

# **Indus (Sindhu-Saraswati) Valley Civilization**

## **Language and Literature**

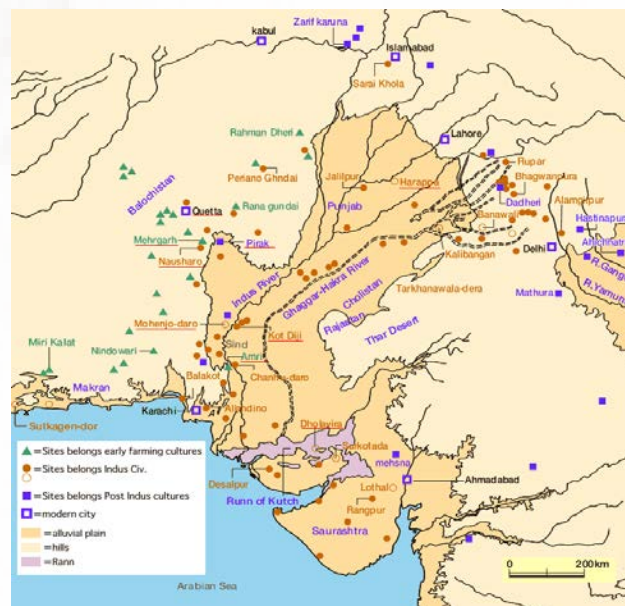
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# Speech, Expression and Language

- Speech, Expression and Language are natural to humans
- It is claimed to be hard wired into their brains
- It is said that it is as old as consciousness
- Script is a system or protocol of symbols and signs that is used to communicate
- Human activity reported in Punjab close to 2.5 million years(Outlook India, March 28,2016)
- Indus signs signify a script (Hunter,Possehl,Parpola,Mahadevan, Rao, Yadav,Joglekar etc.)
- Many languages may have been written in this script just as Brahmi and Cuneiform have been used to write many languages.

# Area of Indus Valley Civilization

- More than 1 million kilometers



# Sources of Script: Seals and Tablets



Language and Literature

# 417 common signs and symbols ( Mahadevan: The Indus Script)

SIGN LIST OF THE INDUS SCRIPT

1†	2†	3	4	5	6	7	8†	9†	10
11	12†	13	14†	15†	16	17†	18	19†	20
21	22	23	24	25	26	27	28†	29†	30
31	32†	33	34	35†	36	37	38†	39	40†
41	42	43	44	45	46	47	48†	49†	50†
51†	52	53†	54†	55†	56†	57†	58	59†	60†
61	62	63	64	65	66	67†	68†	69†	70†
71	72†	73†	74†	75	76†	77	78†	79	80
81†	82	83	84†	85	86†	87†	88	89†	90†
91†	92	93	94†	95	96†	97	98†	99	100
101	102†	103†	104†	105	106†	107†	108	109†	110
									110

# Signs and Symbols

SIGN LIST OF THE INDUS SCRIPT

111†	112†	113	114	115	116	117	118	119†	120†
121†	122	123†	124†	125†	126	127†	128†	129	130†
131	132†	133	134	135	136†	137†	138	139	140
141†	142†	143†	144	145	146†	147	148	149†	150†
151	152	153	154	155†	156	157	158†	159†	160
161	162†	163	164	165	166	167†	168	169†	170
171†	172	173†	174	175†	176†	177†	178†	179	180†
181†	182†	183	184†	185	186†	187	188	189	190†
191	192	193†	194†	195	196	197†	198†	199	200
201†	202†	203	204†	205†	206†	207	208	209	210†
211	212	213†	214†	215	216†	217†	218	219†	219†

# Sign and Symbols

SIGN LIST OF THE INDUS SCRIPT

220	221	222	223	224†	225	226	227	228†	229†
230†	231	232	233	234	235	236	237	238	239
240	241	242	243	244†	245†	246	247†	248	249
250	251	252†	253†	254†	255	256	257	258†	259†
260	261†	262	263	264†	265	266	267†	268	269
270	271	272†	273	274	275†	276	277†	278†	279
280	281	282	283	284†	285	286†	287†	288	289†
290†	291	292†	293	294†	295†	296†	297†	298†	299
300	301	302†	303†	304	305†	306	307†	308	309
310	311	312†	313	314	315	316	317	318	319
320	321	322†	323	324†	325	326†	327†	328†	329

# Signs and Symbols

SIGN LIST OF THE INDUS SCRIPT

330†	331†	332†	333	334†	335	336†	337†	338†	339
340†	341†	342†	343†	344	345†	346	347†	348†	349
350	351	352	353	354	355	356	357	358†	359†
360	361	362	363	364	365†	366	367†	368	369
370	371†	372	373†	374†	375†	376	377	378	379†
380	381†	382	383	384†	385	386	387†	388	389†
390	391†	392	393†	394†	395†	396	397	398	399
400†	401	402†	403†	404	405	406	407	408	409
410	411	412	413	414	415	416	417†		

NOTES:

1. Signs marked † in the Sign List have graphic variants recorded in the List of Sign Variants (pp. 785-92).
2. See Postscript (p. 25) for addendum to the Sign List.



