South Indian megalithic ceramics suggest the survival of cultural elements from the Harappan period to the South Indian ancient Dravidian: An Introductory Grammar of Harappan with Vocabularies. Megalithic period. (Lal 1960) These graffiti marks are ideographic symbols engraved on the pottery. (Winters 1984a, 1984b, 1987)

Evidence supporting the Dravidian character of the Harappan script was discovered by Russian (Korotov 1979) and and Scandinavian (Pecota 1988) scholars utilizing computers to decipher the Harappan writing and B.B. Lal. (Lal 1960), after comparing the graffiti marks on the South Indian megalithic black and red ware discovered that the script was written from right to left. This view was later confirmed by I. Manadavan (1986).

Zvelebil (1972), has suggested that the homeland of the Proto-Dravidian was situated in the uplands. Due to the genetic links between the ancient Dravidians, 1) the BRW tradition and 2) African languages the probable ancestral home of the Dravidians was the Saharan Highlands. (Winters 1985)

The ancestral culture of the Proto-Dravidians was sedentary-pastoral. They herded cattle, fished and collected grasses for food. (Winters 1985:3)

Ethnically the Proto-Dravidians belonged to the classical Mediterranean type found in the Sahara region around 7000 BC. (Winters 1996) There was a continuity and homogeneity of the classical Mediterranean type from Middle Africa to India. (Nayar 1977) Skeletions of the Mediterranean type found in the Indus and South India are analogous to those found at Kush and pre-dynastic Egypt. (Lahorey 1987:37)

The archaeological evidence supports Zvelebil's suggestion that the separation of South Dravidian took place prior to 1500 BC. Tamil and Kannada probably developed into two distinct subgroups after the rise of the Harappan civilization, and was completed after the decline of civilization in the Indus Valley.

The earliest Tamil speakers probably represented the Harappan sedentary-pastoral-mixing groups which spread across Central Asia and China with their BRW. V. Karakasabahi, in The Tamil Eighteen Hundred Years Ago, has highlighted the entry of Tamils into south India, from southwest Asia and East Asia. (Winters 1985, 1986) has outlined the dispersal of Dravidians into Central Asia and China, and their migration into south India after the rise of the Qin and Han dynasties of China. (Winters 1990:130-132)

The Kannada speakers probably represent the bearers of Harappan culture, who settled in Gujarat and Punjab between 1700-1000 BC. From these centres they were pushed southward due to progressive aridity and Indo-Aryan raids.
Fr. Heras, was the first to attempt to read the Harappan writing as Proto-Dravidian; his reconstructions are not scientific, but he provided the first sophisticated chronology, to link the Harappan script to other parallel writing in antiquity.

Scholars dispute Heras, de-cipherment because his reconstructions of proto-Dravidian was too close to Old Tamil. This analogy is false due to the theory of linguistic constancy, there is no reason to see that much change between proto-Dravidian and modern Dravidian, due to the stable nature of Dravidian socio-political structures. Zvelebil (1972), has noted the ‘remarkably conservative’ nature of Dravidian languages.

The concept of linguistic constancy means that the evolution languages instead of moving everywhere at the same rate of speed, seems to be linked to other factors such as stability or instability of social organizations. Understandably, in a culture like that of the Dravidians which has historically been stable language would move more slowly, as opposed to unstable societies such as those of Europe and greater Asia.

The comparison of modern Dravidian languages to Elamite, Urnian, Sumerian, and Sasanian Tamil and modern Tamil, all show glacial, or geological slowness of the rate of change taking place in Dravidian languages as compared to the changes which have taken place among the Indo-European languages. (Winters 1989b). Granted were has been some changes in Dravidian languages, but in general Dravidian has remained relatively stable for over 4000 years.

The major reason, we cannot accept Fr. Heras decipherment is because her does not present a scientifically and linguistically accurate notion of the structure of the Harappan writing so it could be read by other scholars.

The decipherment of Harappan writing by Fr. Heras would be more accurately viewed as an interpretation of the Harappan writing like those of Meriggi and Pettie, rather than an actual decipherment.

Russian and Scandinavian scholars in the late 1960's began to utilize computers to help them decipher the indus signs. The Scandinavian team made many important discoveries concerning the nature of the script such as: 1) they found that the Indus writing was a logogramsiblic script; 2) they discovered the language of the writing was agglutinative, and in all probability a member of the Dravidian group; 3) they discovered the script should probably be read from right to left; 4) they found that the animals on the seals represented gods; and 5) they also found that many of the words used on the seals were homophones. Although they broke the code of the Indus writing according to Asko Parpola (1973), “much remains to be done before we can read all the inscriptions”.

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In conclusion, the Harappans spoke a Dravidian language. The Dravidians as evidenced by the numerous place names they left in Iran (Nayar 1977), and Central Asia (Winters 1986, 1988) and the Dravidian substratum in Indo-Aryan all support the presence of Dravidian speakers in the Indus Valley before the Indo-Aryan migrations into the Indo-Iranian borderlands. (Winters 1990). The dates for PGW support the chronology for the Indo-Aryan culture in India, no earlier than 1200 BC. The evidence of the Rig Veda would place the upper limit of Aryans in India to around 1100 BC, or as late as 1000 BC. The Harappan dates are much too early for an Aryan presence in the Indus Valley before the decline of Harappan civilization.

Harappan Civilization

The Harappans occupied over a thousand sites, mostly in the Indus Valley. The Harappan sites are spread from the Indus Valley to Ai Khanoum in northeastern Afghanistan. (Winters 1990)

The earliest Asian settlements of the Proto-Dravidians were probably established in Iran. K.H. Menges (1968), using linguistic data assumes an early settlement of Dravidian speakers far to the northwest on the Yarkhan plateau and an area extending into what is now Turkistan. (Winters 1986a, 1988a). Zvelebil (1972), has hypothesized a southeast migration of Dravidian speakers out of northeastern Iran down into Tamil Nadu.

The Harappans influenced Turkmenia as indicated by the imported seals found at Abyan Depe. This view is also supported by the Indus Culture colonies in the Luristan regions of Badakhshan in northern Afghanistan. (Winters 1986, 1990) Many archaeologists agree that the Harappans probably controlled the lazurite, and the route to the tin and copper fields of Central Asia. (Brejtez 1983). Much of the lazurite taken to Mesopotamia was taken there by the Harappans. The Harappan presence in Mesopotamia as masters of the lazurite trade supports Prof. Kramer's hypothesis that the Indus Valley culture was called Gilman, a major centre for the export of lazurite to the Sumerians and Akkadakos. (Winters 1990)

The identification of the Indus Valley civilization as Dilmun, would explain the interaction between the Harappans and contemporary civilizations to the West, in the 3rd millennium BC.

The Indus region is an area of uncertain rains because it is located in the fringes of the monsoon. (Parfensyev 1987-47). Settlers in the Indus Valley had to suffer both frequent droughts and floods. Severe droughts frequently occurred in the Indus Valley so the people dug wells.
To compensate for the adverse ecological conditions the Harappans first settled sites along the Indus river. (Fairservis 1987:48)

The Harappans occupied over 1,000 sites in the riverine Indus Valley environments where they had soil and water reserves. The Harappan sites are spread from the Indus Valley to Al Kharoum in northeastern Afghanistan. In this area today Dravidian languages are spoken in Baluchistan and Afghanistan.

The Harappans were organized into chiefdoms, between two and five acres in diameter. (Fairservis 1987) The Harappans were a sedentary-pastoral people organized into various corporations such as sailor-fisherman, smiths, merchants and farmers. Harappans also possessed a social technology of writing and seals.

Harappan sites are small and occupy only a few acres with little depth. This suggest that the colonists settled the area for only a few decades. (Fairservis 1987:46) Fairservis (1987:47), has shown that the site of Mohenjo Daro was occupied for around 200 years.

The Harappan influence also extended to central Asia. (Winters 1988a, 1988b) In Turkmenia, at Ayin-Depe, Harappan seals have been found. This view is also supported by the Indus culture colonies in the luzurite regions of Badakhshan. (Winters 1993) Henri-Paul Francfort (1987), has discussed the Harappan site of Shortughai on the Oxus river.

The presence of Indus Culture settlements within the luzurite region of Badakhshan; has led many archaeologists to suggest Harappan control of the luzurite and the route to the tin and copper fields of Central Asia. (Brentjes 1983; Winters 1990)

Here is toponymic and linguistic data which identifies the Dravidians as the Harappans who colonized much of central Asia to exploit its metals. (Winters 1988) Toponyms provide important information about the past. Important topographical features for large rivers and mountains are very persistent and resist replacement even after speakers of an earlier language are replaced.

In Central Asia the Dravidians have left many place names associated with mountains and rivers. (Nayar 1977; Winters 1986a, 1986b) The Dravidian languages are the substratum of the Tocharian languages formerly spoken in Central Asia. (Winters 1988a)

Brentjes (1983), believes that the Harappans also controlled the Persian Gulf routes to Mesopotamia to insure their domination of the luzurite trade. It is interesting to note that forty-four Harappan seal have been found at fifteen sites in the Near East. (Parpola 1989)

Cultural interaction existed between the Harappans and contemporaneous civilizations in the 4th and 3rd millennium BC. At this time an extensive trade network connected the Proto-Dravidians of the Indus Valley with Egypt, Sumer and Elam. (Winters 1986c) Vessels from IVth workshop at Tepe Yahya, have a uniform shape and design. Vessels sharing this style are distributed from Soviet Uzbekistan and the Indus Valley. The intercultural style vessels show clear parallels between Indus Valley and Sumerian, Elamite, and Egyptian sites.

It is no longer believed by most researchers that Indo-Aryans drove the Dravidians out of the Indus Valley. The migration of the Dravidians southward from the Indus Valley was probably prompted by declining ecological conditions in this area over the past 3600 years.

The Indo-Aryans probably entered northern India in two waves, a peaceful infiltration wave between 1000-1300 BC, and a wave of conquest after 1000 BC. Due to the patterns of Indo-Aryan infiltration and settlement of India, there formerly probably existed vast bilingualism. (Winters 1990:133-137)

The Northern Dravidian speaking tribes living in highland areas in north India/Pakistan were probably least affected by floods or increasing aridity in the Indus Valley. Flooding was a major problem for the Harappans. The recurring flood waters of the Indus and Ganges repeatedly laid waste the Harappan cities. The Harappans may have grew tired of fighting the floods, so they moved away.

