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## PHONETIC VALUE OF THE 'ARROW' SIGN IN THE INDUS SCRIPT

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It was a warm and humid afternoon in August 1995. I was feeling tired and rather sleepy after a hard day's work in the library of the Directorate of Epigraphy at Mysore, where I was collecting material for my forthcoming book on Early Tamil Palaeography. I was also interested in looking at the earliest Kannada and Telugu inscriptions to explore whether they have any similarities with the earliest Tamil Inscriptions.

On that particular day I was browsing through the well-known classic *Historical Grammar of Telugu* by Korada Mahadeva Sastri (1969). Suddenly I sat up, snapping out of my sleepy mood, when I came across the passage (pp. 135-136) in which Sastri describes the gender suffixes in Old Telugu, especially *-(a)mbu/- (a)bu*. I saw in a flash that here was the perfect match long sought after by scholars, between the pictorial value of the ARROW sign in the Indus Script and its known function as a grammatical suffix. I shall explain in the present paper the implications of the proposed phonetic value, first by looking at the characteristics of the sign and then the presumed situation in ancient Dravidian regarding the gender suffixes. In order to keep the paper short and focussed, I shall avoid discussing in detail the earlier attempts to read this sign. I have however appended a short bibliography of the relevant earlier researches.

The ARROW sign is one of the very few in the Indus Script, which are pictorially transparent, and at the same time, with strongly marked functional characteristics which can be identified by frequency-distribution analysis. Pictorially, this is one of the simplest and least complicated signs with hardly any variant forms. It is easily identified as an arrow or spear (more precisely, an arrowhead or spearhead). For the moment, it is immaterial whether it is an arrow or a spear, as that question would get automatically resolved when the search for probable words narrows down to the field determined by the functions of the sign.

The main characteristics of the ARROW sign are its final position in the texts and its functional similarity with the JAR sign. Both function as terminal signs not only at the end of texts but also in medial positions. The preceding signs or sequences can be shown to be complete words, probably names or titles, especially in the seal-texts.

The most common supposition has been that these two signs are case suffixes, JAR for the genitive and ARROW for the locative or the dative. However, most (though not all) sequences preceding these two signs are mutually exclusive, thus making it improbable that they are case-markers (which are generally recognised from the circumstance that they are added to the *same* nouns but in different contexts). These two signs are also found to be more closely attached to their respective preceding signs than would be the case if they were case-markers (e.g. FISH and ARROW pair). Further, case-endings in the oldest Tamil inscriptions do not occur text-finally (except in very few instances influenced by Prakrit). Thus it appears likely that these two signs are grammatical morphs, but not case suffixes. This leaves only the possibility that they represent gender, or rather person-number-gender, since single suffixes can serve as combined person-number-gender markers in Dravidian.

The most common word for the arrow in the Dravidian languages is *ampu* (Ta., Ma.) or *ambu* (Ka., Te.), which can be reconstructed as *\*ampu* in Proto-Dravidian (DEDR 178). Since the ARROW sign is known to function as a grammatical suffix, the phonetic value *ampu* also stands for the non-masculine singular suffix. This grammatical morph can also be reconstructed as *\*(a)mp(u)* in Proto-Dravidian as it occurs widely in South, South-Central and Central Dravidian Languages:

(e.g.) Old Telugu	:	<i>-(a)mbu/-(a)bu&gt;(a)mmu/-(a)mu</i>
Old Kannada	:	<i>-(a)m&gt;-(a)mu/-(a)vu</i>
Tamil	:	<i>-(a)m</i>

In Old Telugu, there was only a two-way grammatical distinction for gender, known as *mahat* and *a-mahat*. The feminine was included in the *a-mahat* category in the singular, and in the *mahat* category in the plural (K.M. Sastri: *ibid.*):

Gender	Singular	Plural
<i>mahat</i>	male	males & females
<i>a-mahat</i>	female, animal, inanimate	animals, inanimates

Correspondingly the gender suffixes in Old Telugu were as follows:

Masculine Singular	:	<i>-(a)ṅru&gt;-(a)ṅru, -(a)ṅḍu</i>
* Non-Masculine Singular	:	<i>-(a)mbu/-(a)bu&gt;-(a)mmu, -(a)mu</i>

(\* K.M. Sastri refers to this category as 'neuter'. However as females are also included in the singular, it is better described as 'non-masculine'.)

There has been a controversy among Dravidianists whether the two-way gender distinction as in Old Telugu (masculine/non-masculine) or the three-way distinction as

in Tamil (masculine/feminine/neuter) represents the original situation in Dravidian. It is however now well settled that in this respect Old Telugu represents the Proto-Dravidian pattern and that the separate feminine gender was a later development (K.V. Zvelebil, *Dravidian Linguistics: An Introduction*, 1990: p.20). It may also be noted in passing that the resemblance between the suffix *-am* in Old Kannada and Tamil and the Sanskrit neuter suffix *-am* is purely a coincidence as proved by the different form of the re-constructed Dr. suffix \* *-(a)mp(u)*.

A few examples of the earliest inscriptional occurrences of the suffix *-(a)mbu/-(a)bu* in Old Telugu are listed below (cited by K.M. Sastri: *ibid.*):

- (1) *Nāgabu* : Prob. name of a stone-mason. On a granite pillar in the Amaravati Stupa. Dated variously between 2nd cent. B.C. and 2nd cent. A.D.
- (2) *samvatsarambu* : 'year<sup>3 or 150</sup>!'. In Cikilla Plates (ca. 6th cent. A.D.).
- (3) *pandumbu* : 'ten measures'. In a stone inscription (ca. 7th cent. A.D.).

