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# A Grammar of Dravidian Harappan Writing

Introduction

CIYDE AHMAD WINTERS

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 Mahadevan (1986) and Fairervis (1986:115), view that the Harappan language might be related to the Tamil-Kannada tongue. Moreover 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 of 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)

## 2. The Harappan Signs

Although 62.4 percent of the Harappan inscriptions are found on the seals; the Harappan writing is found on many portable artefacts from the Indus Valley. They include 272 miniature tablets, 135 copper tablets, 29 ivory or bone rods, 11 bronze implements and 119 groups of graffiti. (Conway 1985)

Out of a total of 419 Harappan signs there are only around 60-70 basic syllabic Harappan signs and 10 ideographic signs. (Winters 1987). The remainder of Harappan signs are conjunct signs formed by the joining of two or more basic syllabic signs.

This view 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 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 syllabic script may have had many other signs used in writing 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. (Winters: 1987)

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 Chanhujo-daro
240 Lothal	44 from 15 sites in the Near East
	400 broken and therefore illegible

The copper tablets were found only at Mahenjo-Daro. There are two major types of seals, one type is square with a short inscription above a carved animal motiff. 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 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, 1984)

Many Harappan seals were found in a worn condition and show signs of repair. Archaeologist have found holes on the back of the seals that suggest that they were tied with string and hung around the neck or from belts. Some seals may have been put in a small cases which may have served as amulet holders. (Parapola, 1975)

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  *Min.* and  *Al.*

The Harappan signs are clear and straight rectangular 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 )

### 3. Phonology

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

3.2. 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 *ie* 'in this place'.

3.3. There are five Harappan vowels. The vowels have threefold distinction of lip rounded and unrounded.

3.4. The vowel in most Indus Valley C.V constructions is long, especially in relation to nouns. The suffixial elements on the other hand 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.

### 3.5. Vowels

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



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

3.7. 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

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k-  
g- -g-  
s- -s-  
t- -t

U III

ne -u

"Bring Excellence"

u -tū ta ta pā -i

"Bring continuously virtue, here thou distribute it."

CREATE



Po vēy pa -i mīṅ ta

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

Blossom



kā vēy Uss mīṅ Pukal Uss

"Balance blooms God's justice --a shining glorious Fate".

Make



tū ga tu vēy Uss

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

Dispense,



Pā kumari Uss

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

## NOUNS

4.9. 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 Winters (1987), coordinate compounds.

4.10. The Harappan nouns are monosyllabic. Some of these nouns can also serve as verbs, e.g. ||| say 'to do, create', and □

pu/po 'birth, to go, proceed', and □□ tū 'to see',  
to experience, purity.

4.11 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-

â | U |

i i u -i mñ-a

"Thou bring here glowing admiration".

3 | E |

i āl ippo tñtū

"Thou increase now your servant's virtue"

|| O |

i ta ye

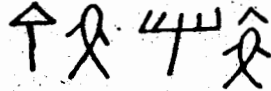
"Thou bring (to me) Elevation"

↑ ||| U |

i u -i sāy ta

"Thou bring here high character continually"

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



*mīq -a itūtū mīq ta*

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



*Sāy mīq ta*

"Rectitude and illumination" or Righteousness Glowing"

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

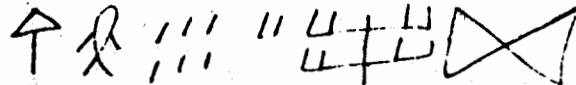
*pā*, "to divide, to distribute"

*pā -i*, "do not divide"

### 5. Sentence Formation

5.1. 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.

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



*Papa tūtū -i e sây min -ta*

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



5.3 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.

5.4 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.

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

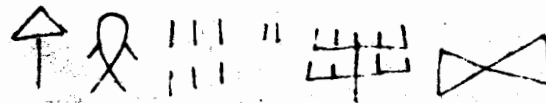
As a result the pronominal suffix stood independently. The pronominal suffixes were a later development in the Dravidian languages.

5.6 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.

