

DRAVIDIAN AND THE INDUS SCRIPT: ON THE INTERPRETATION OF SOME PIVOTAL SIGNS

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PRELIMINARY NOTE

In an recent monograph (Parpola 1994a), I have given a fairly systematic and up-to-date survey of a wide variety of data relating to the Indus script and its decipherment. Several summaries of my conclusions have also been published (Parpola 1994b; 1997). There are, however, numerous problems which I did not deal with in my book in detail due to the very provisional nature of suggestions I can offer about them, although I was tempted to do so because some of them are significant for the decipherment of the Indus script. Perhaps chief among these outstanding problems is the interpretation of several phrase-final signs, particularly the 'spear' sign $\hat{\uparrow}$ and the 'yoke-carrier' sign 𑀓 along with the most common sign of the script, the 'bull's head' sign 𑀕 , which I could not avoid discussing to some extent in the book. These three signs can also be put together so as to form two ligatured signs, 'spear' + 'yoke-carrier' sign 𑀓𑀕 and 'bull's head' + 'yoke-carrier' sign 𑀕𑀓 ; they also make components in several other composite signs, such as 𑀕𑀓 and 𑀓𑀕 . Thus, we have some internal means to check their tentative interpretations, and they provide crucial clues to enlarging the decoding of the Indus script. I have been thinking upon the meaning of these signs for more than three decades. Some of the thoughts put forward here I have already presented elsewhere (especially Parpola 1981), but I have modified and extended them in accordance with my present views while reconsidering these issues here.

In my opinion, there is substantial evidence to back up the hypothesis that the Indus script mostly renders a Dravidian language: some of the Indus texts from the Near East are exceptions, as they seem to render one or several Near Eastern languages (see Parpola 1994c; 1994a: 131–133). For one approaching the problem of the above-mentioned signs from the Dravidian perspective, several alternative interpretations present themselves, some appearing more likely than others. I have thought it useful to discuss here all the main alternatives and often internally conflicting solutions that have been competing with each other in my mind over the years, together with some attempt to evaluate their relative likelihood. We must keep pondering upon the various possibilities and testing them against each other and the various contexts until we hit solutions that really work in all respects. The best proof for the correctness of a solution will be that it will lead further, to convincing interpretations of other signs. It is good strategy to begin with signs that are pictorially relatively clear, for especially in the beginning the uncertainties are so overwhelming that we must try to limit at least those

arising from the iconic meaning of the sign to the minimum. Of course it will also be an advantage if the signs occur frequently and in various contexts, as is the case with those that are being discussed in this paper.

THE PROBLEM OF INFLECTION

I would like to start by quoting some of my conclusions concerning the central problem of identifying evidence for inflection in the Indus texts:

If the short Indus texts consist mainly of noun phrases, as seems most probable, the cases most likely to occur may be expected to be the nominative (often zero-marked), genitive and dative cases...


The most likely candidates for inflectional markers are the two signs \mathcal{U} and $\hat{\mathcal{U}}$... They occur with a high frequency, are juxtaposed with many different signs, and are generally word-final; in those instances where other signs follow them in the text, it is often possible to show that there is a word boundary between these signs and the following ones. This also indicates that the signs that follow these signs are themselves 'words' and not other markers for different grammatical categories.

Assuming that these signs are attached to nouns or noun phrases, it seems reasonable to regard them as representing some type of grammatical category compatible with noun phrases, one likely candidate being 'case' markers. This is supported by the fact that, excluding some texts of dubious nature, the signs in question do not occur separately and are in some instances optionally employed. In many languages, case relations can be expressed either with or without explicit case markers (in English, for example, *the table of / in the hall = the hall table*).

If premodification is preferred in the Indus language (§ 6.1-2), one would expect to find that ... 'genitives' modifying noun phrases should be placed in front of the noun phrases they modify. One would also expect to find that a marker for the genitive case is employed with two separate noun phrases, i.e. the modified (which would be unmarked for case) and the modifying noun (which would be marked for the genitive case), as [is the case in a number of texts]. Having numerous instances of the sign \mathcal{U} employed with only a single noun in a short text, and rather frequently in text-final position, therefore either indicates (i) that the sign is not, strictly speaking, a sign for the genitive case being employed exclusively as a modifier of another noun phrase, or (ii) that the 'genitive case' has a much more general function, e.g. possession. Something stamped with a seal ending in this sign would then be labelled as 'the possession of X', while in other contexts the same sign could function as a genitive marker. In South Dravidian languages, for example, these two functions fuse in the possessive case marker that has (relatively recently) developed from a postfixed noun meaning 'possession, property, wealth' (*uṭay*).

Other interpretations cannot be excluded, however. Particularly important is the suggested functional connection between the plain sign \mathcal{U} [in a 'suffixal' position after the modified word] with the ligatured signs \mathcal{U} and \mathcal{U} in [an 'adjectival' position in front of the modified word]. In the three-sided amulet illustrated in fig. 6.3, the sign \mathcal{U} occurs alone and therefore is hardly a morphological marker, but rather a distinct word, probably referring to the deity depicted on the amulet. Thus the sign \mathcal{U} could be a title of respect commonly added to proper names, whether human or divine. This hypothesis does not necessarily exclude that of the possessive marker, for South Asian languages provide several examples of titles formed from nouns meaning 'possession, property', e.g. Tamil *uṭaiyavaṅ* 'owner, possessor of wealth, master, lord, husband, ruler' (cf. *uṭai* 'possession'), or the synonymous Sanskrit *svāmin* (cf. *sva-* 'one's own'). Perhaps the diacritics like " served to distinguish between such different meanings, possibly by expressing derivational suffixes. We must conclude by frankly admitting our present inability to identify morphological markers with any certainty. (Parpola 1994a: 96f.)

THE 'BULL'S HEAD' SIGN AND ITS LIGATURES AND

In the above-quoted passage, I am suggesting that the most common sign of the Indus script, the 'bull's head' sign , may have functioned as the genitive (possessive) marker in many cases, but in the great majority of the texts, especially when forming the final element of a seal text, it would have expressed a noun denoting 'possession, property', following the name or title of the owner which would have a zero-marker for the genitive case. When impressed on a clay sealing, the inscription would have identified the object to which the sealing was attached as the property of the seal owner.

The reconstruction of the Proto-Dravidian genitive (possessive) marker has proved to be a complicated and somewhat controversial task, so it seems appropriate to quote at some length Zvelebil's analysis of the relevant material at the outset:

The reconstruction of the *genitive* markers presents more difficulties. Obviously, various so-called genitive suffixes have different functions; the 'meanings' of the so-called genitive may be, roughly speaking, characterised as (1) adnominal relationship, (2) possessive.


A suffix **-in* is reconstructable as a marker of adnominal relationship in Tamil, Malayalam, some dialects of Kannaḍa, ? Toda, ? Kolami,...? Naiki, Parji, Gadaba, and possibly for Telugu, Koṇḍa, Pengo, Kui and Kuvi. As certain reflexes of **-in* we may regard the Tamil-Malayalam *-in*, the Parji *-n / -in*, and the Gadaba *-n / -in*, possibly Telugu *-i*.

According to Tolkāppiyam, the genitive suffix is *-atu* which alternates with *-ātu* in Old Tamil texts. The same *-atu* is found in ancient Kannaḍa ... It also occurs in Telugu with pronouns. Kota *-d* is obviously a development of **-atu*, and Kui-Kuvi *-di*, *-ti* seem to be related. Hence we may reconstruct **-atu* as one of the genitive suffixes, occurring probably first in the pronominal paradigm.

-a is attested from a number of languages including Old Tamil, Old Kannaḍa (though *-ā* is more frequent there), Old Telugu, Badaga, Tulu, Telugu, Parji, Kolami. Some languages, like Old Kannaḍa, Gondi and Brahui, have *-ā*. Taking into consideration the grammatical meaning and the distribution of this suffix in Old Tamil, it seems that a possessive suffix **-ā* may be reconstructed for Proto-Dravidian.

A late South Dravidian (or even later than South Dravidian) innovation is the use of **uṭay* (cf. DED 510 Tamil *uṭai* 'wealth', *uṭaimai* 'state of possessing, possession etc.' ...through Telugu) as a marker of a possessive 'case'... (Zvelebil 1977: 31f., with abbreviations dissolved.)

One external reason for thinking that the sign most frequently occurring at the end of Indus inscriptions might be the genitive suffix is the parallel offered by the seal and coin texts of early historical India, which are in Sanskrit, Prakrit or Greek, and which normally contain just the name of a person or institution in the genitive case: '(This is) X's' (cf. Thaplyal 1972; Mitchiner 1976). This was first proposed by Henry Heras (1953: 60, 66f.). But the genitive endings apparently follow the Greek tradition introduced by Alexander's coinage (Parpola 1994a: 117).

The interpretation summarized above under the heading 'the problem of inflection' tries to adjust the hypothesis that the sign  is in some cases likely to be a genitive marker to the linguistic restriction which excludes the occurrence of an oblique case at the end of a noun phrase in Dravidian: in Dravidian, a regular noun phrase must end in the nominative. Of course one could bring the phrase-final genitive in line with the

linguistic structure of Proto-Dravidian by further assuming that it has been transformed into a pronominalized neuter noun in the nominative case by adding a pronominal suffix *-tu*, as in Malayalam *ammayūte* 'mother's' > *ammayūṭētu* 'that which belongs to mother' (cf. Zvelebil 1977: 47ff.). The pronominalizing suffix need not have been explicitly expressed in the relatively primitive Indus script. But the earliest coin inscriptions in a Dravidian language, i.e. in Old Tamil, invariably end in the nominative (cf. Krishnamurthy 1997; Nagaswamy 1995).

We know that the Indus people sailed to Mesopotamia and participated in economic activities there from the fact that a considerable number of Indus seals have been discovered in the Near East. On the basis of a sealing found at Umma, it would appear that the Indus seals have been used there just like the local seals, for sealing commodities of merchandise. (Parpola 1994a: 113–116.) Therefore, it is likely that the inscriptions on the Indus seals have contents parallel to the readable Mesopotamian seal inscriptions. These mainly contain proper names of men and gods (the latter in priestly titles and as components of theophoric human names) and titles. In the vast majority of the cases, the owners of the Mesopotamian seals were of the male gender, and their names are in the nominative case. (Parpola 1994a: 116–121.) It must be admitted that it would seem more natural to assume that the Indus seals, too, name their owners in the nominative.

Besides, though more than half of the preserved Indus texts are seal inscriptions, we have also other textual categories, the largest group being small tablets of terracotta, faience or metal, often with two or more inscribed sides. They are likely to have been amulets or tokens for votive offerings, because the iconographic scenes on some of these tablets enable the identification of the sign \cup , very often occurring on these tablets, as an 'offering vessel' (cf. Parpola 1994a: 107–109). From this, the tablets can be assumed to contain to a large extent names of divinities. The inscriptions on many of these tablets, too, end in the sign \mathfrak{V} . We would expect to meet the nominative rather than the genitive case in such contexts.

