

The Decipherment of the Indus Valley Writing



by
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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 faced 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-aṅṅal 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-aṅṅal ka a] “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 597 ‘illumination or enlightenment’ would denote the spiritual insight sought by the yogi.



The *min* 597 sign can appear as a single character or it can have other



Harappan signs attached to it e.g., 701 *min-i* ‘ let it shine’. There are



several Harappan signs often associated with *min* , this signs include



and 134 -a-, 967 -i-, and 99 (y)e-. The most popular Harappan sign



associated with *min* is 134 -a-. This sign can also be interpreted as 134 *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’.



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*.



aṅṅal 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:

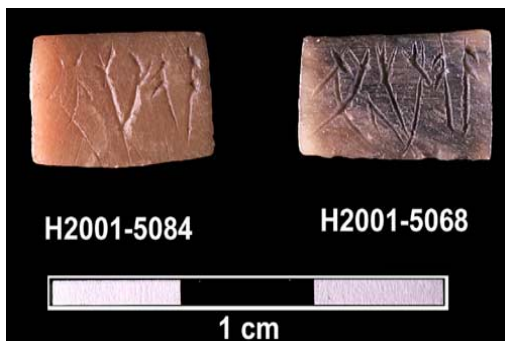


Uss tu tu pu-ga e tu ta

‘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>



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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 that 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 Mahadeven (1986) and Fairservis (1986:115), view that the Harappan language might be related to the Tamil-Kannada tongue. More-over Parpola (1986), has also discussed the homonymy between Harappan signs and Dravidian words.

The Harappan seals are amulets or talismans requesting some form of blessing for its bearer, from his personal god. These request sentences were formed by a simple verb, 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 archaeologists, suggest that the knowledge of writing was probably widespread 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 ideographic Harappan signs. The student should also pay strict attention to the sections on nouns, pronouns, verbs and adjectives which must be committed to memory.

The sign dictionary in the back of this article, i.e., part three, will also help students to read the Harappan signs.

The information contained in this article will allow you to read the inscriptions on most seals, tablets, graffiti on pottery, bronze/copper plates and miscellaneous items. Mastery of this will help one to interpret the Harappan inscriptions published by J.P. Joshi and Asko Parpola (ed.),

Corpus of Indus seals and Inscriptions. I Collections in India, memoirs of the Archaeological Survey of India, No. 86.

Part I: The Harappans

Attempts to Decipher Harappan Script

Many scholars have been attempting to decipher the Harappan script. Most scholars such as Arlene Zide, believed the script is virtually undecipherable since it is written in an "unknown language, and script". Therefore many scholars are hoping to find a bilingual text written in the Indus script and Elamite or Sumerian in Iran or Mesopotamia.

There are varying views regarding the identity of the language spoken by the Harappans of the Indus Valley. One group of scholars believe that the Harappans spoke an Indo-Aryan language. (Renfrew 1987) Other researchers believe that the Harappans spoke an aspect of Dravidian.

Many north Indian scholars such as S.R. Rao, Pran Nath and others have tried to read the script as an early form of Sanskrit (or archaic Vedic). The view is disputed by other scholars because of the early date of the Harappan civilization.

The Harappan culture lasted from 2500-1700 BC. This is far too early for an Indo-Aryan presence in India. The chronology of the Indo-Aryan civilization in India, dates not earlier than 1200 BC, the evidence of the Rig Veda and Atharva Veda would place the upper limit to 1100 BC or even as late as 1000 BC.

Colin Renfrew (1987), suggested that the arguments identifying the Indus Valley script as a Dravidian language are not convincing and that the Harappans spoke an Indo-Aryan language. This view that the language of the Indus Valley was already Indo-Aryan cannot be supported by the archaeological and linguistic evidence.

Dr. Renfrew (1987), hypothesizes that the Indo-Aryan languages were descendant from a precursor language spoken in eastern Anatolia around the time the first Indo-European languages of the European branch were spoken in central and western Anatolia. According to this hypothesis Indo-

Aryan farmers from eastern Anatolia were settled at Mehrgarh 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' iakonov (1985), on the otherhand believes that the Balkan-Carpathian 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'iakonov (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. (Lal 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 found 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 indicates that the Indus River was much wider and had more tributaries over 3000 years ago. For example, evidence suggest that the Sabarmati river or one of its branches once flowed near the site of Lothal. (Fairervis 1975) This drying up of rivers in the Indus Valley probably caused the lowland Dravidians to migrate southward. This would explain the spread of Harappan culture into Gujarat, Punjab, Haryana and parts of western Uttar Pradesh between 1700-1000 BC. The major centres of Harappan habitation in Gujarat 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:xli) It would also explain the mention of the highly developed civilization of the non-Indo-Aryan speakers in the Rig Veda.

The second and major 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. (Agrawal & Kusumgar 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 Rg Veda, even though Aryan records of this work were situated in the Punjab, which was occupied around this time by the RBW using Dravidians.

Emeneau 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, Kuiper (1967) has noted the increasing frequency of dravidian type retroflex 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 *-ar*. Both of these suffixes are restricted to names of intelligent beings. (Chatterji 1970:173) Oriya borrowed the *-gura* plural suffix from the Dravidians. (Mahapatra 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. Kuiper (1974), observed that the Sanskrit left-located complement syntax illustrated by the complex *iti* results from a Dravidian influence. Kothandaraman (1988), has shown how the complexers in Nepali *bhani*, in Bengali *boli*, in Oriya *boli* and in Marathi *mhanu:n* are explained by Dravidian.

This suggest that the Dravidian influences on Indo-Aryan results from a former vast bilingual belt in ancient India, which led to the Indo-Aryan adopting of Dravidian traits into Indo-Aryan. Kothandaraman (1988:199), is positive that the linguistic evidence indicates widespread Dravidian settlement upto 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.

Contrary to the views of Renfrew (1987,1988), most scholars working on the Harappan script accept the hypothesis that this script is written in Dravidian. This hypothesis is supported by 1) the fact that Dravidian speakers live in Baluchistan, Afghanistan and Turkestan, 2) the presence of Dravidian loan words in Sanskrit indicates that Dravidian speakers probably occupied the Indus Valley before the Indo-Aryans arrived, and 3) the spread of the black and red ware (BRW) pottery tradition in the Indo-Pakistan area support the Dravidian hypothesis.

Fairservis (1986), Mahadevan (1986b), Parpola (1970), Knorozov (1979), and Winters (1984a, 1984b, 1987b), have all suggested a Dravidian identity for the Harappan language due to their structural analysis of the Harappan script. The archaeological and linguistic evidence supports this view.

The earliest known language of the Iranian borderland is Elamite. Elamite is genetically related to the Dravidian group. (Mc Alpin 1981; Winters 1989b). It illustrates no evidence of any interaction with the Indo-Europeans. The same can be said about Sumerian.

The Dravidians were probably early settlers of the Indus Valley. Today there are isolated pockets of Dravidian speaking groups surrounded by Indo-aryan speakers. Dravidian languages are spoken by tribal groups in Gujarat, Maharashtra, Madhya Pradesh, Orissa, West Bengal and Bihar. The International School of Dravidian Linguistic claims that 65% of the tribals in North Indian states speak Dravidian language. (ISDL 1983:227)

There are islands of Dravidian speakers outside south India which point to the former presence of Dravidians in areas now settled by Indo-Aryan speakers. In Afghanistan, Iran and Pakistan we find Dravidian speakers. There are over 300,000 Brahui speakers in Qualat, Hairpur and Hyderabad districts of Pakistan. There are an additional 40,000 Brahui in Iran, and several thousand along the southern border of Russia and Yugoslavia. (ISDL:1983:227) Over a million Kurukh speakers live in Bihar, Orissa and Madhya Pradesh. In addition 88,000 Malto, live in Bihar.

The spatial distribution of northern Dravidian, outlined above, support the hypothesis that these linguistic groups did not migrate from south India into the Indus Valley and Gangetic plain.

B.B. Lal (1963), proved conclusively that the Dravidians were genetically related to the C-Group of Nubia, given the fact that both groups used 1) a common Black and Redware (BRW), 2) a common burial complex incorporating megaliths and circular rock enclosures and 3) a common type of rock cut sepulchre. This BRW industry diffused from Nubia, across West Asia into Rajasthan, and-hence to East Central and South India. (Rao 1972:341)

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 on 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 unitary nature 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 Basin. The BRW of Gujarat between 1700-1000 BC. was in communication with the Dravidians of the Malwa culture. The BRW people of the Malwa culture occupied the Tapi Valley, Pravara Godavari and the Bhima Valleys. As a general rule the BRW horizon precedes the PGW period. (Singh 1982:x1-x1i)

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 Baluchistan 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-burials/circles and round barrows. 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 agree 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

Megalithic period. (Lal 1960) These graffiti marks are talismanic symbols engraved on the pottery. (Winters 1984a,1984b,1987)

Evidence supporting the Dravidian character of the Harappan script was discovered by Russian (Knorozov 1979) and Scandinavian (Parpola 1986) scholars utilizing computers to decipher the Harappan writing and B.B. Lal. Dr. 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. Mahadevan (1986).

Zevelebil (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 B.C. (Winters 1985) There was a continuity and homogeneity of the classical Mediterranean type from Middle Africa to India. (Nayar 1977) Skeletons of the Mediterranean type found in the Indus and South India are analogous to those found at Kish and pre-dynastic Egypt. (Lahovary 1957:37)

The archaeological evidence supports Zevelebil's suggestion that the separation of South Dravidian took place prior to 1500 BC. Tamil and Kannada probably developed into two distinct idioms 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-mining groups which spread across Central Asia and China with their BRW. V. Kanakasabhai, in *The Tamils Eighteen Hundred Years Ago*, has highlighted the entry of Tamils into south India, from southwest Asia and East Asia. Winters (1985c,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, decipherment 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, Uralic, Sumerian, and Sangam 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 there has been some changes in Dravidian languages, but in general Dravidian has remained relatively stable for over 4000 years.

The major reasons, we cannot accept Fr. Heras 'decipherment' is because he 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 classed as an interpretation of the Harappan writing like those of Meriggi and Petrie, 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 logosyllabic 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 (1970), "much remains to be done before we can read all the inscriptions".

In conclusion, the Harappans spoke a Dravidian language. The Dravidians as evidenced by the numerous place names they left in Irar (Nayar 1977), and Central Asia (Winters 1986, 1988b) 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 Rg 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 Kharnoum in northeastern Afghanistan. (Winters 1990)

The earliest Asian settlements of the Proto-Dravidians were probably established in Iran. K.H. Menges (1966), using linguistic data assumes an early settlement of Dravidian speakers far to the northwest on the Iranian plateau and an area extending into what is now Turkestan. (Winters 1988a, 1988b). 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 Altyn-Depe. This view is also supported by the Indus Culture colonies in the Lazurite 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. (Brenjes 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 Dilmun, a major centre for the export of lazurite to the Sumerians and Akkadians. (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. (Fairservis 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 Ai Kharnoum 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 suggests 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 into central Asia. (Winters 1988a, 1988b) In Turkmenia, at Alyn-Depe, Harappan seals have been found. This view is also supported by the Indus culture colonies in the lazurite regions of Badakhshan. (Winters 1990) Henri-Paul Francfort (1987), has discussed the Harappan site of Shortughai on the Oxus river.

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

There 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, 1988b) The Dravidian languages are the substratum of the Tokharian 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 dominance of the lazurite trade. It is interesting to note that forty-four Harappan seals have been found at fifteen sites in the Near East. (Parpola. 1986)

Cultural interaction existed between the Harappans and contemporary 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 1985c) Vessels from IVBI 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 parallel 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 3800 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 grown 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 1985; 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 thrive towards righteousness they fully understand that their personal deity determined their fate  *uss*.

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-gatherer, to sedentary pastoralists after 7000 BC. The bioarchaeological remains from the Sahara indicates a mixed economy based on the herding of cattle and goats, and the cultivation/collection of barley and/or millet. (Wendorf, Close, Schield 1985)

The ancestors of the Harappans domesticated cattle and goats to insure 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 1985c)

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 highlands 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 lazurite route to the Central Asian copper and tin fields. (Brentjes 1983:240) 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 services for citizens in the Indus Valley towns. The Indus Valley towns grew into major urban centres.

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 text 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 right to left*.

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 (1931,2:649), 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 Chandu Daro.

The bull was sacred among the Harappans. The bull with horn 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 *periram* and *ēru*. In the case of the Tamil morpheme *mūri*, 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 groups 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; rhino; tiger; lion; and mythological animals.

FIGURE 1



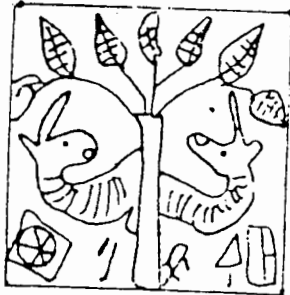
vēlam

Uss utata pey poe say

u-i

"Fate bring greatness, raindown (on me) a flourishing condition, righteousness; bring (it) here!"

FIGURE 2

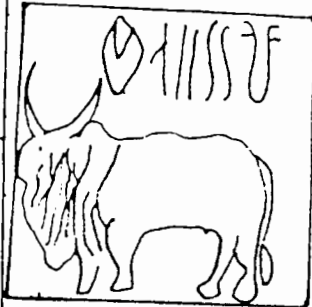


Nil ta min ii po-tar ya

"The tree of Life Great god you are one. Loftiness, illumination thou give a flourishing condition (to me) ye who binds."

MAL and TREE of LIFE

FIGURE 3



KALI

Uss mi say-i ta vey

"God's justice, loftiness, righteousness (you) give (it's) blossom"

The principal Harappan deity was the unicorn. The unicorn may have represented *Māl* (Vishnu or Katavul). This god was held in high esteem by the cowherds and shepherds. The wife of *Māl* was the mother goddess: *Uma*, *Amma*, *Kali* or *Pravarti*.

The original mother goddess may have been *Kali* or *Kalubai* 'the dark lady'. In Dravidian, *Kāli* refers to herds or cows. The term for oxen in Dravidian is *Kālai*, 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 *Kāli*. The crescent shape of the oxen's curved horns recalled the lunar crescent which was the primordial sign for the mother goddess.

The castrated bulls on the Harappan seals probably denote the raise 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 his superior.