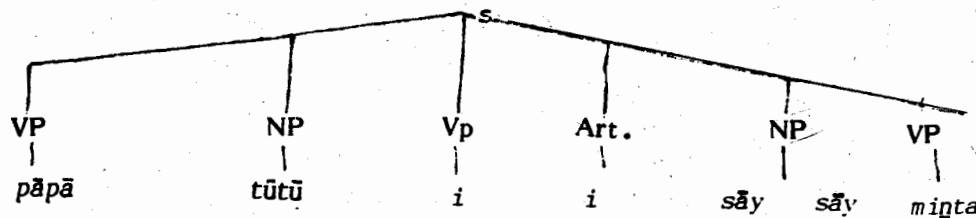
5.7 There are three Harappan compound signs : coordinate compounds, subordinate compounds and synthetic compounds. (Winters 1987). The coordinate Harappan compounds have two parallel elements. The replication of the same element without change denotes pluralization. Thus the effect is reduplication.

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

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



Pāpā tūtū e sāy sāy miṅ-ta



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

## 6. Grammatical Rules Generally





6.1. 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.

6.2. The Harappan script is read from right to left.




6.3. These signs are of two types CV and CVC. In the CV constructions the vowel is usually long in relation to the consonants. In the CVC class the vowel is short. The suffixial elements on the otherhand such as -e, -i, -u and -ta are primarily short vowels. The Harappan writing is monosyllabic. (Fairservis 1986 : 121)

6.4. 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.

6.5. The pictograms or logograms are given a phonetic value. Once this is done, the resulting words are assigned a singular or homophonic value.

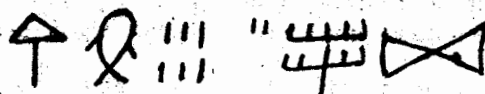
6.6 The most common logograms are  mīṇ 'fish; illumination, glitter'  āl 'man; servant'. Parpola (1975) has suggested that  is also a pictogram and calls it a 'pointed end' \*koṭi/kōṭu and assigns it the homophonic meaning koṭu/kōṭu 'to give, giving'. This is most interesting, because it coincides with the actual meaning of this sign  ta 'to give'.

### Harappan Particles

6.7. There are four particles used in the Harappan writing. They include the interrogative  (y) e 'what, which, and three demonstratives :  i 'this' close to the speaker',  u 'this, that' at a


certain distance from the speaker', and) e 'that' remote or being outside of the speaker's view. The grammatical examples used in this paper are taken from among the seals illustrated in S.R. Rao, *Lothal and the Indus Civilization*, F.J.H. Mackey, *Further Excavations at Mohenjodaro*, John Marshall, *Mohenjodaro and the Indus Civilization* and M.S. Vats, *Excavations at Harappa*.

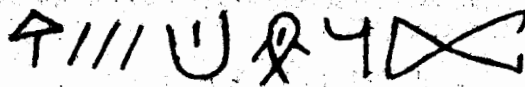
6.8. The | i sign is ligatured to many Harappan signs. This ligature is the causal particle -i literally it means 'give it' or 'to let, permit'.





Papa tūtū -i ē sāy sāy mīg -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.,

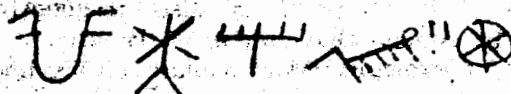
 'abundant virtue give it'.



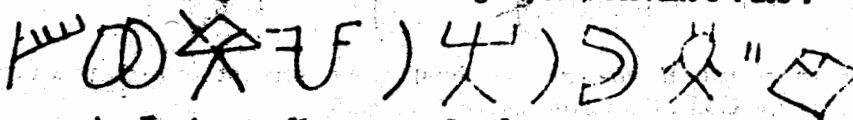
anpal - lu mīg -i u-i sey-ta "Much righteousness let it shine here virtue". In this inscription the causal particle -i is written inside of

 mīg-i  u-i

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

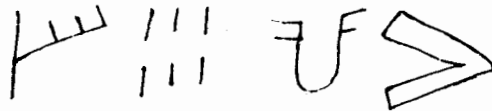


ta (x) ya e tu ka vey itu āl anpal uss. "Ye who binds (man) make (my) virtue bloom/give rectitude. Manage (your) servant's Fate".