Now, if the Indus language belonged to the Dravidian family, the most likely grammatical suffix that we would expect to find as the final element of male proper names and titles would be the masculine singular marker of the pronominalized or personal nouns: 'the type of derivation called personal alias pronominalized nouns is widely distributed in SDr, CDr and NDr, and hence should obviously be reconstructed for Proto-Dravidian as one of the very typical grammatical, structural features of the family' (Zvelebil 1977: 51f.). The reconstruction of the Proto-Dravidian system and suffixes, however, is complicated due to the unequal distribution of the material: 'The details... remain to be worked out; at present, an exact statement is probably impossible' (Zvelebil 1977: 52). Zvelebil (1977: 57, n. 74) cautiously reconstructs the masculine singular pronominalizing suffix as **-Vn* for Proto-Dravidian, but **-aṅ* (besides which Old Tamil has *-āṅ* and *-ōṅ*) seems the most likely realization (cf. Shanmugam 1971: 104).

On the basis of painted motifs on Early Harappan pottery (cf. Parpola 1994a: 106, fig. 7.4), dated close to the time when the Indus script was being created, the sign \mathfrak{V} can be assumed to be a simplified frontal image of the head of a cow or bull, with a pair of horns and ears on either side. We have seen that this sign might represent the Proto-

Dravidian genitive suffix **-a* / **-ā* (with the allomorph **-a-tu* / **-ā-tu*, extended by adding the pronominal suffix of the third singular neuter **-tu*; this allomorph may have been used only in personal pronouns in Proto-Dravidian) (cf. Zvelebil 1977: 31, 33; Shanmugam 1971: 384f.). I have therefore suggested (Parpola 1994a: 188) that the primary (iconic) counterpart of the 'bull's head' sign 𑀓 in the Indus language might have been Proto-Dravidian **ā* 'cow' (DEDR no. 334). This word occurs in Tamil and Malayalam in two forms, *ā* and *āṇ*. In Kannada there are two forms, *ā* and *āvu*; the latter form has counterparts in Kota (*āv*), Toda (*-of*) and Telugu (*āvu*) and possibly also in Kurukh (*ōy*) and Malto (*ōyu*), if these have developed, with labialization of the preceding vowel and the loss of medial *-v-*, from Proto-Dravidian **ā-v-V* (cf. Pfeiffer 1972: 58). Tulu *am-bi* 'cowdung' (cf. Old Tamil *ā-p-pi* 'cowdung' in Purānānūru 249) and Telugu *ā-dōka* 'the shape of a cow's tail', *ābasi* 'cow' and *ā-bōtu* 'bull' (cf. Tamil *ā-v-ēru* and Old Tamil *āṇ-ēru* 'bull, as the male of a cow' in Cilappatikāram 30,141) suggest a Proto-Dravidian reconstruction **āṇ* besides **ā*. Thus, in Harappan Dravidian, the 'bull's head' sign 𑀓 could well have served as a rebus for both the masculine singular nominative marker **-aṇ* / **-āṇ* as well as for the genitive marker **-a* / **-ā*. In fact, such a multiple function could explain the great frequency of the sign, which by far exceeds that of any other sign.

Henry Heras (1953: 67) read the 'bull's head' sign 𑀓 as *-adu*, and pointed out that it could be interpreted not only as a genitive suffix but also as a demonstrative: *maram adu* 'of the tree' and *adu maram* 'that tree'. Though these reconstructions do not necessarily hold good for Proto-Dravidian – though 'gender-number concord is... found in the construction, Demonstrative pronoun + Noun (phrase) in the languages like Kota, Gondī, Parjī, Kolami and Nk.(Ch.)' (Shanmugam 1971: 16) –, Heras's basic observation about the twofold meaning of **a* / **ā* is valid, if one substitutes **mara-tt-a* / *mara-tt-ā* 'of the tree' (cf. Shanmugam 1971: 244f., 384f.) and **a* / *ā maram* 'that tree' (cf. Zvelebil 1977: 62f.; Shanmugam 1971: 16) for Heras's reconstructions.

We must test the tentative interpretation of the 'bull's head' sign 𑀓 as **ān* / **ā*, trying to see if it fits all the contexts where the sign occurs, including its ligatures. Among other signs, it is combined with the signs ' and ", which are placed 'between the horns'. These particular ligatures 𑀓' and 𑀓'' occur in contexts that are often parallel with those of the plain 'bull's head' sign 𑀓 and suggest that they are semantically closely related (cf. Parpola 1994a: 90). The shape of the signs ' and " is similar to that of the numeral signs in the Indus script (cf. Parpola 1994a: 81f., 107–109), so one could try readings based on Proto-Dravidian numerals **oru* / **ōr* / **oṇ-tu* (with the pronominal neuter singular marker **-tu*) 'one' (DEDR no. 990) and **iru* / **īr* / **īr-aṇ-tu* 'two' (DEDR no. 474; for **aṇ*, cf. DEDR no. 120 **aṇ* 'pair') (cf. Zvelebil 1977: 34, 36). Both *-ōr* (besides *-ar* / *-ār*) and *-īr* / *-īr* function as animate (masculine/feminine) plural (or honorific singular) markers in Old Tamil (*-īr* / *-īr*, besides being the suffix of the second person plural, is also found in such words as *vēlīr*, TL VI: 3842a). Whether these suffixes can be reconstructed for Proto-Dravidian is another matter.

But with its iconic meaning 'one', the sign ' would not be a particularly suitable rebus to express plurality; therefore the single stroke sign ' might rather stand for the

neuter *singular* marker **-tu* in **oŋ-tu*. The resulting reading for the ligature 𑀓 , **ā-tu*, could represent the Proto-Dravidian genitive marker; one difficulty with this interpretation is that this enlarged marker is thought to have been restricted to the pronominal paradigm in Proto-Dravidian; another difficulty is the distribution of the sign 𑀓 , which is not limited to positions parallel to the sign 𑀓 .

On the other hand, Old Tamil literature, the only source material likely to have preserved larger amounts of pre-Aryan, native Dravidian proper names offers another possibility for explaining the sign 𑀓 as an element of a proper name. It could namely be compared to Old Tamil Ātaṅ , 'a proper name in general use in ancient times' (TL) according to the *Eḷuttatikāram* of *Tolkāppiyam*:

348 ...If proper names ending in ṅ are followed by the word *tantai* denoting father, the aṅ of the standing word and the initial consonant of the coming word are dropped. Ex. $\text{Cāttāṅ} + \text{tantai} = \text{Cāttantai}$; Koṟṟantai etc. 349 ... If ātaṅ and pūtaṅ are standing words and the coming word is *tantai* denoting father, the change in sandhi is the same as before with the addition that the final consonant and the initial vowel of the standing word and the coming word respectively are also dropped; (i.e.) taṅ of ātaṅ and pūtaṅ and *ta* of *tantai* are dropped. Ex. $\text{ātaṅ} + \text{tantai} = \text{āntai}$; pūntai (Subrahmanya Sastri 1930: 59f.).








In the example quoted in *Tolkāppiyam*, Ātaṅ occurs in an initial position, as is often the case with the Indus sign 𑀓 (in contrast to the simple sign 𑀓 , which is mostly final). The majority of the proper names in Old Tamil literature that contain the component Ātaṅ also have this element in the initial position: Ātaṅ Eḷini (ruler of Cellūr) in *Akam* 216:14; Ātaṅ Aviṇi (a Cēra king) in *Aiṅkuṟunūru* 1–10 (in each of these 10 poems, the first line is $\text{vāḷi y-ātaṅ vāḷi y-aviṇi}$); Ātaṅ Aḷici in *Puṟam* 71:13; Ātaṅ Ōri in *Puṟam* 153:4; Ātaṅ Uṅkaṅ in *Puṟam* 175:1 and 389:13; and Ātaṅ Pōntai in *Puṟam* 338:4. There are, however, examples of names in which Ātaṅ is the final element, such as Villi y-Ātaṅ in *Puṟam* 379:7. Ātaṅ does not appear to be an Indo-Aryan loanword (TL and Vaidyanathan 1971 do not consider it as such). Dorai Rangaswamy (1968: 87, 140) analyses Ātaṅ as consisting of 'ā (to become) the root, *tu* the formative and *aṅ* the masculine suffix'. Structurally, it has every chance of reaching very far back in time, for Zvelebil (1977: 57, n. 74) notes that 'the derivation with the morph **(t)l-* plus pronominalizing suffixes **-Vn* (masc.), **-i* (fem.) must be a very deep and ancient feature common to the entire [Dravidian] family'.

A NEAR EASTERN CLUE TO THE PHONETIC VALUE OF THE 'BULL'S HEAD' SIGN 𑀓



Stamp seals found in the Near East, inscribed with the Indus script but with non-Harappan sign sequences apparently rendering some Near Eastern language, constitute one possible test of decipherment (cf. Parpola 1994a: 131–133). In one circular seal from Mesopotamia we have the unique doubling of the 'bull's head' sign: 𑀓𑀓 , 𑀓𑀓 . One of the allomorphs for the Proto-Dravidian genitive suffix has the phonetic value *atu*, pronounced in Proto-Dravidian with the regular lenition of the dental stop in intervocalic

position. With the automatic elision of the ‘enunciative’ vowel *-ū* before a following vowel, its doubling yields *adadu*, which is very close to the name of the Mesopotamian (originally West Semitic) storm god Adad. Adad became popular in Mesopotamia in the beginning of the second millennium, the date of this seal. Dravidian speakers would in any case have pronounced this name *Adadū*, since in Dravidian word-final stops are released with the ‘enunciative’ vowel *-ū*. The single short stroke, which precedes this sign sequence in the seal inscription, can be understood as ‘number one’, which was **oru* (before consonant) / **ōr* (before vowel) in Proto-Dravidian (DEDR no. 990). This is a reasonably close approximation of Sumerian *ur* ‘man’ (cf. also the Proto-South Dravidian and Telugu change of *o > u* in the first syllable if the next syllable has *a*). *Ur* is a very common formative element in Sumerian proper names. The resulting name, *Ur-Adad* ‘man of (god) Adad’, actually occurs in cuneiform texts.




THE LIGATURE ‘BULL’S HEAD’ + ‘YOKE-CARRIER’

The ‘yoke-carrier’ sign  is combined with the ‘bull’s head’ sign  to form the ligature , which supports this pictorial interpretation by its placement of the ‘bull’s head’ sign  in the position occupied by the human head in the simple ‘yoke-carrier’ sign . This ligature  often occurs at the end of stereotyped seal inscriptions, which may consist of nothing but this sign and a number (𑀓 3, 𑀔 4, 𑀕 5) or a single long stroke | before it. The manifold occurrence of such inscriptions suggests that they do not represent proper names but occupational titles of a lower rank. The ‘yoke-carrier’ sign  most likely represents the Proto-Dravidian root **kā-* / **kāv-* / **kā(ñ)c-* ‘to carry (with a shoulder yoke)’ (DEDR no. 1417). This root is closely homophonous with the Proto-Dravidian root **kā-* / *kāpp-* / *kāv-* / *kāc-* ‘to protect, guard, watch’ (DEDR no. 1416), which in all main branches of the Dravidian language family (Tamil, Kannada, Tulu, Telugu, Kolami, Naiki, Gadaba, Brahui) is used of ‘tending cattle’; moreover, as a borrowing from this etymon, we have *kāhila-* ‘cowherd’ in Prakrit.