# Decipherment

Comparative Method

Internal Analysis or Reconstruction

100 claims of Decipherment

# Comparative Method

- This method compares scripts of similar nature with each other to decipher a particular script based on similar phonetic valuations. Known scripts and languages are compared with unknown.

# Internal Analysis and Reconstruction

- This method analyzes the internal patterns of frequency of signs and then uses the possible phonetic valuations in languages found in the region. Computer analysis of Indus script has shown intermediate entropy, characteristic of language. (Rajesh Rao)
- Rebus and Acrology have been used to decipher the script. Rebus is a thing that stands for a sound. Acrology is a thing whose first sound is used as the first letter. For instance fish symbol in Tamil is Meen so it is taken to be M or Ma.

# Decipherment Claims

- It is an Indo Aryan Language
- It is Dravidian or proto Dravidian Language
- It is not a language but seals depict signs and symbols
- It is a script for many languages spoken in the area at the time.

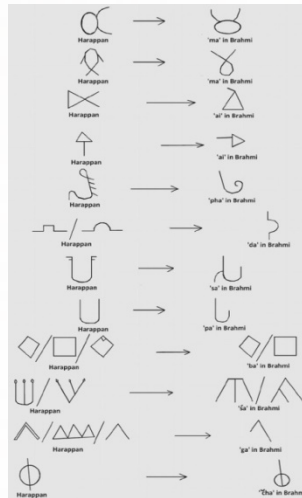
# Indo Aryan or Sanskrit ( Hunter)

## SOME INDUS SIGNS

(after Sinha, et al.,)







031	090	373		790	335	100	450	740	551	560	625	595		362	585	004	064
ṣ,	a,	adhi	ag	aksha	am	ak	al	an	ash	aush	ba	bi	bhru	bo	bra	cha	chi
952	840	350	416	686	770	374	892	920	168	001	066	430					
dai	da	de	deva	devaka	devendr	dh	dha	dhu	dra	eka	ga	gat					
927	683	235	742	003	645	621	255	932	495								
ḥa	har	he	in	ja	ka	kam	kan	kar	ko	krau	ku	la					
455	220	575	250	065	012	704	502	521	460	760							
li	ma,	ma,	mi	na,	na,	na,	naa,	naa,	nda	ndra							
388	520	060	343		435	440	176	545		710	817	820	611				
nga	ni	nta	nya	nu	o	pa	pri	pra	pu	ra	ra	ri					
370	906	362	277	504	405	017	482	803	527								
ri	rma	RNa	Rta	ru	rva	sau	Selv	sh, h	shi								
029	472	215	063	631	140	810	260	013	263	853							
shu	sur	tza	ta	th	tha,	tha,	ti	tri	trik	u							
032	721	072		002	400	130	415	151	262								
va	vah	vahi	ve	vi	y	ya,	yo	yama	za								

# Brahmi Script and Indus Script



# Sanskrit Decipherment (Jey Kumar Ramasami, Sci News Feb.21,2014)

TABLE 1. SOUND VALUE OF INDUS SYMBOLS

INDUS	DEVNAGRI	ROMAN
	क	KA
	ग	GA
	ङ	DA
	ह	HA
	भ	BHA
	स	SA

Language and Literature

# Elamite and Indus Script (Walter Fairservis)

A Dravido-Harappan Connection? the Issue of Methodology / p. 5

and rock art,<sup>10</sup> and have been often brandished as proof of the presence of Indus script there.<sup>11</sup> And yet, a few Indus-like signs prove strictly nothing. Let us remember that the Indus script has been compared to the scripts of several other civilizations, for instance proto-Elamite (Fig. 2), Old Semic (Fig. 3), the script of Easter Island (Fig. 4) and the Etruscan script, to name just a few.