Siva, was probably represented by the short horn bull. The elephant on the Indus seals may represent *Ganesa*/*Ganesha* the elephant headed god. *Ganesha*, was an aboriginal god of India. In the *Laws of Manu*, it is written that *Ganesha* is the god of the shudras, the aboriginal population of India. The Tamilian name for the elephant god is *Pillaiyār*, *Palla*, and *vēlam*.

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 *Ganesha* in 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 totems, and/or 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 *aram* (Benevolence).

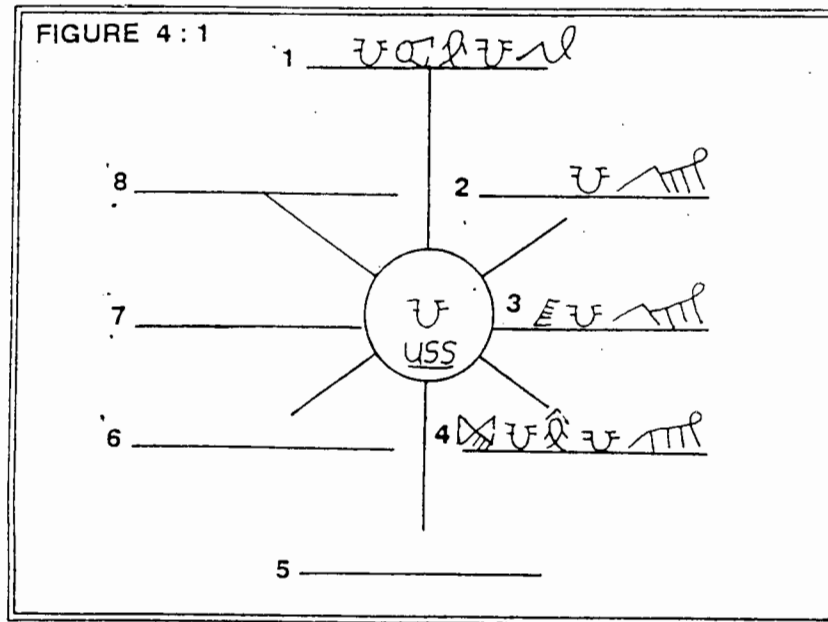
The goal of the Harappans was the 'realizing of God'. The superior man was one who 'realizes God'. Each god depicted on the seals was probably the totemic deity of a particular Dravidian clan or economic unit. As a result each god was seen by his followers as 1) a god having no equal, 2) a god having neither *Karma* and 3) as a god who is the ocean of *aram*.

The Harappan seals indicates that the most important goal of man is *aram* 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 *pukal* (fame) 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 *uss* the comprehensive form of Fate. This word - *uss* signifies the dynamic force of God as determiner of his servant's fate and holder of the reigns of power to dispense Justice. The Harappan -*uss* corresponds to *Uzh* the 'Life Power Aspect of Fate'. For example see figure 4:1.

1. *Vey-ga Uss min Puka Uss*

"Balance blooms Fate, illumination (and) a glorious Fate".

2. *Tū Ga-vey Uss*

"Make virtue blossom Fate".

3. *Tū ga vey Uss tūtū*

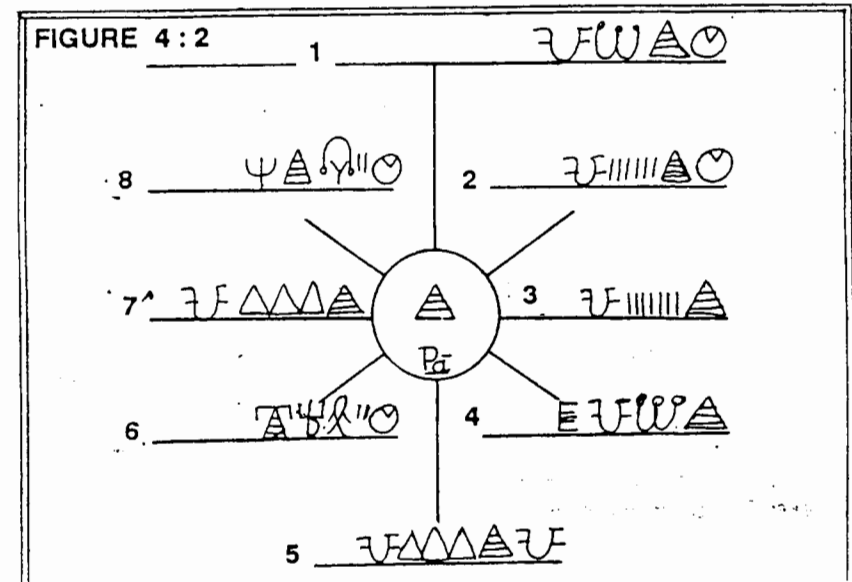
"Make virtue prosper (I hope) to experience immaculateness".

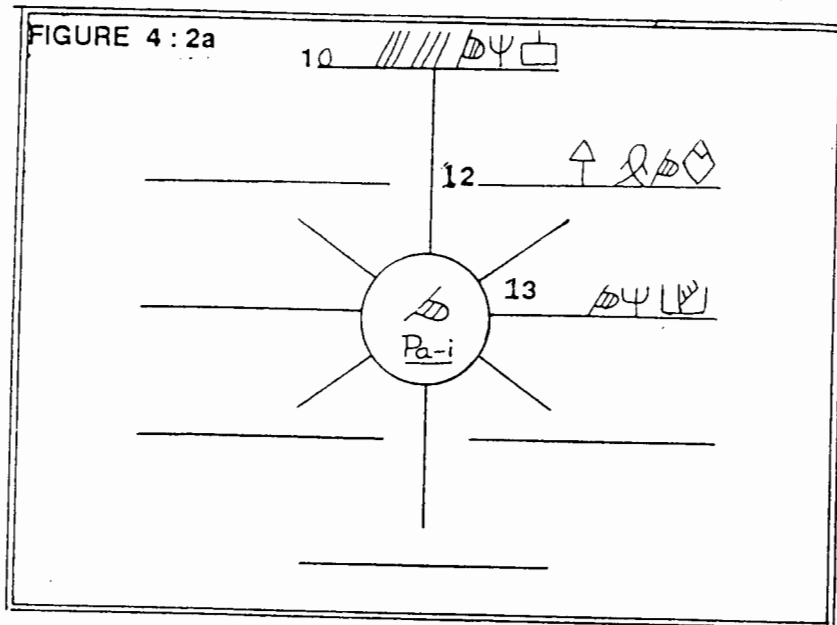
4. *Tū ga Uss a-min Uss tu-ka*

"Make virtue (my) Fate, (I hope) to become illuminated (so as) to see/view Balance"

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

K. Appadurai, in *The Mind and Thought of Tiruvalluvar*, noted that *pā(1)* "its external form is the veda 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 *pa* in the Harappan writing.





1. *Tā vēy pā ippo 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 tū Uss*
"Give awareness make the consequence of my life a pious and Virtuous Fate".
3. *Pā tū say Uss*
"Distribute purity and rectitude as my Fate".
4. *Pā ippo Uss tu tu*
"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 miṇ tātu uy.pa*
"Give (me) awareness increase my illumination (and) give (me) virtue. (Make) Salvation my distribution/Karma".

7. *Pā Kumari Uss*

"(God) dispense Kumari (as my) Fate".

8. *Tā vey e ta ippo Uss pa tā*

"Give me awareness give (it) now! (through) Fate give its distribution".

10. *I-pō tā pā-i say say*

"Give (me) a flourishing condition, do not divide (my) rectitude, (my) merit".

or

"Give (me) a flourishing condition distribute to me rectitude (and) merit".

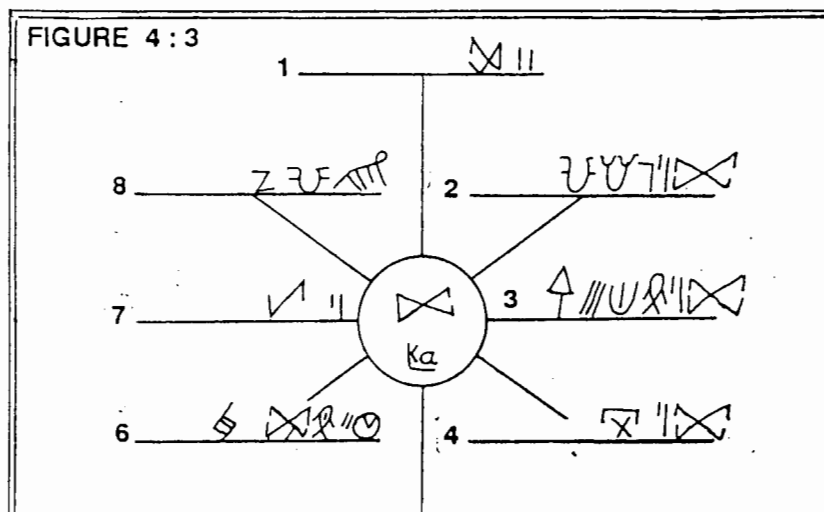
11. *Po-vey pā-i min-ta*

"Create prosperity give (its) distribution and illumination".

12. *Ututa tā pā-i*

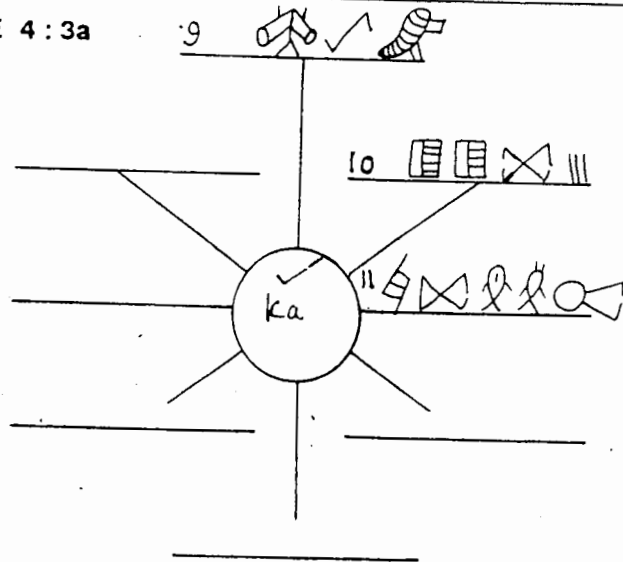
"Bring continuously Virtue. Here thou distribute it."

The Harappan philosophical use of *Ka* gives it the meaning of 'balance or equality'. This term *ka* among the Tamils is equal to total poise on all sides. Thus when *ka* appears in the Harappan inscriptions it refers to a Balanced way of life, which gives man security and a healthy social life. The term *ka*, also denotes a sense of protection as we illustrate in figure 4:3



1. *Yē Ka*
"Abundant Protection/or Abundant Balance".
2. *Ka ii lu utata Uss*
"Balance thou give in abundance; bring (me) a glorious Fate."
3. *Ka ii miṇ u-i sey ta*
"Balance thou give illumination, bring here rectitude".
4. *Ka ii uy aṇṇal*
"Balance, thou give the soul righteousness".
5. *Ka vēy uss a-miṇ Uss ka*
"Make (my) Fate to blossom, come into being illumination, a Balanced Fate".
6. *Tā-vēy e miṇ-i i-ka ko*
"Give (me) bloom, give (me) illumination, give Balance (to me) God".
7. *ii ka*
"Thou give balance".
8. *Tū ga vēy Uss Ka*
"Make virtue bloom (and) a Balanced Fate".
9. *Agappal Ka ii aḷ ippo*
"The spiritual path (is) Balance, thou give (it to your) servant now.

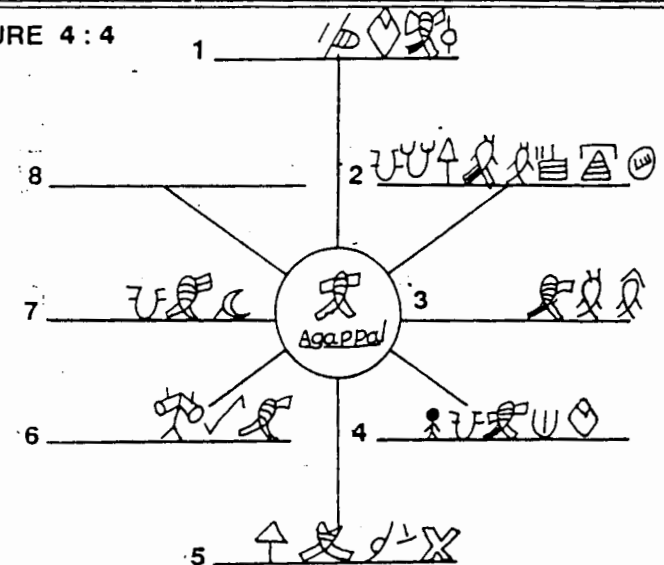
FIGURE 4 : 3a



10. *Say ka tupu tupu*
"Merit (and) Balance, to see a flourishing condition. (here), purity and richness".
11. *Puka (l) ii miṇ miṇ-i 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 path to the next world. The term used in the Harappan seals is *agappal* '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 *agappal* in the Harappan text.

FIGURE 4 : 4



1. *I-tā i agappal pu vēy i-pa-i*

"Thou bring/place here the Inner path, create prosperity, distribute it here".

2. *Ututa uy pa i-po e i-min-i tā-i agappal-ta utatu Uss*

"Bring continuously virtue, make salvation my distribution. Give me a flourishing condition give (me) thou illumination, bring here the path to the other world, bring a glorious Fate."

3. *A-min i-min-i agappal*

"(I am) to become Enlightened, give (me) thou illumination—the spiritual path".

4. *Pō vey u-i agappal Uss a!*

"Create prosperity bring here the spiritual path (as) the Fate (of your servant)".