We do not know whether the ligature should be read as a compound of two words expressed by its two component signs. If so, one could compare Tamil *āṅ-kāvalaṅ* ‘protector of the cow’: this compound is attested in the lexicon *Cūṭāmaṇi*, which cites it as a synonym of Sanskrit *vaiśya* (TL); it literally corresponds to Sanskrit *go-pāla* ‘protector of cows’, one of the most popular epithets of Kṛṣṇa as the pastoral deity worshipped primarily in a region that was once part of the Harappan realm.




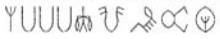

As in the Near Eastern logo-syllabic writing systems, either one of the two components of a ligature may also have been just a semantic or phonetic indicator, which was not pronounced when the sign was read, but had the function of helping the reader to choose the right one among several alternative readings. If the ‘yoke-carrier’ sign , as a rebus for the root *kā* ‘to protect, tend cattle’, was a semantic complement, it may have indicated that the ‘bull’s head’ sign  was to be read as *āy* / *āyaṅ* ‘cowherd, herdsman’, a derivative of *ā* ‘cow’ attested in Old Tamil and in Malayalam; cf. also Kui *āṅga gaṭanju* ‘herdsman’ (TL further compares Sanskrit *ābhīra* ‘herdsman’, attested in

the Mahābhārata as a tribal name; from this word also come names of pastoral tribes in Kathiavad and elsewhere; on this etymon see Turner 1966: 55, no. 1232). Āy 'cowherd' as the name of an ancient royal dynasty in South Kerala (e.g. Sreedhara Menon 1979: 46, 48, 179) and of several kings mentioned in the Caṅkam texts (Dorai Rangaswamy 1968: 136ff.) underlines the possibility that the word could have also served as a royal or divine title or epithet, just as '(good) shepherd' in the ancient Near East.

The 'bull's head' sign , expressing the word *ā* / *āṅ* 'cow', may similarly have functioned as a semantic indicator for the 'yoke-carrier' sign  expressing the sound *kā* with many meanings. In that case it would have showed that the 'yoke-carrier' sign  is to be read with the meaning of 'protecting', 'guarding', implied by the meaning of 'tending cattle'. In Mesopotamia, temples as well as private persons owned large herds of cattle, and cowherds figure among the professions mentioned in the Near Eastern seals. But until we understand better the meaning of the numerals in this context ('tender of five cows', or 'a group of five cowherds', or something else?), other alternatives must remain open. Another profession likely to be mentioned in the seals is 'police', and the Tamil word for it, *kāval*, is derived from the root *kā-* 'to protect, guard'; cf. further Tamil *kāvalaṅ* 'protector, guardian, bodyguard', and *kāval-āḷ*, *kāval-āḷaṅ*, *kāval-āḷi*, all meaning 'watchman, guard, sentinel'. Such a meaning would open up different possibilities for interpreting the numerals in such contexts (compare, for instance, the Roman officials called *duumviri*, *triumviri*, etc.).

THE 'YOKE-CARRIER' SIGN

Above, the 'yoke-carrier' sign  was interpreted as a rebus. In its plain form, however, it can be understood in the pictorial meaning as well. In South India, devotees carry offerings to the deity with a decorated carrying yoke, *kāvaṭi*. This is a prominent feature especially in the present-day cult of the god Murukaṅ. In one amulet from Harappa (3353), the plain 'yoke-carrier' sign  immediately follows after the sign of 'intersecting circles'  (cf. Koskenniemi & Parpola 1982: 23). The sign of 'intersecting circles'  can be interpreted to denote 'bangles' or 'ear-rings' (Proto-Dravidian **muruku*) and seems to function as a rebus for the god *Muruku* 'young man' (cf. Parpola 1994a: 225–239 = chapter 13 'Evidence for Harappan worship of God Muruku'). In South India, it is true, temples of other deities too have employed low priestly officials belonging to the Kuṛavar caste and called *kāvaṭi* to bring contributions to temple feasts and to carry the icon of the god and his regalia in religious processions: this is the case of the Viṣṇu temple of Veṅkateśvara at Tirupati (cf. Thurston 1909: III, 262). But in Tirupati the custom may in fact go back to times before the 12th century, when the temple is assumed to have belonged to Murukaṅ (cf. Subrahmanian 1966: 355).

The context of the 'yoke-carrier' sign  in Indus inscriptions endorses the hypothesis that it meant some such priestly official. On several amulets, the text 'three (offering) vessels', written either  or , occurs next to the 'yoke-carrier' sign: M-495A  and H-177A . The reverse side of the last mentioned

amulet shows a man raising his hands and kneeling in front of a deity who stands inside a fig tree. On a number of identical amulet tablets from Mohenjo-daro, a man kneeling in front of a tree extends a vessel looking like U towards the tree, and the inscription mentions 'four vessels', Uⁱⁱⁱⁱ. These 'four vessels' are followed by the ligature of 'framed man' |𑀮|, i.e., the 'man' sign 𑀮 placed in the middle of the sign || (cf. Parpola 1994a: 107-109). On an ivory stick, almost the same sequence is found in front of the 'yoke-carrier' sign 𑀮: 1532 𑀮 |𑀮|Uⁱⁱⁱⁱ. The final portion of this inscription, the 'framed man' |𑀮| followed by the 'yoke-carrier' sign 𑀮, recurs in eight other texts, always at the end. On two of these, the unicorn seals 2389 and 2602, it comprises the whole inscription. These seal inscriptions could well denote an official title meaning 'idol carrier'. That the 'framed man' |𑀮| might mean 'idol' is suggested by the fact that on one seal there is a 'pedestal' beneath its 'man' component: 7124 𑀮|𑀮|Uⁱⁱⁱⁱ. Other, independent considerations lead to the conclusion that the sign || had the phonetic value *vēl* (Parpola 1994a: 230-232). In the 'framed man' ligature |𑀮|, it could express the root *vēl*, which in South Dravidian languages and Telugu means 'to sacrifice, worship'; Telugu also has the noun *vēlpu* > *vēl(u)pu* 'god or goddess, deity'.

But how far back in time can the cultic use of the carrying yoke be projected? Old Tamil texts mention several times the word *kāvu* 'carrying yoke', including the compound *uṟi-k-kāvu*, where *uṟi* means 'hoop or rope network for placing pots, and suspended by a cord from the roof beam of a house or the end of a pole carried across the shoulder'. But the word *kāvaṭi*, although it is widely distributed in Dravidian languages, does not occur even once in the Old Tamil literature, which do describe in quite some detail the worship of the god Murukaṅ. The oldest reference to the *kāvaṭi* cult seems to be in the local chronicle of the great Murukaṅ temple of the Paḷani hills, dating from AD 1628 (cf. Gros 1968: xlv). The legend about the origin of the *kāvaṭi* worship in Paḷani (on which cf. Clothey 1978: 119-121; Shulman 1980: 48f.; Zvelebil 1991: 31f.) clearly suggests that it came from North India.

The two hillocks of Paḷani are said to have once been part of Mount Kailāsa in the Himalayas, called Śiva and Śakti. Sage Agastya (the introducer of Brahmanical culture to South India) got Śiva's permission to remove these hillocks to South India so that he could worship them there as the God and the Goddess. Itumpaṅ (< Sanskrit *Hṛ̥ṣ̥imba*), teacher of the demons, assisted Agastya, but did not know how to lift the hillocks. Then the stick (*daṇḍa*) of Brahma stood over them, and the snakes of the earth served as ropes with which he could tie the hills to the rod. Itumpaṅ then carried the hillocks on his shoulders. While resting at Paḷani he put them on the ground, but could not lift them up again when he wished to continue his journey. God Skanda (Murukaṅ) was standing on them in the form of a youth and claiming them as his own. In the ensuing strife Skanda killed Itumpaṅ, but on the appeal of Itumpaṅ's wife restored him to life. Itumpaṅ prayed that he be made Skanda's gate-keeper and that whosoever should offer vows carrying a *kāvaṭi* similar to his, be fully blessed. These boons were granted, and from then onwards people in difficulty have resorted to *kāvaṭi* worship.

Cognates of the word *kāvaṭi* are found in Indo-Aryan languages, in Marathi (*kāvaḍ*), Gujarati (*kāvaṛ*) and Hindi (*kāwaṛ*, *kāwaṛ*, *kāwaṛ*) (cf. Turner 1966: 153, no. 3009). In Gujarat, related Prakrit words (such as *kāvaḍa*) have been in use at least from the 4th century AD. Marathi especially but also Gujarati are assumed to have submerged

a sizable Dravidian substratum, and the presence of the word in several Central Dravidian languages (including Gondi *kāvri*, *kāveri*, etc.) leaves little doubt about its ultimately Dravidian etymology. The latter part of the compound could be Proto-Dravidian **vaṭi* 'stick' (DEDR no. 5224), but its recorded meanings do not include 'carrying stick' in any of the numerous South and Central Dravidian languages where the etymon is attested (the meanings do include 'walking stick' and 'cudgel, club'). Therefore, a better choice would seem to be Proto-Dravidian **aṭ(ṭ)a* 'across, crosswise' (DEDR no. 83): its derived meanings include 'obstacle, impediment' and 'cross-bar'; cf. especially Kannaḍa *aḍḍe* 'a pole or bamboo by which two people carry a burden suspended from its midst, or by which two small burdens suspended from both ends are carried across the shoulder of one man', and on the Indo-Aryan side, Hindi *aṛ-daṇḍā* 'cross-pole', Marathi *aḍavā*, *āḍī*, etc. 'cross bar' (cf. Turner 1966: 10 no. 189 **aḍḍa*- 'transverse'). The first part of the compound, the Proto-Dravidian root *kā / kāvu / kā(ṅ)cu* 'to carry; carrying yoke', has been borrowed into Sanskrit (thus also Turner 1966: 153, no. 3009), where *kāca*, *kāja* and *kāñja* mean 'carrying yoke' (but Mayrhofer 1992: I, 335, quoting Peter Rahul Das, takes the meaning to be 'loop (?)' and considers the etymology unclear; in my opinion the meaning 'carrying yoke' is quite certain, see below). The word has survived in Sindhi *kāyo* or *kāo* (cf. Turner 1966: 153, no. 3009); other Neo-Indo-Aryan languages have preserved it only in the compound (Pali) *kāja-hāraka*- 'bearer of a carrying yoke' > Prakrit *kāhāra*- 'carrier of water or other burdens' > Hindi *kahār* 'palanquin-bearer, water-drawer' (cf. Turner 1966: 153, no. 3011).