The Harappan Religion

The inscriptions on the Harappan seals provide us with the necessary information to explore aspects of the religion of the Harappans of the Indus Valley. The Harappan writing is written in the Dravidian language. (Parpola 1986; Winters 1984a, 1984b) The script is analogous to other writing systems used in the 3rd millennium BC and earlier. (Winters 1989; Parpola 1986)

The Brahmanical emphasis on ritual and priesthood was alien to the Harappan environment. The Harappan seals indicate that the Proto-Dravidians of the Indus Valley placed emphasis on the individual obtaining perfection in the sight of his god. As a result the Harappan man had to live righteously to find a place in the hereafter. Although it was the desire of the Harappans to live towards righteousness they fully understand that their personal deity determined their fate.

The proto-Dravidians of the Indus Valley originated in the Saharan highlands 10,000 years ago. (Winters, 1985a) The ancestors of this group...
were original Mediterraneans. This Mediterranean type originated in the Sahara by at least 8000 BC.

The proto-Dravidian economy was diversified and shifted from hunter-fisher-gatherers to sedentary pastoralists after 7000 BC. The bioarchaeological remains of the Sahara indicates a mixed economy based on the herding of cattle and goats, and the cultivation/collecting of barley and/or millet. (Wendorf, Close, Schiefel 1985)

The ancestors of the Harappan domesticated cattle and goats to ensure a reliable source of food as climatic changes in the Sahara began to cause a decline in available grains for collection. Between 7000-5000 years before the present (BP) the proto-Dravidians began to specialize either in a pastoral, food producing, or mixed food producing/collecting/hunting economy. (Winters 1985b)

The economy of the various proto-Dravidian tribes determined the Harappan gods. Due to the influence of hunting and pastoralism on the proto-Dravidians they chose animals to represent their deities. For example, since most proto-Dravidians herded cattle and collected grains, the symbol for their deity were the cattle domesticated by a particular proto-Dravidian group.

A hunter-gathered proto-Dravidian group might adopt the hare, as its deity, because the hare is a master of living off the land in whatever environment it is found. The Harappan hunter tribes probably chose totems for themselves that illustrated great hunting prowess such as the tiger, lion and etc.

The proto-Dravidians lived in the Saharan highland between 7000-2500 BC. This area formed a Fertile Crescent. Given the abundance and richness of the highland areas of middle Africa before the Sahara became a desert the highland areas were probably seen as a “mountainous paradise” : Kumari.

The early Harappans probably first settled the Indus Valley in search of metals to ship back to middle Africa and Mesopotamia, (Winters 1990) This is supported by the fact that the Harappans controlled the lacquer route to the Central Asian copper and tin fields. (Brennes 1993:243) As a result they built their towns near rivers so the metals could easily be shipped to their foreign markets.

More and more proto-Dravidians left the Sahara to settle the Indus Valley in search of prosperity through the exploitation of local resources or provide goods and serves for citizens in the Indus Valley towns. The Indus Valley towns grew into major urban centers.

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Although the major deity for Harappans were cattle, many clans derived from a hunting and gathering lifestyle continued to worship their own gods. This religious diversity made the Harappan society pluralistic.

The Harappan seal text are very short. They usually number three or four signs per seal. In this way they are similar to later Indian seals and their inscriptions studied by K.K. Thapliyal in Studies in ancient Indian Seals. The seals in this book date from 300 BC to AD 700.

Harappan texts are found in over 4000 inscribed seals. The seals were amulets, tied with string and carried worn by the Harappan people (Winters 1984a). The Harappan writing is read from left to right.

The existence of diverse religious traditions for the Harappans led to a remarkable spirit of tolerance. The existence of diverse totemic deities on the Harappan seals suggest that at the height of this civilization temples for the Bull, Hare, Tiger and Elephant gods co-existed and festivals by the members of the different religions were conducted without conflict.

The bull was the major Harappan deity, due to the sedentary-pastoral origins of many groups in the indus Valley. Cattle probably represented security to proto-Dravidians because whereas the collectible grasses disappear in much of middle Africa when arid conditions arrived around 5000 BC cattle remained a suitable source of food since it could subsist from eating marginal grass unfit for human consumption.

The Indus people possessed two species of domesticated cattle Bos taurus and Bos indicus. Marshall (1931:2649), notes the use of cattle in the Indus Valley as a source of food. This view is supported by Mackay’s (1938), discoveries at Mohenjo Daro and Chando Daro.

The bull was sacred among the Harappans. The bull with horns thrust forward is the most popular engraved image on the Harappan seals.

Today the Dravidian language gives testimony to the former worship of the bull. As a result of this former worship of bulls the word for bull is often associated with greatness e.g. Tamil pirappam and dēy in the case of the Tamil morpheme mēl, this term denotes ‘bull’, plus the vessel used in sacrifice.

The predominance of the bull theme in the Harappan seal inscriptions indicate that this deity was the major deity for most Harappans. The other animal totems on the Harappan seals were probably worshipped by smaller totemic group which lived in the Harappan sites.

The usual classes of the Harappan zoomorphic representations on the seals are the bull with horn thrust forward, or the so-called unicorn; water buffalo; short horn buffalo; humped bull; elephant; mino; tiger; lion; and mythological animals.
The principal Harappan deity was the unicorn. The unicorn may have represented Mā (Vishnu or Katarī). This god was held in high esteem by the cowherds and shepherds. The wife of Mā was the mother goddess Uma, Amā, Kālī or Pravarī.

The original mother goddess may have been Kālī or Kāluḍā. The dark lady in Dravidian, Kālī refers to herds or cows. The term for oxen in Dravidian is Kēḷai, which also means warrior. This goddess may have been represented by the oxen on the Harappan seals.

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

The castrated bulls on the Harappan seals probably denote the rule of the patriarchy which was symbolized by cattle herding man's submission to the mother goddess. Since the bull through castration illustrated the male recognition of the female as superior.

Śiva, was probably represented by the short horn bull. The elephant on the Indus seals may represent Gaṇeṣha, the elephant-headed god. Gaṇeṣha, was an aboriginal god of India. In the Laws of Manu, it is written that Gaṇeṣha is the god of the shudras, the aboriginal population of India. The Tamilian name for the elephant god is Pāḷāyaṉ. Pāḷāyaṉ and Vaṭām.

The elephant is considered to be the shrewdest animal. He is associated with Harvest time, abundance and luck.

The appearance of the mythological animals on the seals may refer to Gaṇeṣha as one of his many transformations.

The hunter figure depicted on the seal wearing a horned head - dress and armed with a bow and arrow, probably represents, Muruga, the son of Uma. This is only a summary of the possible identities of the Harappan forms, and the gods depicted on the seals.

The Harappan seals and copper tablets are amulets or talismans. They are messages addressed to the Dravidian gods requesting their support and assistance in obtaining ājām (Benevolence).

The god of the Harappans was the "real" God. The superior man was one who "realizes God." Each god depicted on the seals was probably the totemic deity of a particular Dravidian clan or economic unit. As a result each god was seen by his followers as 1) a god having no equal, 2) a god having neither Karma and 3) as a god who is the ocean of ājām.
The Harappan seals indicate that the most important goal of man is again the inclination or tendency to perform charitable acts. The Harappan sought righteousness and a spotlessly pure mind. Purity of mind is the sine qua non for happiness 'within'.

Harappan man, as indicated by the seals, was seeking the avoidance of all mental evils, viz., jealousy, covetousness etc. Fear of evil (deeds) instinctively was the objective of the Harappans. This was obtained when one shudders even at the idea of evil deeds instinctively.

It appears that Harappan man believed that man must do good and live a benevolent life so he can obtain pujap (name) for his right doing. Through the adoption of benevolence an individual will obtain the reward of gaining the good things of the present world, and the world beyond.

The Harappan signs are read from right to left.

The Dravidians of the Indus Valley recognized two forms of Fate or Path of Life. These forms were pa (1), which means division or distribution; and ussapha, the comprehensive form of Fate. This word - uss signifies the dynamic force of God as determinant of his servant's fate and holder of the reins of power to dispense Justice. The Harappan -uss corresponds to Usr the 'Life Power Aspect of Fate'. For example see figure 4.1.

Ancient Dravidian : An Introductory Grammar of Harappan, with Vocabularies

1. Vay-ga Uss min Puka Uss
   "Balance blooms Fate, illumination (and) a glorious Fate".
2. Tg Ga-vey Uss
   "Make virtue blossom Fate".
3. Tg ga vey Uss ḫūṛ
   "Make virtue prosper (I hope) to experience immaculateness".
4. Tg ga Uss a-mig Uss ḫūṛ
   "Make virtue (my) Fate, (I hope) to become illuminated (so as) to see/ view Balance".

Among the Dravidians during the writing of the Tolkappiyam paṭi(1), denoted Karma. pāṭi was considered in Sangam times as the sum and the consequences of a person's action, i.e., his fate, destiny. The use of pāṭi to denote fate or the law of nature was also used by Tiruvalluvar.

