

Proto-Dravidian and the Indus logosyllables

S.K.Venkatesan
CQRL Bits, Chennai

The author discovered a Dravidian decipherment of the Indus script using additive and mutiplicative processes [1]. This can be looked upon as the writing system of skilled bronzesmiths of Indus Valley Civilization (also known “Mehlukha” by Sumerians). The signs are welded together using a process of addition and multiplication that closely aligns with the aglutinative structures of proto-Dravidian as elucidated by Dravidian Etymological Dictionary (DEDR) by Burrow and Emaneau [2], and Bhadriraju Krishnamurti [3].

This article is an addendum to that *Ansatz* [1], the earlier decipherment of the Indus script that further establishes the strong relationship between the decipherment and proto-Dravidian as elucidated by Bhadriraju Krishnamurti [3] (BK). We will quote verbatim from that work (BK) in order to establish the linkage. There are direct references to DEDR entry numbers by BK, and any such number should be understood as DEDR entry numbers . We follow BK’s headings and categories as far as possible. We also clearly point out differences and deviations from BK wherever it occurs.

Political landscape

1. M77 sign: ◇

Decipherment: kō (DEDR 2127)

BK-page-7: “*kō/ *kōn-tu ‘king (also mountain)’ 2177”

Comment: First deciphered by Bryan Wells [4, p. 98]

2. M77 sign: ◇, ☈

Decipherment: kōṭa, kōṭtai (DEDR 2207a)

BK-page-8: “forts and fortresses”

3. M77 sign: ↗

Decipherment: nāṭu (DEDR 3638)

BK-page-8: “Proto-Dravidians spoke of large territorial units called *nāṭu (> *nāṭu in South Dravidian II, 3638) for a province, district, kingdom, state”

4. M77 sign: Ӯ

Decipherment: ūr (DEDR 752)

BK-page-8: “*ūr was the common word for any habitation, village or town; agriculture [*ūṛ-V- ‘to plough’ 688]”

Comment: Agriculture village that later blossomed into a town with many professions and trade. Also related to mortar ural (DEDR651).

5. M77 sign: ☐

Decipherment: pall-i (DEDR 4018)

BK-page-8: “hamlet was known as *pall-i”

Material culture and economy

6. M77 sign: ⌂

Decipherment: kuṭi, kuṭai (DEDR 1655, 1660)

BK-page-8: “People built houses to stay in [*wītu 5393 *il 494, man-ay 4776, ir-uwu 480]; most of these derive from the root meaning ‘to settle, stay, live’”

Comment: So, “wītu” is definitely another possibility for the decipherment for the sign ⌂, especially as (we shall see later) it is the rotated from of M77 sign) that has a value “vala” and vala => wītu cognates better than “kuṭi”. “wītu” also cognates better with wēy (to thatch, DEDR 5532). On the other hand, we also find that “kuṭi” also cognates better with “kūtu”, “the nest” (DEDR 1882, 1883), “kūṭai” rattan basket (DEDR 1884), umbrellas [*kūṭ-ay, 1663]

7. M77 signs: ⌁, ⌂, ⌃

Decipherment: mē-, mēṭai, māṭi (DEDR 5058, 5069, 4796)

BK-page-8, 14: “terrace [*mēṭai, *māṭ- DEDR 4796a,b], west [*mē-l ‘high place’, mēṭ-kku, *mel-Vkku 5086]”

Comments: “Mehlukha” - the raised floor civilization (raised storage forts to avoid flooding) or the mēl-kōṭṭa – it could also denote the superior class.

8. M77 sign: ⌄, ⌅ (see also No. 4, ⌆ - īr)

Decipherment: ū (DEDR 557, 651, 761), ūtan (DEDR 945)

BK-page-8: “mortar [*ur-al/-al 651], pestle [*ul-akk-V- 672, *uram-kkal 651, from *ur- ‘to grind’ 665 and *kal ‘stone’ 1298]”

9. M77 sign: ☒, ☓

Decipherment: ta-, ṭandī, tōṇṭi, tavai (DEDR 2946, 3549, 3110)

BK-page-8: “Different kinds of pots made of clay [*kā-nk- 1458, *kur-Vwi, 1797, *cattī ‘small ‘pot’ 2306]”