In the Paṇḍini legend, the pole of the *kāvṛi* is originally the stick (*daṇḍa*) of Brahma. Brahmanical ascetics carry a stick (*daṇḍa*) explained as a symbol of self-control. According to Āpastamba-Dharmasūtra 2,22,15 (*kāja*) and Hiraṇyakeśi-Dharmasūtra 5,146 (*kāñja*), the carrying pole belongs to the standard equipment of the hermit living in the woods. Baudhāyana-Dharmasūtra (3,1,11 and 3,2,9) specifies this by telling that wandering mendicants use the carrying pole (*vīvadha*) while begging for their food in villages door to door. In an obsolete Vedic śrauta sacrifice called *muny-ayanam* 'course of the ascetic sage', known only from the archaic Baudhāyana-Śrautasūtra (16,30), the sacrificer is a wandering mendicant (*śramaṇa*), who bears a carrying yoke that can accommodate about three bushels of grain (*khārī-vivadha*).

A link between this ancient North Indian tradition and the later South Indian cult of Skanda-Murugaṅ is found in the Vedic sacrifice called Tryambakahoma, addressed to Skanda's predecessor Rudra. In this rite cakes called *apūpa* are offered at crossroads, one of the special habitats of Rudra. At the end of the ceremony, the cakes are placed in a basket, which is hung up on a tree, a dry stump, the fork of a branch (*viśākhā*), a bamboo or a termite hill, so high that a cow cannot reach it, with this mantra: 'This, O Rudra, is your part; with this provision go over to the other side of the Mūjavat mountain, dressed in skin, with the Pināka-weapon in your hand, and with your bow unstrung!' The Śatapatha-Brāhmaṇa (2,6,2,17) prescribes that the baskets are to be fixed on a carrying pole and that this is to be carried northwards to the nearest place where it can be hung up. It also comments on the mantra, saying: 'supplied with











provisions people indeed set out on a journey: hence he thereby dismisses him supplied with provisions whithersoever he is bound.' Thus Rudra is a wanderer carrying his food with a carrying yoke. In classical Hinduism, Rudra's successor Śiva is the arch-ascetic. The devotee of Skanda (Murukan) or Subrahmaṇya, another successor of Rudra, thus impersonates the god when bearing the carrying-yoke.




From the Buddhist and Jaina texts we know that the worship of *caityas* was the main form of non-Vedic popular religion in early times. The *caityas* were sacred trees with or without a railing or a shrine, usually planted when and where holy men were buried. The Āśvalāyana-Gṛhyasūtra (1,12,1-2) contains one of the very few Vedic references to the *caitya* sacrifice. It is striking that the carrying yoke is here used as a cultic implement:

At a *caitya* sacrifice, he should bring a bali offering to the *caitya* before (he offers to the fire) which makes (an offering) well offered. If the *caitya*, however, is situated in a far-off place, he should (do so) through the mediation of a messenger (provided) with (leaves of) the palāśa (tree). After having prepared two rice-cakes reciting this verse: 'Where thou knowest, O tree...' (R̥gveda-Saṃhitā 5,5,10), and attached them on either side of a carrying yoke (*vīvadha*), he should hand them over to the messenger and say to him: 'Bring this as a bali offering to that (*caitya*)', and 'This one is for you' (with reference to the rice cake) which is for the messenger. (ĀśvGS 1,12,1-2.)








It is still a common custom to send offerings to popular places of worship through wandering holy men. In both the Tryambakahoma and the *caitya* sacrifice, the offerings are taken with a carrying yoke to a tree. We have seen that the 'yoke-carrier' and the 'offering vessel' pictograms are associated with sacrifices to sacred trees in the Indus amulets.

The Hindi word *kāwar* (< Prakrit *kāvaḍa*) is recorded to mean 'a bamboo or pole with baskets slung at each end in which water from a holy river is carried'. In the religion of the Oraons, who speak the North Dravidian language Kuṛux, the carrying yoke is used to bring water to the sacred grove at the spring festival. The priest and his assistant carry four vessels of water which are placed in the four directions of the compass and left standing overnight. Rain omens are read from them at sunrise. (Roy 1972: 144f.) The number of the vessels and its relation to the cardinal directions is interesting, for in the amulet tablets of Harappa, the number of the sacrificial vessels varies between one and four, but never exceeds four. It is also curious that an archaic Chinese pictogram, which according to Bernhard Karlgren probably depicts 'a man with a carrying pole on the shoulder', is used to write a word meaning 'sacrifice to the spirits of the four quarters'. (Cf. Parpola 1994a: 110.)





The plain 'yoke-carrier' sign  is found several times at the end of an inscription, preceded by both the simple 'fish' sign  (modified by another preceding sign) and by 'fish' signs modified with various diacritics (cf. Koskeniemi & Parpola 1982: 23). In one seal from Harappa (3116      ) the final 'yoke-carrier' sign  is preceded by the sequence of 'six' + plain 'fish' , which corresponds to Old Tamil *aru-miṇ* '(constellation of) six stars', i.e. the Pleiades (= Sanskrit *kṛttikā*). In classical Hindu mythology Skanda is *Kārttikeya*, the son of the Pleiades; in the Vedic texts, the fire god Agni, who is often identified with Rudra, is the lover of the Pleiades. In Old Tamil,

Murukan is called *aṛu-mīṇ kātalan* ‘son / lover of the Pleiades’. If the ‘yoke-carrier’ sign  stands for the root *kā* ‘to carry (with a shoulder yoke)’, in this seal (3116) the ‘yoke-carrier’ sign  could conceivably correspond to the Proto-Dravidian word *kātal* ‘love, affection’ (DEDR no. 1445) and its derivatives, such as Tamil *kātalan*, *kātaloṇ* ‘lover, husband, son’. On the basis of the Mesopotamian parallels, we would expect a word meaning ‘son’ to occur fairly frequently in the Indus seals, especially in the text-final position that is often occupied by the ‘yoke-carrier’ sign .

THE LIGATURE ‘SPEAR’ + ‘YOKE-CARRIER’ (1)

While the contexts in which the ligature ‘bull’s head’ + ‘yoke-carrier’  occurs (cf. Koskeniemi & Parpola 1982: 24f.) largely differ from those in which the plain ‘yoke-carrier’ sign  occurs (cf. *ibid.*: 23f.), the contexts of the ligature ‘spear’ + ‘yoke-carrier’  (ibid. 24) and the plain ‘yoke-carrier’  are indeed so similar that one might suppose the two signs to have more or less the same meaning. One possibility would be to interpret the ‘spear’ sign  to depict the concept of ‘head, top, tip, end’ = Proto-Dravidian **tala(y)* (DEDR no. 3103), the meaning of which again neatly fits the placement of the ‘spear’ (actually just the ‘head’ of the ‘spear’ in this case) in the position of the human head of the plain ‘yoke-carrier’ sign . The combination could be read *kā + tala(y)*, which would come very close to the word *kātal*, *kātalan* ‘lover; son’ discussed above. There are, however, other alternatives for interpreting this ligature. But before going into these, let us first consider the plain ‘spear’ sign .

THE ‘SPEAR’ SIGN : THE DATIVE CASE AND DEDICATORY GIFTS

For a long time, I have been obsessed by the idea (as have many other students of the Indus script) that the ‘bull’s head’ sign  is likely to express the genitive suffix, at least in a number of cases if not always. The ‘spear’ sign , which seems to have a similar but complementary distribution, predominantly at the end of inscriptions, might similarly in certain contexts, i.e. when followed by another word or two, express the marker of some other case, particularly the dative suffix (Parpola 1994a: 92–94, 97). But in the vast majority of its occurrences this sign is the last of an inscription, and it would be against the Dravidian syntax to end a noun phrase in a dative case. Just as I hypothesized in the case of the assumed genitive suffix that the ‘bull’s head’ sign  might in the final position denote a noun meaning ‘possession’, I have assumed the ‘spear’ sign  to stand for a word meaning ‘gift, given thing’, while on occasion it would stand for the dative case marker postfixed to the indirect object to whom/which something is given.

At least in South Dravidian, a genitive (possessive) suffix (**-utay*) has developed from an originally postfixed word meaning ‘possession, property’ (DEDR no. 593; Zvelebil 1977: 32). The Proto-Dravidian dative suffix is reconstructed as **(k)kū* (cf. Zvelebil 1977: 33). It does not seem impossible that this suffix has developed from the sandhi duplication of the initial **k-* of a word that most often followed the indirect object

and had the meaning of 'giving / gift'. In Proto-Dravidian, there is a root for 'giving'/'gift', which starts with *k-, namely *koṭu (DEDR no. 2053). This word could have been expressed by means of the 'spear' sign $\hat{\uparrow}$.

The 'spear' sign $\hat{\uparrow}$ does not seem to represent an 'arrow', because it does not show the feathers and the groove for the bow-string that have been deemed as necessary characteristics of the arrow in the corresponding signs of the archaic Sumerian (Green & Nissen 1987: 294, no. 551, *ti*), ancient Egyptian (Gardiner 1957: 512, no. T11) and archaic Chinese (Grinstead 1972: 13) scripts. The Indus sign $\hat{\uparrow}$ has just the shaft and the pointed head, which some graphic variants exaggerate out of all proportion (cf. Parpola 1994a: 74, fig. 5.1, no. 189, b-k), perhaps to indicate that it is the head of the object that is being emphasized; this would also fit the above suggested alternative reading *tala(y) 'head'. It could represent the Proto-Dravidian word *koṭi / *kōṭu '(sharp) point, pointed end, tip, peak or summit (of a hill)' (DEDR no. 2049), also borrowed into Sanskrit, where the word *kōṭi* means, among other things, 'the end or extremity, edge or point' in general as well as 'the edge or point of a weapon' in particular.

After I had first proposed reading the 'spear' sign $\hat{\uparrow}$ with the above phonetic and semantic values in Proto-Dravidian (Parpola et al. 1969: 22f.), Thomas Burrow (1969) made a number of objections. Burrow doubted that the root *koṭu can be reconstructed for Proto-Dravidian. Let us first examine the grounds for this objection. The following cognates have been recognized (DEDR no. 2053; Upadhyaya 1988-97: III, 969, 975):

Tamil	<i>koṭu</i> (-pp-, -tt-) 'to give (to 3rd person), bring forth, allow'
Malayalam	<i>koṭu</i> 'to give to 3rd person'
Kota	<i>koṭ</i> (<i>koṭ-</i>) 'to give to 3rd person'
Toda	<i>kwīṛ-</i> (<i>kwīṛt-</i>) 'to give to 3rd person'
Kannāḍa	<i>koḍu</i> , <i>kuḍu</i> (<i>koṭṭ-</i>) 'to give, allow, emit (as sound)'
Koḍagu	<i>koḍi-</i> (<i>koḍip-</i> <i>koḍit-</i>) 'to give to 3rd person'
Tuḷu	<i>korū</i> / <i>koru</i> / <i>koḷū</i> / <i>koḷu</i> / <i>koḷū</i> 'to give; hand over, present; give in marriage; grant'
? Kuṛux	<i>kuṛpī</i> 'what is given to a servant above his yearly pay'

It is true that the root is absent from all Central Dravidian languages (for a certain reason which will be discussed below), but it can still be reconstructed for Proto-Dravidian if the North Dravidian cognate of Kuṛux is accepted. The trouble with the Kuṛux word is that Proto-Dravidian *k- was preserved as a stop only before original *u, not before *u* < *o. If the Kuṛux word is taken as a cognate, one solution is to reconstruct a vowel alternation *koṭu / *kuṭu for Proto-Dravidian. But the phonetic irregularity of the Kuṛux word might also be due to the influence of the Mundari word *kuṛa*? 'to receive unhusked rice as pay for reaping', which is quoted as a possible non-Dravidian source for the Kuṛux word (the uncertainty here is due to the semantic difference) (cf. Pfeiffer 1972: 177).