5. *Annal ii Ko agappal - ta*

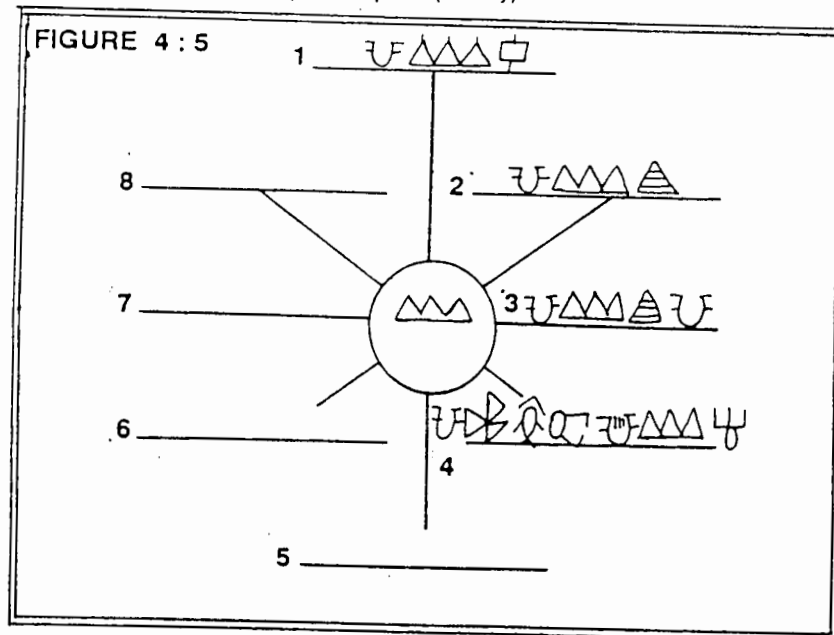
"Eminance thou give (it) God (and) place here agappal".

6. *Agappal ka ii a! ippo*

"The spiritual path, Balance, thou give (it to your) servant now:

7. *Pu-i agappal Uss*

"Create here the spiritual path (as my) Fate".



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-Dravidians in the Saharan highlands before the Sahara became a desert. In figure 4:5 we give examples of the Harappan use of *Kumari*.

1. *I-po-i Kumari Uss*

"Thou give (me) a flourishing condition. Give *Kumari* (as my) Fate."

2. *Pā Kumari Uss*

"(God) Dispense *Kumari* (as my) Fate".

3. *Uss Pā Kumari Uss*

"(God you are) justice, dispense *Kumari* as my Fate".

4. *Tatu Kumari say uss ka-vēy a-min*

"Give me virtue, *Kumari* — make (my) Fate blossom Balance; it is to become illuminated indeed, distribute this as my Fate".

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ANCIENT DRAVIDIAN : AN INTRODUCTORY GRAMMAR OF HARAPPAN WITH VOCABULARIES

CLYDE AHMAD WINTERS

PART II : THE HARAPPAN SIGNS

The Origin of the Harappan Script

The authors of the Harappan seals were Dravidian speakers. (Winters, 1984a, 1984b) These Dravidian speakers originally lived in Saharan Africa, until their migration (waves) 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, Manding and Sumerian speakers. (Winters, 1985d) As a result the speakers of these languages share culture items, including writing. (Winters, 1985c) 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 this time the Proto-Saharans (ancient Mediterranean tribes) were using a 'dotted wavy line' pottery known as Khartoum 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 Adrar Bous in the Saharan region. These people were pastoralists with domestic cattle, sheep 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 or 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 Lycians or Trimmilai may have been a colony of the *Drammla* or Tamil people. (Anselin, 1982)

The Mande also settled large parts of Africa and Asia. In Asia the Mande settled Iran and China. In Asia they were called *Manda*, and may have played an important role in the rise of the Elamites and Shang

African Empires



ANCIENT AFRICAN WATER COURSES

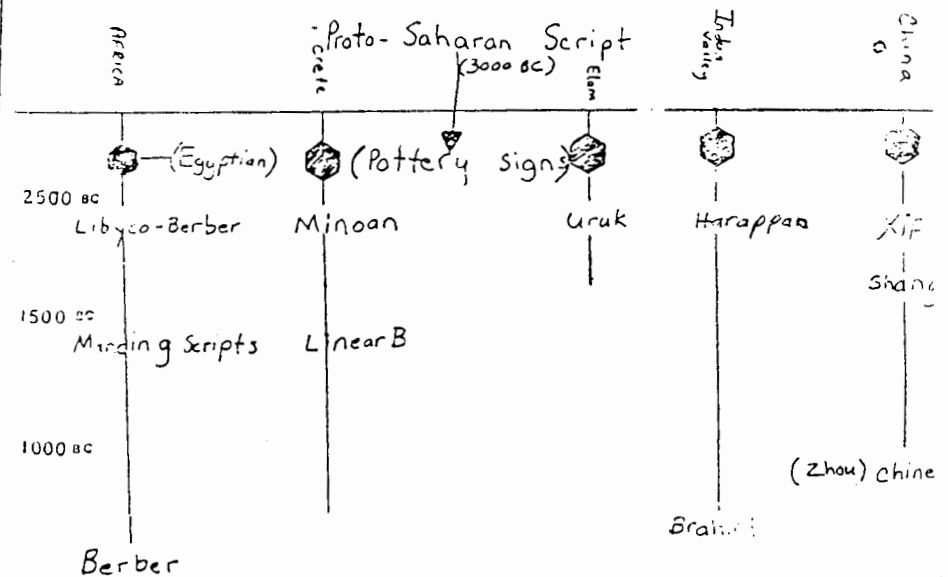


civilizations. (Winters, 1985b) The Mande may have also founded Minoan Crete and wrote the Linear A tablets. (Winters, 1983b) An important Mande tribe in North Africa was the Garamantes. (Winters 1986 b)

It is clear that a common system of record keeping was used by people in the 4th and 3rd millennium BC from Saharan Africa, to Iran, China and the Indus Valley. Although the Elamites and Sumerians abandoned the Proto-Elamite writing and Uruk script in favour of cuneiform writing, the Dravidians, Minoans and Manding continued to use the Proto-Saharan script. (Winters, 1985c)

Due to the common cultural origins of the Elamites, Dravidians Manding and Sumerians led to intercultural 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, 1989b) N. Lahovary, noted structural and grammatical analogies of Dravidian, Sumerian and Elamites. K.L. Muttarayan (1975), provides hundreds of lexical correspondences and other linguistic data supporting the family relationship between Sumerian and Dravidian. C.A. Winters (1980, 1985d, 1989b) and L. Homburger (1951) have provided evidence of a genetic relationship between the Dravidian languages and the Manding group.



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 1983a). The earliest Manding inscriptions found so far were located at Oued Mertoutek which has been dated to 3000 BC by Wulsin (1940).

The Indus Valley writing is also related to Linear A writing (Winters, 1984b). 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-Saharans 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-Saharans to make amulets and write talismanic messages on pottery and obituaries. The Proto-Saharans 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 /u/ attached to various initial consonants usually /l/, /r/ or /d/. For example, writing in Sumerian was *Ru* and *Shu*, Elamite *Talu* and Dravidian *cārū*. The Sumerian *Shu* agrees with Manding *Sēwē*.

The Dravidian language 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 has 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 Kalibangan, 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 Manding script, made 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-syllabic writing system*. Thus the syllables which retain constant phonetic values can be used by different groups to write their own languages.

This view is supported by the use of cuneiform script by different groups in 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.

Thus to read a particular cuneiform script took only the discovery of the language written in the cuneiform script. Therefore the decipherment of the Persian cuneiform script provided the key to cuneiform cognates. The decipherment of the ancient Mande inscriptions was the key to the decipherment of the Proto-Saharan scripts: Linear A and the Harappan writing.

Many scholars have suggested a continuity between the Harappan script and the Brahmi semi-alphabetic writing. Hunter (1934), and Langdon (1931), believe that there is a connection between the Harappan and Brāhmi characters. These scholars have advocated a continuity between the Brāhmi and Harappan scripts due to the relatedness of signs.

Other points supporting this view are the Boustrophedon style of writing the Harappan signs, and the Asokan inscriptions at Yerragudi in Andhra Pradesh. Other evidence of Brāhmi being written from right to left comes from a Sinhalese inscription, and early coins from Eran. (Mitchiner, 1978:11)

Some scholars dispute the theory that a continuity exist between the Harappan and *Brāhmi* scripts. These scholars advocate a semitic origin for the *Brahmi* script. But this view is without foundation because although the *Brāhmi* signs may appear similar to the semitic alphabets in shape, they lack phonetic agreement. A comparison of eight *Brāhmi* and Old Phoenician signs show this lack of phonetic affinity. (see fig. 5:2).

Old Phoenician	Brahmi
Δ d	▷ e
I z	I na
ς n	ς da
∟ l	∟ u
○ c	○ tha
⊙ q	⊙ cha
† t	† ka
∩ s	∩ aha

As you can see from this comparison of Semitic and Brāhmi scripts that they lack phonetic congnation.

It would appear that the *Brāhmi* script was originally invented for a non-Sanscrit language. Mahalingam (1967:79), has discussed the evidence suggesting that the Brāhmi script was originally used to write a language spoken by non-Aryans.

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

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

vowels

Brahmi

E
+
K

Indus Valley

U u
I i
C a

There are 38 characters in the *Brāhmi* semi-alphabet. In the comparison of 22 Harappan signs and *Brahmi* signs in figure 5:4, we have the following results:

- i) 15 signs have identical phonetic values and shapes,
- ii) 4 signs show partial agreement in shape and phonetic values and
- iii) 3 signs show little or no agreement in shape or phonetic value.

Of the 22 *Brahmi* and Harappan signs compared 90 percent are identical or share partial affinity in phonetic value and shape. Moreover, given the fact that 19 out of 22 *Brāhmi* characters compared to Harappan signs show agreement in phonetic value and shape indicates almost 50 percent cognation between these two scripts. This average cognation rate far exceeds the number of *Brāhmi* signs which look similar to semitic signs, but lack phonetic agreement. Moreover, there is great agreement between the Manding and *Brāhmi* signs in shape and phonetic value. (Winters, 1981a) This is very interesting since the Manding language is genetically related to the Dravidian languages. (Winters, 1985b)

Harappan Brahmi Mandi

d	ta	d	da	
)	a	⋈	a	⋈ bē
Z	ka	Z	o	Z → ō
⋈	ga	^	ga	^ a
⋈	ta	⋈	ta	⋈ ta
(a	(tha	
○	ta	○	tha	○ ta
D	ye	△	e	
↓	ia	↓	ya	
◇	pa	□	ba	□ ba
J	lu	J	la	
d	ko	d	ca	
↗	lu	L	u	↗ lu
7	su	t	sa	↘ su
	say	↑	sa	↗ su
E	tū	E	ja	
⊔	ipo	o	va	o ve
Z	ka	└	da	└ ka
⋈	aga	le	gha	
∪(a)	l(i)	ψ	ai	
↗	lu	↗	ra	
□	po-i	⊔	bi	

This suggest that the Harappan signs we see on the seals and copper tablets 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 ideographic 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 out 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 suggest 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 all the letters in the *Brahmi* semi-alphabet and the Harappan syllables.

In conclusion, the Harappan Script is a logo-syllabic system of writing. Due to shared signs and symbols and the use of animal motifs to express the Indian deities on Harappan and (later) Indian seals indicate a continuity between the Harappan script and the Brāhmi 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 zoomorphic 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 not the first to see a relationship between Dravidian writing and contemporary scripts of antiquity. For example Piccoli compared 40 Harappan signs to symbols on Etruscan utensils. He found numerous parallels between the Harappan writing and Etruscans, and he suggested

the script was syllabic. This discovery by Piccoli 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 archaeological 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. Cornelius. Cornelius, (1956) 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. (Cornelius 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 millenniums 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 1989b)

Comparative and historical linguistics support the hypothesis that the Dravidian languages are closely related to Elamite, Manding and Sumerian. David McAlpin (1974, 1981), has been able to illustrate a genetic relationship between the Dravidian languages and Elamite. K.L. Muttarayan (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 Asia languages.

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

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

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. Decipherers of the cuneiform scripts early recognized that reading a particular cuneiform script took only the discovery of the language spoken by the authors of a particular group of cuneiform tablets. (Pope 1975:85-122) Therefore the decipherment of the Persian cuneiform script provided the key to cuneiform cognates. (Pope 1975:188)

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

In addition to inter cultural pattern which integrate the Indus valley, Elam, Sumer and Saharan Africa, there are linguistic affinities too. K. Lahovary, noted many structural and grammatical analogies of Dravidian, Sumerian and Elamite. K.L. Muttarayan, provides hundreds of lexical correspondences and other linguistic data supporting the family relationship between Sumerian and Dravidian. C.A. Winters (1989b), and L. Homburger (1951), has provided evidence of a genetic relationship between the Dravidian languages and the Manding 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 Manding speakers. (Winters 1983a)

The Manding speakers inhabited much of Northwest Africa and the western Sahara as early as 3000 BC. Many of those Mandin speakers later settled ancient crete. (Winters 1986; 1985c)

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

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

so far were located at Oued Mertoutek which has been dated to 3000 BC by Wulsin (1940) (Winters 1983b)

Today most of the Manding use Arabic, because they are Muslims. The ancient Manding wrote on stone, wood and dried palm leaves. Ink was made from root and liana. The Bambara, a Manding group claim that archives on tablets of wood. Palm leaves were also used by the Tamils to record ancient records. (Winters 1983b)

Using the Vai syllabary but reading the signs in Malinke-Bambara, we have been able to decipher the proto-Manding inscriptions found in the Eastern Sahara. The proto-Manding syllabic script has around 200-300 signs.

The Manding terms for excavate or hollow out are dy, dō, kuly, etc. This shows that proto-Saharans terms for writing denotes their creation of impressions on wet clay or hard rock. The Sumerian term for carving was Ru.

Language	Writing
Dravidian	<u>Carru</u>
Elamite	<u>talū</u>
Sumerian	<u>Ru, Shu</u>
Manding	<u>Sēwē</u>

Figure 6:1

The proto Saharans either engraved their syllabic script on rocks, or used a styles to engrave wet clay. This view is supported by the fact that the term for writing often has the long /ū/ attached to various initial consonants usually /l/, /r/, ṣṣṣ. For example writing in Sumerian is Ru and Shu, Elamite Talu and Dravidian carru. The Sumerian Shu agrees with Manding Sewe.

The writing of the Dravidians, Elamites, Manding and Sumerians had its origin in the proto-Sahara sometime after 3500 BC. The writing, mainly used for religious purpose, was used to write talismanic messages on pottery and obituaries.