K. Appadurai, in The Mind and Thought of Tiruvalluvar, noted that pāṭi(1) "its external form is the veḍa or word of God that makes everything perfect, undying, everlasting and that forever grows, and is growing into Eternal Bliss". In figure 4.2, we have several examples of the use of paṭi in the Harappan writing.
1. Tā vēy pā oppo Uss
   "Give (me) awareness distribute (it to me) now! as my Fate;"
   or
   "Give much awareness (to my) Karma Now! As my Fate;"
2. Tā vēy pā say ū Uss
   "Give awareness make the consequence of my life a pious and Virtuous Fate;"
3. Pā ū say Uss
   "Distribute purity and rectitude as my Fate;"
4. Pā oppo Uss tū tū
   "Distribute Now! a fate encompassing much virtue/purity;"
5. Uss pā Kumari Uss
   "(God you are) Justice dispense Kumari as my Fate;"
6. Tā vēy e mē sātu up pa
   "Give (me) awareness increase my illumination (and) give (me) virtue. (Make) Salvation my distribution/Karma;"
1. Ya Ka
   "Abundant Protection; Abundant Balance."
2. Ka ilu utata Uss
   "Balance thou give in abundance; bring (me) a glorious Fate."
3. Ka il miq ura beka
   "Balance thou give illumination, bring here rectitude."
4. Ka il uy aqnal
   "Balance, thou give the soul righteousness."
5. Ke vety us a-miq Uss ka
   "Make (my) Fate to blossom, come into being illumination, a balanced Fate."
6. Tavi-vay e miq i ka ka
   "Give (me) bloom, give (me) illumination, give Balance to me, God."
7. il ka
   "Thou give balance."
8. Tu gi vety Uss ka
   "Make virtue bloom (and) a balanced Fate."
9. Ayappai ka il al ippo
   "The spiritual path is Balance, thou give (it to you) servans now.

FIGURE 4.4

Ancient Dravidian: An Introductory Grammar of Harappan
with Vocabulary

10. Say ka tupa tupa
   "Merit (and) Balance, to see a flourishing condition (here), purity and
   richness."
11. Puuka (8) il miq miq il Ko
   "Glory thou give its illumination, give (me) Enlightenment, give Balance
to me God."

or
   "Equality of Division thou give its illumination, give (me) Enlightenment,
give Balance to me God."

The major concern of the Dravidians of Harappa was the spiritual
call to the next world. The term used in the Harappan seals is Agappai
the Inner Path, which has to be taken by man to reach the other world.
In figure 4.4, we give many examples of the use of agappai in the Harappan
text.
Ancient Dravidian: An Introductory Grammar of Harappan with Vocabularies

The Harappans believed that noble people will find a place in Heaven. Thus on many seals we find mention of the Harappan paradise Kumari. This mountainous sign for the Harappan paradise probably resulted from the earlier habitation of the Proto-Dravidans in the Saharan highflats, before the Sahara became a desert. In figure 4.3 we give examples of the Harappan use of Kumari.

1. I-l’si Kumari navya
   “Thou give (the) flourishing condition: Give Kumari (as my) Fate.”
2. P’si Kumari navya
   “(God) Disperse Kumari (as my) Fate”.
3. U’si Kumari navya
   “(God you are) Justice, dispense Kumari as my Fate”.
4. Tatu Kumari say us ka-v’a bi-ni
   “Give me virtue, Kumari — make (my) Feet blossom balance; it is to become illuminated indeed, distribute this as my Fate.”

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- Part II The Harappan Sihgs and Part III Harappan Dictionary Grammars will follow in the ensuing issues of JOTS.
ANCIENT DHRAVIDIAN: AN INTRODUCTORY GRAMMAR OF HARAPPAN WITH VOCABULARIES

I CYLDE AHMAD WINTERS

PART II: THE HARAPPAN SIGNS

The authors of the Harappan seals were Dravidian speakers. (Winters, 1984a, 1984b) These Dravidian speakers originally lived in Saharan Africa, until their migration (waved) into Asia after 3000 BC, as the Sahara began to decline into a desert. (Winters, 1985a)

The ancient Dravidians lived in the Sahara alongside the Elamites, Mardings and Sumerian speakers. (Winters, 1984a) As a result the speakers of these languages share culture items, including writing. (Winters, 1985a)

I call the ancestors of these Saharan tribes the Proto-Saharans.

The ancestors of the Harappans were of Mediterranean origin. They came from middle Africa. Subsistence agriculture arrived in the Sahara during the seventh millennium BC. By the time the Proto-Saharans (ancient Mediterranean tribes) were using a dotted wavy line pottery known as Kharid or ware. By 4000 BC, the Proto-Saharans were using a common red-and-black ware, that was taken by this group to their colonies in Asia after 3500 BC. (Winters, 1985b)

By the fifth millennium BC we find herding groups in the Hoggar and Aur solid in the Saharan region. These people were pastoralists with domestic sheep, dogs and goats. At some sites in the Sahara archaeologists have found painted slabs with paintings of cattle with rope leads around their neck dating between 5000 and 2500 BC.

Due to the importance of domesticated animals to Proto-Saharan civilization, cattle and rams became a symbol of their gods of great ancestors. For example, Amon was the ram god of Egypt.

The most widespread migrations of the Proto-Saharans were undertaken by the Proto-Mande / Manding speakers and the Proto-Dravidians. The Dravidians in addition to early settling parts of Iran and the Indus Valley, they also settled in China. (Winters, 1985b) In Asia Minor, the Lydians or Thracians may have been a colony of the Dravidia or Tamil people. (Arserelin, 1965)

The Mande also settled large parts of Africa and Asia. In Asia, the Mande settled Iran and China; in Africa they were called Manda, and may have played an important role in the rise of the Mande and Shang
Ancient Dravidian: An introductory Grammar of Harappan with
Hittite adjectives

(Winters, 1986b) The Mande may have also founded Minian
Cretan and wrote the Linear A tablets. (Winters, 1983b) An important
Mande tribe in North Africa was the Garamantes. (Winters, 1986b)

It is clear that a common system of record keeping was used by
people in the 4th and 2nd millennium BC from Saharan Africa, in Iran,
China and the Indus Valley. Although the Elamites and Sumerians
abandoned the Proto-Elamite writing and Urn script in favour of cuneiform
writing, the Dravidians, Minians and Manding continued to use the
Proto-Saharan script. (Winters, 1986b)

Due to the common cultural origins of the Elamites, Dravidians Manding
and Sumerians led to the cultural vessels appearing among these people.
Vessels from IVBI workshop at Tepe Yahya have a uniform shape and
design with other vessels distributed from Egypt to the Indus Valley and
Soviet Uzbekistan.

The languages of the Dravidians, Elamites, Sumerians and Manding
are genetically related. (Winters, 1985d, 1988b) N. Lahovsky noted
structural and grammatical analogies of Dravidian, Sumerian and Elamites.
K.L. Matarayan (1975), provides hundreds of lexical correspondences
and other linguistic data supporting the family relationship between Sumerian
and Dravidian. C.A. Winters (1980, 1985d, 1988b) and L. Homburger
(1951) have provided evidence of a genetic relationship between the
Dravidian languages and the Manding group.

<table>
<thead>
<tr>
<th>Proto-Saharan Script</th>
<th>Linear B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500 BC</td>
<td>Linear B</td>
</tr>
<tr>
<td>1500 BC</td>
<td>Linear B</td>
</tr>
<tr>
<td>1000 BC</td>
<td>Linear B</td>
</tr>
</tbody>
</table>

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The oldest dated inscription which relates to the Indus Valley writing comes from the Western Sahara. The so-called Libyan writing was written by the Manding (Winters 1984a). The earliest Manding inscriptions found so far were located at Oued Mertoule which has been dated to 3000 BC by Wulkin (1940).

The Indus Valley writing is also related to Linear A writing (Winters, 1984a). It also has affinity to the Proto-Elamite script (Langdon 1931). The analogy between the Uruk writing, Proto-Elamite, Linear A, the Mande script and the Harappan writing, suggest that an ancestral Proto-Saharan syllabic script was invented in middle Africa over 5000 years ago which was later taken by the Proto-Saharian as they moved to colonize Asia, Europe and parts of Africa. This is the only way we can explain the presence of identical scripts from Africa to the Indus Valley which agree in shape and phonetic values.

This script was used by the Proto-Saharians to make amulets and write talismanic messages on pottery and amulets. The Proto-Saharians either engraved their syllabic scripts on rocks, or used a stylus to engrave wet clay. This view is supported by the fact that the term for writing often has the long "tu" attached to various initial consonants usually "tu", "tu" or "tu".

For example, writing in Sumerian was "tu" and Shu, Elamite Taku and Dravidian cāru. The Sumerian Shu agrees with Manding Sāwē.

The Dravidian writing was early suspected as the language inscribed in the Harappan writing. The first scientific evidence of a Dravidian connection to the Harappan script was discovered by B.B. Lal (1960). Dr Lal (1960), who had conducted many excavations in Nubia, and the Indus Valley, illustrated that the graffiti marks on the megalithic red-and-black ware, has affinity to 89 per cent of the Harappan signs. In addition, as a result of overlapping symbols on inscribed seals and potsherds from Bakarganj, B.B. Lal found that the Harappan script was written from right to left.

The fact that the Harappan signs share the same sound values as the Dravidian script, makes it possible to read the Indus Valley writing. (Winters, 1984a) Parpola (1986), has suggested that the method of equating similar looking symbols in other pictographic scripts and reading them with their own phonetic value is a dead end method for decipherment. This may be true in relation to pictographic scripts, but the Harappan script is a logo-phonemic writing system. Thus the syllables which retain constant phonetic values can be used by different groups to write their own languages.
As you can see from this comparison of Semitic and Brahmi scripts, they lack phonetic conglomeration.

It would appear that the Brahmi script was originally invented for a non-Sanscrit language. Mahalingam (1967:13) has discussed the evidence suggesting that the Brahmi script was originally used to write a language spoken by non-Vijayan.

The decipherment of the Harappan writing makes it possible to now compare the Harappan script and the Brahmi script. This comparison shows many points of agreement between these two writing systems.

The Brahmi and Harappan writing share the primary use of three vowels: a, i, and u (see fig. 5-3).

Vowels

<table>
<thead>
<tr>
<th>Brahmi</th>
<th>Indus Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>ए</td>
<td>E</td>
</tr>
<tr>
<td>इ</td>
<td>I</td>
</tr>
<tr>
<td>ई</td>
<td>C</td>
</tr>
</tbody>
</table>

There are 36 characters in the Brahmi semi-alphabet. In the comparison of 22 Harappan signs and Brahmi signs in figure 5-4, we have the following results:

1. 15 signs have identical phonetic values and shapes.
2. 4 signs show partial agreement in shape and phonetic values and
3. 3 signs show little or no agreement in shape or phonetic value.