Proto-Elamite	𐎶 𐎠 𐎡 𐎢 𐎣 𐎤 𐎥 𐎦 𐎧 𐎨 𐎩 𐎪 𐎫 𐎬 𐎭 𐎮 𐎯 𐎰 𐎱 𐎲 𐎳 𐎴
Indus	𑀩 𑀭 𑀮 𑀯 𑀰 𑀱 𑀲 𑀳 𑀴 𑀵 𑀶 𑀷 𑀸 𑀹 𑀺 𑀻 𑀼 𑀽 𑀾 𑀿 𑁀 𑁁
Proto-Elamite	𐎶 𐎠 𐎡 𐎢 𐎣 𐎤 𐎥 𐎦 𐎧 𐎨 𐎩 𐎪 𐎫 𐎬 𐎭 𐎮 𐎯 𐎰 𐎱 𐎲 𐎳 𐎴
Indus	𑀩 𑀭 𑀮 𑀯 𑀰 𑀱 𑀲 𑀳 𑀴 𑀵 𑀶 𑀷 𑀸 𑀹 𑀺 𑀻 𑀼 𑀽 𑀾 𑀿 𑁀 𑁁

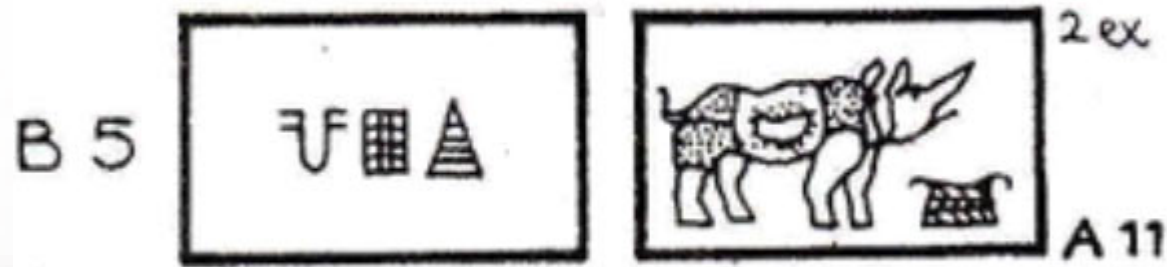
Fig. 2. A comparison between Proto-Elamite and Indus scripts, by Walter Fairservis<sup>11</sup>

Old Semic Proto-Elamite	Indus Proto-Elamite	Indus Proto-Elamite
1	𐎶	𑀩
2	𐎠	𑀭
3	𐎡	𑀮
4	𐎢	𑀯
5	𐎣	𑀰
6	𐎤	𑀱
7	𐎥	𑀲
8	𐎦	𑀳
9	𐎧	𑀴
10	𐎨	𑀵
11	𐎩	𑀶
12	𐎪	𑀷
13	𐎫	𑀸
14	𐎬	𑀹
15	𐎭	𑀺
16	𐎮	𑀻
17	𐎯	𑀼
18	𐎰	𑀽
19	𐎱	𑀾
20	𐎲	𑀿
21	𐎳	𑁀
22	𐎴	𑁁




Fig. 3. A comparison between Old Semic and Indus scripts, by S. R. Rao<sup>11</sup>



# Sanskrit Acrology (Jey Kumar Ramasami SCI News, Feb. 21, 2014)



# Sanskrit







	Symbols / Indus logo			
First Step	Identification of object	Cone	Chessboard	Head gear decoration of a Kavari
Second Step	Sanskrit name	Musika means cone as well as cone shaped crucible	Sari	Kavari
Third Step	First syllable of the word is taken	Mu	Sa	Ka
Fourth Step	Corrected sound	Mu	Si	Ka

# Dravidian or Proto Dravidian Claims

- This claim is based on analyzing the writing on the seals as Rebus or pictograms. Each sign standing for the first letter of a Tamil word. Knorzov, Porpola and Mahadevan amongst others make this claim.

# Egyptian and Indus Script (Mahadevan)

*Digavidi Solutā Mahadeva 2015*

Egyptian Sign No.	Sign	Indus Sign No.	Sign	Broad Interpretation
0.1		261, 373		house
0.6		267		fortified house
0.49		284		city, town

**Indus Place Signs and Egyptian Ideographic Parallels**  
(Egyptian: Gardiner 1978, Indus: Mahadevan 1977.)

**Archaeological evidence of Indus-like graffiti from Tamilnadu**

The evidence of pottery graffiti supports the theory of migration of sections of the Indus people to South India. B.B. Lal (1960) has compared the signs of the Indus Script with the symbols occurring as pottery graffiti in chalcolithic and megalithic cultures. He found that "eighty-nine percent of the megalithic symbols go back to Chalcolithic-Harappan times (and) conversely eighty-five percent of the Harappan-Chalcolithic symbols continue down to megalithic times." Lal's work has shown that there does seem to be a deep genetic link between the signs of the Indus Script and the Indus-like graffiti found in Tamilnadu. I shall mention only a few of the more important finds in recent years.