The term for writing relate to excavate. For example, the proto-Saharans (P.S) share the term for digging a hole: Dravidian tulaj, Sumerian du, tu and Manding du, tyoto, tuta: Ps. tu.

The fact that the Harappan signs share the same sound values as the Manding script made it possible to obtain a phonetic reading of the

Harappan 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 Malinke language of the Mande group, Winters read the Harappan signs (which agree to the proto-Manding script) in Dravidian orthophony. 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 aspect of Dravidian. This view is supported by 1) the fact that in the West Indus Brahui, a Dravidian language is spoken in Baluchistan 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 seals. 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 script.

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, Manding 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.

3) It was assumed that since the Harappan script has affinity to the proto-Manding (Libyco-Berber) script and Manding language, the Harappan script could be read by giving these signs the phonetic values they had in the proto-Manding script, but read in Dravidian, since a strong genetic relationship exists between these two languages. (Winters 1990b) The discovery of cognation between the Manding and the Harappan signs on the one hand, and the corresponding relationship of sign sequences in the Harappan and Manding scripts helped lead to a speedy reading of the Harappan signs.

To decipher the Harappan writing Winters dealt with a limited number of published inscriptions. By working with seals and copper plates having a limited number of characters on them, he was able to break down the signs into syllables to decipher their meaning. To help in understanding the meaning of the signs Winters used Burrow and Emeneau's, *Dravidian Etymological Dictionary*. Once the characters on a seal were broken down into its syllabic value you then have to determine if the syllable is a monosyllabic word, or if it is part of word having more than one syllable.

Recognizing this, along with the help of the Scandinavian team's decipherment of the structure of the Harappan writing helped confirm Winters' decipherment of the Harappan writing.

Many would-be decipherers have assumed that it is almost impossible to prove a genetic relationship using data of comparatively recent time-depth. But this view of archaeological decipherment is untenable. In fact, in the well known decipherments of Egyptian and Cuneiform, linguistic data of a comparatively recent time depth was used to interpret the inscriptions. For example, Jean Champollion, used Coptic to read the Egyptian writing. And Sir Henry Rawlinson, the decipherer of the cuneiform script used Galla (a Cushitic language spoken in Africa), and Mahra (a south Semitic language) to interpret the cuneiform writing. This meant that we could read the Indus Valley writing using recent Dravidian linguistic data.

This decipherment of the Harappan seals shows that they do not contain the names and titles of their owners. They are talismans, with messages addressed to the Indus Valley deities requesting blessings. This is in sharp contrast to the Mesopotamian seals which were used for administrative and commercial purposes.

The Harappan seals are protective amulets. They were found in almost every room of the city of Mohenjo-Daro.

The importance of the Harappan seals is supported by the popularity of wearing totems among the Dravidians. (Elmore, 1915) During the Sangam period the warriors and young maidens wore anklets with engraved designs and / or totemic signs. (Pillay, 1969) In addition at the turn of the century Dravidian children wore the image of Hanuman around their neck, and married women wore a 'marriage totem' around their necks as a symbol of household worship. (Elmore, 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 her 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 as 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 talismanic seals was continued in India even after the decline of the Harappan civilization. It also shows the continuity between the ancient Harappan use of animals 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 formulae*. 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 down to the 9th century BC, can be compared favourably to Harappan and post Harappan signs. In addition, Lal observed that 85 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), implies a direct continuity between the Indus Valley inscriptions and later Indian scripts.

The pottery marks on the Indus Valley ceramics agree with pottery marks discovered from contemporary sites in Africa and China. (Winters, 1983c, 1984c) There appears to be a long tradition of incised marks on pottery in the Indus Valley. (Parpola, 1986; Lal, 1960) Many of the signs

from Balakot in Pakistan agree with Harappan signs. (Parpola, 1986) Other Harappan signs agree with the potter marks found on pottery excavated at Gumla and Rahman Dheri.

The Harappan Signs

Over 4000 Harappan seals have been found. The script incorporates 419 signs. There are between 80-100 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/tablets. There are around 200 copper tablets, and 4200 seals. The Harappan seals have been found at 60 different sites:

2090 Mohenjo-daro	140 Kalibangan
1490 Harappan	83 Chanhujodaro
240 Lothal	44 from 15 sites in the Near East
400 broken and therefore illegible	

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 steatite. 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-and-half inches. The Harappans perfected a unique technique of cutting and polishing the seals. The seals have a raised boss 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 sinistral 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 70 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.

BASIC INDUS SIGNS

	ā		ɔppa		ag-ppal
	i		uy		
	u		u-pa		
	pa		pa-pa		ippa
	pu		pu-pa		lu
	ma		ma-pa		
	pa-n		pa-nal		
	ta		ta-pal		cuppu
	tā-tu		#		pakatū
	tā		nil		pa-i
	tā-tū		gā, lū		puka
	(y)e		tar-pasu		
	itu		rain down		
	knowledge		uss		
	tū-tū		u-pa-pa		i-ka
	sau, sey		u-va-va		
	me, tū		u-pa-pa		
	a		u-pa-pa		
	vey		ta-va		
	mi		ta-va		
	pa		ta-va		
	sa		tā		
	lu		tā-va		
	ka		tā-va		

The Indus Valley writing is logo-syllabic. 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 and open syllables are of the CV (consonant-vowel) 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 Δ min and \blacktriangle al.

The Harappan signs are clear and straight rectilinear signs. 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, 1986:400)

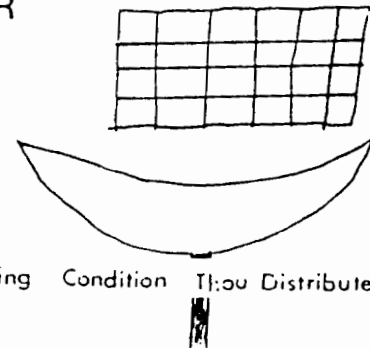
In the Harappan worldview animals were used in many cases to represent characteristics human being should exhibit. As a result the bird was recognized as a symbol of the highest love, due to its devotion to its offspring; and the elephant due to its strict monogamy symbolized the right attitude towards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

The principal Harappan deity was the unicorn. The unicorn may have represented *Māi*, (*Vishnu or Katavū*). 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 oxen, she was probably called *Kali* or *Amma*.

The association of the bull with *Māi*, comes from the fact that *Ma* in Dravidian is the name for the bull and the buffalo. This god often is 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 'sacred manger 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)

PŪ-I-PĀ

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 'with in' may relate to *agappal* ூ "the Inner Path".

Happiness 'within' was obtained when man avoided all mental evil (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 totems among Dravidians. During the Sangam period the warriors and young maidens wore anklets with engraved designs and or totemic signs. Moreover, at the turn of the century in South India, it was common for children to wear an image of Hanuman around their neck; while wives wore a marriage totem 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 seals 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.

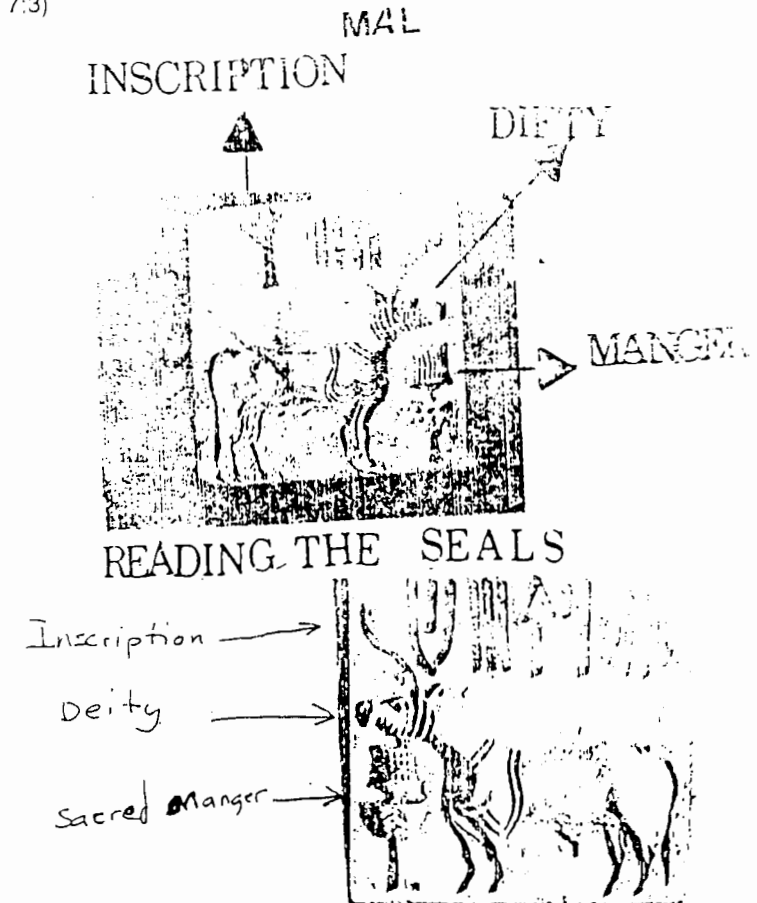
The Harappan seals indicate what the Harappan Believer wanted from his god:

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

The Harappan seals are predominately wishes or request by the bearer of a particular seal requesting blessings from the Harappan dieties. These protective amulets were found in almost every room of the city of Mohenjo-Daro.

The Harappan script was used to write a Dravidian language that was spoken by many Indus Valley dwellers in the 2nd millennium BC. The script is read from right to left. The readings below of the Harappan signs are recognized as being tentative, because a corrective attitude is always essential for a successful decipherment of an unknown script.

In the Harappan seals the talismanic formula was: Depiction of Deity X as an animal, and then a votive inscription was written above the Deity. (fig. 7:3)



ā! ippo tūtū li-ta Say u-i-ta

(oh) Mall increase how your servant's virtue thou give

(Me) rectitude. Bring it here!"

"A flourishing condition thou distribute (it)!"

uss ā! annal ā! pa-a Say

(oh) Kali (make) the fate (of your)
servant righteousness. Distribute
(to your) servant rectitude/mor

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

HARAPPAN 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, subordinate compounds, synthetic compounds and polysyllable words. In the Harappan script the same sign can often denote both noun and a verb.

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

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

SUBORDINATE COMPOUND

Ⓟ tā tū 'give virtue'

/// tū say 'to experience rectitude'

Ⓢ u pā pā 'bring the distribution of God's mercy'

Ⓤ u say 'Bring rectitude'

Ⓝ vey annal 'blossom righteousness'

☀ tū tā tū, 'to experience the bequeathal of virtue'

Ⓟ pō pō, 'create a flourishing condition'


Ⓢ i say, 'give rectitude'


Ⓢ i mīn i, 'thou illumination, give it.'


Ⓝ kā annal, 'preserve righteousness'


Ⓢ pā āl, 'distribute to your servant'


DINATE COMPOUNDS

 kâ kâ, 'much protection'

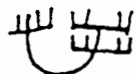
 annal annal much righteousness


 tu tu, 'much purity'

 pa pa, 'distribute Karma'

 pā pā pā, "Distribute much of God's Mercy"

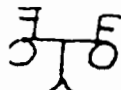
TITIC COMPOUNDS

 tū tū tū u, 'I (hope) to see virtue'

 tu puka tū, "Make me virtuous"


(the final -tū in this sign is the

1st per. verbal termination)

 āi ippo tū tū, 'increase now your


servant's virtue', or 'Now (your) servant

to experience virtue'

 a pā al, 'bring into existence

knowledge (for your) servant'


yey po pō ita, 'open up the birth of a


 flourishing condition, give here (its)

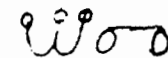
increase'


affix is often joined to another Harappan sign to indicate either the plural suffix or personal pronoun suffix.

POLYSYLLABIC COMPOUNDS

 agappal, 'Inner path'

 tuppū, 'purification'

 ippo, 'now'

 puka, 'glory, fame'

The last type of Harappan compound sign creates polysyllable 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 1

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 /a/ and /i/ prefixed to the initial consonant to form the VCV type, e.g., aga 'Mayest thou' and 'to become' and ile '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 suffixial elements on the otherhand such as -a, -e, and -i are primarily short vowels. In the Harappan seals short and long vowels occur initially, medially and in the final position.

Vowels

High	i	u	ii	uu
Mid	e	o	ee	oo
low	a		aa	

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

There are thirteen consonants in the Harappan script.

p	t	s	k
m	n	(ŋ)	
v		y	
	r	(l)	
	l		

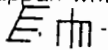
The consonantal system of the Harappan language is as follows:

- k -
- g - -g -
- s - -s -
- t - -t -
- n - -n -
- -n -
- p - -p -
- -r -
- l - -l -
- (-l)
- m -
- v -
- y - -y

My analysis of the Harappan consonants indicates that k, g, s, n and p, occur in both the initial and medial positions. The r and l are found mainly in the medial position while m and v occur only at the beginning of a word. The y, 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 () a, the 3rd per. singular; | i, the 2nd per. singular; and  - tu, 1st per. verbal termination.

- tu 1st per.
- | i 2nd per.
- a 3rd per.

The -tu sign, usually occurs as a suffix when there is multiple use of tu, e.g.,



Nil eṭu tūkaii miṇ potu po po-tu Uss.

"Loftiness raise (it) up: Give virtue, give (me) rectitude. Thou give illumination, a flourishing condition of that h which is pure proceed (to let it) bloom as my Fate.



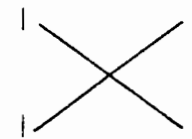
potu po po-tu

The Harappan seals are written in the second person. Thus, only one pronoun affix | i 'thou, you', is mainly used in Harappan inscriptions.

In Rule #8, 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 i-i 'thou give', after the substantive the first | - is the pronoun 'thou, you', followed by the causal particle | - 'let, give it or permit', at the termination of the 26.

Substantive e.g.,



i i aṇṇai i-i. "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. Mahadevan (1986a), Parpola (1979) and Konorozov (1965), have been concerned with a structural analysis of the Harappan script and texts. Any decipherment 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 CV C class the vowel is short. The suffixial elements on the other hand such as -e, -i, -u, and -ta are primarily short vowels. The Harappan writing is monosyllabic. (Fairservis 1986:121)

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 phonetic value. Once this is done, the resulting words are assigned a singular or homophonic value.

