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Examining the nature of Indus script signs and the rendered language

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Abstract
The present paper is part of a series of works that aim at deciphering the Indus (Valley) script. In this respect, it is demonstrated herein that the Indus script renders an ancient Altaic language, by examining pictorial evidence of the phonetic signs. The investigation includes comparisons of the Indus signs to Minoan and Sumerian related ones, as well as their connection to the general Altaic culture and the "Kök" script. A few examples of deciphering Indus inscriptions are discussed, providing meaningful interpretations.

Keywords: Altaic culture, Minoan scripts, Cretan Protolinear, Indus Valley script, "Kök" script, Sumerian, Indus Valley signs, syllabary

Introduction

To read the Indus inscriptions, a detailed study of each sign is needed, and such a study needs a corpus and concordance of inscriptions available. What we have for that purpose is the work of pandit Mahadevan [1], which is invaluable indeed, although it is not the ideal tool for the purpose, as it presents the inscriptions in a standardized font and not in photographs or exact copies, so the exact shape of signs and their arrangement is not known; also, thousands of inscriptions were discovered after that publication in 1977. A corpus with photographs is available in [2]. Without wanting to neglect prior works on the decipherment of the Indus script that are numerous, since our approach differs completely, we prefer to be based solely on the primary sources above.

From the start we can say that every sign we see in Indus inscriptions, as also the general appearance of the texts, directly points to something identical or similar in the Minoan scripts [3]. We would now mention only a few very common Indus script signs, in comparison to Cretan Protolinear or other known Sumerian signs.

Very Common Indus Script Signs

The first sign to start with is the horn-sign (Fig. 1) found in Indus inscriptions, which is identical to the sign for horn in Linear B, Linear A (Aegean scripts) and the Cypriot syllabic scripts [4]. In the Aegean scripts, the phonetic value rendered is "se"; in Indus, we initially estimated that it was likely "sə", as it is found in ligature with the estimated "tə". After examining the available corpus, we can now be sure that it was not "sə", but "o", because, although its form is exactly the same as Minoan "se", the horn in Indus language was "o(s)" and not "se".

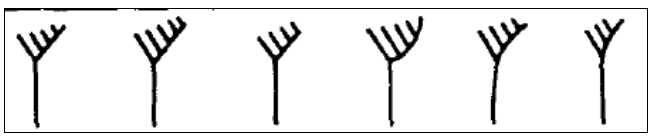


Fig 1: The horn-sign [1], [2].

We could not neglect herein the cow-sign, the commonest in the Indus script (Fig. 2). It is quite similar to the cow-sign in Linear B, Linear A, and the Sumerian Mesopotamian pictography [6]. All these signs depict the face to conventionally indicate the whole animal.

Fig 2: The cow-sign [5].

To this, compare the sketch for "cow" used as the logo of the Gaurashtra Company (Fig. 3).

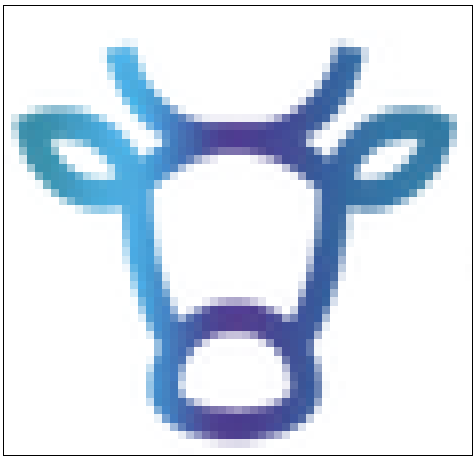


Fig 3: The sketch for "cow" [7].

Also, compare the photo of a cow from an Austrian postcard (Fig. 4).

Fig 4: The photo of a cow from an Austrian postcard.