**Inscribed Neolithic Axe from Sembian-Kandiyur**

A Neolithic polished stone axe with three Indus-like symbols pecked on it was discovered accidentally at Sembian-Kandiyur in the lower Kaveri delta in 2006 (Fig. 2). The three symbols on the axe

# Dravidian Claims (Mahadevan)

## *Gender-Number Paradigm in the Indus Texts*

The identification of the three grammatical suffixes discussed above has led to a major breakthrough, the formulation of the gender-number paradigm in the Indus Texts. The paradigm is the basic framework of the grammar of the Indus language. Discovering the paradigm in the Indus texts is bound to lead to rapid advances by identifying names and titles which form the bulk of the Indus texts, especially on the seals.

SIGN	Pictorial value	Phonetic value in Dravidian	Grammatical category
𑀓𑀜	jar	-(a)ntu	Masculine (human) singular suffix
𑀓	arrow	-(a)mpu	Non-masculine singular suffix
𑀓𑀓 𑀓𑀓	four stroke modifier	-(a)r	Epicene (human male and/or female) plural suffix

## **Paradigm of Gender-Number Suffixes in the Indus Texts**






### **Identification of Lexical Words in the Indus Texts:**

#### **Some examples**

#### *Place Signs in the Indus Script*

The Indus city was meticulously planned with grid-like streets oriented towards the four cardinal directions and a fortified citadel on a high artificial terrace. It seems likely that the major concepts around which the Indus city was organised would also figure prominently in the inscriptions of the period. It is thus probable that important places and institutions like the city, citadel, palace,

# Dravidian Claims

Indus Sign	Pictorial identification	Phonetic value in Dravidian	Old Tamil parallels
	city	<i>pāḷi(-i)</i>	<i>pāḷi</i> 'town, city'. cf. <i>pāḷi</i> (Ka.) 'row, line, order'; <i>pāṇṭi</i> 'a Tamil dynasty'
	palace (fort, court)	<i>aka(-ti-i)</i> <i>cūḷ(-i)</i>	<i>akattiyān</i> 'eponymous ancestor of the Tamils' (i) <i>cōḷa</i> , <i>cōḷiyā</i> 'a Tamil dynasty' (ii) <i>cūḷ</i> 'counsel' (iii) <i>uḷi</i> , <i>uḷai</i> 'precincts of the palace' (iv) <i>uḷariyar</i> 'counsellors' (v) <i>uḷiyar</i> 'temple/palace servants'
	assembly (place at four-road junction)	<i>ampal(a)</i>	<i>ampalam</i> 'assembly, court, temple'
	exclusive quarters	<i>kēr(-i)</i>	(i) <i>cēra</i> , <i>cēral</i> 'a Tamil dynasty' (ii) <i>cēri</i> 'exclusive habitation of Brahmins (inscr.) (or) excluded habitation of depressed classes'
	ordinary quarters	<i>pāṇ(-i)</i>	(i) <i>pāṇi</i> 'hamlet' (ii) <i>pāṇṭi</i> 'a Tamil dynasty'

Place signs in the Indus Script and their evolution in Old Tamil polity

# Dravidian Claims

Indus Signs			
Meaning	bearer (sustainer)	jar-bearer (food-bearer)	arrow-bearer (arms-bearer)
Early Dravidian	<i>por-ay</i> < <i>poru</i> 'to bear'	<i>cā(tā)- por-ay</i> < <i>cāta(m)</i> 'food'	<i>ey-por-ay</i> < <i>ey</i> 'arrow'
Vedic (Indo-Aryan)	<i>bharata</i> < <i>bhr</i> 'to bear'	<i>bharad-vīja</i> ( <i>vīja</i> 'food')	<i>bharanta</i> (warrior caste)
Purāṇic (Andhra)	<i>vāhana</i> < <i>vah</i> 'to bear, carry'	<i>sāta-vāhana</i> ( <i>cāta</i> > <i>sāta</i> )	<i>sāli-vāhana</i> < <i>śalya</i> 'arrow'
Old Tamil	<i>porai, irum-porai</i>	<i>cāta-porai</i> ( <i>ātan-poraiyan</i> )	<i>evvi</i> (a Vēlir clan)