The most common logograms are  miṅ 'fish' illumination, glitter,  ai 'man, servant'. Parpola (1975) has suggested that  is also a pictogram and calls it a 'pointed end' koḍu/kōḍu and assigns it the homophonic meaning koḍu/kōḍu 'to give, giving'. This is most interesting, because it coincides with the actual meaning of this sign  ta 'to give'.

MORPHOLOGY


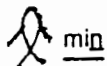

The evidence of the Harappan script makes it possible to make statements concerning the morphology of this language.

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 -i-. 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 suffixial agglutination. This means that the root morpheme is usually initial in simple words. For example, E 'virtue'.



 nū-ta 'give (continually) virtue, and  miṅ  miṅ-ta 'glowing'.

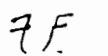




Verbs

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. (Winters 1987).

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

 tū-tū-ā uss  Uss
tū-tū-ā uss "Abundant purity to become (my) Fate".

 i-ka  ai  ta  Uss  Uss

i-ka ai ta Uss tutu a Uss "Give balance to thou servant, bring God's justice, much virtue to be come (my) Fate"

𑀓𑀭) IIII IIII

Tū me a Uss

"That which is pure excellence to become (my) Fate".

𑀓𑀭𑀓𑀭) IIII) 𑀓𑀭𑀓𑀭

Pā pā - pā ā me āl ippo tū - tū

"You art indeed the Dispenser of Mercy to all. (You) bring into existence excellence. Increase now your servant's virtue".

𑀓𑀭 𑀓𑀭 𑀓𑀭 𑀓𑀭 𑀓𑀭 𑀓𑀭

ā vey pā pā mi mige kō

"Come into existence prosperity. Indeed much eminence (for me Oh Great) God."

𑀓𑀭 (𑀓𑀭) 𑀓𑀭

Uss na i pō i tū ō

"Thou art, Fate, Dignity. Thou the Dispenser of Mercy to all. Bring about abundant purity".

The most common verb 'to give' in Harappan was | i, and ↑ ta. These verb forms were used because the people wearing the amulets were of a lower status than the gods who they are requesting blessings from. And as noted by Tolkāppiyam, Collaṭṭigāram 445-48, the root kotu, is only used when the recipient of a gift is of a higher status than the giver.

The other common verb is | i 'give' or 'give it'. This verb can appear independently or be appended to a noun. For example 𑀓𑀭 i-pō-i 'Thou

flourishing condition give it. 𑀓𑀭 i-pō 'give a flourishing condition' and 𑀓𑀭 pa-i 'to your servant give knowledge'.



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

GIVE K, I

𑀓𑀭) IIII) II

ul sây e "Give (me) rectitude and salvation".

K IIII
mē ta "Give (me) Excellence
K IIII 𑀓𑀭 𑀓𑀭) 𑀓𑀭)
tā vey-ga annal tū ta

"Give (me) much awareness, righteousness, bring me purity"

IIII IIII 𑀓𑀭 𑀓𑀭) 𑀓𑀭)
i-po ta pā - i sây sây

"Give (me) a flourishing condition, do not divide (my) rectitude, (my) merit".

BRING U

𑀓𑀭) IIII)
i u-i miṅ - a

"Thou bring here glowing admiration".

U IIII)
me-u

"Bring Excellence".



u-tū ta ta pā - i

"Bring continuously virtue, here thou distribute it".

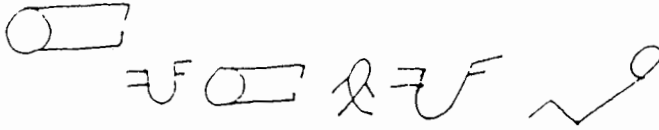
CREATE



po vcy pa-i min ta

"Create prosperity give (it) distribution and illumination".

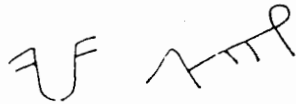
BLOSSOM



kā vcy Uss min Pukal Uss

"Balance blooms Gods justice - - a shining glorious Fate".

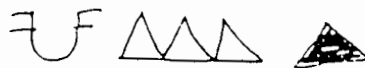
MAKE



tū ga -- vcy Uss

"Make virtue (my) Fate to become illuminated to see Balance".

DISPENSE



Pā kumari Uss

"(God) Dispense Kumari (Paradise) (as my) Fate".

NOUNS

Mahadevan (1986a:21), has proposed that the Harappan roots 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 Winteeers' (1987), coordinate compounds.

The Harappan nouns are monosyllabic. Some of these nouns can also serve as verbs, e.g., III say 'to do, create', and □ pu/po 'birth, to go proceed', and III tū '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 | -i-



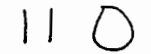
li u-i min-a

"Thou bring here glowing admiration".



i āl ippo tū tū

"Thou increase now your servant's virtue".



lta ve

"Thou bring (to me) Elevation".

i-u-i sây ta.

"Thou bring here high character continually".

2) Nouns denoting quality, state of things, form, etc., e.g.,

min - a itûrû min - ta

"Glowing admiration, much virtue -- give it -- and illumination (continually)".

Sây min-ta

"Rectitude and illumination" or "Righeousness Glowing".

The negative is formed by adding a particle to the verb. The negative particle -i is frequently used e.g.,

pâ

"to divide, to distribute".

pâ-i

"do not divide".

SENTENCE 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:

papa tûtû-i e sây/ min - 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.

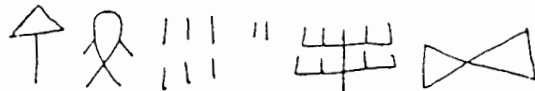
Many Harappan expressions are formed by joining two or more Harappan bases to make compound signs. These compound signs are compound phrases. The base(s) of these signs represent either a noun or

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 1987) The coordinate Harappan compounds have two parallel elements. The replication of the same element without change denotes pluralization. Thus the effect is reduplication.

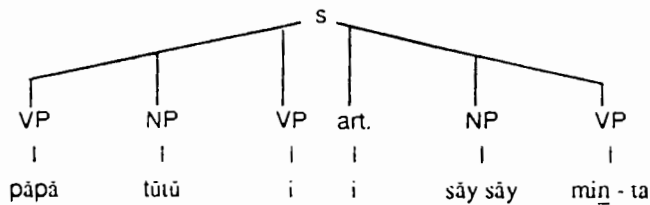
Most Harappan compound signs are subordinate compounds. In this type of compound the base is formed by a noun or verb.

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



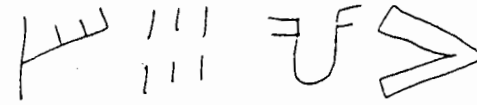
pāpā tūtū e sây sây min - ta

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

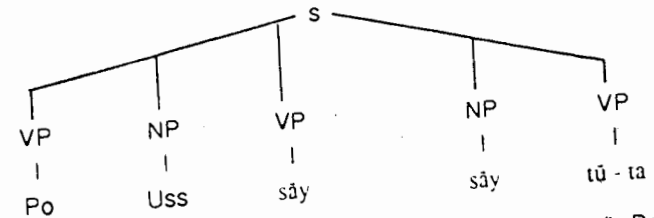


This inscription can be interpreted as follows : "Indeed give abundant virtue and propriety glowing".

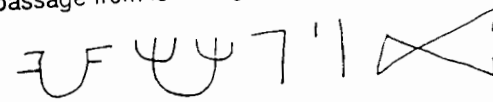
The request sentence on the Harappan seals is aimed at the deity represented by a zoomorphic picture on the seals. This makes for interesting pattern among the many Harappan seals. The Harappan sentence pattern depends on how the inscription is read. Inscriptions read from right to left are VOS, while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



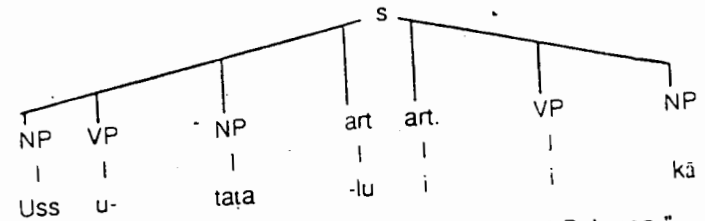
Po uss sây sây tū - ta



"Give birth to Fate, create rectitude (give continually) virtue". Below we read a seal passage from left to right:



Uss utata lu i i ka

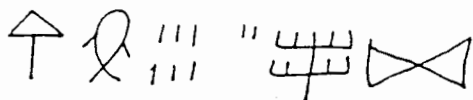


"Fate brings greatness in abundance, thou give (me) Balance."



HARAPPAN PARTICLES

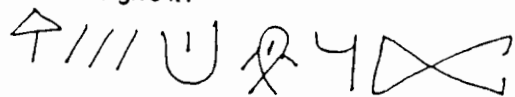
There are four particles used in the Harappan writing. They include the interrogative II (y)e 'what, which', and three demonstratives: I i 'this' close to the speaker', U u 'this, that' at a certain distance from the speaker, and a 'that' remote or bring outside of the speakers view. The grammatical examples used in this paper are taken from among the seals illustrated in S.R. Rao, Lothal and the Indus Civilization, E.J.H. Mackay, Further Excavations at Mohenjodaro, John Marshall, Mohenjadaro and the Indus Civilization, and M.S. Vats, Excavations at Harappa.



The I j sign is ligatured to many Harappan signs. This ligature is the causal particle -i, literally it means 'give it', or 'to let, permit'.



papa tūtū-iē sāy sāy min-ta.

"Indeed abundant virtue-give it (to me) (and) create rectitude and glowing propriety". In this sentence -i is appended to the sign  tūtū 'abundant virtue', i.e.  'abundant virtue give it'.

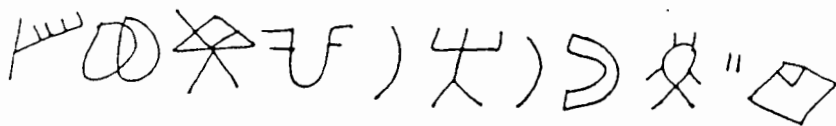


annaḷ - lu miṇ - i u-i sey-ta "Much righteousness let it shine here virtue". In this inscription the causal particle -i is written inside of  miṇ, i.e. .

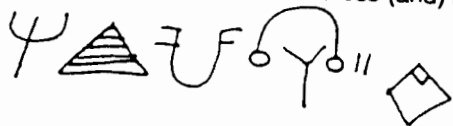
The Harappan conditional particle used in the script is the suffix II -e, which is appended to the root of the preterite. This II -e, is usually suffixed to a noun and is used to give the preceding word strength.



ta (r) ya e tu ka vey itu āḷ annaḷ uss. "Ye who binds (man) make (my) virtue bloom/give rectitude. Manage (your) servant's Fate".



Vey pu e -i min-i pu a āḷ tu a uss āḷ pā-i tata tu-ta. "Create prosperity, give (me) illumination -- a flourishing condition. Come into existence (a good) Fate. Give your servant the Distribution, Greatness (and) bring Virtue".



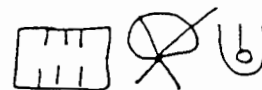
Ta vey e ta ippo Uss pā-ta. "Give me awarness, give (it) now. Fate give its distribution".

Demonstratives

Mahadevan (1986a), in Rule #5, of his proposed grammar of the Harappan script noted four signs I, II, I) and), which he identified as case markers. These signs are demonstratives or verbs. The II (y)e, I i,) a and I) i (pronoun and verb) can be both a demonstrative and verb.

There are three demonstratives in the Harappan script. They are U u | i, | | e. The U u demonstrative base expresses a person, place or thing occupying an intermediate position neither far or near. Below are several examples of its use.

(Marshall, Plate C11, letter C)



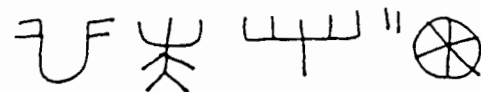
U ita āḷ pā-a uū tū. "Bring here (and) distribute to your servant a flourishing condition and purity".

(Marshall, plate CV, no. 61)



Ta(r) ya i u-tū ta. "ye (who) binds, thou bring virtue here".

The particle "e, '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 LXXXvi, no. 68).



Ta (r) ya e itū āḷ kō-Ssu. "ye bind (your servant) to that which is pure Supreme God".

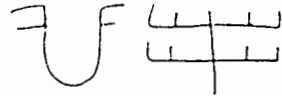
(Marshall, plate CV, no. 51)



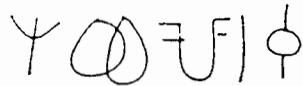
Tū tū-vey kō e tū a. "Virtue. Blossom that which is pure, God is that which makes (one) pure".

The **||** sign can be read ve, vê and **γ** is merely an euphonic addition to the root e.

The third common demonstrative is **I i**, e.g. (Mackay, plate LXXXV, no.154)



I tū tū- ssu/I tū tū Uss. "So much virtue / So much virtue (and) Fate". (Mackay, plate XCV, no. 443)



Ita i - ssu tata tū. "Here thou bestow greatness and Virtue".

This sign **I (i)**, 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 CV11, no. 128)



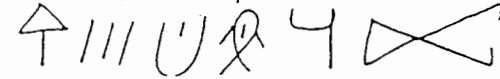
Vey - tū tū pā-i. "Bloom that which is pure, do not divide (my) purity".

Suffixes

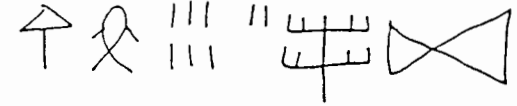
A common feature of the Harappan inscriptions is suffixation. Many of the suffixial elements identified by Mahadevan (1986) Rule #7: agrees with our findings.



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 **↑-ta**, e.g.



annaḷ - lu min - i u-i sây-ta. "Much righteousness, let it shine; bring here Virtue!"



Papa itūtū e say say min-ta. "Need give abundant increase Propriety glowing!"



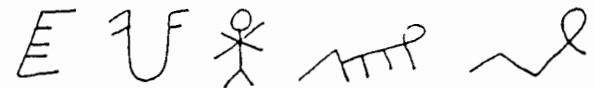
Ko tata-ta. "God bestow on (me) greatness!"

⊗ and **⊗** are signs that can be read -ke, -ge, or -ka, 'to be, to do', etc. This is also the imperative or infinitive: This form was popular in classical Tamil and Malayalam.