Comments: We have BK's caṭṭi versus ṭandi/tōṇṭi and this is decided by the high-homophone cluster: ṭandi, tōṇṭi, tavalai, talai, tai, tal, tol, tēl etc.¹

10. M77 sign: 

Decipherment: cē, cēval, cēviyan (DEDR 1931, 2818, 1977)

BK-page-8, 391: “*kem-pu ‘copper vessel’ ... *kem - ‘red’”

Comments: Bryan Wells [4] suggests this decipherment in his work. For bronze/copper it has been proposed “kem-pu” where “k” is the click sound “x”, as in bronze banging (taṭṭi, taṭṭu) sound. Such a sound still exists in Khosa language of South Africa. This is an interesting suggestion. However, the evidence for the cluster cē, cēval, cēviyan for red/bronze is strong, but it is indeed quite feasible that the cluster as well be: kē, kēval, kēviyan. There are also other reasons to suspect this as we shall show elsewhere.

11. M77 sign: 

Decipherment: ko!, vil (DEDR 2151, 5421)

BK-page-9, 101: “Buying [*ko! - 2151], selling [*wil- 5421] and barter [*mātt- 4834] were known. ‘Price’ is derived from ‘sell’ [*wilay 5241] ... kōl ‘stick’ ... kōl ‘pestle’ [2237]”

Religion

12. M77 sign: 

Decipherment: vēl, vēlappa, we! (DEDR 5545, 5536, 5496)

BK-page-11: “In Telugu wēl-cu is ‘to sacrifice in fire’ and wēlpu ‘god’. The basic meaning of *wēl [ultimately from *weH-l] was ‘to wish, desire’... white [*we! 5496]”

Flora and fauna

13. M77 sign: 

Decipherment: perum-puli (DEDR 4307)

BK-page-12: “tiger [*pul-i 4307]”

Comments: The syllable pall-i (sign ) deforms to puli

14. M77 sign: 

Decipherment: pū (DEDR 4345)

BK-page-100: “*puy/*pū (<*puH) ‘flower’; v. ‘to blossom’”

15. M77 sign: 

Decipherment: il, ilai (DEDR 494, 497)

1 There is also some vague ideographic association to the head symbol  in Sumerian cueiform (which is not a frog or pot but clearly a human head), which can be associated with talai (DEDR 3103) in Dravidian.

BK-page-103: “*el-a- > Ta. il- ai ‘leaf, petal’”

16. M77 sign: ☯

Decipherment: noṇa, nuṛan, nuṣampu (DEDR 3714, 3715)

BK-page-103: “mosquitoes [*nuṛ-V/-nk 3715]”

17. M77 sign: ☰

Decipherment: pori, puri, purā, purā, pūr (DEDR 4286, 4334, 4374, 4603)

BK-page-?: “-”

Comment: Surprising that BK makes no study of wild hen, quails, partridge, etc. There almost no entry for “fish” and for fishing net, hunting and trapping.

Climate and water sources

18. M77 sign: ○

Decipherment: pa-, pakal, po (DEDR 3805, 4452)

BK-page-13: “Words for sun [*pōṛ/*poṛ-Vtu 4559]”

19. M77 sign: ☷, ☸

Decipherment: kāl, kōl (DEDR 1483, 2238)

BK-page-13: “canal [*kāl 1480]”

20. M77 sign: ☪

Decipherment: pēr-kalam (DEDR 4411, 1305)

BK-page-13: “There were ships [*kal-am 1305] ... for navigation”

21. M77 sign: ✚

Decipherment: ampi (DEDR 177)

BK-page-13: “boats [*amp-i 177, *kapp-al 119, *paṭ-Vku 3838] for navigation”

22. M77 sign: ☎

Decipherment: n-, no, nel, nallu, nallu, nīr (DEDR 3779, 3621A, 3690a)

BK-page-9,138 : “Paddy [*nel 3743], ... ghee, oil [*ney 3746], nīr water”

Miscellaneous

23. M77 sign: ☐, ☶

Decipherment: cī, cīpu, cimpu, cil, calli, cilike, cilpa (DEDR 2600, 2546, 2622, 1577, 2382, 2586)