Indus Heritage in Indian Historical Tradition

# Semblance with Tamil and Kannada (Current Science Vol.103, No.3, 10 August 2012)





# Indus Seal and Gondi Language



# Dholvira Signboard: Siva Temple?


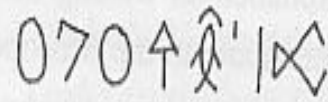
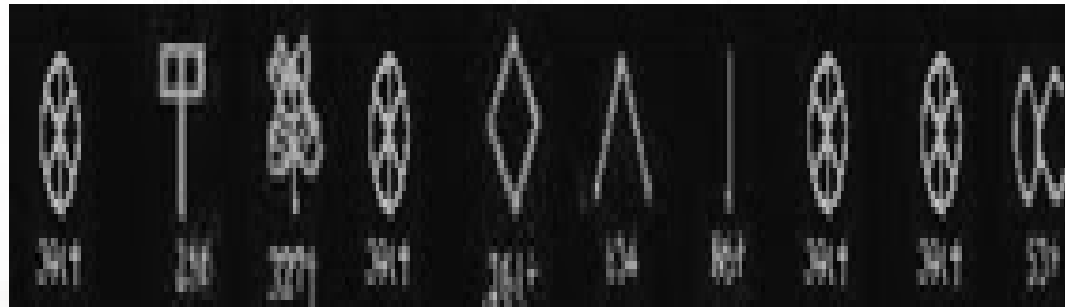
Sign list	Deciphered reading
	<i>mad-dvaidha-rāga-vedhāśvai-sahsra-dhā</i> (right-to-left)
	<i>yogirāyaduḥ śrī-rāmaḥ</i>

Table 6.10: Historical seals of special interest

# Dholvira Signboard Santali

- Dhokra Kamar : Metal Workshop ?



# Indus Seals Do Not Depict A Script

- Seals depict signs and symbols used in religious or commercial transactions. It is also claimed that the writing is just numerals. Farmer, Sproat and Witzel, Subrayappa, Shengde are some of the people who make this claim.

# Seals Depict Unknown Symbols

- Symbols on the seals can not be accepted as evidence of writing.
- Indus Civilization was not a literate civilization. Proponents of this view give examples of other civilizations which did not develop writing.
- That Indus Civilization was literate is an assumption not proven by evidence

# One Script Many Languages

- There were probably many languages spoken in the 1 million square kilometers as they are today. Some of the suggested languages are Indo Aryan languages, Dravidian, Mundari, Tibetan, Language X etc. Script may be the same but the languages were different just as Cuneiform was used for many languages in Mesopotamia and Brahmi was used for many languages in India

# Literature of Indus

Narrative or Story

Music and Dance

Rituals

Manuals of City Planning, Water Management, Weights etc.

Bills of Sales

# Literature of Indus : Narrative Seals





# Narrative Seals



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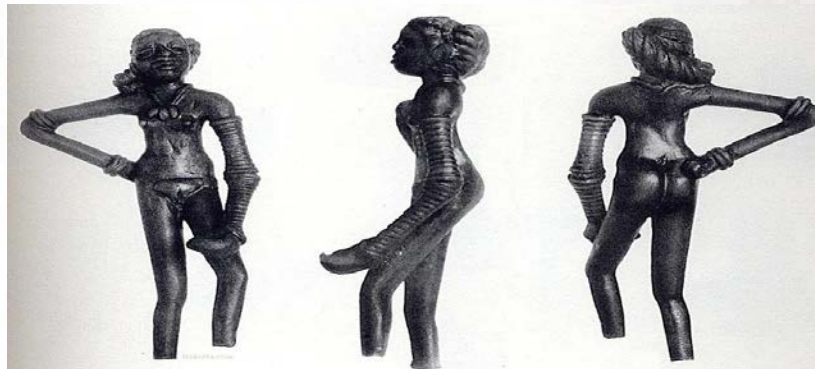
Language and Literature

# Narrative Seal and Tablet



# Music,dance and singing

Mortimer Wheeler reported finding musical instruments such as drums and seven holed flute in his excavations at Mohen Jo Daro





# Rituals





# Rituals



# Manuals and bills

We can deduce from developed city planning, trade, water management and standardization of weights and measurements that such literature must have come into being.

Bills of Sales for transactions must have also arisen

# Further Directions for Research

- What was the Relationship between Indus and Vedic Literature ?
- Rig Veda has substratum of Para Munda and other languages, What is their relationship?
- Was Indus Valley Civilization Vedic? as claimed by several scholars?
- What is the relationship between Indus languages , tribal languages and other languages spoken today in the Indian Sub Continent?