Burrow (1969), however, was of the opinion that '*koṭu 'to give' is confined to the South Dravidian languages. On the other hand, there is a verbal base *cī- (DED 2138 [= DEDE no. 2598]) which is found throughout almost the entire family. If one is to

reconstruct the Primitive Dravidian word for ‘to give’, it is clear that this is the word which should be chosen.’ Burrow’s conclusion exclusively based on the distribution of these etyma seems to be wrong, however. There are specific reasons which speak against selecting the root *cī and for the root *koṭu, if one has in view the Indus script, where the ‘spear’ sign [†] mostly occurs after the ‘fish’ signs which probably stand for deities (Parpola 1994a: 92ff., 179ff.). Such a semantic context, involving a gift to superior beings, demands the choice of the root *koṭu among the three roots for ‘giving’ that after all (see below) probably existed in Proto-Dravidian. The Old Tamil grammar Tolkāppiyam (Collatikāram 444–448, cf. Subrahmanya Sastri 1945: 276f.; Ramaswami Aiyar 1947: 216) states:

444 *ī tā koṭu eṇa kkiḷakku mūṇṇum iraviṇ kiḷavi ākiṭaṇ uṭaiya* ‘The three words *ī* [< Proto-Dravidian *cī], *tā* and *koṭu* are used when one begs of another / expresses the request for something’; 445 *avaṇṇu! ī eṇ kiḷavi iḷintōṇ kūṇṇē* ‘among them, the word *ī* is used by a man of inferior status (when he makes a request to a man of superior status, e.g. *uṭukkai ī* ‘deign to give me a cloth’)’; 446 *tā eṇ kiḷavi oppōṇ kūṇṇē* ‘the word *tā* is used by a man of equal status (when both the recipient and the giver are of the same status, e.g. *āṭai tā* ‘give (my) dress’)’; 447 *koṭu eṇ kiḷavi uyarntōṇ kūṇṇē* ‘the word *koṭu* is used by a man of superior status (when the recipient is of superior status)’; 448 *koṭu eṇ kiḷavi paṭarkkai āyiyum taṇṇai ppiraiṇ pōl kūṇṇum kuṇṇippiṇ taṇṇ iṭatt* ‘*iyalum eṇmaṇar pulavar* ‘scholars say that, though the word *koṭu* is used only with the third person, it may be used in connection with oneself if one refers to oneself in the third person’ (e.g. *ivaṇku ūṇ koṭu* ‘give food to this person’, said for example by a master to a servant, referring to himself in the third person).

L. V. Ramaswami Aiyar has made some important remarks on this passage:

The singular imperative forms are cited in the rules to emphasize the fact that primarily the differences apply to contexts where one person addresses another with a view to getting something which he requires. The relationship between the recipient and the giver becomes thus involved, and their relative status is adverted to by the appropriate verb even when forms other than singular imperatives are used... The last rule provides for an exception to the association of *koṭu* with the third person [in Tolkāppiyam, Collatikāram 28-30, see below]. This exception is inevitable when a person of superior status wants an inferior to give *him* something. Since a construction like *eṇakku kkoṭu* would be a direct breach of the rule of the association of person, and since *avaṇku kkoṭu* would not refer to the speaker in view of the use of the remote demonstrative, the illustration *ivaṇku kkoṭu* is given, where *ivaṇku* (the dative of the proximate demonstrative pronoun) would refer to the speaker himself in the third person. This rule of Tolkāppiyam sanctioning the violation of the normal association of the third person with *koṭu* perhaps started the process culminating in the modern Tamil practice of indiscriminately using *koṭu* with all persons.

The Middle Tamil grammar Naṇṇūl [13th century] adverts to the association of status in the third chapter (‘Potuviyal’) of the second division of the work: *ī tā koṭu v-eṇa mūṇṇu muṇṇaiyē iḷintōṇ oppōṇ mikkōṇ irappurai*. ‘*ī*, *tā* and *koṭu* are respectively used by inferiors, equals and superiors.’ The illustrations (supplied by commentators) are: *tantāy ī* ‘O father, (deign thou to) give!’ *tōḷā tā* ‘O companion! give!’ and *maintā koṭu* ‘O son! hand over!’ This grammar does not mention the exception (specifically laid down by Tolkāppiyam) to the rule of *koṭu*.

The rules of status are not observed for *taru* and *koṭu* in the literary and the colloquial dialects of modern Tamil. *ī* is not a colloquial word, but careful writers of Tamil use the term only in connection with recipients of an inferior status. (Ramaswami Aiyar 1947: 216.)

These rules of the Tolkāppiyam are in harmony with the evidence of the early Tamil Brahmi inscriptions, where the verb *koṭu* is used 'only in the third person and in relation to gifts to elders (that is, the monks)' (Mahadevan 1968).

In most South Dravidian languages the root **koṭu* is to be used with the 3rd person indirect object and the root **ta-* with the first or second person indirect object. The same distinction is laid down for the verbs **va-* 'come' and *cel* 'to go' in the Old Tamil grammar Tolkāppiyam (Collatikāram 28–30) which simultaneously refers to the related use of some other verbs:

28 *celaviṇṇum varaviṇṇum taraviṇṇum koṭaiyiṇṇum nilai peṇa ttōṅṅumannār collum taṅmai muṇṇilai paṭarkkai y-eṇṇum a mmū v-iṭattum uriya v-eṇṇa*, 'It is said that the four words *celavu*, *varavu*, *taravu* and *koṭai*, involving in themselves the significations of the place-contexts in which they are used, are employed in the first, second and third persons; 29 *avaṅṇuḷ taru col varu coll āy iru kiḷaviyūm taṅmai muṇṇilai y-āy īr iṭatta*, 'among them, the words *taru* 'to give' and *varu* 'to come' are used with the first and second persons (i.e., the verbs *ta-/tar-* and *va-/var-* are used only when the recipient of the gift and the person approached are in the first or the second person, e.g. *eṇakku-t tantān* 'he gave it to me', *niṇakku-t tantān* 'he gave it to you'); 30 *ēṇai y-iraṇṇum ēṇai y-iṭatta* 'the remaining two (i.e. the verbs *cel-* 'to go' and *koṭu* 'to give') are used with the third person'.

L. V. Ramaswami Aiyar observes:

Commentators on Tolkāppiyam cite exceptions to these rules from Old Tamil classics (chiefly those governing the use of *taru* and *varu*)... The 13th century indigenous Tamil grammar Naṇṇūl laid down the following rule, envisaging the peculiarities of the usage of the period: *taral varal koṭai celal cārum paṭarkkai eḷuvāy iraṇṇum eṇciyavēṅkum*. 'The verbs *taru*, *varu*, *koṭu* and *cel* are associated with the third person; the first two take on the remaining persons (i.e. the first and second persons).' ... Modern colloquial usage in Tamil associates *taru* with the first and second persons, *varu* with the first and second persons,... *koṭu* more or less indiscriminately with all three persons, and *pō* 'go' invariably with the third person (*cel* is not colloquially current). The west coast speech, Malayālam, still preserves the Tolkāppiyam usage, in both the literary and the colloquial dialects: *taru* and *varu* are used only with the first and second persons, and *koṭu* and *cel* invariably with the third person. (Ramaswami Aiyar 1947: 215.)

Murray B. Emeneau in his detailed studies concerning the Dravidian verb stem formation and the two exceptional verbs **ta-* and **va-* in particular (Emeneau 1945; 1975) has come to the conclusion that Old Tamil has here preserved the Proto-Dravidian state of affairs:

It has become quite clear ... that **ta-* meant *to give to 1st or 2nd person*, that this meaning was retained in general in SDr., except for Kannada, that Brahui generalized to meaning *to give*, that Kolami retained remnants with the meaning *to give*, and that otherwise (Ka. Tu. Te. Go. Konḍa Pengo Maṇḍa Kui Kuwi) the developed meaning is *to bring* (Emeneau 1975, p. 254 in the 1994 reprint).

On the other hand, the Konḍa-Pengo-Kui/Kuwi subgroup of Central Dravidian has innovated by forming the so-called 'personal object bases'. This personal object base is used when the verb has an object (direct or indirect) referring to 1st or 2nd person, while the simplex base is used when there is no object at all or an object referring to 3rd person. The data relating to the personal object bases can be best explained by assuming

that they were originally formed by adding the verb **ta-/tar-* as an auxiliary to the root. 'This, in fact, yields an important item of relative chronology; at the time of the innovation in the Konḍa-Pengo-Kui/Kuwi subgroup, **ta-* still had the PDr. meaning *to give to 1st or 2nd person*; the CDr. innovation in meaning (*> to bring*) had not yet taken place or had not yet spread to Konḍa-Pengo-Kui/Kuwi' (Emeneau 1975, p. 255 in the 1994 reprint). It seems to me that when this innovation in meaning took place in Central Dravidian, the opposition between the two verbs distinguishing between 1st/2nd and 3rd person was abolished, and the root **koṭu* became superfluous and obsolete in Central Dravidian, and the verb **cī-* become generalized with the meaning 'to give'.

Thus the inscriptions ending in the 'spear' sign $\hat{\text{†}}$ could record votive dedications. Since votive seals are known from Mesopotamia, these seals themselves could have been given as 'gifts' to the deities represented by the 'fish' signs which usually precede the 'spear' sign $\hat{\text{†}}$.

Old Tamil poems use the verb *koṭu* for 'offering' bloody sacrifices to the god Murukan:

Kuṟuntokai 362: *muruk' ayaṛntu vanta mutu vāy vēla*
ciṇaval oṃpumati viṇavuvat' uṭaiyēṇ:
pal vēṛ' uruviṛ cill aviḷ maṭaiyoṭu
ciṛu maṛi koṇṛ' iva ṇaṛu nuta ṇīvi
vaṇaṅkiṇai koṭutti y-āyiṇ aṇaṅkiya
viṇ ṭōy mā malai ccilampaṇ
oṇ ṭār akalamum uṇṇumō paliyē?

