Overlap with previous work

No work germinates on it's own; it usually germinates on a fertile ground laid down by others. There were many conjectures on this Indus writing system by Asko Parbola, Iravadham Mahadevan and Brian Wells. I will briefly outline some of them pointing out overlaps and differences. It all started with the interpretation for fish sign as "mīn" by father Heras in 1930s [9]. This was reiterated with caution by Iravadham Mahadevan [10]. If we look at the frequency of the consonants in Tamil (both modern and old), the one that comes on top is "ka" and not "ma" or "mi". We know that the fish sign is the most frequent in Indus script, so the obvious Turing's not so enigmatic result is that the fish sign must start with "ka" and we found "kanni" is probably more feasible. However, our result is independent of it and was inspired by M.V.Bhaskar's interpretation (personal communication) that the "Garial" (the river crocodile) is synonymous with fish and was probably trained and used as a boat. My own personal exposure to local customs also revealed that "kanni" is a term used commonly in earlier times for boat or any vehicle. This was probably dropped later on in Tamil literature. The same however continues in Indo-European tradition that associates feminine gender to even a modern vehicle like train inflecting verb appropriately.

There were many interpretations by Asko Parbola and Mahadevan [11] on the M77 sign-342 𖫵, including "-an". MVB was quite critical of this being male-centric, an apt criticism, as he found no preponderance of male domination in IVC art. The interpretation of sign-1 𖫲 as "-an" has also been proposed by Bryan Wells [3] and then MVB's criticism can be cleverly overcome by stating that "-an/-al" could have been sex-neutral term in those days and associating "-al" with feminine gender could have been a later invention by the male-dominant society (especially as "-al" has connotation with darkness and evil). On other proposals of Iravadham Mahadevan and Bryan Wells's on numbers as being semantically numbers, we found no parallels in our interpretations. In fact, the numbers are probably the only signs that almost never reflected their standalone ideographic value. This was indeed quite suprising for us, as we found almost no evidence for this. MVB has been quite radical in this interpretation, proposing that almost a new syllabic system can be conjured-up using just the numbers alone.

Yuri Knorozov [12] has also done extensive study of the IVC writing system and he has correctly identified numbers as syllables, with sign-86 𖫴 identified as "or", 𖫵 as "iru", 𖫶 as "mu", 𖫷 as "nal", 𖫸 as "ai". This is exactly as what we have deciphered here, although we consider sign-86 𖫴 as "mutal" and not "or".

Bryan Wells's work also proposes other possibilities like sign-358 𖫹 being closely related to the Hare's ears and so proposing the syllable "ce" from "cevian". The author is in full agreement with this proposal and in fact, both this and sign-76 𖫻 also evokes the same "ce" syllables. In the IVC context of bronze-age, these have semantic connotations to "cembu" (bronze). Bryan Wells also proposed "kō" for sign-261 ◊ and "kōṭa" for sign-267 ◊. We are fully in agreement with these readings.

Ansumali Mukhopadhyay [13] studied the word for teeth, "`palla`" and it's relationship to the ivory trade. The sign-391 ⊛ is here deciphered as "`palla`", the elephant, an important sign in the IVC, especially in relationship to the ivory trade. There could have been many more proposals that

may have some overlap with our interpretations here. We would be glad to include them in our document as soon as we are made aware of them.

Farmer et al. [14] criticism that the average number of signs in a line are two short (on the average of between 4 and 5 signs) for any meaningful orchestration of a writing system is quite correct. However, our decipherment points out that these lines of text are mostly **from/to** addresses with mode of transport indicated through fish and arrow signs in-between the **from** and **to** addresses. Sometimes the mode of transport is left out (or is implied) and the same could be true of the **to** address, which probably is implied from the context. There are also very short lines heaping praise on towns and their workers. In any case, writing in crisp and short messages is a tradition that has continued for a long-time in Dravidian tradition, as established in Thirukkural, which is taught even now in schools of Tamilnadu.

Andreas Fuls [15] has made an excellent comparative study of Linear Elamite and Indus script, showing that the Indus script is quite different from the Linear Elamite and that it is probably "logographic-syllabic writing system with many signs representing a logogram, or word root". Our decipherment shows that this is indeed the case and that the root word or syllable are approximately 34 base signs from which 417 signs can be built using an aglutinative welding of bases and affixes.

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