Of the 22 Brahmi and Harappan signs compared, 50 percent are identical or share partial affinity in phonetic value and shape. Moreover, given the fact that 19 out of 22 Brahmi characters compared to Harappan signs show agreement in phonetic value and shape indicates almost 90 percent cognation between these two scripts. This average cognation rate far exceeds the number of Brahmi signs which we look familiar to Semitic signs, but lack phonetic agreement. Moreover, there is great agreement between the Mandi and Brahmi signs in shape and phonetic value. (Winters, 1981a). This is very interesting since the Mandi language is genetically related to the Dravidian languages. (Winters, 1983b)

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This suggests that the Harappan signs we see on the seals and cooper images may not be the entire corpus of symbols available to the Harappans. This theory seems highly probable since out of a total of 400 signs there are only around 60 to 70 basic syllabic Harappan signs and 10 logographic signs. The remainder of the Harappan symbols are conjunct signs formed by the joining of two or more basic syllabic signs.

This hypothesis is also supported by a statistical analysis of the Harappan signs and their corresponding use in writing seal inscriptions. An analysis of the Harappan script indicates that 47% of the total of 419 Harappan signs, 113 occur only once, 47 occur twice and 59 occur less than 5 times. This means that around 200 Harappan signs, many of them ligatures, were in general use.

This suggests that the Harappan writing had many other signs used to write inscriptions on perishable items such as skins, leaves or wood which have now disappeared. The presence of additional Harappan signs so far undiscovered would explain the lack of complete agreement between the letters in the Brahmi semi-alphabet and the Harappan syllables.

In conclusion the Harappan Script is a log-syllabic system of writing. Due to shared signs and symbols and the use of animal motifs to express the Indian deity on Harappan and later Indian seals indicate a commonity between the Harappan script and the Brahmi script.

**METHOD OF DECIPHERMENT**

As outlined in chapter two there have been many attempts to decipher the Harappan writing. For numerous reasons these attempts to decipher Harappan failed.

Thousands of inscribed seals have been found in the Indus Valley. The Indus Valley civilization is called Harappan. The Harappan script has been difficult to decipher because of the limited use of the writing. To date the Harappan texts are virtually always brief inscriptions written above a zoological representation.

Whereas other would-be decipherers have attempted to decipher the Harappan writing in isolation Winters (1984a, 1984b) compared the script to other contemporary forms of writing to attempt to try and discover affinities between Harappan writing and other forms of writing used in the 3rd Millennium BC. Winters, is the first to see a relationship between Dravidian writing and contemporary scripts of antiquity. For example Puucis compared 40 Harappan signs to symbols on Elamite seals. He found numerous parallels between the Harappan writing and Elamites, and he suggested

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The script was syllabic. This discovery by Puucis should have been picked up on by later scholars because Sten Konow, has illustrated a family relationship between Etruscan and Dravidian, but it was not. Moreover the research of Lahovary (1957), shows a genetic relationship between Dravidian and other pre-Indo-European languages in Europe and Asia Minor, according to the archeological evidence Cro-Magnon man-the prototype of the European race appeared around 2000 BC.

Another scholar to see a link between the Harappan writing and other ancient scripts was J.T. Cornells. Cornells, (1958) makes a good claim for the African origin of the megalithic script of South India, as mentioned earlier this writing parallels the Harappan script. He accurately illustrated how the signs used by the megalithic builders are found in Egyptian Cretan and Libyan writing (Cornells 1956, Winters 1985c).

The recognition that Dravidian speakers probably produced the Harappan seals suggested the possibility that the comparison of the Harappan script to known writing systems of the 4th and 3rd millennia BC could help in the decipherment of the Harappan script/writing. The soundness of this hypothesis was supported by the evidence of a genetic relationship between the Dravidian group and the Elamite, Manding and Sumerian languages and scripts (Winters 1989c)

Comparative and historical linguistics support the hypothesis that the Dravidian languages are closely related to Etruscan, Manding and Sumerian, David McAlpin (1974, 1981), has been able to illustrate a genetic relationship between the Dravidian languages and Elamite. K.L. Murtarayani, (1975), provides hundreds of lexical correspondences and other linguistic data supporting the family relationship between Dravidian and Sumerian. In addition to this, there appears to be a strong genetic relationship between Dravidian and Central Asian languages.

It is clear that a common system of record keeping was used by people speaking related languages in the 4th and 3rd milleniums BC. The Mesopotamia the Indus Valley. The Harappan script is analogous to Linear A, Proto-Elamite, Manding and the Old Hittite. (Winters 1985c) Fairervis (1986), has suggested a needful origin for the Harappan and related scripts.

Fairervis (1986:106), has pointed out the borrowing of graphemes from proto-Elamite into Harappan and the common technique used by the Harappans and Flamite to use affixes, by compounding one or more signs to create new words. In addition Fairervis (1986), listed 35 signs in Harappan that agree with the Proto-Elamite symbols.

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This view of a common syllabic script for the Elamites, Harappans and Sumerians is supported by the use of cuneiform by different groups in West Asia. The cuneiform script was used to write many distinct languages including, Akkadian, Elamite, Hurrian, Hittite and Sumerian. The key to deciphering the world of cuneiform writing was the fact that each sign had only one value. Decipherment of the cuneiform scripts only took advantage of the language spoken by the authors of a particular group of cuneiform tablets. (Pope 1975: 85-122). Therefore the decipherment of the Persean cuneiform script provided the key to cuneiform cognates. (Pope 1975: 168)

This along with the African origin of the Sumerians and Elamites in the proto-Sahara, also suggested that the Harappan writing was written in the Proto-Saharan script as maintained by the Mamd speakers of Africa who had lived in the Oued Mertouk area around 3000 BC, when the Sahara was more fertile. (Winters 1985b).

In addition to inter cultural pattern which integrate the Indus valley, Elam, Sumer and Saharan Africa, there are linguistic affinities too. K. Lahi, noted many structural and grammatical analogues of Dravidian, Sumerian and Elamite. K. L. Mutteran provides hundreds of lexical correspondences and other linguistic data supporting the family relationship between Sumerian and Dravidian. C. A. Winters (1989b), and L. Homburg (1951), has provided evidence of a genetic relationship between the Dravidian languages and the Marding group.

The oldest dated inscription which relates to the Indus valley writing comes from the western Sahara. The so called Libyan inscriptions were written by the Marding speakers. (Winters 1983a)

The Marding speakers inhabited much of Northwest Africa and the western Sahara as early as 3000 BC. Many of those Marding speakers later settled ancient crete. (Winters 1986; 1986c)

The eastern Saharan Marding speakers were called Garamantes. (Winters 1986). The center of their civilization was located in the Fezzan (Libya). The Garamantes founded Africa, where they worked the mines at aureum. The Garamantes took the goddess Ammon and Dehnet to Europe. The Garamantes also settle Thrace in addition to Crete and Attica.

The Marding left inscriptions throughout the Western Sahara in the Air, Mauritania, and Morocco. These inscriptions engraved on rocks were obituaries at talismanic burial sites. The earliest Marding inscriptions found

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Hakka script. (Winters 1984a, 1984b, 1987] Parpola (1986], has suggested that the method of equating similar looking symbols in other pictographic scripts and reading them with their own phonetic value is a dead end method of decipherment. This may be true in relation to pictographic scripts, but the Harappan script is a logosyllabic writing system. Thus the syllables which retain constant phonetic values can be used by different groups to write their own distinct languages.

Keeping this in mind, Winters examined the Harappan writing and found that when the signs were broken down into their constituent parts they were similar to the Manding signs.

Since the Dravidian language illustrates a genetic relationship to the Mande language of the Mande group, Winters read the Harappan signs which agree to the proto-Manding script in Dravidian orthography. This has led to his decipherment of the Harappan script. Due to the significance of this discovery to Dravidian history, below is a short introduction to the earliest form of Dravidian writing in part three.

Today scholars attempting to decipher the Harappan script, accept the hypothesis that this script was written in an extinct Dravidian. This view is supported by 1) the fact that in the West Indies, a Dravidian language is spoken in Balsuchistan and Afghanistan; 2) the presence of Dravidian loan words in Sanskrit indicates that Dravidian speakers probably occupied northern India when the Aryans arrived.

The hypothesis that the Harappans spoke a Dravidian language led to the decipherment of the Indus Valley script. It is generally accepted that decipherment of an unknown script requires 1) bilingual texts and/or knowledge of the cognate languages. Although the Harappan script fulfilled one of these criteria, the language is known (i.e., Dravidian) up until now no satisfactory decipherment of the script has been proposed.

Using the evidence of cognate scripts and the analogy between the Dravidian language and the languages spoken by peoples using cognate scripts, it was possible to make three assumptions leading to the decipherment of the Harappan scripts.

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 Elamite, Marding and Sumerian all of which used a similar script and that led to the assumption that the Indus script probably operated on the same general principles as the related scripts, due to a probable common origin.

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The importance of the Harappan seals is supported by the popularity of wearing totems among the Dravidians (Elior, 1915). During the Sangam period the warriors and young men wore anklets with engraved designs of or totemic signs (Pilay, 1930). In addition at the turn of the century Dravidian children wore the image of Hanuman around their neck, and married women wore a ‘marrige totem’ around their neck as a symbol of household worship. (Elior, 1915)

The decipherment of the Harappan script indicates that there was a long tradition of wearing amulets among the Indians. K.K. Thapliyal (1972), examined Indian seals and their inscriptions dating between the 3rd century BC and the 7th century AD. In his studies, Prof. Thapliyal found that the seals illustrated an animal motif with an inscription above the animal figure. She also made the discovery that these seals were either attached to letters and parcels or suspended from a string at the back and worn at a token. (Thapliyal, 1972) The animal usually represented the religious leanings of owners of the seals.

The inscriptions on the seals examined by Thapliyal contain the names of kings and owners of the seals; epithets of kings and sacred formulas.

The discoveries by Thapliyal illustrate that the tradition of writing from the Harappan civilization. It also shows the continuity between the ancient Harappan use of amulets to express religious attitudes and that of later Indian religions. This also supported the hypothesis expressed by the Finnish and Russian Harappan writing decipherment teams that the Harappan inscriptions were predominately votive or sacred formulas. All of these factors contributed to my decipherment of the Harappan script.