One of many misconceptions we must dispel, is calling it "the jar sign"; that could not be a jar; it could not stand upright, and it would not be practical as a container in any aspect. A cow-sign could not be absent in the Indus script, given the importance of cow in the Hindu (and Sumerian) culture. What you see in this sign is the face of the cow in front view, with the horns and ears. The phonetic value of this in Cretan Protolinear is "co". In Cuneiform Sumerian, the cow is known as "ab" from *gob, related to the Turkic "kaba" ("bulky") and "kebe" ("pregnant / fat"). But we cannot say that it had the same name in Indus; the sign appears mostly in the beginning of words, and we have not seen it reduplicated; these are indications that it represented a syllable consisting of a vowel without a consonant. If so, we have considered "i", then the name would be cognate to Turkic "ingek" (a cow) and "ingen" (a female camel that has given birth), as well as to Sumerian "immal" (a cow, probably milch cow). But if this was "i", then which sign was "a"? A sign so frequently used is more likely to be "a" than "i". It would be easy to say that the phonetic value "a" is related to Sumerian "ab" (cow), but that "ab" is only found in Cuneiform, where the Sumerian language is found in a late stage and rendered very inaccurately; that "ab" must come from *gob, as we explained. The phonetic value "a" comes, in all likelihood, from a word "am", which means the female genitals in Turkic, but it was not taboo in ancient times, as it only meant "female", used as a suffix to words meaning female animals, like:

- "šilam" ("cow" in Sumerian),
- "ganam" ("ewe" in Sumerian),
- A similar suffix forming the feminine of a noun in Turkic, like "terim" (a princess), "hanım" (the wife of a Han, queen).

If "am" meant originally any female animal, in Indus it could have been used specifically for the cow, the "par excellence" female animal. Similar to "am" is "ama", which means "mother" in many languages, including Sumerian, Chuvash, and Basque; in common Turkic too, it was "ama", but became "anna" for taboo reasons. In India, the cow is called a mother since the earliest known literature until today. It is possible that the word "ama" (mother) became taboo at some point in India too, and this may explain why the word "ama" was changed to "amba", which is attested in Sanskrit and used in India until today.

The cow-sign is found in the very first inscription shown in the Wikipedia page (Fig. 5).

Fig 5: The inscription of a seal [5].

The first thing we would remark is that there is not the slightest indication that it is written leftwards, as many prefer to think; the image above is the impression, which is read rightwards; the seal itself is shown in Fig. 6.

Fig 6: The seal of Fig. 5 [8].

It can be seen also that the end right sign (in the impression) "pushes" the frame to the right, so the inscription is clearly to be read rightwards. Every sign resembles a sign of Cretan Protolinear, so much that we can recognize what each sign depicted; we may even try to apply to each sign its Sumerian name, numbering the signs from left to right (Fig. 5):

- 1: cow, "a" according to the above reasoning;
- 2: an axe, "to" in Minoan [4];
- 3: female pudenda, "tə" in Minoan [9];
- 4: number two, "min" in Cuneiform Sumerian;
- 5: a wheel, "car" in Sumerian, a sign nearly homomorph to Cretan Protolinear "ca" [10].

The corresponding of the wheel-sign in Cretan Protolinear and pre-Cuneiform Sumerian is a simple cross within a circle that means "sheep" in Mesopotamia and is used for "ca" in Cretan Protolinear, so its original name was "ga(n)" (meaning "sheep", which is "ganam" in Cuneiform; the same is "koñ" in Turkic); still, Cretan Protolinear (Minoan) users often interpreted the same sign as "ca(r)" (wheel, attested as "gigir", from reduplicated "*ga(r)ga(r)" in Cuneiform). That word was widespread in antiquity, as we have Latin carrus, Celtic karros (wheeled vehicle), while we are convinced that all languages originate from one single language, and that is more obvious the more we look back in time (see [19]). So, it is quite likely that "ga(r)" was the word for "wheel" in the Indus civilization, thus the wheel sign is to be read "ga". Note here that even in Indus, in very few inscriptions, the wheel sign has the shape of a simple cross within a circle, exactly as in Minoan.