Transl. by M. Shanmugam Pillai & David E. Ludden (1976: 168):

O Vēlaṅ [spear-holding priest] of wise words, who came here
 praying and praising Murugan:
 hold back your anger, for I
 have something to ask you.
Even though you worship,
 with many-coloured and cooked grains of rice,
 killing a small, young goat,
 stroking the forehead of this girl;
 will the chest with bright garlands
 of our man from the slopes of hills that touch the sky,
 the chest of he who torments her,
 accept your offering?

Translators' commentary:

The Vēlaṅ puts a mark of goat's blood on the girl's forehead to indicate that the god has accepted the offering. Her friend says that, even if the god accepts the offering, it will do no one any good. Only if the chest of their lover accepts the offering can it relieve them of their misery. For it is he who causes their torment. (Shanmugam Pillai & Ludden (1976: 168.)

The phrase *vaṇaṅkiṇai koṭutti y-āyiṅ* is glossed by U. Vē. Cāminātaiyar (1937: 653) as follows: *muruka kkaṭavuḷai vaṇaṅki ppali-y-āka kkoṭuppāy āyiṅ* ‘even if you worshipping the god Muruka give it as an offering (*bali*)’. The word *bali* ‘offering’ is expressly mentioned as the direct object of the root *koṭu* in another Old Tamil song (Akanāṅūru 22: 5–11, transl. by Hart 1975: 28):

Women skilled in ancient truths
 said as if it were a fact,
 ‘she will recover
 if we worship the long-speared one
 whose mighty hands have the universal fame
 of crushing his foes.’
 They arranged well the worshiping ground,
 put the garland on the spear,
 sang so the prosperous town resounded,
offered sacrifice [*pali koṭuttu*],
 spread lovely red millet and blood,
 and worshiped Murukan.

We have implied that many Indus sequences ending in the ‘spear’ sign $\hat{\uparrow}$ may have had approximately the meaning ‘gift of [= (given) to] god NN’, a nominal derivative from the root *koṭu*, such as Tamil *koṭai* ‘giving away, as a gift; donation’, or Kannada *kōḍu*, *koḍu* ‘giving’, *koḍage*, *koḍige* ‘gift’.

If the ‘bull’s head’ sign $\hat{\uparrow}$ really stands for the genitive suffix, and it never occurs between the ‘spear’ sign $\hat{\uparrow}$ and a ‘fish’ sign that stands for a deity, this might imply that the word represented by the ‘fish’ sign was not in the genitive but in the dative in these contexts: the dative case was normally used of the receiver in connection with the verb *koṭu* and it is often expressed without the overt dative suffix (**-kku* / **-ku*) in Dravidian.

Is there some way to check this tentative interpretation of the ‘spear’ sign $\hat{\uparrow}$? Very similar contexts link the ‘spear’ sign $\hat{\uparrow}$ following ‘fish’ signs with the ‘four short strokes’ that often surround individual ‘fish’ signs ($\hat{\uparrow}$, $\hat{\uparrow}$, $\hat{\uparrow}$, $\hat{\uparrow}$): these four surrounding strokes are to be understood as one symbol that has to be read after the ‘fish’ signs (cf. Parpola 1994a: 69, 78 and 94 with fig. 6.6). The four surrounding strokes have earlier been interpreted to stand for number ‘four’. This is unconvincing, because there can be no doubt that number ‘four’ is represented by the sign 𑀓 , found also in a ligature: 𑀓𑀓 . But what else could these four strokes possibly stand for if not number ‘four’? It seems significant that they have been placed *around* the sign they are ligatured with, in four *corners*. They could thus depict the Proto-Dravidian word **kōṅ* / **kōṅV* / **kōṭ* meaning both ‘corner, angle’ and ‘point of the compass’ (DEDR no. 2209). The homophony between the non-nasal variant of this word and the phonetic value **kōṭu* proposed above for the ‘spear’ sign $\hat{\uparrow}$ is striking. Do we in $\hat{\uparrow}$ and $\hat{\uparrow}$ have two different ‘spellings’ of one and the same sequence, a phenomenon known from Near Eastern writing systems? In that case, the two interpretations support each other. But accidental coincidence cannot be excluded.

In Mesopotamia, the votive seals given to deities may have been used on behalf of the gods by their priests. We may also think that priestly seal owners themselves are referred to by the 'spear' sign $\hat{\uparrow}$ as dedicated 'gifts' to particular gods. In India, children have been dedicated into life-long service to a deity by grateful parents, whom the god or goddess has blessed with offspring. The *deva-dāsīs* or 'maidservants of the god', are a well-known example.

THE 'SPEAR' SIGN $\hat{\uparrow}$: THE *VĒLAN* PRIEST, THE *KĀLAM* AND THE SIGN \boxplus

The idea of 'gift' or 'giving' can also be associated with seal owners in another way: they may have been offering priests who have acted as 'givers' of 'gifts' (offerings) to the specified deities. The Indus sign $\hat{\uparrow}$ depicting 'roofed fish' may stand for the 'black star' Saturn imagined as a turtle both phonetically (through rebus) and iconically (cf. Parpola 1994a: 197). We may therefore expect the iconic form of a sign to have some inner relationship with its intended meaning even when used as a rebus. If the 'spear' sign $\hat{\uparrow}$ stands for a 'gift' to a god, such a relationship exists. E. E. Evans-Pritchard, discussing the symbolism of the spear in a tribal religion of Nilotic Africa, emphasizes this point:

When I think of the sacrifices I have witnessed in Nuerland there are two objects I see most vividly and which sum up for me the sacrificial rite: the spear brandished in the right hand of the officiant as he walks up and down past the victim delivering his invocation, and the beast awaiting its death. It is not the figure of the officiant or what he says which evokes the most vivid impression, but the brandished spear in his right hand. (Evans-Pritchard 1956: 231.)

Several Indus amulets illustrate the spearing of water buffalo (Parpola 1994a: 252, fig. 14.23). Until recently, the buffalo has been one of the principal sacrificial animals in India, especially in the Dravidian-speaking south. The killer of the buffalo is always shown in a specific pose, which is hardly possible in hunting the wild buffalo: the man has raised one of his legs upon the head of the beast. Another feature suggesting sacrifice is that the spearing takes place in front of a tree (ibid.: fig. 14.23b) or a snake (ibid.: fig. 14.23c), both venerated as divine epiphanies in India.




The pictogram \boxplus , which is placed between the man wielding the spear and the buffalo he is about to pierce in the seal 2279 (Parpola 1994a: 252, fig. 14.23a), occurs elsewhere in patently sacrificial contexts (Parpola 1994a: fig. 14.35 and chapter 14.3). Our Finnish research team had at an early stage suggested that this Indus sign might have something to do with worship, on the (untenable) grounds that it often seems to replace the 'manger' in front of the sacred animals on the Indus seals, and that there is a homophony between the Dravidian words *toḷu* 'manger' and *toḷu* 'to worship' (Parpola et al. 1970: 17, 23f.). This induced P. L. Samy (1971) to compare the sign \boxplus with the *kaḷam* or auspicious floor design, which according to the Old Tamil texts was associated with the bloody sacrifices to *Murukan*. K. K. N. Kurup (1973: 26) finds Samy's suggestion worth serious consideration and points out that the Old Tamil practice has

survived until the present-day in the *teyyam* rituals of northern Kerala, performed by several lower castes including the Vēlan:

In the cult of Velan of the Sangam period, the making of Kalam was a significant ritual practice. The commentaries of Sangam poems reveal that the Kalam in early days were made of cane splices with sixtyfour equal compartments. These compartments of the design were called 'Palpirappu' in Sangam Tamil. According to Tirumurukarrupad<a>i (line 233) the sacrificial blood offerings were spread over these compartments. In Sangam period the Velan killed a goat and Italian Millet (Thinai) soaked in the blood and the offerings <were> sprinkled over the Kalam. Flowers like Chekki and Vedchi were also sprinkled over the Kalam. It is said in a Kurunthokai Poem (263) that the Velan used to call the names of different gods in a prayer<->like song which was called Thottam.

In Theyattam, the songs of the Teyyam are still known by the term Tottam... The system of Kalam is still observed in Teyyattams. The arrangement of Vatakkumvathil or Northern door <with> 50 plantain stem<s> is a common factor for all Teyyams excepting a few... This is made out of sliced strips of peeled banana stems, arranging <them> on the ground so as to form a square with four equal compartments. In these compartments the offerings... are placed. The offerings in the Vatakkumvathil are called as offering to 'Kaliyam Valli'. Valli who is the consort of Murukan is identified here with Kali. On the joints of the Vatakkumvathil, nine lighted Kothiries or wicks are placed. When Kativanur Veeran is performed, a 'Tara' or Kalam in memory of his wife Chemmarathi is arranged with 64 small equal compartments equal in size in a square <made> out of peeled banana stems. The number of compartments is similar to that of the Velan's Kalam of Sangam period. The origin of the Vatakkumvathil and the killing of cocks in Teyyattam is definitely from the Sangam tradition of the Velan and his sacrifice before an auspicious Kalam. (Kurup 1973: 27, 29.)

There are several other details, among them some characteristic items of dress and adornment (cf. Kurup 1973: 28f.), which connect the present-day *teyyam* rituals of northern Kerala with the frenzied dances (*veṛiyāṭal*) and bloody offerings of the Vēlan priests in the Caṅkam literature (on the Old Tamil Vēlan priest and his rituals, see especially Hardy 1988: 116-122; cf. also Clothey 1978: 26-33).

The Indus sign  is a square that is halved into two equal compartments by a vertical line in the middle, and the left-hand-side compartment is further subdivided either into a two equally large subdivisions or into a small square at the top and a larger lower segment by a horizontal line. This would be a good way of indicating a binary division of the big square into small squares. That the offering was placed on this square is suggested by a ligature, in which the Indus sign  representing a 'sacrificial vessel' is placed inside this 'kaḷam' sign:  .

This type of geometrical *kaḷam* is likely to be more ancient than the colourful *rūpa-kaḷams* of Central Kerala, in which large-sized icons of deities (with or without their vāhanas and other attributes) are painted temporarily on the floor with five colours and worshipped with a frenzied dance (cf. Jones 1981; 1982). This is suggested by the existence of geometrically-shaped snake *kaḷams* in Kerala and Tuḷunāṭu, where the snake cult is associated with the god Subrahmaṇyam, i.e. Murukan (cf. Nambiar 1966: 11, 84f. and colour pl. 4-5; Kurup 1973: 36). These snake-*kaḷams* closely resemble the 'endless knot' motifs, which can be followed backwards in time from the floor paintings of present-day South India to the Indus Civilization and Mesopotamia of the third millennium (cf. Parpola 1994a: 57 with fig. 4.6), and which originally have been associated with

snakes (cf. Amiet 1980: especially pl. 51, no. 712 and pl. 95; cf. also plates 13 to 14bis and pl. 80–81, nos. 1068, 1079). Another indicator for the antiquity of geometrical kaḷams is the parallel provided by the Tibetan colour-powder floor paintings of geometrical cosmograms (*maṇḍala*) (Henss 1996: 94ff.), identical in design with the monumental architecture of Dashly-3 in northern Afghanistan c. 1900 BC (cf. Brentjes 1981: 12–15, 26f.).