There also appears to be a continuity between the Harappan writing and later Indian scripts. B.B. Lal (1960), found that 89 percent of the megalithic pottery signs discovered by the 6th century BC, can be compared favourably to Harappan and post Harappan signs. In addition, Lal observed that 89 percent of the Harappan and post-Harappan signs continued into the megalithic period. This along with the links between symbols on the punch marked coinage and Harappan signs found by Prasad (1934).


Other Harappan signs agree with the potter marks found on pottery excavated at Ganga and Rahman Dheri.

The Harappan Signs

Over 4000 Harappan seals have been found. The script incorporates 419 signs. There are between 60-100 basic signs. The remaining Harappan signs are compound signs formed by the combination of two or more basic Harappan signs.

The Harappan signs are found on both seals and copper plates. There are around 200 copper tablets, and 4200 seals. The Harappan seals have been found at 60 different sites:

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>2090 Mohenjo-daro</td>
<td>140 Kalibangan</td>
</tr>
<tr>
<td>1490 Harappan</td>
<td>83 Chanhudaro</td>
</tr>
<tr>
<td>240 Lothal</td>
<td>44 from 15 sites in the Near East</td>
</tr>
<tr>
<td>400 broken and therefore illegible</td>
<td></td>
</tr>
</tbody>
</table>

The copper tablets were found only at Mohenjo-Daro. There are two major types of seals, one type is square with a short inscription above a carved animal motif. The second type of seal is rectangular and contains only an inscription.

Sixty percent of the seals are carved in stone. Ninety percent of the seals are square, the remaining ten percent are rectangular.

The seals range in size from half-an-inch to around two-aninch inches. The Harappans preferred a unique technique of cutting and polishing the seals. The seals have a raised hoss on the back pierced with a hole for carrying or being placed on parcels.

The Harappan seals carry messages addressed to their gods requesting support and assistance in obtaining aram (benevolence). (Winters, 1984b)

The Harappan system of writing called for a sinistical writing and reading scan. The use of a logosyllabic system by the Harappans called for the use of both hemispheres of the brain.

There are around 60 to 75 basic syllabic signs in the Harappan writing and around 10 ideographic signs. (see Fig 7.1) The remaining 339 Harappan signs are ligatures or compound signs formed by joining two or more of the basic signs.
The Indus Valley writing is logographic. This means that the writing contains signs illustrating both logograms (a sign for a complete word) and syllabograms (set of phonetic syllables).

The sound values of the Harappan script are open syllables and CV type and CVC type. The Harappan words were monosyllabic.

In the Harappan script there are very few ideographic signs. The most common ideographic signs are $\text{न}$ and $\text{म}$.

The Harappan signs are clear and straight - rectilinear. The script shows little evolution in shape and style. The average length of the seal text is half a dozen signs, the longest inscription consists of 26 signs.

(Parpola, 1989:400)

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

The principal Harappan deity was the unicorn. The unicorn may have represented Māri, (Kish'nu or Karshnu). This god was held in high esteem by the cowherds and shepherds.

The principal deities of the Harappans include water buffalo, short horned bull, and elephant. The mother-goddess of the Harappans was the cow, which was probably called Kam or Amma.

The ascension of the bull with Māri comes from the fact that Māri in Dravidian is the name for the bull and the buffalo. This god is often associated with a basket sign over a bowl on a stem or central emblem in front of the long, single-horned bull. This sign is called the 'skirted mother or sacred brazier'. This standard reads: 'Pu-i-Pa Thou distribute a flourishing condition' or 'A flourishing condition thou distribute it'. (see fig. 7.2)

MANGER

A Flourishing Condition Thou Distribute (it)
Above this Harappan god or totem we find a short inscription numbering between four and five characters.

The Harappan seals are religious in nature. The seals are protective amulets.

The Harappans sought righteousness and a spotlessly pure mind. Purity of mind was necessary for happiness "WITHIN." Happiness 'within' may relate to asapal or "the inner Path".

Happiness 'within' was obtained when man avoided all mental evils (deeds) e.g., jealousy, covetousness and etc. Through the adoption of benevolence Harappan man gained pukal (fame). He then earned the reward of good things in the present world and the world beyond.

Harappan seals were found in almost every room of the city of Mohenjo-Daro. Many of the seals were found in a worn condition and show signs of repair.

Archaeologists have found holes in the seals which suggest that the seals were tied with string and hung around the neck or from belts. Many Harappan seals may have been put into small cases which may have served as amulet holders.

The importance of the Harappan seals as amulets is attested too by the popularity of wearing talismans among Dravidians. During the Sangam period the warriors and young maidens wore anklets with engraved designs 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, while wives wore a marriage talon around their neck as a symbol of household worship. It is also interesting to note that K.K. Thapliyal in Studies in Ancient Indian Seals, found that many Indian sealers from the 3rd century BC to the 7th century A.D. portray animals with an inscription above the animal (as in the case of the Indus seals) which are indicative of the religious views of the owner. This evidence supports our finding that the Harappan seals were worn (or carried) by the Harappans, to help them remember man's goal to obtain guidance from his deity.

The Harappan seals indicate what the Harappan Believer wanted from his god:

1) A good Fate
2) Spiritual Richness
3) Virtue
4) Humility
5) Perseverance

December 1992
Some Harappan signs are homophones. As a result of homophony in Harappan writing the person attempting to decipher and read the Harappan script must carefully observe the general semantics of each inscription.

**HARPAPPAN COMPOUND SIGNS**

On most Harappan seals we find a group of single signs. But there are also many compound Harappan signs, i.e., signs which are formed by two or more Harappan characters.

There are four types of Harappan compounds: coordinate compounds, subordinating compounds, synthetic compounds and polysyllabic words. The Harappan script has a large number of both nouns and verbs.

Most Harappan compound signs are subordinating compounds. An analysis of the Harappan subordinating compound signs indicates that these signs combine two or more bases (basic Harappan signs). These bases represent a noun and a verb. In the subordinating compound signs the verb usually precedes the noun. In figure 2 we have a few examples of subordinating compounds.

The second most frequently seen type of Harappan compound sign is the coordinate Harappan sign. The coordinate compound signs have two parallel elements.

The replication of the same element without change denotes pluralization in the Harappan writing. Thus, the effect is reduplication. In figure 3, we can observe the various types of compound compounds.

**Ancient Dravidian**

- An introductory Grammar of Harappan with Vocabulary

The third type of Harappan compound sign is the synthetic compound. A synthetic compound sign represents a compact expression.

**SUBORDINATE COMPOUND**

- **a** : to give virtue
- **u** : to experience redutude
- **v** : bring the distribution of God's mercy
- **w** : bring redulue
- **x** : very anny blossom righteousness
- **y** : to experience the sequential of virtue
- **z** : create a flourishing condition
- **i** : give virtue
- **j** : thou illumination, give it
- **k** : keep, preserve righteousness
- **l** : distribute to your servant
DINATE COMPOUNDS

kahā, 'much protection'
annāl annal, much righteousness
tū tu, 'much purity'
pā pa, 'distribute Karma'
pā pā pā, 'Distribute much of God's Mercy'

POLYSYLLABIC COMPOUNDS

agappal, 'inner path'
suppu, 'purification'
ippo, 'now'
puka, 'glory, fame'

The last type of Harappan compound sign creates polysyllabic words. There are only a few polysyllabic Harappan words. At least 95 per cent of the Harappan signs express monosyllabic terms.

Note: This article continues in a later issue of Jots.
ANCIENT DRAVIDIAN: AN INTRODUCTORY GRAMMAR OF HARAPPAN WITH VOCABULARIES

Clyde Ahmad Winters

Part III: Harappan Grammar / Dictionary

Phonology

The Harappan language is a member of the Dravidian group. It is closely related to Tamil.

The order of the basic constituents in the Harappan language are subject (S), verb (V), object (O). The writing system is syllabic. The Harappan signs are of two basic types consonant (C), vowel (V) and CVC. In some cases words have the ligature /ai/ and /i/ prefixed to the initial consonant to form the VCV type, e.g., am 'Mayest thou' and 'to become' and is 'in this place'.

There are five Harappan vowels. The vowels have three-fold distinction of lip rounded and unrounded.

The vowel in most Indus valley CV constructions is long, especially in relation to nouns. The suffixal elements on the other hand such as -a, -e, and -i are primarily short vowels. In the Harappan texts short and long vowels occur initially, medially and in the final position.

Vowels

<table>
<thead>
<tr>
<th>High</th>
<th>i</th>
<th>u</th>
<th>ii</th>
<th>uu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid</td>
<td>e</td>
<td>o</td>
<td>ee</td>
<td>oo</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are six positions of articulation for obstruents: labial, dental, alveolar, retroflex series and velar. The retroflex series comprised a nasal /n/ and a lateral /l/. The Harappan roots are monosyllabic.

There are thirteen consonants in the Harappan script.

p t s k
m n (n)
v y
r (l)
i
The consonantal system of the Harappan language is as follows:

| k | g | ḫ |
| s | ḥ |
| t | ḫ |
| n | n |
| ṡ | ṡ |
| ḫ | ḫ |
| l | l |
| n | n |
| ṡ | ṡ |
|  }

My analysis of the Harappan consonants indicates that k, ṡ, s, n and ḫ occur in both the initial and medial positions. The t and l are found mainly in the medial position while m and v occur only at the beginning of a word. The ḫ is found in the initial and end position, and the phoneme l occurs in the medial and final position of Harappan words.

The Harappan inscriptions are read from RIGHT to LEFT.

Pronouns

There are three pronouns used in the Harappan writing: 1st per. singular, 2nd per. singular, and 3rd per. verbal termination.

- 1st per. singular: ḫ
- 2nd per. singular: ḫ
- 3rd per. singular: ḫ

In Rule 28 of Mahadevan's grammar, he discussed his so-called circumgraph which he read as a plural marker or number. Our findings suggest that the circumgraph sign ( ) is not a plural marker or number. This sign represents the multiple use of the sign , as a pronoun 'thou, you', and the verb 'to give'. A substantive is placed between the four vertical signs forming the circumgraph.