The 4th sign obviously depicts "number two", but as the Indus seals are not accounting documents (they simply record the identity of the owner of the seal) the numerical signs in those seals are certainly used for their phonetic value. The same practice is attested in the "kök" script, where the ancient sign for "3" ("üç") is used for V+ç and the sign for "6" ("altı") is used for the syllable "alt". The Kharosthi sign for a "10" ("on" in Turkic) is identical to the "kök" sign for a back vowel + n. However, the "twelve" sign is relatively frequent in Indus, and that was probably read as "year" rather than "twelve" (as "twelve" represents the months of a year). In Cypriot (Minoan) Protolinear, the "circle" sign, meaning "a large square number", is also used for its phonetic value "ša". However, it should be noted here, that this is the biggest difference between the Indus and Minoan scripts: Indus maximally uses numerical signs for their phonetic value, a practice unwanted by Minoan scribes (with the only exception of Cypriot "ša"). After careful examination, we have found that Indus uses <one> for "sa", <two> for "ma", <three> for "pi", <four> for "tə", <five> for "li", while Cretan Protolinear uses <pistil>, <calf>, <dagger>, <pudendum>, <man> respectively, and all these (<pistil>, <calf>, <dagger>, <pudendum>, <man>) are absent as phonetic signs in the Indus script (<pudendum> is used, but for "ta", not "tə"). There is a reason for this: the Indus people favored numbers as syllabic signs, because that made the script easier, and they wanted it to be as easy as possible.

In the inscription discussed, the 4th sign <two> was initially thought to be "mə", related to Sumerian "mi(n)"; however, that "mi(n)" must have been pronounced "me(n)" from an older "ma(n)", according to a common phonetic tendency in Sumerian (phonetic rule 5.0.3. in [21]); after thorough research, we know <two> to be "ma" in Indus.

The 3rd sign in this inscription is explicitly the front view, from below, of a woman's genitals. The corresponding sign is very common in Cuneiform and pre-Cuneiform (Sumerian), named SAL, and the homomorph is found in Cretan Protolinear used for the syllable "tə" [9], as the word "sal" was originally "tə(l)", which is found in old Turkic as "tışı" (ş is z-Turkic corresponding to r-Turkic l; ı is the Turkic /ɯ/, same as "ə" in Indus and almost same in Sumerian, where also we prefer to transcribe it as ə; -ı is an ancient adjectivizing ending: "tışı" means "female"). As the word is so ancient, widespread - probably related to IndoEuropean Greek "theelu" (female) too - and durable through time, the sign must have been used for something like "tə" in Indus too. When starting our study, we considered it "tə"; after thorough research, we have concluded that this was "ta".

To the 2nd sign there is one almost identical in Cretan Protolinear (very similar in CyproMinoan too), which is very frequent, used for "to", depicting an axe, "to(m)" in Sumerian. The root of this word is also widespread and durable, found as tem- and tom- in Greek (compare also the Amerindian "tomahawk" [11]). So, we deem this to be "to" in Indus too.

All these considered, the word (name) on this inscription is "atotamaga" (as in Sumerian and other languages, "g, c, d, b" mean emphatic unaspirated and "q, k, t, p" mean aspirated consonants). To attempt a tentative etymology of "atotamaga", "ato" probably means "lord, master" (the "ato" is hard to trace in Cuneiform Sumerian, perhaps it is "a-tu$_5$; a-tu$_5$-atu$_5$; lu$_2$a-tu$_5$-a, a type of priest" or "a-za-ad" ("head" - rather "chief, topmost"; the ordinary Sumerian word for head is "saĝ"); we have shown that "at-" was the first component in the name of the Goddess Athena [6]; the root of this word is found in all language families, e.g., Turkic /eːðiː/ "master", ancient Egyptian "aθi" (master, ruler), Sanskrit adhi ("topmost") and probably related to "atha" (which was used as an important mantra), etc.