The locative suffix **kā**, had three signs in Harappan: **⊙**, **⊗**, **⊗**. **aga** is the infinitive of the verb 'to become'. It is added to nouns of quality to convert them into adverbs. Literally **aga** means 'may it that thou will do'. This point is expressed several times in Vats', sign manual. For example: (Vats' no. 10815.




Agā ta. "Mayest thou give (Veda)" or Vey ka ta, "Blossom Perfection".

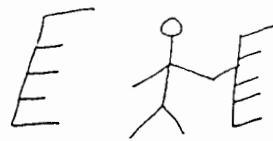


Aga vey tū-ge āl annal-ssu tū, "Mayest thou blossom virtue and righteousness on your servant and that which is pure". (Vats, no. 3170)



Tā-ē aga tū. "Mayest thou give abundant virtue".

The  tu/du sign is also used as a suffix, e.g.,




Īāl tū dū. Thou servant to become pure"


PLURAL

The Harappan script used several signs to denote the plural. A common plural sign was) a, this is the neuter plural suffix. This sign is restricted in use to neuters. It seems that just as this sign was popular in classical dialects for pluralizing the neuter compound it was also used by the Harappans, e.g.,





min min -a. "Brightly Shinning".

Sometimes the plural is formed by reduplication e.g.,  tū tū "abundant virtue"

6.18a In other cases the suffix  lu is used to form the plural, e.g.,

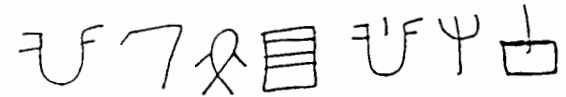


annal-lu min-i u-i sey-ta. "Much righteousness, let it shine. Bring here virtue!".

Another common plural element in the Harappan script is ga/ge. This suffix is usually joined to nasal Harappan signs such as  



min and  mi-mi. 'eminance'.



l-po ta uss-i pu min ga Uss. "Give (me) a flourishing condition, bring thou (good) Fate to give birth to light (illumination) -- make (my) Fate (wonderful)".



A vey pā pā mi-mi ge Ko. "Come into existence prosperity, indeed much eminance (for me oh) God."










Ta vey-ga annal tū ta. "Give (me) much awareness, righteousness, bring (me) purity". Or, Ta vey-ga annal me ta. "Give (me) much awareness, righteousness, bring (me) excellence".








DICTIONARY

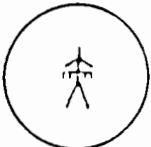






The following is a dictionary of many of the Harappan signs we have deciphered. Many of these signs are simply compound signs, i.e. Harappan signs formed by the joining of two or more basic Harappan/Indus signs.








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.

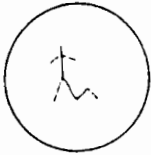
NO.	SIGN	EXAMPLE
1		āḷ, maintain, keep, maintain in use, laborer, control, manage, cherish, servant, to rule, man reighover, man
2		i āḷ i, (to) thou servant give
3		i aḷ, though servant, thou rule, thou reighover
4		pa āḷ, distribute to the servant
5		iḍ, see no.4
6		āḷ i, to the servant
7		id see no. 6

8		āḷ var the Supreme God. tū āḷ, the pure servant
9		See no. 3
10		u pa āḷ, Bring God's Distribution to the servant
11		u āḷ ta, bring (it) here to th servant
12		taṭa āḷ, bestow glow, bestow greatness
13		u āḷ, bring the servant
14		ka āḷ, protect your servant

- 15  āḷ tū, "the man is immaculate; the virtuous man; the pure servant
- 16  u i āḷ, bring the servant
- 17  u āḷ, see no. 13
- 18  i say āḷ, give the servant rectitude
- 19  tū(ṇ)tu i āḷ, discharge to the servant
- 20  tu āḷ, the pure servant
- 21  po āḷ, the pure servant

- 22  i āḷ, see no. 3
- 23  itū tū al, give the servant abundant virtue
tū(ṇ)tu i al, discharge to the servant
- 24  i al, see no. 3
- 25  āḷ ta pā ta pā, (To the) servant give a great
Distribution
- 26  tu āḷ, see no. 20
- 27  i ka āḷ, give balance to thou servant
- 28  i ka āḷ ika, Give balance to thou servant
give him protection.

29



vey āḷ. (cause your) servant to bloom

30



i say āḷ i say. give thou servant abundant rectitude

31



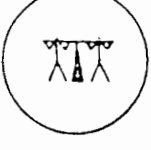
i ka āḷ. Give balance to thou servant

32

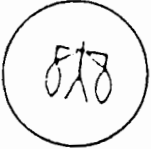


ii āḷ ii. give (it to) thou servant thou give it leave.

33

i āḷ kaka pā i āḷ kaka. Give the servant much perfection (as his) great distribution

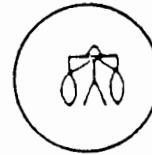
34

po āḷ papa ippo.
1) proceed to (make) the Distribution to the servant now; 2) a flourishing condition the servant's Distribution

35

āḷ papa, to the servant the Distribution of God's Mercy. (In this sign the papa 𑀧𑀸𑀢𑀺, it may be a form of pluralization of the term pa, since it represents a form of reduplication.)

36



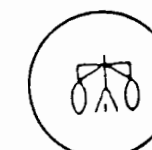
āḷ papa ippo, 1) to the servant to Distribution 2) Now!

37



tu tū papa āḷ ippo, Increase now the Distribution of the servant

38



āḷ papa ippo i, the servant's distribution of God's Mercy. Now give it.

39



po āḷ papa, a flourishing condition (for) the servant's Distribution.

40



uy tū āḷ uy. Ensure that the pure servant will be relieved from trouble

41



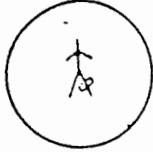
pa āḷ, Distribute (God's Mercy) to the servant

42



i āḷ. thou servant

43



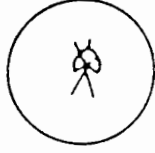
āḷ po, (a) flourishing condition for (your) servant.

44



u āḷ, bring the servant

45



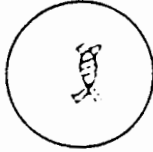
āḷ pa a, distribute (God's Mercy) to (your) servant.
āḷ pa (y)e a. To (your) servant distribute Mercy and knowledge

46



u āḷ i sey, bring to (your) servant thou rectitude/ righteousness

47



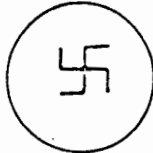
agappal, Inner Path

48



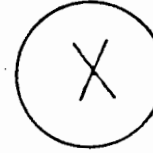
agappal ii, The Inner Path thou give it!

49



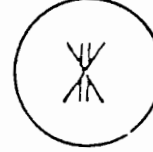
kākā, Delivarance; protection; safe keeping; pressure

50



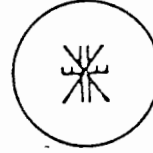
aṇṇal, Superiority, righteousness, greatman, greatness, exaltation, king, god.

51

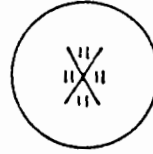


ye aṇṇal ye, increase (my) righteousness expand it.

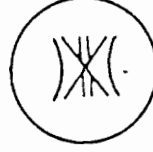
52



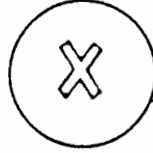
53



54

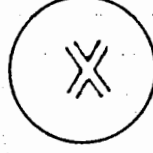


55



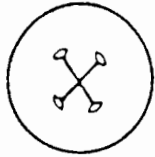
aṇṇal, see no. 50

56



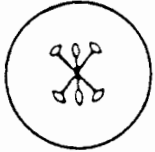
see no. 50.

57



ta aṇṇal ta, ta aṇṇal ta, (reduplication)
bring MUCH righteousness here!

58



ta aṇṇal, ta aṇṇal ta i ta,
Bring much righteousness here.
Thou place it here.

59



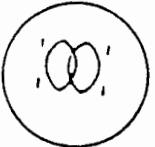
aṇṇal i, Righteousness give it.

60



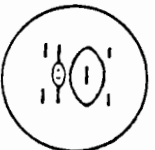
aṇṇal i pa, Righteousness thou distribute
(it).

61



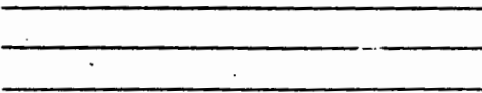
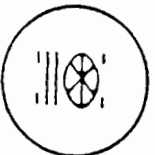
ii ta ta ii, Thou give greatness thou give
its (leave).

62

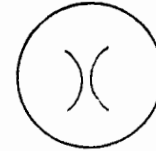


ii ta-i itata ii,

63

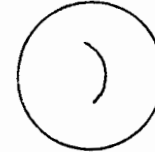


64



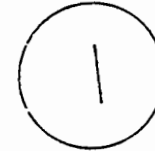
uy a, bring (me) relief (from trouble)

65



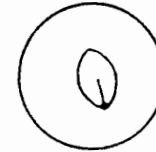
uy, soul, to live, to subsist, have being,
salvation, to ensure, to be relieved
(from trouble), escape from danger.

66



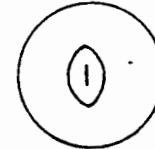
-i-, this particle has many uses in
Harappan: to give; past tense suffix
formative i.e., pa-i 'do no divide;
thou, you; demonstrative this,
inflexion of neuter nouns; give it,
permit, to let.

67



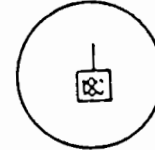
ta i, bring here

68



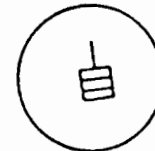
see no. 67.

69



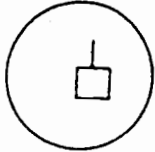
i po ta papa, "give a flourishing condition
bring the Distribution.

70



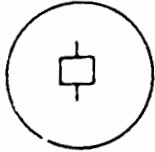
i po, give richness; give (its) birth

71



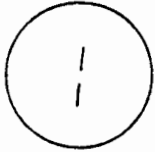
i po, give a flourishing condition

72



i po i, Thou flourishing condition give (it)

73



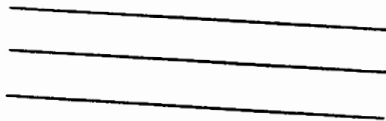
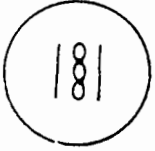
i i, thou give; give thou

74

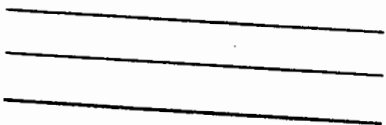


i i, thou give greatness / glory

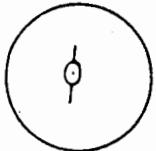
75



76

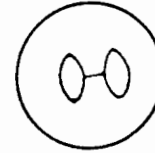


77



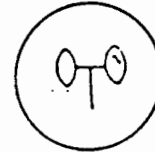
i ta i, behold thou, so much thou give

78



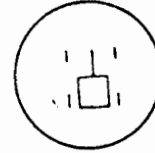
ippo, Now!

79



ippo i, Now give!

80



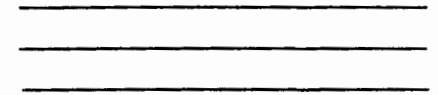
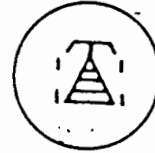
ii ipu ii, thou give richness give its (leave);
thou give a flourishing condition give
its (leave).

81

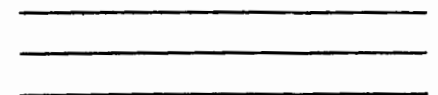
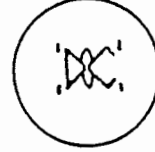


ii ta ta ii, thou give (me) virtue give its
(leave); thou give (me) rectitude give
its (leave) .

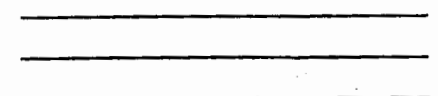
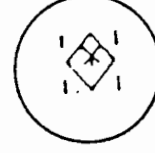
82



83



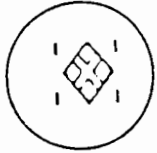
84



85



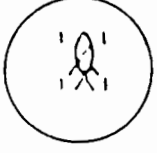
86



87



88



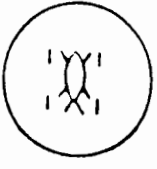
89



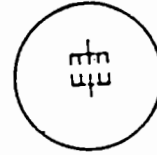
90



91

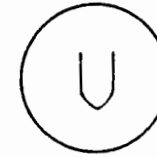


92



i tu tu i, Thou purity (and) immaculateness give (it).

93



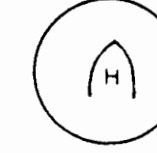
u, demonstrative this; v. to bring. singular ending.

94



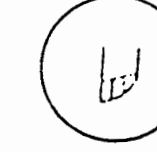
u say (y) e, Bring mature rectitude (Here we observe the use of ye as an adj.

95



u k̄ā, bring the Balance; bring Equality

96



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

97



u vey, bring blossom to

98



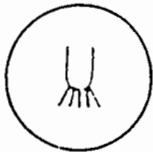
u-say, This is rectitude; bring rectitude.

99



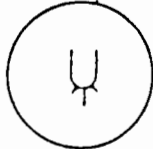
u ta tu, Bring here rectitude

100



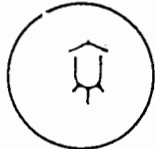
u tu, bring purity; bring virtue

101



see no. 100

102



vey utu, blossom the bring(ing) of virtue

103



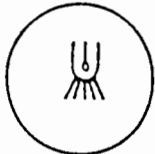
u(y)ē, bring progress (growth, expansion).

104



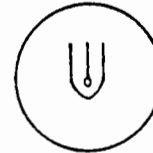
u i tu, bring thou purity

105



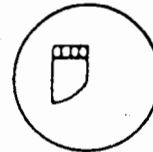
u tu ita, unity bring it here.

106



u-ita, bring it here.