BK-page-129 : “Ta. “cil-/cir- ‘small’(<*kil-/*kit-) [1571, 1594] with cognates mainly from SD I, Ta. cil ‘sound, noise’ (<*kil-) [1574], Ta. cil ‘small piece’ [1577]”

24. M77 sign: ①

Decipherment: pal (DEDR 3986a)

BK-page-196, 266 : “*pal ‘tooth’, *pāl ‘milk’ … *pal-V- ‘many’ [3987]”

Numerals

25. M77 sign: |, 丈

Decipherment: mutual, mutualvan (DEDR 4950)

BK-page-240, 260 : “*mutal ‘beginning’”

Comment: Knorozov interpreted this sign as “oru”, but as these are adjectives, “first” rather than “one” works better here. The meaning changes drastically between “one-man”, and “first-man” (chieftain).

26. M77 sign: ||

Decipherment: -ar, -ir, iru (DEDR 474, 481)

BK-page-295 : “*iru (iru-nt-) ‘to exist, live, belong to (with dative subject)’ [480]”

27. M77 sign: |||

Decipherment: mū-, mun- (DEDR 5052, 5020)

BK-page-392 : “*mun adj ‘prior, before, front’ … *mutt-/*mut-V ‘old, ancient’.”

28. M77 sign: ||||

Decipherment: nal-, nāl- (DEDR 2912)

BK-page-395 : “*nal ‘good, beautiful’”

29. M77 sign: |||||

Decipherment: ai-, -ai (DEDR 2826)

BK-page-227 : “-ai is the accusative marker”

30. M77 sign: |||||

Decipherment: yāru, āru (DEDR 5159)

BK-page-13 : “river, stream [*yĀtu 5159]”

31. M77 sign: |||||

Decipherment: ēru, ēru (DEDR 910, 916)

BK-page-338 : “ezu- ‘to rise’”

Proto-Dravidian word clusters and Indus decipherment

In this section we will demonstrate the existence of semantic proto-Dravidian word clusters reproduced by the Indus decipherment. We also see that some very close homophony are differentiated through use of logograms (or pictograms) instead of the usual aglutinative logosyllables. All proto-Dravidian root word syllables used here are from DEDR [2]. The DEDR numbers were not added as it makes it difficult to read. Please refer to the original decipherment [1] for more details.

Ur-cluster

ஃ, ஃ, அ, ஃ, ஃ

ūr – town/village, uḷ – inside, ū – meat/body, uru – to plough, utan – with/together, uravu – relatives, uruku – melt

The underlying basis of creation of a town is farming, and melting of the soil by ploughing is fundamental to farming. The town then blossoms to many forms of towns: வெலூர் - velūr - hunter-town, செம்பூர் - xempūr/cempūr – bronzesmith town.

Pa-cluster

ஓ, ஒ, ஒ, ஒ, ஒ, ஒ, ஒ

The sun is central to any civilization and the word cluster below:

pakal – day(light), pal – teeth/many, palli – hamlet, perum-puli – leopard/tiger, para – drum/message, pammu – stitch, palla – tusk/elephant, pānan – singer, para/poṛi – fly/bird, pura – pigeon

The homophony between pigeon (pura) and messaging (para) suggest that message was also sent through pigeons or that it was well-known. We also have para - to spread (like a bird).

Comment: ஒ was correctly identified as para (drum) by Bryan Wells [4, p. 90-91].

Ta-cluster

ஃ, ஃ, ஃ, ஃ, ஃ, ஃ

The cool pot that stores water in hot weather also becomes the root syllable for other root words: tandi/tavalai – pot/frog, tan – cool (as in tan-nir) , taḷ – push, tai – tailor, tarி – burial pot, taṭṭi – bronzesmith, grid, mat, taṭṭu – to tinker, totṭi – rake.