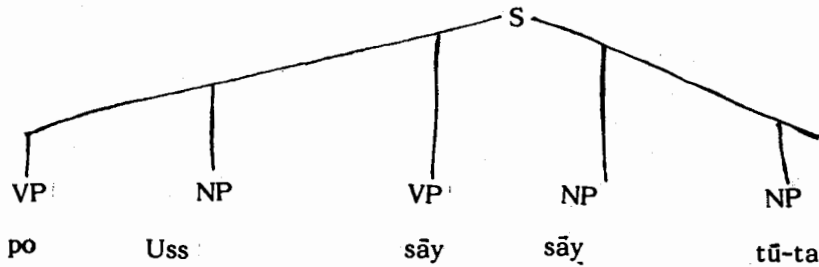


Vey pu e -i mīg -i pu a āl tu a uss āl pā -i taṭa tu-ta. "Create prosperity, give (me) illumination- a flourishing condition. Come into existence (a good) Fate. Give your servant the Distribution, Greatness (and) bring Virtue".

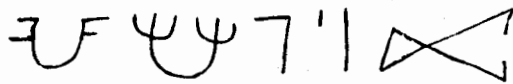
The request sentence on the Harappan seals is aimed at the deity represented by a zoomorphic picture on the seals. This makes for interesting patterns among the many Harappan seals. The Harappan sentence pattern depends on how the inscription is read. Inscriptions read from right to left are VOS, while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



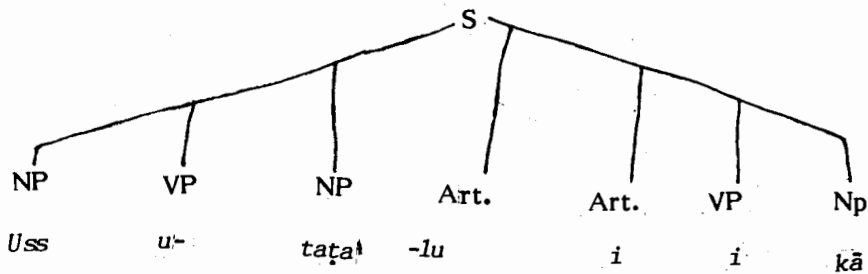
Po uss s̄ay s̄ay tū-ta



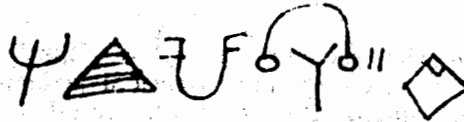
"Give birth to Fate, create rectitude (give continually) virtue".  
Below we read a seal passage from left to right "



Uss utaṭa lu i i ka















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

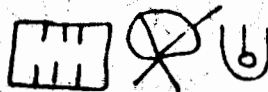


Ta vey e ta ippo Uss pā -ta. "Give me awareness, give (it) now. Fate give its distribution".

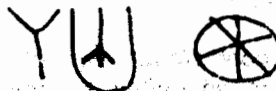
### Demonstratives

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


6.11. There are three demonstratives in the Harappan script. They are  u  i,  e. The  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)

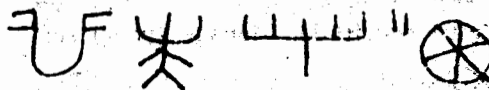


U ita āl pā -a tū tū. "Bring here (and) distribute to your servant a flourishing condition and purity". (Marshall, plate CV, no.61)



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

6.12. The particle  e. 'which', is also frequently used in the Harappan writing. It seems that when it is used as demonstrative it is written small, for example: (Mackay, plate LXXXVI, no.68)



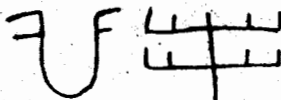
Ta (r) ya e itū āl kō-ssu "Ye bind (your servant) to that which is pure supreme God". (Marshall, plate CV, no.51)



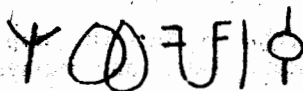
Tū tū -rey kō e tū a. "Virtue. Blossom that which is pure God is that which makes (one) pure".

The <sup>||</sup> sign can be read ye, yê, the y is merely an euphonic addition to the root e.

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

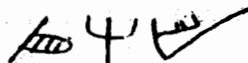


I tū tū-asu/I tū tū Uss "So much virtue/So much virtue (and) Fate".- (Mackay, plate XCV, no.443)



Iṭa i -su taṣa tū. "Here thou bestow greatness and virtue".


6.14. This sign (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 CVII, no.128)




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

suffixes

6.15. 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.,

anṇal -lu miḡ -i u -i s̄y -ta. "Much righteousness, let it shine; bring here virtue!"