The spear, *vēl* in Tamil, is the favourite weapon of the Old Tamil god Murukaṅ, who was represented by a spear fixed in the ground at the centre of the dancing place. In the archaic *teyyam* and *kaḷam* rituals of Kerala, the god worshipped is also represented by a weapon (mostly a sword) placed on a seat (*pīṭham*) next to the *kaḷam* (cf. Nambiar 1996; such a *pīṭham* is also depicted near the sign \square in the famous ‘fig deity’ seal of Mohenjodaro, cf. Parpola 1994a: 260 fig. 14.35). Murukaṅ's priest, who offered bloody sacrifices, is also called *vēlaṅ* ‘spearman’. Could the Indus ‘spear’ sign $\hat{\uparrow}$ be understood to represent this word iconically? *Vēl* ‘spear’ is known from Tamil and Malayalam only (DEDR no. 5536), but seems to be a contraction of **vīcal*, and thus a derivative of the Proto-Dravidian root **vīcu* ‘to throw with a sweep or violence, fling (as a weapon), cast (as a net), brandish (as a sword); to winnow, fan, blow as the wind’ (DEDR no. 5450).


THE LIGATURE ‘SPEAR’ + ‘YOKE-CARRIER’ $\hat{\uparrow}$ (2)

The ‘spear’ sign $\hat{\uparrow}$ seems to occur as a component in two ligatures: $\hat{\uparrow} + \hat{\uparrow}$ and $\hat{\uparrow} + \hat{\uparrow}$. If all components could be satisfactorily interpreted, these interpretations would provide an internal check on each other. In the following I propose to take a closer look at the ‘yoke-carrier’ sign $\hat{\uparrow}$ from this angle.

The carrying yoke has clearly been ritually used in early times in northern India. If the ‘yoke-carrier’ sign $\hat{\uparrow}$ is interpreted along these lines, what about its ligature $\hat{\uparrow}$ formed with the ‘spear’ sign $\hat{\uparrow}$? In Tamil, there is a compound *vēl-kāvaṭi*, which refers to a carrying yoke decorated with Murukaṅ's spear, *vēl*, presented to the god as an offering. However, given the rather late northern origin of the *kāvaṭi* cult in South India, the ‘spear-yoke’ may be relatively recent development. But there is another possibility.

The ‘spear’ sign $\hat{\uparrow}$ was interpreted above to stand for Dravidian *kōṭi* / *kōtu* ‘(sharp) point, tip, end’ (DEDR no. 2049). The compound *kāja-kōṭi* ‘tip of the carrying pole’, occurring twice in the Pāli Jātakas, can be compared to the Prakrit compounds *kāva-koḍiya-* and *kāya-koḍiya-* found as variant readings in the Jaina texts *Aṇuogadārasutta* (80) and *Nāyādharmakāhāo* (1,8). Both texts speak of vagrant peoples with miscellaneous occupations; Abhayadevasūri's 11th century commentary speaks here of ‘those who live by means of the tip of the carrying pole’ (*kāco bhārodvahanam; tasya koṭi-bhāgaḥ kācakoṭi; tayā ye caranti kācakoṭikāḥ*). This has been understood to mean ‘palanquin bearers’ or ‘bearers of a carrying pole with one basket hung in the middle (and not two at the ends)’. In either case, the pole is carried by two men holding it at its ends (*koṭi*). In Tamil, the word *kōṭiyar* has been translated ‘those who carry a palanquin at its two ends’ and ‘bearer of palanquins or *vāhanam* (i.e. vehicle) of an idol’. Such a

meaning would suit excellently the Indus ligature , whose distribution is almost identical with that of the simple 'yoke-carrier' sign , suggesting that the two signs are very close in meaning. In today's India, the social position of the palanquin bearers of a deity is rather low, but in ancient Mesopotamia only the members of the noblest families were entitled to such an office. Thus 'God X's palanquin bearer' is a title which one can legitimately expect to find in the inscriptions of the Indus seals.

Thus each element in the ligatures of the 'yoke-carrier' sign  can be interpreted in Dravidian in such a way that when put together something reasonable emerges, but these interpretations must be considered still very tentative and in need of further testing.

PROPER NAMES OF THE TYPE 'PROTECTED / GIVEN BY A DEITY'

Chapter 11.4 of my book *Deciphering the Indus script* (Parpola 1994a) adduced evidence to the effect that 'the habit of naming the child according to its birth star was adopted by Vedic Aryans from the earlier inhabitants of India along with the astral calendar'. This supports the interpretation of the 'fish' signs of the Indus seals in terms of stars and planets, the implication being that the Indus people had astral proper names. The Gṛhyasūtras prescribe two kinds of proper names which the Vedic people are likely to have adopted from the earlier inhabitants of India: names derived from stars and names derived from deities. In the latter case (GGs 2,10,24; MGS 1,18,2; BaudhGS 2,1,28; JGS 1,9), the deity is that presiding over the child's birth star. Thus, Jaiminīya-Gṛhyasūtra 1,9 dealing with the namegiving ceremony, prescribes that the name should be formed after the nakṣatra (of the child's birth), after the deity (presiding over the birth nakṣatra) or after the names (current in the child's family). The nakṣatra names are derived from that asterism under which the person was born. Bhavatrāta, commenting on Jaiminīya-Śrautasūtra 1,7,5, calls the nakṣatra name 'the god-given name' of the newborn. In Āpastamba-Gṛhyasūtra 6,15,2-3, the father mentions the child's nakṣatra name at the birth, and this is the secret (*rahasyam*) name. It is certain from the Śatapatha-Brāhmaṇa that secret names derived from the names of calendrical asterisms existed as early as the Brāhmaṇa period :

He may also set up his fires under the [asterism of] Phalgunīs. They, the Phalgunīs, are Indra's asterism, and even correspond to him in name; for indeed Indra is also called Arjuna, this being his secret name (*guhyaṃ nāma*); and they (the Phalgunīs) are also called Arjunīs [cf. RS 10,85,13]. Hence he overtly calls them Phalgunīs, for who dares to use his (the god's) secret name? (ŚB 2,1,2,11.)

That the birth asterism of the child was observed even at the time of the Atharvaveda is demonstrated by the hymn AS 6,110, which was recited as an expiatory charm if the child was born under an unlucky star.

Planetary names are nowadays derived from the planet ruling the particular day of the seven-day week that happens to coincide with the birth. Although the planetary week came to South Asia from the west rather late, planetary proper names can be found in

Vedic texts predating any Babylonian influence, though they are still rarer than nakṣatra names. One example is *Sūrya-datta* 'given by the Sun' in Śāṅkhāyana-Āraṇyaka 7,4.


In contrast to early Vedic texts, where names derived from names of deities are rarely met with, theophoric names predominate in post-Vedic India, as they do in ancient Mesopotamia. Such names express the conviction that the child has been given or is protected by the god mentioned in the name: 'The Brahmans and her father gave her the name of *Sāvitrī*, for she had been given by (the goddess) *Sāvitrī* when she was pleased with the oblations he had offered with the *sāvitrī* formula' (Mahābhārata 3,277,24). The Mānava-Gṛhyasūtra (1,18,2), while prescribing that the child should be given a name derived either from its birth star or from the deity (of that star), forbids giving the child directly the name of the god. Thus it was possible to call a child *Rudra-datta* 'given by Rudra', but not just *Rudra*. Yet such names do occur - apparently they are abbreviated pet names - and are now very common.

Girls with compound names meaning 'given or protected by a (specified) god' are to be avoided by Vedic people according to Vārāha-Gṛhyasūtra 3,3 and Āpastamba-Gṛhyasūtra 1,3,11. Names of this type are exceedingly common in the epic and classical Sanskrit as well in early Magadha, but very rare in the Veda, where their contexts suggest a non-Vedic origin. The cousin of the Buddha, *Deva-datta* 'God-given', is an early example from Magadha, while the synonymous *Deva-rāta* 'God-given' is the new name of Śunaḥśepa in the 'proto-epic' verses of Aitareya-Brāhmaṇa 7,17.

Outside the Vedic area, astral names are more frequent and fairly early. Among the oldest examples is the name given by the Buddha to his son, *Rāhula*, i.e. *Rāhu-datta*, 'given by the eclipse demon Rāhu', i.e. born at the time of an eclipse. Another well-known name is *Candra-gupta*, 'protected by the moon', the founder of the Maurya dynasty of Magadha in the 4th century BC. According to an inscription dated AD 150, the brother-in-law of the emperor Candragupta was called *Puṣya-gupta*, 'protected by the lunar asterism Puṣya'. *Śravaṇa-datta* 'given by the lunar asterism Śravaṇa' is found in the teacher genealogies of the late Vaṃśa-Brāhmaṇa.

Thus both astral names and names of the type 'given or protected by a (specified) god' are likely to go back to the pre-Aryan onomastics of India. Moreover, several examples quoted above combine these two kinds of names, meaning 'given or protected by an astral deity'. So there is every reason to expect that some Indus signs frequently occurring immediately after the 'fish' signs (interpreted as designations of astral divinities) mean 'given' or 'protected'.

Among the most common signs occurring in the final position in the Indus seals, $\hat{\text{A}}$ and 𑀓 often form a syntactic whole with one or more 'fish' signs preceding them. These signs may therefore correspond to the Sanskrit participles meaning 'given (by a god)' and 'protected (by a god)' respectively, even though Proto-Dravidian is not likely to have used participles to express such meanings. We have seen that the sign $\hat{\text{A}}$ could represent the Proto-Dravidian word **koṭi* / **kōṭu* '(sharp) point, tip, peak or summit (of a hill)' (DEDR no.2049), and that it may well have been used as a rebus for the Proto-Dravidian root **koṭu* 'to give' used in connection with the third person; from this root there are nouns with the meaning 'giving, gift', such as Kannaḍa *koṭu*; Tamil *koṭu-ppu*,

koṭ-ai (DEDR no. 2053). The meaning 'protection', on the other hand, is most likely to have been expressed by a word derived from the Proto-Dravidian root **kā-* / **kāpp-* / **kāv-* / **kāc-* 'to protect, guard, watch' (DEDR no. 1416). This root is homophonous with Proto-Dravidian **kā-* / **kāv-* / **kā(ñ)c-* 'to carry on the shoulders with a yoke', with such noun derivatives as *kā*, *kā(ñ)cu*, *kā(ñ)cal*, *kāvu*, *kāvaṭi*, all of which mean 'pole with ropes hung on each end, used to carry loads on the shoulder' (DEDR no. 1417). This latter root is perfectly expressed by the Indus sign .

CONCLUSION

Many different interpretations have been offered here for some pivotal signs of the Indus script. These interpretations need not be mutually exclusive, as the signs in ancient logographic writing systems were often used in different meanings. As I said in the beginning, these suggestions cannot in any way be considered as certain. Nevertheless I have wanted to present them here in the hope that at least some will prove useful in the course of future efforts to decipher the Indus script.