Now it is true that the word "maga" (<two> and <wheel>, as described above) is one of the commonest morphemes at the end of Indus texts, it is also found alone as a word; the word "maga" corresponds to Sumerian "maḫ" meaning "lofty; grand" (Cuneiform Sumerian ḫ normally comes from "g", just as Turkic ğ comes from "g"); the same word is well known in Turkic as "beg" ("nobleman; important person"), given that every Old Turkic m- has turned to b-. For those who know a little Greek or Latin, it is evident that the same word is found in Greek as "mega" (great, big) and Latin "magnus". Hungarian "nagy" (big) is also a cognate; all these because of the common origin of all human languages. So, we are tempted to interpret the "-maga" in this "atotamaga" as that word meaning "great"; however, the word "tama" is also a frequent word in the Indus inscriptions, while *"tota" or "atota" has not even been noticed. For this reason, we prefer to parse "atotamaga" as "ato-tama-ga"; here, "tama", derives from the well-known ProtoHuman root "djeŋ" ("heaven, the living sky, god"), which is well known in Sumerian as "dingir" (that is, "deŋe(r)") and in Turkic as "teŋ(e)ri" (-i being the adjectivizing suffix). The "-ga" in this name must be the genitive suffix, which is -ak in Cuneiform Sumerian; in Turkic, it corresponds to the dative suffix -ka and the relativizing suffix -ki, which was probably formed with the adjectivizing -i added, exactly analogous to the Basque suffix -ko; in Nahuatl -ko means "place of", which is obviously the original meaning of the suffix in question. So, if the word is perfectly parsed as "ato-tama-ga", it means "lord of the gods"; quite expected as a man's name carved on his seal, as countless Hindus today have names that mean "lord of the gods" like "deveśa" or "sureśa".

Proceeding now to another set of signs, at the beginning of this study, we presumed that the ligature <horn>+<pudendum> (Fig. 7) was sə+tə for "stə", which soon was seen to be wrong.

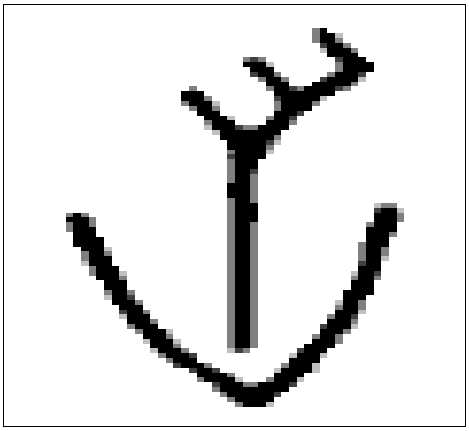


Fig 7: Ligature <horn>+<pudendum> [1].

We quickly found that in ligatures it is the second element that "loses" it vowel, with the exception of some cases like gə+WA for "gwa". So, the <horn>+<pudendum> ligature is in fact "o+ta" for "ot".

In a similar way, thinking that the upper element of sign 355 (in Mahadevan [1]) (Fig. 8a) is to be read "θa" <deer> (judging from the Cypriot Greek "za" <deer>), we presumed that it was read something like "zga"; later we realized that the upper element 347 (Fig. 8b) and 358 (Fig. 8c) is "lo", which is the phonetic value of the Minoan (both Cretan and Cypriot) <gazelle> sign, and of Cuneiform Sumerian "LU", although Minoan and Cuneiform used different sketches for <gazelle>. The word is well known in ancient languages: "lo(x)" in Indus and in Sumerian, "luk" 鹿 in Old Chinese, "elik" (roe deer) in Turkic, alkē in Greek (a loan from some Asian language, but also original Greek elaph- "deer" and elakh- "light; little; nimble" come from the same ProtoHuman root). So that ligature (sign 355) is in fact lo+ga for "log". The same "log" is more often spelt "lo+go", as in sign 348 (Fig. 8d) and 359 (Fig. 8e).