107



u pa, see no. 96

108



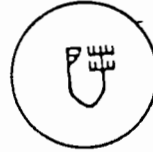
upa pa, Give the distribution; give the Distribution of God's Mercy; bring the distribution

109

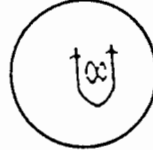


upa pa vey, give the opening to th distribution (of God's Mercy/ Compassion); bring the distribution of a glorious condition.

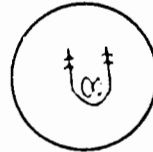
110



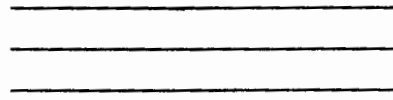
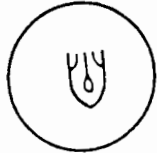
111



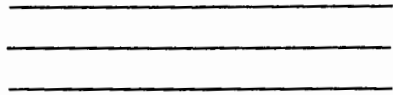
112



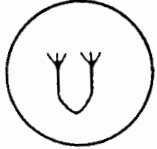
113



114



115



uttu, to put (on), surround, encircle.
utata, bring greatness/glorry.

116



u ta ta ii,bring greatness thou give it.

117



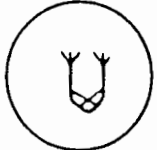
ii utata, Thou give me Greatness

118

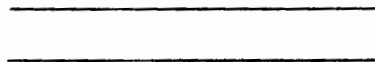


u tata po, surround (me with) a flourishing
condition

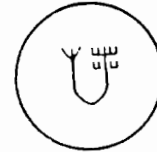
119



see no. 118

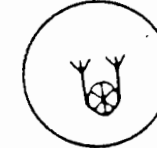


120



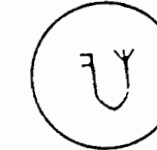
utu tu-ta, bring purity and virtue here

121



tar ya utata, Glory (from) ye who
binds. 2. Encircle (me) ye who
binds.

122



tu uss, Virtuous Fate.

123



Uss, Fate, Power of God, Law of Nature
(This is the generic term used to
denote the power of God, expressed
in terms of justice.)

124



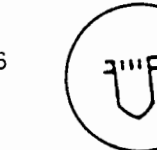
Uss i, Thou Fate

125

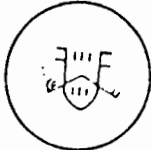









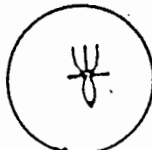


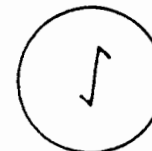
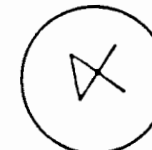


Uss yē, Increase (my) Fate; Expand (my)
Fate.

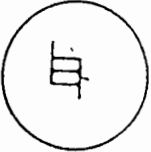


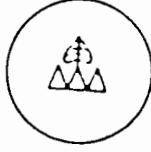


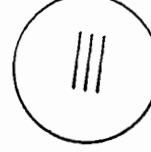
126

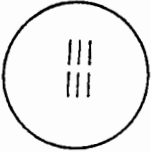
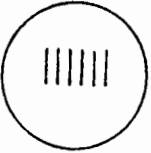


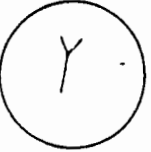




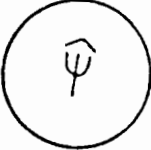
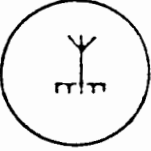

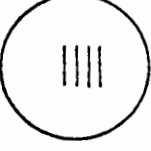
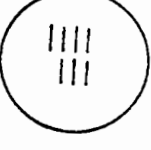
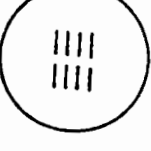

Uss say, Honourable Fate; High Character
Fate.

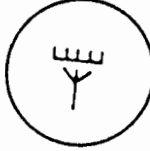
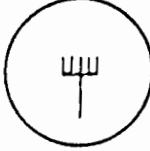
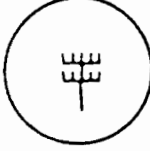
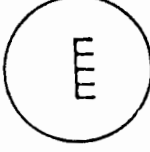
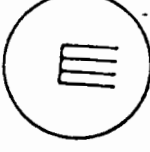
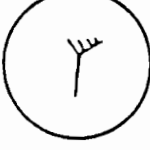
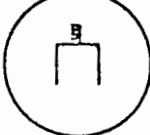
- 127  Uss say Uss say, (reduplication) Much honorable Fate.
- 128  Uss uttu, (Let a good) Fate surround (me); 2. Encircle (me with a good) Fate.
- 129  
- 130  upapa, bring this distribution of God's Mercy.
- 131  (y)ē, yē, what, which, where; 2) v. to increase, grow, mature, expand, progress, 3) and 4) that, thing.
- 132  see no. 131
- 133  ye i, increase thou; expand thou...


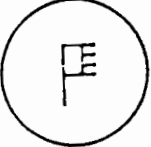
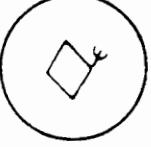
- 134  e-tu, to take up, raise, bear, carry, hold up, undertake, be high, remove.
e-tu, increase virtue; be fruitful, proliferate, multiply. n. Amplification. Magnification, expansion, elevation
- 135  ka vey, equality in bloom; 2) pleasure grove blossom; paradise bloom.
aga vey, Mayest thou blossom (on me)
- 136  tu ga vēy, make virtue bloom
- 137  ka balance, equality. 2. to preserve, shelter, watch, guard, ward off, rescue, protect; 3. n. forest, protection, guard, protector, guardian.
- 138  see no. 137
- 139  i ye, give expansion (of/to)
- 140  kā aṇṇal, preserve righteousness

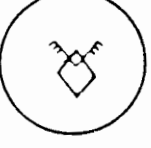
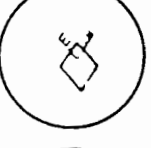
- 141  God, Great God.
- 142  Kumari, paradise
- 143  (reduplication of Kumari sign no. 142) Kumari Kumari, Much Paradise.
- 144  ippa Kumari, Thou perfect paradise.
- 145  kumari annal, Paradise is Exaltation
- 146  -ke, ge, ga 1. the honorific 2. v to be, to do.
- 147  say/sey, 1. straightness, righteousness, 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  sey tu, create propriety; create virtue.
- 151  151-153 ta, tā. 1. to give, to bring; 2. here place. 3. blemish, defect. 4. imperative suffix.
- 152  153
- 153  154
- 154  ta say, bring rectitude

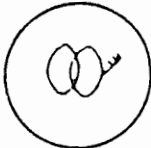
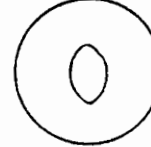
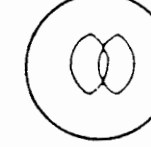

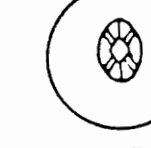


- 155  vey ta, blossom here, etc.
- 156  ta tu, give (me) virtue/rectitude
taṭu, to prevent, hinder stop, forbid,
obstruct, dam, block-up, restrain.
- 157  to aṇṇal, bring righteousness
- 158  tu, tū, 1. to experience, to see; 2. purity,
salutations, that which it is pure,
virtue, cleanliness; 3. 1st per. verbal
termination, 4. past tense suffix.
- 159  tu say, to experience rectitude
- 160  tu tu, to experience purity bestow on (me)
Greatness and incorruptibility
- 161  taṭa say,

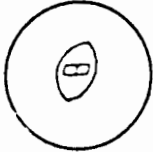
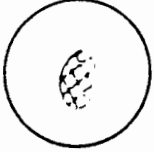
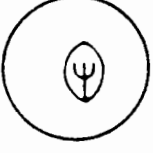
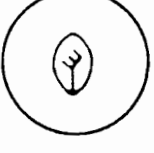
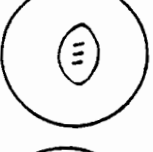
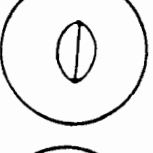
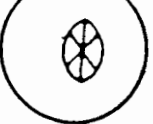
- 162  tu ta, purity here; virtue this place
- 163  tu i, purity give (it)
- 164  tu tu, (reduplication) abundant virtue;
abundant purity.
- 165  see no. 164
- 166  see no. 158
- 167  taṭa, large, broad, full; greatness, glory. 2.
bestow on (me) greatness
- 168  tu uy, pure soul


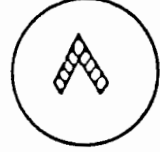

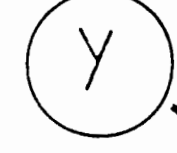



- 169  tu po tu, experience a flourishing condition and virtue
- 170  tu po i, give a flourishing condition and purity
- 171  ta po, bring a flourishing condition; give richness


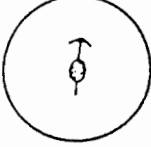
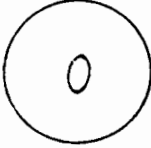
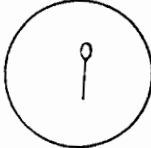

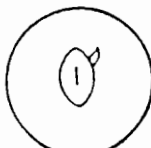
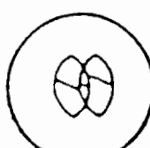
- 172 
- 173  172-173. tu vey tu po. experience the opening up of purity and a rich condition

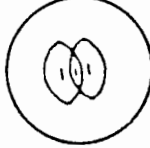
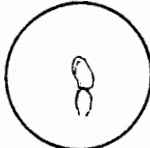

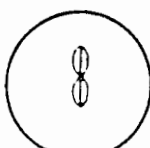



- 174  mi, top, surface, height, elevation, eminance, loftiness, sky, heavens, greatness, dignity
- 175  tu, purity, to expand. 2. to experience growth

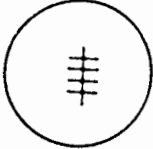
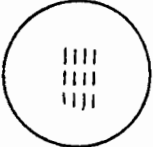

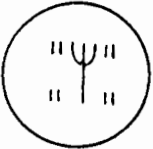
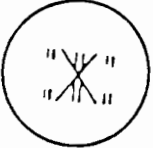
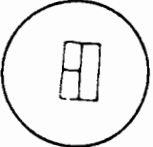
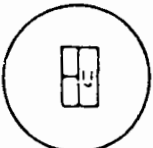
- 176  tu i taṭa. to see your greatness; to see the bestowal on (me of) greatness.
- 177  ta, tā, see 151-153
- 178  see no. 167
- 179  id 178 see 151-153
- 180  tar ya, ye who binds
tar ya po, ye who binds to richness
- 181  ta ta tu, bring here purity; give immaculateness.
- 182  tu tu tu. give abundant virtue/purity


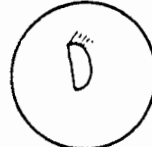

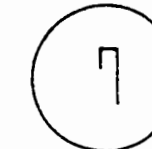


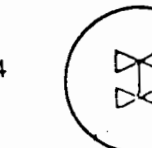
- 183  ta....
- 184  ta pu. bring a flourishing condition; give richness
- 185  id. to no. 179-180
- 186  ta tatu. bring give rectitude/virtue
- 187  ta say, bring righteousness; bring merit; give high character
- 188  ta i, bring thou; give thou
- 189  tār ya, 'Ye who binds'.

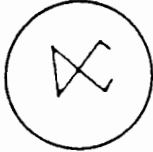
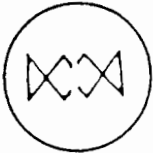

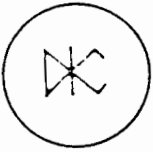

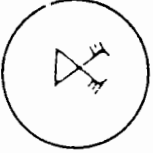
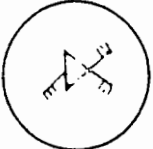
- 190  taṭa i, bestow on me greatness/glory
- 191  pu pu/po po, create a flourishing condition; give richness
- 192  po vey po, create blossoming of richness/a flourishing condition; give birth to the opening of richness, etc.
- 193  ↙ ↘
- 194  ↙ ↘ 193 & 194 : ta, See no. 177
- 195  po ta, create here, proceed to give a flourishing condition
- 196  po uy-i, a flourishing condition to ensure salvation give it, etc.

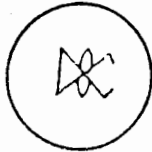
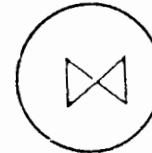
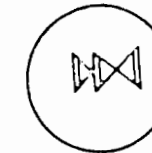
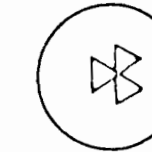
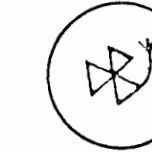

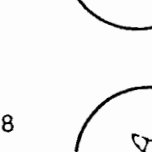
- 197  taṭa, see no. 178
- 198  ta ta pu i. bring here flourishing condition
give it!
- 199  see no, 177
- 200  ta i, give thou/your; bring your/thou.
- 201  ta vey ii, here blossom thou giving
- 202  po ta i, a flourishing condition, give it
here.
- 203  ta i ta i, (reduplication) Give much here.

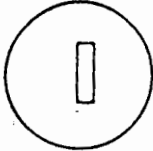
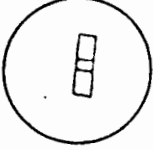
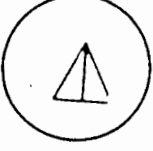
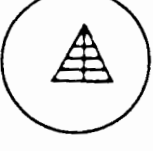
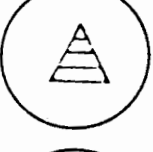
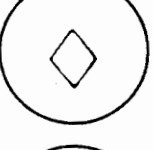
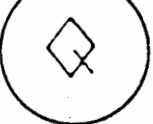
- 204  ta i ta i, see no. 203
- 205  taṭa, see no. 178
- 206  taṭa ii, bestow on (me) greatness thou
give it.
- 207  ta i ta i, see no. 203
- 208  ka, 1. balance, equality. 2. to preserve,
shelter, watch, guard, ward off,
rescue, protect. 3. pleasure grove,
garden; 4. protection, guard
- 209  aṇṇal aṇṇal, superior righteousness
- 210  kākā, deliverance, protection, safe keeping

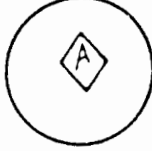
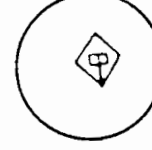
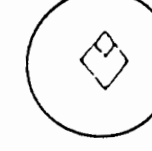
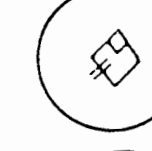
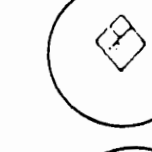


- 211  i me, give truth; give excellence
i tu give virtue/purity
- 212  tu me tu, to see excellence and virtue
- 213  tu pu, to experience the distribution of
God's Mercy.
- 214  _____
- 215  _____
- 216  nil, to stand, to be long, to be great,
extension, loftiness
- 217  u-nil, bring loftiness

- 218  kā, see no. 208
- 219  tuka, to experience equality
- 220  lu, plural suffix; also see ga.
- 221  ga, mayest, neuter plural
- 222  ga i, Mayest thou
- 223  ka tu, guard (my) virtue, protect (my) purity
- 224  ka i ka, preserve thou balance.