Papa inūtū e say say in -ta. "Indeed give abundant increase Propriety glowing"!

Kō tats -ta. "God bestow on (me) greatness!"

6.16.  and  are signs that can be read -ka, -ge, or

-ka 'to be, to do,' etc., This is also the imperative or infinitive. This form was popular in classical Tamil and Malayalam.

6.17. The locative suffix k̄a, had three signs in Harappan:


aka, is the infinitive of the verb 'to become'.

It is added to nouns of quality to convert them into adverbs. Literally aka, means 'may it that thou will do'. This point is expressed several times in Vats', sign manual. For example: (Vats' no.10815)

Aka ta . "Mayest thou give (Veda)" or Vey ka ta 'Blossom Perfection".

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

Tā -ē agatū. "Mayest thou give abundant virtue".

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

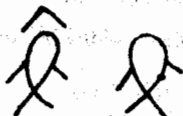


I āi tū dū "Thou servant to become pure".

**Plural**

6.18. 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.,

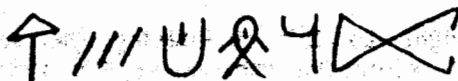


āi āi -a. "Brightly Shinning".

6.19. Sometimes the plural is formed by reduplication e.g.,

𑀘𑀘 cūcū "abundant virtue".

6.20. In other cases the suffix 4 lu, is used to form the plural, e.g.,

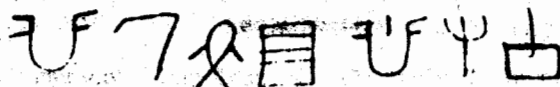


āqāi -lu āi āi -i u-i sey -ta. "much righteousness, let it shine. Bring here virtue!".

6.21. Another common plural element in the Harappan script is

7 7 ga ge. This suffix is usually joined to nasal Harappan signs

such as 𑀘 mīn and 𑀘 ni-ni "eminence".



I -pa ta uss -i pu mīn 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 eminence (for me oh) God".



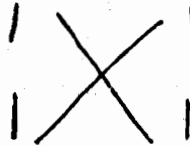
Ta vey -ga aṇṇal tū ta. "Give (me) much awareness, righteousness, bring (me) purity". Or, Ta vey -ga annal me ta. "Give (me) much awareness, righteousness, bring (me) excellence".

### Pronoun

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

6.23. 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 *i* as a pronoun 'thou, you' and the verb 'to give'. A substantive is placed between the four vertical *i* signs forming the circumgraph.

Reading from right to left preceding the substantive sign we have *i-i* 'thou give', after the substantive the first *i* is the pronoun 'thou, you', followed by the causal particle *i* 'let, give it or permit', at the termination of the substantive e.g.,



*i i aṇṇal i-i*. "Thou give Righteousness. Thou give it now".

### References

Conway, John, R. *Visual Analysis in Cultural and Linguistic Interpretation of the Indus Valley or Harappan Script*, Ph.D Dissertation, The University of Texas at Austin, 1985.

Fairservis, W.A. "The Harappan Civilization according to its writing".  
*Tamil Civilization* 4 (3&4) : 103 -130, 1986.

Mahadeven, L. Towards a grammar of the Indus Texts :Intelligible to  
the eye, if not to the ear", *Tamil Civilization* 4 (3&4):15-30, 1986a

—————"Dravidian models of decipherment of the Indus Script: A case  
study", *Tamil Civilization* 4 (3&4) :133-143, 1986b.

*Joshi*  
Knorozov, Y.V. et al. *Proto - Indica*, Moscow, 1965.

Purpola, Asko. "The Indus Script: A Challenging Puzzle", *World Archaeology*  
17(3) :399, 1986.

—————"Tasks, methods and results in the Study of the Indus Script"  
*Journal of Royal Asiatic Society*, (2) :178, 1975.

*Rao, 1972*  
Winters, Clyde Ahmad. "The Harappan Script" *Journal of Tamil Studies*,  
no.20, I.I.T.S., Madras, 1987.

—————"The Indus Valley writing is Proto - Dravidian", *Journal of Tamil*  
*Studies*, no.25 :65, I.I.T.S. Madras, 1984.

—————"The inspiration of the Harappan Talismanic Seals", *Tamil*  
*Civilization*, 2(1) :1, 1984b.