REFERENCES

- AMIET, Pierre 1980. *La glyptique mesopotamienne archaïque*. 2e édition revue et corrigée. Paris: Éditions du Centre Nationale de la Recherche Scientifique.
- BRENTJES, Burchard 1981. *Die Stadt des Yima. Weltbilder in der Architektur*. (Seemann-Beiträge zur Kunstwissenschaft.) Leipzig: E. A. Seemann Verlag.
- BURROW, Thomas 1969. Dravidian and the decipherment of the Indus script. *Antiquity* 43(172): 274–278.
- & M. B. EMENEAU 1984. *A Dravidian Etymological Dictionary*. 2nd ed. Oxford: Clarendon Press. (= DEDR)
- CĀMINĀTAIYAR, U. Vē. (ed.) 1937. *Kuṅuntokai. Ceṅṅai*. (Reprint (4th ed.): Madras: Kabeer Printing Works, 1962.)
- CLOTHEY, Fred W. 1978. *The Many Faces of Murukan. The History and Meaning of a South Indian God*. (Religion and Society, 6.) The Hague: Mouton Publishers.
- DEDR: see Burrow & Emeneau 1984.
- DORAI RANGASWAMY, M. A. 1968. *The Surnames of the Caṅkam Age, Literary and Tribal*. Madras: University of Madras.
- EMENEAU, Murray B. 1945. The Dravidian verbs 'come' and 'give'. *Language* 21: 184–213.
- 1975. Studies in Dravidian verb stem formation. *Journal of the American Oriental Society* 95(1): 1–24. (Reprinted in: M. B. Emeneau, *Dravidian studies: Selected papers: 223–262*. Delhi: Motilal Banarsidass, 1994.)
- EVANS-PRITCHARD, E. E. 1956. *Nuer Religion*. Oxford: Clarendon Press.
- GARDINER, Alan 1957. *Egyptian Grammar, being an introduction to the study of hieroglyphs*. 3rd ed. London: Oxford University Press.
- GREEN, Margret W. & Hans J. NISSEN 1987. *Zeichenliste der archaischen Texte aus Uruk*. Unter Mitarbeit von P. Damerow und R. K. Englund. (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk/Warka, 2.) Berlin: Gebr. Mann Verlag.
- GRINSTEAD, Eric 1972. *Guide to the Archaic Chinese Script*. (Scandinavian Institute of Asian Studies, Monograph Series, 11.) Lund: Studentlitteratur.
- GROS, François 1968. *Le Paripāṭal, texte tamoul: Introduction, traduction et notes*. (Publications de l'Institut Français d'Indologie, 35.) Pondichéry: Institut Français d'Indologie.

- GUNDERT, Hermann 1871–72. *A Malayalam and English Dictionary*, I–II. Mangalore: Basel Mission Book and Tract Depository.
- HARDY, Friedhelm 1988. From the illness of love to social hermeneutics. Three Tamil customs, with some reflections on method and meaning. In: Richard F. Gombrich (ed.), *Indian Ritual and Its Exegesis* (Oxford University Papers on India, 1.2): 113–169. Delhi: Oxford University Press.
- HART, George L. 1975. *The Poems of Ancient Tamil. Their Milieu and Their Sanskrit Counterparts*. Berkeley: University of California Press.
- HENSS, Michael 1996. *Kalachakra: Ein tibetisches Einweihungsritual*. 4. Aufl. Ulm: Fabri Verlag.
- HERAS, Henry 1953. *Studies in Proto-Indo-Mediterranean Culture*, I. (Studies in Indian History of the Indian Historical Research Institute, St. Xavier's College, 19.) Bombay: Indian Historical Research Institute.
- JONES, Clifford Reis 1981. Dhūlicitra: Historical perspectives on art and ritual. In: Joanna G. Williams (ed.), *Kalādarśana: American Studies in the Art of India* (Studies in South Asian culture, 9): 69–75 & figs. 1–10. Leiden: E. J. Brill.
- 1982. Kaḷam eḷuttu: Art and ritual in Kerala. In: Guy R. Welbon & Glenn E. Yocum (eds.), *Religious Festivals in South India and Sri Lanka* (Studies on Religion in South India and Sri Lanka, 1): 269–294. New Delhi: Manohar Publications.
- KOSKENNIEMI, Kimmo & Asko PARPOLA 1982. *A Concordance to the Texts in the Indus Script*. (Department of Asian and African Studies, University of Helsinki, Research Reports, 3.) Helsinki: Department of Asian and African Studies, University of Helsinki.
- KRISHNAMURTHY, Ramasubbu 1997. *Sangam Age Tamil Coins*. Madras: Garnet Publications.
- KURUP, K. K. N. 1973. *The Cult of Teyyam and Hero Worship in Kerala*. (Indian Folklore Series, 21.) Calcutta: Indian Publications.
- MAHADEVAN, Iravatham 1968. Corpus of the Tamil-Brahmi inscriptions. In: R. Nagaswamy (ed.), *Seminar on Inscriptions*, 1966: 57–73. Madras.
- MAYRHOFER, Manfred 1992. *Etymologisches Wörterbuch des Altindoarischen*, I. (Indogermanische Bibliothek, Reihe 2: Wörterbücher.) Heidelberg: Universitätsverlag Carl Winter.
- MITCHINER, Michael 1976. *Indo-Greek and Indo-Scythian Coinage*, I–IX. London: Hawkins Publications.
- NAGASWAMY, R. 1995. *Roman Karur. A Peep into Tamils' Past*. Madras: Brahad Prakashan.
- NAMBIAR, Sita K. 1996. *The Ritual Art of Teyyam and Bhūtārādhane. Theatrical Performance with Spirit Mediumship*. New Delhi: Navrang.
- PARPOLA, Asko 1981. On the Harappan 'yoke-carrier' pictogram and the kāvaḍi worship. In: M. Arunachalam (ed.), *Proceedings of the Fifth International Conference-Seminar of Tamil Studies, Madurai – Tamilnadu – India, January 1981*, I: 2.73–2.89. Madras: International Institute of Tamil Studies.
- 1994a. *Deciphering the Indus Script*. Cambridge: Cambridge University Press.
- 1994b. Deciphering the Indus script. A summary report. In: Asko Parpola & Petteri Koskikallio (eds.), *South Asian Archaeology 1993* (Annales Academiae Scientiarum Fennicae, Series B, 271), II: 571–586. Helsinki: Suomalainen Tiedeakatemia.
- 1994c. Harappan inscriptions. An analytical catalogue of the Indus inscriptions from the ancient Near East. In: Flemming Højlund & H. Hellmuth Andersen (eds.), *Qala' at al-Bahrain*, I: The northern city wall and the Islamic fortress. (The Carlsberg Foundation's Gulf Project) (Jutland Archaeological Society Publications, 30.1): 304–315 & 483–492 (bibliography). Aarhus: Jutland Archaeological Society.
- 1997. *Deciphering the Indus Script. Methods and Select Interpretations*. Keynote address delivered at the 25th Annual South Asia Conference, University of Wisconsin, Madison, Wisconsin, 18–20 October 1996. (Occasional Papers Series, 2.) Madison: South Asia Center of the University of Wisconsin.
- , Seppo KOSKENNIEMI, Simo PARPOLA & Pentti AALTO 1969. *Decipherment of the Proto-Dravidian Inscriptions of the Indus Civilization. A First Announcement*. (The Scandinavian Institute of Asian Studies, Special Publications, 1.) Copenhagen: The Scandinavian Institute of Asian Studies.
- , Seppo KOSKENNIEMI, Simo PARPOLA & Pentti AALTO 1970. *Further Progress in the Indus Script Decipherment*. (The Scandinavian Institute of Asian Studies, Special Publications, 3.) Copenhagen: The Scandinavian Institute of Asian Studies.

- PFEIFFER, Martin 1972. *Elements of Kurux Historical Phonology*. (Indologia Berolinensis, 3.) Leiden: E. J. Brill.
- RAMASWAMI AIYAR, L. V. 1947. Indigenous Tamil grammars on the verbs 'come' and 'give'. *Journal of the American Oriental Society* 67: 215–216.
- ROY, S. C. (1928) 1972. *Oraon Religion & Customs*. Ranchi, 1928. Reset reprint: Calcutta: Editions Indian, 1972.
- SAMY, P. L. 1971. The cult of the Vēlan. *Araichi* 1971(3). Palayamkottai. (Quoted from Kurup 1973: 26.)
- SHANMUGAM PILLAI, M. & David E. LUDDEN (tr.) 1976. *Kuṟuntokai: An Anthology of Classical Tamil Love Poetry*. Madurai: Koodal Publishers.
- SHANMUGAM, S. V. 1971. *Dravidian Nouns. A Comparative Study*. (Annamalai University Department of Linguistics Publication 25.) Annamalainagar: Annamalai University.
- SHULMAN, David Dean 1980. *Tamil Temple Myths. Sacrifice and Divine Marriage in the South Indian Śaiva Tradition*. Princeton: Princeton University Press.
- SREEDHARA MENON, A. 1979. *Social and Cultural History of Kerala*. New Delhi: Sterling Publishers.
- SUBRAHMANIAN, N. 1966. *Śaṅgam polity. The Administration and Social Life of the Śaṅgam Tamils*. Bombay: Asia Publishing House.
- SUBRAHMANYA SASTRI, P. S. 1930. *Tolkāppiyam: The Earliest Extant Tamil Grammar, I: Eḷuttatikāram*. (Madras Oriental Series, 3.) Madras: The Madras Law Journal Press. (Reprinted from The Journal of Oriental Research.)
- 1945. *Tolkāppiyam – Collatikāram. With an English Commentary*. (Annamalai University Tamil Series, 9.) Annamalainagar: Annamalai University.
- THAPLYAL, K. K. 1972. *Studies in Ancient Indian Seals. A Study of North Indian Seals and Sealings from Circa Third Century B.C. to Mid-seventh Century A.D.* Lucknow: Akhila Bharatiya Sanskrit Parishad.
- TL = *Tamil Lexicon*, I–VI + Supplement, 1924–39. Madras: University of Madras.
- THURSTON, Edgar 1909. *Castes and Tribes of Southern India*, I–VII. Madras: Government Press.
- TURNER, Ralph L. 1966. *A Comparative Dictionary of the Indo-Aryan Languages*. London: Oxford University Press.
- UPADHYAYA, U. P. (ed. in chief) 1988–97. *Tulu Lexicon*, I–IV. Udupi: Rashtrakavi Govinda Pai Research Centre, M. G. M. College.
- VAIDYANATHAN, S. 1971. *Indo-Aryan Loanwords in Old Tamil*. Madras: Rajan Publishers.
- ZVELEBIL, Kamil V. 1977. *A Sketch of Comparative Dravidian Morphology*, I. (Janua Linguarum, Series practica, 180.) The Hague: Mouton Publishers.
- 1991. *Tamil Traditions on Subrahmanya-Murugan*. Madras: Institute of Asian Studies.