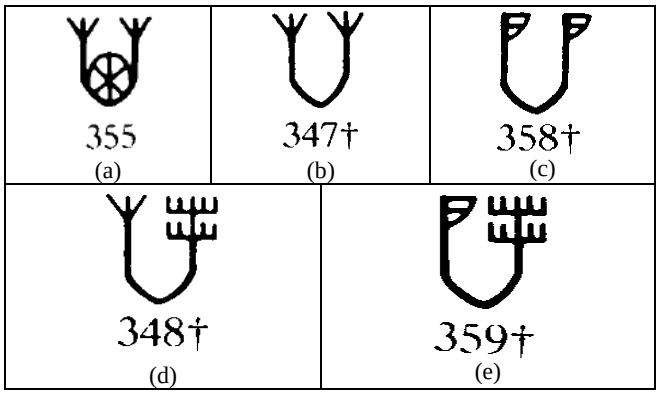


Fig 8: The <gazelle> signs and ligatures for "log" [1].

Relation to General Altaic Culture and the "Kök" Script

We noted that the original Altaic nation since the 6th millennium BCE had devised and used a pictographic script that was rich in phonetic elements using the rebus principle [3]. So, it was not only the Sumerians and their close relatives in the Indus valley who owned that original script, but also other Altaic tribes who moved to other places. This explains the origin of the syllabic script that has been found mainly in inscriptions from the 8th and 9th century CE (the oldest known inscription is dated 687 CE); that script is called "kök" script or "Old Turkic script", or, conventionally, "Turkic runic script". That "kök" script is not a descendant of the Indus script; it is simply a parallel evolution from the original Altaic pictography (which, according to our research, is the origin of all writing systems of the world). The ancient Turkic speaking nations were fond of making and using "tamğa", that is abstract, linear, simple symbols, which is the beginning of writing. Hundreds of "tamğa" are known today and can be found on the internet; in Fig. 9 we show only this "wild goat tamğa", which was the symbol of Old Turk "han", chieftains and kings.

Fig 9: The "wild goat tamğa" (in [12], page 354).

The "kök" script is syllabic, but its syllables are of the VC type (and not of the CV type as, e.g., Japanese). According to [13], the "kök" syllabary was originally devised for an r-Turkic language. We have counted 54 syllabic signs of the "kök" script, but in practice each variety of the "kök" script uses less than 40 signs. It is obvious that in older times (long before the 8th century CE), the "kök" script had a really larger number of syllabic signs, which rapidly decreased as the scribes forgot many signs that were not indispensable for writing with satisfactory accuracy; for example, we find that most inscriptions use the same sign for "es" and "eş", many scribes ignore such signs as "ot", "op", "alt" and "art", while others (presumably older ones) still use such rare signs. We shall show 5 different signs for V+m below, but typically every type of the "kök" script uses only one sign for any vowel +m. In a similar way, many signs were eliminated, because with less than 40 signs it was easy to achieve satisfactory accuracy in rendering the words of Turkic.

The "kök" script is badly underestimated today; only the Old Hungarian script is generally recognized as descending from the "kök" script, but a little more study and less prejudice will soon reveal that the old "kök" is also the origin of the Armenian, the Georgian, the Kharosthi and the Brahmi scripts [13]. The Germanic people originally used a version of the "kök" script, but later they adopted some letters of the Greek alphabet and then of the Latin alphabet, so their writing became alphabetic (previously being a syllabary) and kept only a few elements of the "kök" script that they used before [14]; this is how the Germanic runic alphabet (the so-called "elder Futharc") was formed.