Ka-cluster

ஓ, ஓ, ஓ, ஓ, ஓ, ஓ

The fort is the central structure around which the Indus society operates. The kovan – the cattle farmer is the basis of this higher structure. The cheiftains with adorning horns (kompan) forms the basis for this. The fish-sign aligns with the travelling vehicle, the boat (the artifical garial or the fish). Although the word kaṇṇi is not a boat (no evidence for a boat/gharial in DEDR), it is related to kā - carry, katattu – transport. The direct root syllable for fish is miṇ, which is also related miṇ, minu, miṇukkal - sparkling, minal – lightning, but we think that the ma syllable is taken by other semantic group of logograms, so this creates a pictographic branching. Even the word “shining” when it has other bright connotations it then takes a different pa-syllable form of paḷa-paḷa, with origins to the pakal – sun and pal – shining teeth (pal-pala is also several teeth).

kōnda, goñde – bull, kō - highness, kōta – fort, kañni – boat, trap, kāl - vehicle, kōl – boat, ko! – receive/buy.

Comment: ◇ was correctly identified as kō by Bryan Wells [4, p. 98].

Va-cluster

) ,))),),), D, D, (, {

This another highly cohesive homophonic cluster.

vala – right, val – strong, vāl – sword, vaļa/vaļai/vaļainci - curve/bend, valai – capture/net, valaiyan – fisherman/trapper, vil – bow, varī – way, vār/yār – joy/dance/music/harp, iṭai – left, iṭaiyan – herder

Ma-cluster

冂, 冂, 冂, 冂, 爪, ⚡

The well fortified forts used raised-floor constructions to avoid flooding.

mē – high, west, māti - terrace, mātu – buffalo, māran – barterer, mūmalai – three/mature-mountain.

Na-cluster

ঠ, ঢ, ধ, ঞ, ঁ, ং

nol – tiny (bug, droplet), nātu - country/province, nuran, nulampu – mosquito, stitching, nān – thread (marriage thread), aniyal, mani – necklace, beads, nal-nel-āl – good farmer.

Ca-cluster

ঠ, ঘ, ঝ, ঝ

cil – piece (chip), cippu – shell, cira - excel, cirappu – excellent, stitching, ciļu-cil-eņal – lively, bubbly

Xe/Ke/Ce-cluster

ঞ, ঢ, ঝ, ঝ

xembu – bronze, xeval – chicken/bronze, xeviyan – hare/bronzesmith, cevūr – brozetown.

Conclusion

In this article we find excellent agreement between the decipherment of Indus script [1] and the proto-Dravidian as derived from the study of phonetics and grammar by Burrow and Emeneau [2], and Krishnamurti [3]. This establishes the proto-Dravidian derivation from both angles: the topology of signs [1] and the phonological grammatical analysis [3]. The formation of semantic-homophonic clusters, that closely align with Indus script decipherment, points to the origin of the proto-Dravidian language in the culture and production system that produced the writing system. Further historical studies also point to the emergence of proto-Dravidian from Indus script [5,6], thus firmly establishing the close affinity. Further work is required in phonological grammatical analysis in areas such as trade, fishing, hunting, carpentry, stitching, bronzesmithy and jewellery, as the excellent study by Krishnamurti [3] lacks coverage in such areas. It is quite unfortunate that the

study only mentions the word fish in only two places, a surprising fact. It is not clear if this is a oversight or it reflects the ground reality of Dravidian language as exists now after the southern migration to the interior areas of India. Some of the missing pieces could be discerned from Burrow and Emeneau [2], which has a wider coverage of subject areas.

References

- [1] Venkatesan, SK, (2025) Decipherment of Indus Valley Script, <https://github.com/Sukii/decipher-ivc>
- [2] Burrow, T., Emeneau, M.B., Dravidian Etymological Dictionary, Oxford Clarendon Press, 1961, (see also: <https://dsal.uchicago.edu/dictionaries/burrow/>)
- [3] Krishnamurti, B, (2003) *The Dravidian languages*. Cambridge, UK: Cambridge University Press.
- [4] Wells, B., (2015) [The Archaeology and Epigraphy of Indus Writing](#), Archaeopress
- [5] Kolipakam V, Jordan FM, Dunn M, Greenhill SJ, Bouckaert R, Gray RD, Verkerk A. 2018 A Bayesian phylogenetic study of the Dravidian language family. *R. Soc. Open Sci.*, 5, [171504](#)
- [6] Sequeira, J.J., Krishna M, S., van Driem, G. et al. (2025) Novel 4400-year-old ancestral component in a tribe speaking a Dravidian language. *Eur J Hum Genet*. <https://doi.org/10.1038/s41431-025-01963-1>