It is somewhat surprising that none of the published lists of Old Telugu words culled from inscriptions include those found in the earliest stone inscriptions of the Pallavas from the Tamil country. I append below a list of the titles in Old Telugu (with the suffixes *-(a)mpu/-(a)mbu*) sported by Mahendravarman I (ca. 600-630 AD.) in his stone inscriptions at Kanchipuram, Pallavaram and Tiruchirapalli (T.V. Mahalingam, *Pallava Inscriptions*, 1988, Nos. 21, 28 & 34):

*Kuṛṛambu, Curmbu, Vaṁkambu* (Kanchipuram).

*Nivambu, Nilvulenēyyambu, Vampu, Vaṁkampu, Kaṭhumpu, Pasarambu, Kaṭuntērambu, Nayambu, Cumbu* (Pallavaram).

*Nilvulēnēyambu, Nivambu, Nayambu, Vambu, Kaṭuntarambu, Kaṛumbu, Kuṛṛambu, Calambu, Kilambu* (Tiruchirapalli).

Most of these titles are obscure and are yet to be satisfactorily interpreted. However, *prima facie*, it is somewhat strange that so many titles of the king should end with the non-masculine suffix *-(a)mpu/-(a)mbu*. A possible explanation is that the words themselves are grammatically in the neuter gender, though they serve as *birudas* (honorific titles) of the king. I can illustrate this by citing an interesting Old Tamil loan-word in this list, *Kaṭun-tēr-ambu*, which may be compared with *kaṭun-tēr* 'fast chariot' occurring frequently in the Tamil Caṅkam poetry (e.g. *Puṛam* 15:1). This is also the likely explanation for the word *Nāgabu*, lit., 'serpent' (neu.) but serving as the proper name (masc.) of a stone-mason (in the Amaravati pillar inscription). Even at present we have neuter nouns serving as proper names (masc.) in Tamil as in *Tirucciṛampalam*.

It is however a moot point whether this situation can be extrapolated to the Harappan times, though the possibility cannot be ruled out.

An important consequence of the determination of the functional and phonetic values of the ARROW sign is the bearing it has on the value of the JAR sign, its more frequent functional twin. As is well known, the JAR sign is by far the most frequent in the Indus Script, and determining its value is critically important for the decipherment of the Indus Script. Since the ARROW sign has been shown to be the non-masculine singular suffix *\*(a)mpu*, it follows almost automatically that the JAR sign must be the masculine singular suffix with the phonetic value *\*(a)ngu*, a result which is virtually independent of the pictorial value of this sign. This in turn leads to the recognition of the sign of the plural which can be shown to alternate with the JAR and ARROW signs in similar contexts. While I propose to deal more fully with these matters in another paper, I am anticipating the results here to indicate the importance of the present determination of the phonetic value of the ARROW sign.

Before concluding, I may also draw attention to the possibility, as in other ideographic scripts, of a sign having both literal (pictorial) and transferred (phonetic) values in different contexts. It appears that in the unique compound sign ARROW-BEARER, where the ARROW sign is placed at the top and has to be read first in accordance with normal convention, it seems to have a literal value ('bearer of arms' > 'guard'). It is significant that a similar situation seems to exist also in respect of the closely parallel compound sign JAR-BEARER ('bearer of victuals'), though by itself the JAR sign functions as a grammatical morph.

To sum up, the argument in the present paper is as follows:

- (1) The arrow sign in the Indus Script represents pictorially an arrow, and functionally a grammatical morph, the non-masculine singular nominal suffix.
- (2) Its phonetic value, derived by rebus, is *\*(a)mp(u)*.
- (3) It is added to non-masculine (feminine and neuter) singular nouns serving as names and titles.
- (4) The possibility of a neuter noun occurring as a masculine name or title cannot be ruled out.
- (5) In an exceptional case, the ARROW sign (in a compound sign) seems to have the literal pictorial value 'arrow' > 'arms'.
- (6) The determination of the functional and phonetic values of the ARROW sign leads to the recognition of the correct phonetic value of the JAR sign, the most frequent sign in the Indus Script.



Fig. 1 A Harappan Seal with the ARROW sign.

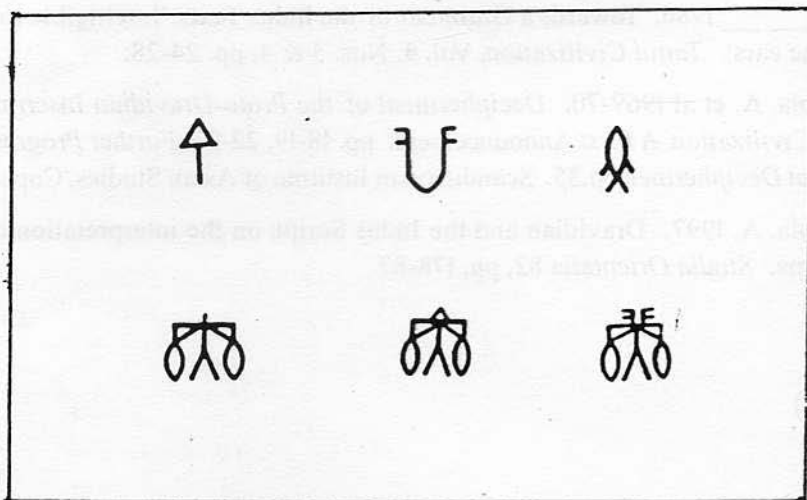


Fig. 2 Signs of the Indus Script cited in the Paper.

Top	(L to R)	:	ARROW, JAR, FISH.
Bottom	(-do-)	:	BEARER, ARROW-BEARER, JAR-BEARER.

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