So, the relation between the "kök" script and the Indus script is very distant; still there are some characteristics in common (such as writing in horizontal rows and making the signs fit in an upright rectangle, vertically elongated); and there is something extremely interesting that is a consequence of that very distant relation: The old "kök" script used (as far as we know) 5 different signs for the syllables V+m (vowel + "m"). The most common sign for V+m, regardless of the vowel, is the one in Fig. 10a, originally "um", depicting a bison or similar animal (its head with ears and horns; this image is the origin of Chinese 丑). There was a similar sign (Fig. 10b), originally "em", depicting a nipple, which easily merged with the previous, originally "um". Also, there was an ancient sign (Fig. 10c), originally "am" (female genitals), which is only found in very few, perhaps two or three, old inscriptions. That fell into disuse, both for taboo reasons and because it could be confused with a sign "iç" (sketch of tree-top) of similar appearance.

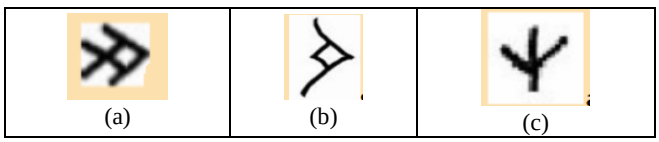


Fig 10: Three V+m signs.

In the Talas version of "kök", the sign commonly used for V+m was the one seen in Fig. 11, highlighted in pale yellow.

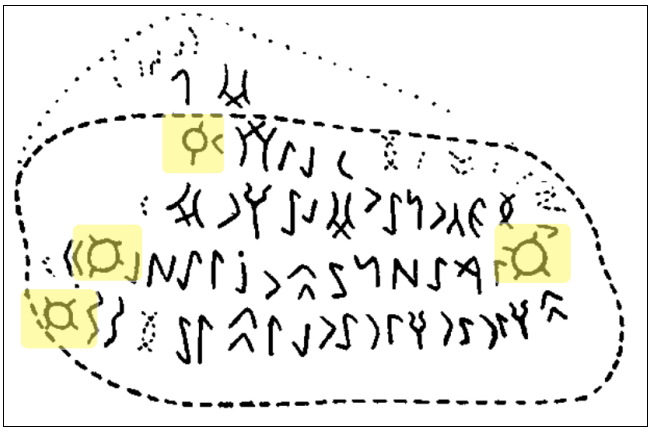
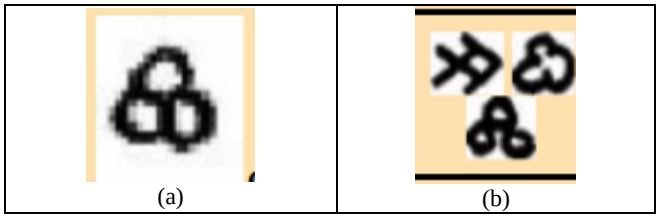


Fig 11: A Talas sample of "kök" (in [12], page 327).

That came from a sacred sign analogous to the next one, a (sacred) circle with 4 "rays", as the number 4 symbolizes totality in ancient and even modern Turkic culture (a symbolism similar to that of traditional Chinese coins, the round periphery symbolizing the sky and the square - 4 sided - hole symbolizing the whole earth). Also note that the circle with 4 rays is a kind of cross, a holy symbol not only in Christianity (a swastika and a "Greek cross" have been found as symbols in many Indus seals too; an "X" shape symbol is common as an Indus syllabogram). So, the original name of this Talas sign was also OM, like the next one.

There was another old sign (Fig. 12a), originally "om", which is listed in [15] together with the most common sign for V+m (Fig. 12b). That sign had the form of 3 little circles joined together in various ways, as you see in Fig.12.



(a) (b)

Fig 12: Common signs for V+m [15].

In Fig. 13 there is also a fragment of an inscription that contains both V+m signs.

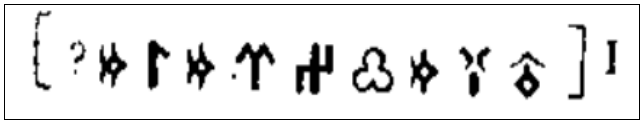


Fig 13: A fragment of an inscription (in [12], page 356).