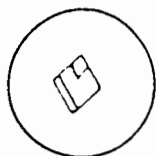
- 225  puka, glory, fame, equality of division.
ka. make, balance
- 226  puka puka, (reduplication) Much fame
- 227  puka-u puka, my fame (and) glory
- 228  i puka, give (me) glory
i ka, give Protection; give Balance
- 229  puka i, glory give it, fame give it
- 230  tu puka tu, that which (is my) pure glory;
to experience pure glory.
- 231  tu puka tu tu, to experience pure
glory/fame (and) virtue.

- 232  ta puka, bring (me) glory/fame
- 233  papa, 1. true it is indeed; 2. distribute
God's mercy
- 234  pa pa pa, Indeed distribute much of
God's Mercy.
- 235  papapa, see 234
- 236  tu pa pa pa, Indeed distribute much Purity.
- 237  pa, 1. division, to divide, to distribute. 2
-pa plural termination. 3. The term
pa corresponds to the persona
impersonal aspects of God to God
as friend and Guide and
Compassion as Dispenser of
Mercy.
- 238  i pa, give the distribution of God's Merc;
2. give the distribution. 3. Tho
distribute

- 239  po, 1. to go, proceed, go away, reach a destination. 2. richness, flourishing condition, flower, 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 give it
- 242  pu i, see no. 243
- 243  pu, see 239
- 244  po, see 239
- 245  i po, give richness; give birth to; 2. thou flourishing condition, thou richness

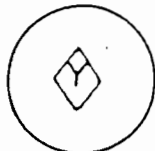
- 246  po, see no. 239
- 247  po po i, Give birth to thou flourishing condition.
- 248  po vey, give birth to the blossoming; open a flourishing condition.
- 249  ta vey yē, Bring mature propriety. Bring propriety expanding.
- 250  ta vey tu, Bring (me) propriety and purity; bring the opening of virtues; bring the blossoming of purity; bring the blossoming of propriety.
- 251  ..
- 252  251 & 252 tu ta vey, Bring pure propriety

253



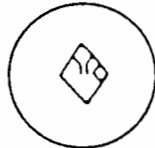
ta vey po, Bring propriety and a flourishing condition

254

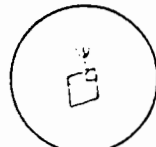


ta vey i, bring propriety give it.

255



256

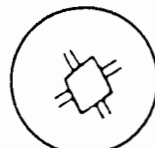


ta vey ta, bring propriety here

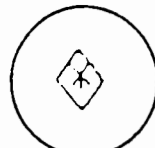
257



258

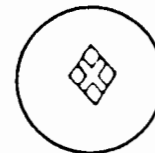


259



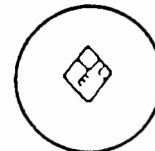
ta vey tū, bring propriety and purity.

260

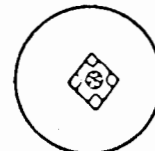


po aṇṇal, spread over (me) righteousness

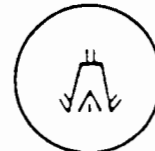
261



262

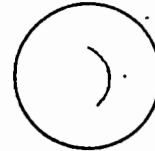


263



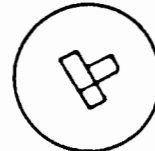
tar pasu. 'ye distribute'.

264



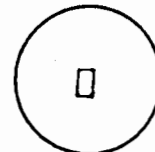
1. he, that, it. 2. v. come into existence, be happen, be fit. 3. interj. pity, regret, wonder, admiration, bring about

265

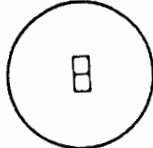
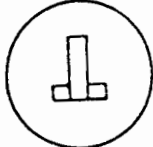
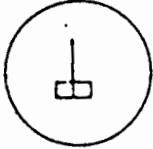
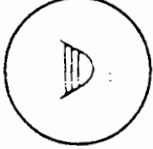
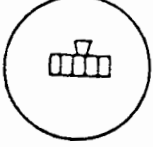
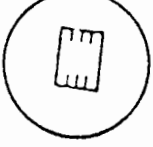
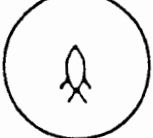


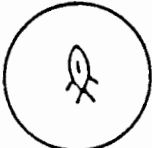
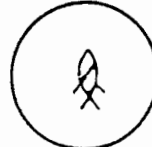
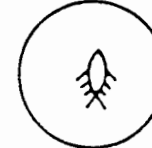
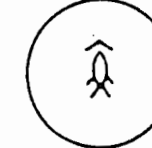

po po po, proceed to create a flourishing condition.

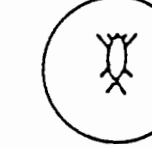

266



po, 1. to go, proceed, go away. 2. reach a distination. N. richness, fluorishing condition. 3. bloom, flower. 4. create, give, make.

- 267  po po. create richness, etc.
- 268  see no. 265
- 269  i po, give (a) flourishing condition; thou reached your distination; give richness.
- 270  pa, 1. distribute much richness, division, to divide, to distribute 2. plural termination. 3. This word corresponds the personal aspect of God as dispenser of Mercy.
- 271  po pu, create a flourishing condition.
- 272  pu tū tū, a flourishing condition and purity.
- 273  min, to shine, glitter, phosphorescent, glow, shining, light, illumination

- 274  min-i, illumination give It
- 275  see no. 274
- 276  tu min tu, to see shining immaculateness
- 277  a min, become phosphorescent
min-a, glowing admiration
- 278 

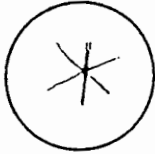
- 279  tu min, Pure shining; immaculate illumination
- 280  ii min, thou give illumination

281



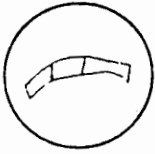
agappal, Inner Path'

282



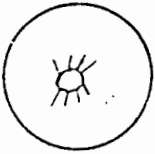
ya, 1. to bind, to tie, be inseparable from utter, confine, bond. 2. what or which things.

283



te. 1. bring 2. sweetness, to become filled

284



tu ta tu 1. to experience the gift of virtue; 2. to see the giving (of) purity; 3. to experience the granting of virtue. 4. see the bequeathal (of) immaculateness.

285



vēy po po ita, open up the birth of a flourishing condition give her (its) increase

286



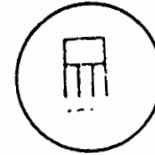
tppu. cleanliness, purification

287



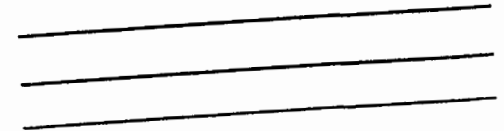
ka tuppū, make (me) purified

288



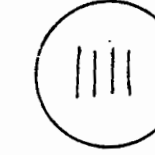
po tu, flourishing condition of purity.

289



me, truth, reality, soul consciousness, excellence, to excell, surpass

290



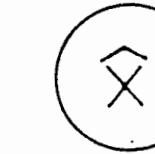
vēy, to come, put on, roof. 2. blossom, open, florence, growth, development.

291



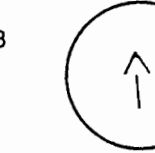
a aṇṇal, to become superior; 2. come into existence exaltation

292



vēy i, growth give it. florence give it.

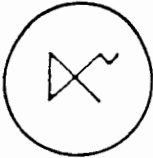
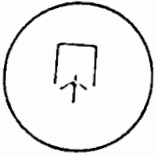

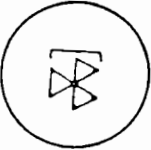
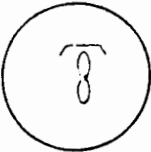
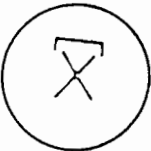
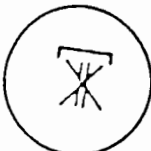
293

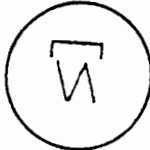
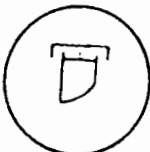
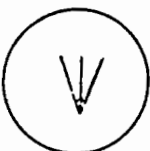
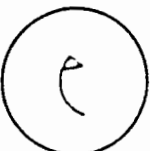

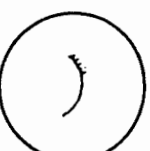



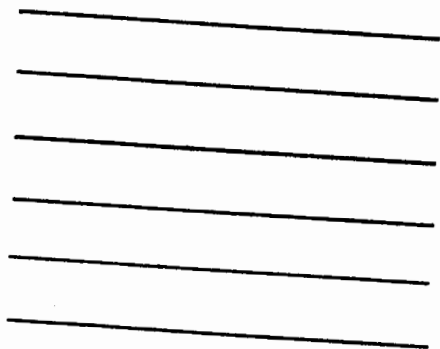
vēy ya i

294



- 295  vēy aṇṇal, blossom righteousness
- 296  uy ta, Salvation
- 297  uy uy vey. Ensure the soul's florescence.
- 298  uy papapa, Ensure the distribution of God's Mercy.
- 299  uy taṭa, Ensure the bestowal of greatness
- 300  uy aṇṇal. Ensure righteousness
- 301  uy ye aṇṇal

- 302  uy ka, Ensure Balance; Ensure equality.
- 303  uy tu po, Ensure purity and a flourishing condition
- 304  ta, see no. 177
- 305  po uy. a flourishing condition and salvation
- 306  a i, Admiration give it
- 307  tu a, Purity come into existence
- 308  _____



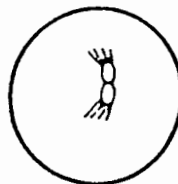
311-312. Ko, God

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

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

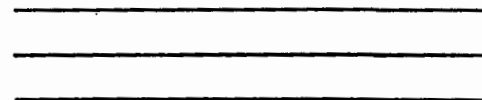
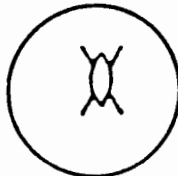
ka tu ta tu i, preserve (my) virtue and the
gift (of) virtue give it.

316

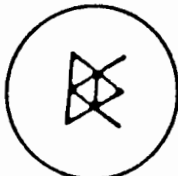


tu taṭa tu, To experience the bestowal of
glory/greatness on me (In this sign
we see the 1st per. verbal
termination)

317

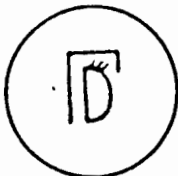


318



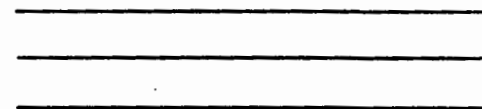
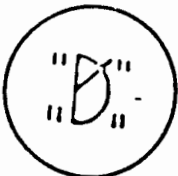
vey pa pa, open up the Dispensation of
Mercy

319



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

320

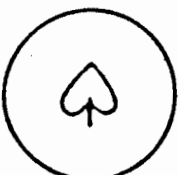


321

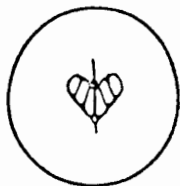


teruḷ, to know, gain true knowledge,
perceive, ascertain, understand,
clearly, be renounced, be clean,
lucid, knowledge, intelligence,
wisdom, comprehension.

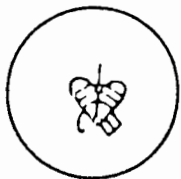
322



teruḷ i, knowledge give it.



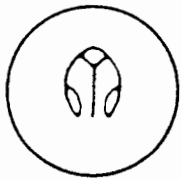
terul, knowledge see 321
i pa, give perfection



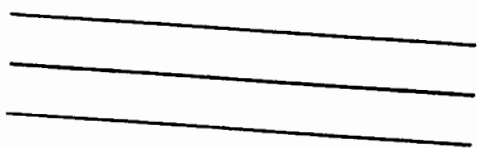
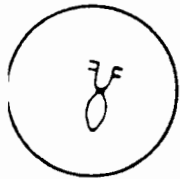
vey terul po, open knowledge and a
flourishing condition.



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



ippo ta. Now give it!



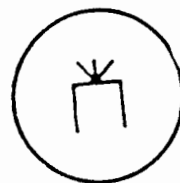
po yu po, make (my) soul (possess) a
flourishing condition.



pey, to rain, fall, pour down on to

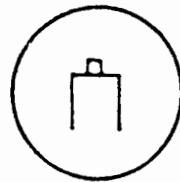
pirai. to be emancipated from sin and sin;
obtain...

330



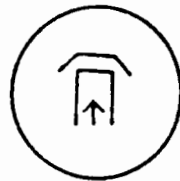
.. ta po, bring a flourishing condition

331



po uy. give birth to relief from trout
distribute salvation; give bir
relief from troubles; give ens
salvation; proceed to distri
salvation

332



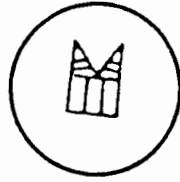
uy uy ta, ensure salvation here.

333



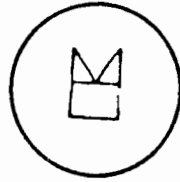
tar ya tū, Ye who binds to purity

334



pey po tū, rain down a flouris
conditon and virtue

335



pey po. rain down a flourishing conditi



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TAMIL RIDDLES

G. Santhi

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'. 'Abhrams' 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

Durga 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