Reading from right to left preceding the substantive sign we have: "thou give", after the substantive the sign is the pronoun 'thou, you', followed by the causal particle . The sign, give it or permit, at the termination of the sentence.

Substantive e.g.,

*Thou give Righteousness. Thou give it now*.
GRAMMATICAL RULES: GENERALLY

No examination of the grammar of the Harappan script can take place in isolation from the research of numerous scholars that have worked on the interpretation of Harappan writing over the past 20 years. Mahadev (1988a, 1988b), Parpola (1979) and Kononenko (1945), have often concurred with a structural analysis of the Harappan script and texts. Any description of the Indus valley script should be in accordance with many of their findings. The insight of these scholars helped in our interpretation of the Harappan writing system.

The Harappan script is read from right to left.

These signs are of two types CV and CVC. In the CV constructions the vowel is usually long in relation to the consonants. In the CVC class the vowel is short. The final elements on the other hand such as -e, -u, and -a are primarily short vowels. The Harappan writing is monosyllabic (Farehno 1986a, 13).

A few Harappan signs can be read ideographically. Since a few signs represent pictograms and/or logograms which can be interpreted as the object it represents, but most signs are read phonetically. The monosyllabic nature of the inscriptions fits the logosyllabic nature of the Harappan script.

The pictograms of logograms are given a monosyllabic value. Once this is done, the resulting words are assigned a singular or monosyllabic value.

The most common logograms are: 1. MT - fish; illumination, light, 2. K - man, servant. Parpola (1979) has suggested that 1 is also a pictogram and calls it a "printed end" metaphor and assigns it the homophonic meaning "to give, giving." This is most interesting, because it coincides with the actual meaning of this sign 1 to give.

MORPHOLOGY

The evidence of the Harappan script makes it possible to make statements concerning the morphology of this language.

The Harappan inscriptions have only one personal pronoun. Also it did not distinguish the masculine or feminine.

The Harappan pronouns are independent. The form most commonly found is that of the second person singular -tu. The first and third person pronouns are absent.

The Harappan roots are monosyllabic phrases or compound words formed by adding affixes to the underlying portion of root. These compounds can be formed by the addition of a vowel element or a monosyllabic element.

In general, the Harappan language is characterized by suffixal agglutination. This means that the root morpheme is usually initial in simple words. For example, Ēkā "virtue:"

Verbs -

There are two types of Harappan verbs. The first is usually a simple root. The second type of Harappan verb is a participle.

The Harappan verbs are formed by a simple syllable consisting of a vowel and consonant. The verb is usually combined to a preceding noun. This pattern may not always be the rule, because in subordinate compounds the verb precedes the noun. (Winter 1987).

The most common verb particles are ē and ē. The ē particle means to come into existence, happen, be, be fit, be like, become. ā)

A, 3. ēka is "Abundant purity to become (my) Fate."

Because ēka Usu a Ursa "Give balance to thou servant, bring God's justice, much virtue to be come (my) Fate"
Ancient Ceylonism: An Introductory Grammar of Harappan
with vocabularies

Bountifuling condition give it, लोः ‘give a bountiful condition’ and गौः ‘is your servant give knowledge’.

The majority of the Harappan verbs are monosyllabic. These verbs are usually placed after the noun.

GIVE

उ “Give (me) rectitude and salvation”.

उ “Give (me) Excellence

उ “Give (me) much awareness, righteousness, bring me purity”

उ “Give (me) a bountiful condition, do not divide (my) rectitude, (my) merit”

BRING

उ “Thee bring here glowing admiration”.

उ “Bring Excellence”.

Thou bring here glowing admiration

Thou bring here glowing admiration
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NOUNS

Mahadevan (1986a:21), has proposed that the Harappan texts are basically substantive or attributes in grammatical rule #3. He speculated that the nouns (substantives) follow the adjective (attributive). This hypothesis regarding Harappan substantives agrees with Whiteway (1987), coordinate compounds.

The Harappan nouns are monosyllabic. Some of these nouns can also serve as verbs, e.g., 1/1 say to do, create, and 0 pull birth, to go proceed, and 1 to see, to experience, purity.

In the Harappan language the noun is the subject of the phrase. To give sense to the noun it is regularly suffixed by pronouns or plural elements.

4.12 The Harappan Nouns can be classified into three categories as follows:

1) Personal pronouns such as 11:

- 11: 11

"Thou bring here glowing admiration".

11: 11 to 11

"Thou increase now your servant's virtue".

11: 11

"Thou bring (to me) Elevation".

CREATE

"Bring continuously virtue, here thou distribute it".

BLOSSOM

"Create prosperly give (to) distribution and illumination".

MAKE

"Make (me) to become illuminated to see Balance".

DISPENSE

"(Und) Dispense Suman (Paradise) (as my) Fate".

PULS

Pulsa Kumari Vise

"(Und) Dispense Suman (Paradise) (as my) Fate".
SENSE FORMATION

The corpus of Indus Valley seal inscriptions used in this paper provides a basic outline of the Harappan sentence structure. An examination of the sentence pattern of Harappan syntax confirms the view that the Harappan seal script is an aspect of Dravidian not to different from Tamil.

A feature common to the talismanic messages contained on the Harappan seals is the terseness of expression, which allows considerable grammatical license, sometimes even ignoring the normal rules of Dravidian syntax:

\[
\text{\textsc{papa} \textsc{ta} \textsc{li} \textsc{le} \textsc{cy} \textsc{min} - \textsc{ta}}
\]

"Indeed give abundant virtue give it, (and) propriety glowing" (Lit. "Indeed abundant purity give (and) increase propriety glowing").

The Harappan seals are amulets or talismans requesting some form of blessing for its bearer from his personal god; the imperative mood is used in the sentences. Request sentences are formed by simple verbs or by the addition of introductory elements.

The inscriptions are primarily written in the second person since they are request sentences. Like Tamil cave inscriptions, the Harappan sentences are substantive sentences composed of a topic and a comment.

The order of the Harappan sentence is VOS. The Harappan sentence has a noun phrase (NP), verb phrase (VP) and article (art).

As a result the pronominal suffix stood independently. The pronominal suffixes were a later development in the Dravidian languages.

Many Harappan expressions are formed by joining two or more Harappan bases to make compound signs. These compound signs are compound phrases. The base(s) of these signs represent either a noun or
a verb. Often, the same Harappan sign can have the value both as a noun and verb.

There are three Harappan compound signs: coordinate compounds, subordinate compounds and synthetic compounds. (Winters 1947) The coordinate Harappan compounds have two parallel elements. The regrouping of the same elements without change denotes pluralization. Thus the effect is reduplication.

Most Harappan compound signs are subordinate compounds. In this type of compound the base is formed by a noun or verb.

Below is an example of the Harappan VOS sentence pattern. The inscription is read from right to left, top to bottom.

\[
\text{\underline{plip} \underline{liu} \underline{s} \underline{s} \underline{mi} \underline{u}}
\]

"indeed give abundant virtue give it (and) properly glowing". (Lit. "sewed abundant purity give (and) increase propriety, glowing")

This inscription can be interpreted as follows: "indeed give abundant virtue and properly glowing".

The request sentence on the Harappan seals is aimed at the deity represented by a zoomorphic picture on the seals. This makes for interesting patterns among the many Harappan seals. The Harappan sentence pattern depends on how the inscription is read. Inscriptions read from right to left are VOS, while inscriptions read from left to right are SVO. For example reading from right to left we have:

```
VP NP VP art NP VP
```

HARAPAN PARTICLES

There are four particles used in the Harappan writing. They include the interrogative, the demonstrative, and the prepositions, and . The particles are written outside of the letters. The grammatical rules of the Harappan language are taken from among the texts illustrated in examples used in this paper. Examples used in this paper are taken from among the texts illustrated in examples used in this paper. Examples used in this paper are taken from among the texts illustrated in examples used in this paper. Examples used in this paper are taken from among the texts illustrated in examples used in this paper.
The 1 sign is ligatured to many Harappan signs. This ligature is the causal particle 以上的, literally means 'give it'.

indeed abundant virtue; give it (to me) (adv.) create rectitude and glowing propriety. In this sentence 以上的 is appended to the sign 以下, 'abundant virtue'.

annal: iu mig; i u-s-say-7t. "Much righteousness let it shine here virtue". in this inscription the causal particle 以上 is written inside of 以下, i.e.

The Harappan divisional particle used in the script is the suffix 以下, which is appended to the root of the pronominal. This 以下, is usually suffixed to a noun and is used to give the preceding word strength.

ye who bind (man) make (my) virtue bloom/give rectitude. Manage (your) servant's fate.

ye ye (he) ye (who) binds. thou bring virtue here.

The particle "ye, which", is also frequently used in the Harappan writing. It seems that when - is used as demonstrative it is written small, for example: (Mackay, plate I, 18).
The Harappans used non-finite verbal forms (particles and imperatives), rather than finite verbal forms. The most common imperative suffix in the Harappan inscriptions is \( \text{म} \), e.g.

\[
\text{म} \text{त्} \text{य} \text{त्} \text{म} \text{न} \text{म} \text{स} \text{त्} \text{म} \text{ू} \text{त्}.
\]

This sign \( \text{म} \) is also used as the past verbal particle, when not being used as a demonstrative or pronoun, it is also the causal particle as discussed earlier.

(Marshall, Plate CV1, no. 128)

<table>
<thead>
<tr>
<th>Goddess 1</th>
<th>Goddess2</th>
</tr>
</thead>
<tbody>
<tr>
<td>मत्यान</td>
<td>मत्यान</td>
</tr>
</tbody>
</table>

**Goddess 1**: "Mayest thou give (Veda)" or वैष्णवी, "Blossom Perfection".
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with vocabularies

mān and māni. ‘eminence’.

Tā-vi-sā pā. “Give (me) a flourishing condition, bring thou (good !) Fate to give birth to light (illumination) -- make (my) Fate (wonderful)”.

A vāy pā māni pā ka. “Come into existence prosperity, indeed much eminence (for me oh) God”

D I C T I O N A R Y

The following is a dictionary of many of the Harappan signs we have deciphered. Many of these signs are simply compound signs, i.e. Harappan signs formed by the joining of two or more basic Harappan/Indus signs.

As a result the definition given in the following examples is not the exhaustive definition, it is just one of many interpretations based on the reading of a series of compound signs. The best way to use this dictionary is to read the definition printed below, and verify the interpretation of a particular sign by studying the definition of the basic Harappan signs used to form the compound Harappan signs.

In addition be sure to read chapters seven and eight they will help you read and interpret properly the Harappan signs.
<table>
<thead>
<tr>
<th>NO.</th>
<th>SIGN</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image1" alt="Sign" /></td>
<td>ḍi, maintain, keep, maintain in use, laborer, control, manage, cherish, servant, to rule, man neighbor, man</td>
</tr>
<tr>
<td>2</td>
<td><img src="image2" alt="Sign" /></td>
<td>ḍi 1, (th) thou servant give</td>
</tr>
<tr>
<td>3</td>
<td><img src="image3" alt="Sign" /></td>
<td>ḍi 1, though servant, thou rule, thou neighbor</td>
</tr>
<tr>
<td>4</td>
<td><img src="image4" alt="Sign" /></td>
<td>pa ḍi, distribute to the servant</td>
</tr>
<tr>
<td>5</td>
<td><img src="image5" alt="Sign" /></td>
<td>id, see no. 4</td>
</tr>
<tr>
<td>6</td>
<td><img src="image6" alt="Sign" /></td>
<td>āi i, to the servant</td>
</tr>
<tr>
<td>7</td>
<td><img src="image7" alt="Sign" /></td>
<td>id, see no. 6</td>
</tr>
<tr>
<td>8</td>
<td><img src="image8" alt="Sign" /></td>
<td>ḍi var the Supreme God, ḍi, the pure servant</td>
</tr>
<tr>
<td>9</td>
<td><img src="image9" alt="Sign" /></td>
<td>See no. 3</td>
</tr>
<tr>
<td>10</td>
<td><img src="image10" alt="Sign" /></td>
<td>u pa ḍi, Bring God’s Distribution to the servant</td>
</tr>
<tr>
<td>11</td>
<td><img src="image11" alt="Sign" /></td>
<td>u ā ṭa, bring (it) here to th servant</td>
</tr>
<tr>
<td>12</td>
<td><img src="image12" alt="Sign" /></td>
<td>tāṭa āi, bestow glory, bestow greatness</td>
</tr>
<tr>
<td>13</td>
<td><img src="image13" alt="Sign" /></td>
<td>u āi, bring the servant</td>
</tr>
<tr>
<td>14</td>
<td><img src="image14" alt="Sign" /></td>
<td>ka āi, protect your servant</td>
</tr>
</tbody>
</table>
15. a] tū, 'the man is immaculate; the virtuous man; the pure servant

16. u i āl, bring the servant

17. u āl, see no. 13

18. i say āl, give the servant something

19. u(i)tu i āl, discharge to the servant

20. tu āl, the pure servant

21. po āl, the pure servant

22. i āl, see no. 3

23. ā(i)tu i āl, give the servant abundant virtue

24. i āl, see no. 3

25. āl ta pā ta pā, (To the) servant give a great distribution

26. tu āl, see no. 20

27. i ka āl, give balance to thou servant

28. i ka āl ika, Give balance to thou servant give him protection.
<table>
<thead>
<tr>
<th>Page</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>very āl. (cause your) servant to bloom</td>
</tr>
<tr>
<td>30</td>
<td>i say āl, i say: give thou servant abundant rectitude</td>
</tr>
<tr>
<td>31</td>
<td>i ko āl. Giveulance to thou servant</td>
</tr>
<tr>
<td>32</td>
<td>u āl ni. give (it to) thou servant thou give it leave.</td>
</tr>
<tr>
<td>33</td>
<td>34  āl kaku pā āl kaku. Give the servant much perfection (as his) great distribution.</td>
</tr>
<tr>
<td>34</td>
<td>pa āl papa āppo. 1) proceed to (make) the Distribution to the servant now. 2) a flourishing condition, the servant's Distribution</td>
</tr>
<tr>
<td>35</td>
<td>āl papa, to the servant the Distribution of God's Mercy. (in this sign the āppo, it may be a form of paralization of the form āpa, since it represents a form of repudication.)</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Page</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>āl papa āppo. 1) to the servant to Distribution 2) Now!</td>
</tr>
<tr>
<td>37</td>
<td>tu ū papa āl āppo, increase now the Distribution of the servant</td>
</tr>
<tr>
<td>38</td>
<td>āl papa āppo āl, the servant's distribution of God's Mercy, now give it.</td>
</tr>
<tr>
<td>39</td>
<td>pe āl papa, a flourishing condition (for) the servant's Distribution.</td>
</tr>
<tr>
<td>40</td>
<td>uy ū āl coy. Ensure that the pure servant will be relieved from trouble</td>
</tr>
<tr>
<td>41</td>
<td>pa āl, Distribute (God's Mercy) to the servant</td>
</tr>
<tr>
<td>42</td>
<td>āl ni, thou servant</td>
</tr>
</tbody>
</table>
43  a1 pu (s) nourishing condition for (your) servant

44  a s, bring the servant

45  a1 p1 a, distribute (God's Mercy) to (your) servant;
a1 p1 (y)e a, to (your) servant distribute Mercy and knowledge

46  a2 i key, bring to (your) servant thou restful/ rightousness

47  agappal, inner Path

48  agappal ii, The inner Path thou give

49  kaka, Deliverance, protection; seize keeping, pressure

50  agpal, Superiority, righteousness, greatness, exaltation, king, god.

51  ye agpal ye, increase (my) righteousness expand it.

52  

53  

54  

55  agpal, see no. 50

56  see no. 50.
57. ta appal ta, ta appal ta (reduplication)
   Bring MUCH righteousness here!

58. ta appal, ta appal ta i ta
   Bring much righteousness here.
   Thou place it here.

59. annal i, Righteousness give it.

60. annal i pa, Righteousness thou distribute
   (it).

61. ita ta ii, Thou give greatness thou give
   its (leave).

62. ita i itata it

63. 

64. uy a, bring (the) relief (from trouble)

65. uy, soul, to live, to subsist, have being.
   Salvation, to ensure, to be relieved
   (from trouble), escape from danger.

66. this particle has many uses in
   Harappan: to give, past tense suffix
   formative i.e. AAL' do no divide,
   mou, you, demonstrative this,
   inflection of newer nouns, give it,
   permit, to let.

67. u3 i, bring here

68. see no. 67.

69. i pa i papa, "give a flourishing condition"
   "bring the condition,"

70. i po, give richness, give (its) birth
71. ippo, give a flourishing condition

72. ippo i, Thou flourishing condition give (i)

73. i, thou give; give thou

74. i, thou give greatness / glory

75. ippi, behold thou, so much thou give

78. ippo, Now!

79. ippo i, Now give!

80. ippu ii, thou give richness give its (leave); thou give a flourishing condition give its (leave).

81. i i, thou give (me) virtue give its (leave); thou give (me) rectitude give its (leave).

82. ippi, behold thou, so much thou give

83. ippo, Now!

84. ippo i, Now give!
i tu to I, Thou, purify (and) immanuateness give (it).

u, demonstrative this; v, to bring, singular ending.

u say (y) e, Bring mature recoupe (Here we observe the use of e as an adic.

u kā, bring the Balance; bring Equality.

u pa, bring the Distribution; bring the Distribution of God’s-Mercy.

u vey, uring blossom to ... u-say, This is rectitude; bring rectitude.
99. u ta tu, Bring here rectitude

100. u tu, bring purity; bring virtue

101. see no. 100

102. vey u tu, Blossom the bring(ing) of virtue

103. u(y)i, bring progress (growth, expansion).

104. u i tu, bring thou purity.

105. u tu i ta, unity bring it here.

106. u-ita, bring it here.

107. u pa, see no. 96

108. upa pa, Give the distribution; give the Distribution of God’s Mercy; bring the distribution

109. upa pa vey; give the opening to the distribution (of God’s Mercy/Compassion); bring the distribution of a glorious condition.

110.

111.

112.
113 ụtụ, to put (on), surround, encircle. ụta, bring greatness/immunity.

114 ụta ta. bring greatness thou give it.

115 ụta ta. Thou give me Greatness

116 ụta na. Surround (me with) a flourishing condition

117 see no. 118

120 asa ta ta. bring purity and virtue here

121 ụta ya. Glory ( throne) ye who binds. 2. Encircle (me) ye who binds.

122 ụta ta. Virtuous Fate.

   (This is the generic term used to denote the power of God, expressed in terms of justice.)

124 ụna ta. Thou Fate

125 ụna ya. Increase (my) Fate; expand (my) Fate.

126 ụna sa. Honourable Fate; High Character Fate.
Usa say usa say, (repetition) Much honorable Fate.

Usa astru. (Let a good) Fate surround (us); 3. Encircle (me with a good Fate.

upara. Bring this distribution of God's Mercy.

(y) é. yé, what, which, where; 2) v. to increase, grow, mature, expand, progress, 3) and 4) that, thing.

see no. 131

ye i. increase thou ... expand thou...
141. God, Great God.

142. Kumari, paradise

143. \[\text{(reduplication of Kumari sign no. 142) Kumari: Kumari, Muth} \]

144. kippa Kumari, Thou perfect paradise.

145. kumori appal, Paradise is Exaltation

146. ke, ge, ga 1. the nominative 2. v to be, to do.

147. buy; say, 1. straightness, righteousness, merit, rectitude. 2. v to do, make, create, cause. 3. deed act. action. 4. Uprightness, incorruptibility, honourableness, high character.

148. say; say, create rectitude, make (me) merit

149. see no. 148

150. say wi; create propitiously; create virtue.

151. 151-153 ta, tâ. 1. to give, to bring. 2. here place. 3. blenish, defect. 4. imperative suffix.

152. a say, bring rectitude.
155
very tu, blossom here, etc.

156
ī tu, give (me) virtue or attitude
tāpu, to prevent, hinder, stop, forbid,
deny, block up, restrain.

157
tu anāl, bring righteousness

158
tu nu, 1. to experience, to see;
2. purity, cleanliness, that which is pure, virtue, cleanliness; 3. 1st pers. verbal termination. 4. past tense suffix.
tu say, to experience purity

159
nu tu, to experience purity, bestow on (me)
knowledge and incorruptibility

160
tu say,.

161

162
tu tu, purify here; virtue this place

163
tu i, purify give (to)

164
tu tu, (reduplication) abundant virtue;
abundant purity

165
see no. 164

166
see no. 158

167
tāpa, large, broad; full; greatness, glory, 2.
bestow on (me) greatness

168
see no. 158

tu uy, pure soul
165. \(\text{tu} \, \text{po} \, \text{tu}\), experience a flourishing condition and virtue

170. \(\text{tu} \, \text{po} \, \text{i}\), give a flourishing condition and purity

171. \(\text{ta} \, \text{po} \, \text{ri}\), bring a flourishing condition; give richness

172. \(\text{mi}\), top, surface, height, elevation, eminence, loftiness, sky, heavens, greatness, dignity

173. \(\text{172-173. tu} \, \text{vey} \, \text{tu} \, \text{po}\), experience the opening up of purity and a rich condition

175. \(\text{tu}\), purity, to expand. 2, to experience growth

176. \(\text{tu} \, \text{ta}\), to see your greatness; to see the bestowal on the one of greatness.

177. \(\text{tu} \, \text{u}, \text{see} \, \text{151-153}\)

178. \(\text{see} \, \text{no.} \, 167\)

179. \(\text{id} \, \text{178} \, \text{see} \, \text{151-153}\)

180. \(\text{tar} \, \text{tu} \, \text{ye}\), who binds
\(\text{tar} \, \text{tu} \, \text{po} \, \text{ye}\), who binds to richness

181. \(\text{ta} \, \text{ta} \, \text{ta}\), bring more purity; give immaculateness.

182. \(\text{tu} \, \text{tu} \, \text{tu}\), give abundant virtue/purity
180. ta....

184. ta pu. bring a flourishing condition; give richness

185. id. to no. 179-180

186. ta satu. bring
give rectitude; virtue

187. ta say. bring righteousness, bring merit;
give high character

188. tz i. bring thou; give thou

189. tar ya. "he who binds"

190. ta a, bestow on me greatness/glory

191. po pu/po po. create a flourishing condition; give richness

192. po vei po, create blossoming of
richness; flourishing condition; give
birth to the opening of richness, etc.

193. Y

194. Y

195. po ta, create here, proceed to give a
flourishing condition

196. po vei, a flourishing condition to ensure
salvation give it, etc.
197. tāja, see no. 178
198. tā tā ju i, bring here flourishing condition give it!
199. see no. 177
200. tā i, give thou/you; bring forth/hath.
201. ca vey ii, here blossom thou giving
202. ja tā i, a flourishing condition, give it here.
203. tā i tā i, (repetition) Give much here.

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vocabulary

204. ta i ta i, see no. 203
205. tāja, see no. 178
206. tāta dī, bestow on (me) greatness thou give it.
207. ta i ta i, see no. 203

ka, 1. balance, equality; 2. to preserve,
shelter, watch, guard, ward off,
sickle, pinact; 3. pleasure/rove, garden, 4. protection, guard

agnal anāl, superior righteousness

kākā, deliverance, protection, safety keeping.
211  $\text{ju} \text{tu}$, give truth; give excellence
$\text{ju} \text{tu}$, give virtue/purity

212  $\text{tu} \text{me} \text{tu} \text{to}$, to see excellence and virtue

213  $\text{tu} \text{pu}$, to experience the distribution of God's Mercy.

214  

215  

216  $\text{nil}$, to stand, to be long, to be great, extension, loftiness

217  $\text{u-nil}$, bring loftiness

218  $\text{kā}$, see no. 208

219  $\text{ru} \text{ka}$, to experience equality

220  $\text{tu}$, plural suffix; also see ga.

221  $\text{ga}$, mayes, neuter plural

222  $\text{ga i}$, Mayest thou

223  $\text{ka tu}$, guard (my) virtue, protect (my) purity

224  $\text{ka i ka}$, preserve thou balance.
225 pūka, glory, fame, equality of division.

226 pūka pūka, (reduplication) Much fame

227 pūka-ū pūka, my fame (and) glory

228 i pūka, give (me) glory
i ka, give protection; give balance

229 pūka i, glory give i, fame give i

230 tu pūka tu, that which (is my) pure glory;
to experience pure glory.

231 tu pūka tu tu, to experience pure glory/fame (and) virtue.

232 u pūka, bring (me) glory/fame

233 pāpa, 1. true it is indeed; 2. distribute God's mercy

234 pā pā, indeed distribute much of God's mercy

235 pāpā, see 234

236 tu pā pā, indeed distribute much purity

237 ph, 1. divide, to divide, to distribute. 2
pā plural termination. 3. The term pā corresponds to the personal
impersonal aspects of God. To God as friend and Guide as Compassion as Dispenser of mercy

238 i pā, give the distribution of God's mercy
2. give the distribution. 3. The distribute
239  po, 1. to go, proceed, go away, reach a destination, 2. richness, flourishing condition, tower, bloom, create, give birth, 4. formative

240  po po po, give birth to a flourishing condition.

241  po i, a flourishing condition give it; richness gives it

242  po i, see no. 241

243  po, see 239

244  po, see 239

245  i po, give richness; give birth to; 2. thou flourishing condition, thou richness

246  po, see no. 239

247  po po i, give birth to thou flourishing condition.

248  po vey, give birth to the flowering; open a flourishing condition.

249  tavey ye, bring mature propriety, bring propriety, propriety expanding.

250  tavey tu, bring (the) propriety and purity; bring the opening of virtues; bring the blossoming of purity, bring the blossoming of propriety.

251  251 & 252 to tavey, bring pure propriety
253. ta vey po, bring propriety and a flourishing condition

254. ta vey i, bring propriety give it.

255. ta vey ta, bring propriety here

256. ta vey tū, bring propriety and purity.

257. 

258. 

259. 

260. po appal, spread over (me) righteousness

261. 

262. 

263. tē pasu, ye distribute.

264. 1. te, that, it, 2. v. come into existence, be happen, be lit. 3. interj. pity, regret, wonder, admiration, bring about

265. po po po, proceeded to create a flourishing condition.

266. po, 1. to go, proceed, go away, 2. reach a destination. N. richness, flourishing condition, 3. bloom, flower. 4. create, give, make.
po po. create richness, etc.

see no. 265

1'so, give (a) nourishing condition; thou reached your destination; give knowless.

pa. 1. distribute much riches, division. to divide, to distribute 2. plural termination. 3. This word corresponds the personal aspect of God as dispenser of mercy.

po pu. create a nourishing condition.

pu ti ti. a nourishing condition and purity.

min. to shine, glitter, phosphorescent. glow, shining, light, illumination.

min. illumination give it

see no. 274

ni min ti. to see shining immaculateness

a min. become phosphorescent

mi min. growing admiration

ma min. pure shining; immaculate illumination

li min. thou give illumination
po tu, nourishing condition of purity.

mit, truth, reality, soul consciousness, excellence, to excel, surpass

vēy, to come, put on, ref. 2. blossom, open,isperce, grow, develop.

aappal, to become superior; 2. come into existance, exaltation.

vēy i, grown give it, horence give it.

vēy ya i
vēy āppal, blossom righteousness

ūy ā, Salvation

ūy āy vēy, Ensure the sun's fluorescence

ūy pāpā, ensure the distribution of God's mercy.

ūy tāt, Ensure the bestowal of greatness

ūy āppal, Ensure righteousness

ūy ye āppal

ūy ka, Ensure Balance; Ensure equality.

ūy āy po, Ensure purity and a flourishing condition

ūy tā, see no. 177

pōu, a flourishing condition and salvation

a l, Admiration give it

ūy ā, Purity come into existence

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311-312. Ko, God

paka, equality of division, the healthy social life, and security

ka tu tu tu, preserve (my) virtue and the gift (of) virtue give it.

ka tu tu i, preserve (my) virtue and the gift (of) virtue give it.

tu tu tu. To experience the bestowal of glory/greatness on me (In this sign we see the 1st pers. verb/termination)

vey pa pa, open up the Dispensation of Mercy

uy i tu ka. My soul give it the experience of equality; 2. Ensure (my) experience of purity

tenul, to know, gain true knowledge, perceive, ascertain, understand, clearly, be renounced, be clean, lucid, knowledge, intelligence, wisdom, comprehension.

tenui, knowledge give it.
terul, knowledge see 321
i pa, give perfection

vey terul po, open knowledge and a flourishing condition.

ippo. Now!
vey po po, open up the birth of a flourishing condition
ippo ta. Now give it!

po yu po, make (my) soul (possess) a flourishing condition.

pey... to rain, fall, pour down on to
pirai... to be emancipated from sin and sin:
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Introduction

Riddle is a branch of Folklore and it has an important place in the discipline 'Folklore' because of its structural pattern, easy understanding etc. On looking into the riddle structure, every riddle consists of a question and (in need of) an answer.

Riddles are questions that are framed with the purpose of confusing or testing the wits of those who do not know the answer. 'Anbrasam' in his paper 'Riddles' demonstrates that opposition is only the most salient of four techniques by which the image (or Gestalt) presented in the riddle-question is impaired and therefore is, in most cases, undecipherable. These techniques are:

1. Opposition - Gestalt is impaired because the component parts of the presented image do not harmonize.

2. Incomplete detail - not enough information is given for proper Gestalt to be made (i.e. for the parts to fit together).

3. Too much detail - the important traits are buried in the midst of inconsequential detail, thus 'scrambling' Gestalt.

4. False - Gestalt - details are provided that lead to an ability to discern a referent and thus call for an answer, but the answer is wrong. This answer is often an embarrassing, obscene reference. This technique is most common in catch riddles.

I. Classification of Riddles

Durge Bhagawat in his 'The riddle in Indian life, lore and literature', classified the riddles into seven as,

1.1. The riddle story

1.2. The riddles of death

1.3. The recreative riddle

1.4. Riddle poetry