We read this fragment (this fragment of inscription is not translated in [12]) as: "tağım umaz erim ım (ğa)." (My lost one, my unable - i.e., now dead - man, the official secretary…), where:

- "tağım" might be taken as a dialectic form of "tağay" (maternal uncle), but what much better fits the context is "tağ", a word also found as "tak", meaning "some thing or person that is causing distress because (it / s/he) is missing" (in [16], page 463);
- "ımğa" is an ancient Turkic word found in Cuneiform Sumerian as "umbi" (/ʁmβɛ/ "scribe, scholar"); in Turkic culture, the ımğa were scribes and secretaries in the service of rulers and officials, themselves being dignitaries.

As those rock inscriptions are almost always funerary stelae, this one describes the identity of the dead, and for euphemism to avoid saying "dead" the word used is "umaz" ("unable, powerless"); the "um" in "umaz" is written with the OM sign, while "ım" and "im" in the same inscription are written with the usual sign for V+m (the "kök" script in all known inscriptions never distinguishes between "o" and "u" or "ö" and "ü"). An elaborate form of this syllabic sign OM was also used as a "tamğa", as seen in Fig. 14.

Fig 14: From the last page of [12].

We know that it was used as a phonetic sign for the syllable "om" (or "um"), but what did it depict? In [13], written before 2013, the author noted that it represented the Supreme Being, in other words, the supreme spirit, God. How could the 3 circles represent the supreme spirit? Because the ancient ancestors of the Altaic nations conceived God as a trinity, not different from the Christian or Hindu concept: God is the supreme spirit (parabrahma) or "Holy Spirit", and the supreme ruler (parameśwara) or "the Father", and the supreme personality (paramapuruṣa) or "the Son". Even a single circle has always been the symbol of nature, infinity and perfection, but because of the holy trinity concept, three joint circles were used to represent God. This symbol, in the form of three circles "filled" white, was used in the amulet of Fig. 15, with 4 Old Turkic syllabic signs starting from OM (the 3 circles sign), read counter-clockwise (the "kök" script read always from right to left). The other three signs read "ura" or perhaps "ural" (the last, "a" sign has an unusual shape, it might have been "al" rather than "a"); Wikipedia, under "battle cry" says: "Each Turkic tribe and tribal union had its distinct tamga (seal), totemic ongon bird, and *distinct uran* (battle cry) (hence the Slavic urah "battle cry")". It was not only a battle cry, but also an auspicious exclamation to be written in an amulet.

Fig 15: An Old Turkic amulet [13].

The ancient Altaic nation knew very well the famous sacred syllable OM, which was inherited by the Hindu religions. In [17], we read that the sacred syllable OM was of Sumerian origin - although the book did not give any proof for it. That could be possible anyway, since Sumerians were also an Old Altaic tribe of the western (r-Altaic/Turkic) branch. It is noteworthy that the four Vedas say nothing about the sacred syllable OM, although sometimes it can be considered appearing as part of the word "omān" ("a helper, savior"); still OM is never mentioned in the Veda as a sacred exclamation or a necessary part of every mantra, as it is in classical Sanskrit literature. In Hindu literature, OM is considered as consisting of 3 elements, A, U and M (every O being considered a synaeresis of A+U in Sanskrit and the O of OM is described as an extra-long vowel, measuring 3 "plutas", while all other long vowels have a duration of 2 "plutas", short vowels being of one "pluta").

It was around the middle of February 2025, that an old memory recurred in connection to the Old Turkic syllabogram OM: the most famous artifact surviving from the Indus valley civilization is the statue of the so-called "Priest-King", dated 2400–1900 BCE (Fig. 16); a low fired steatite of 17.5 cm height, exhibited in the National Museum of Pakistan (Karachi).

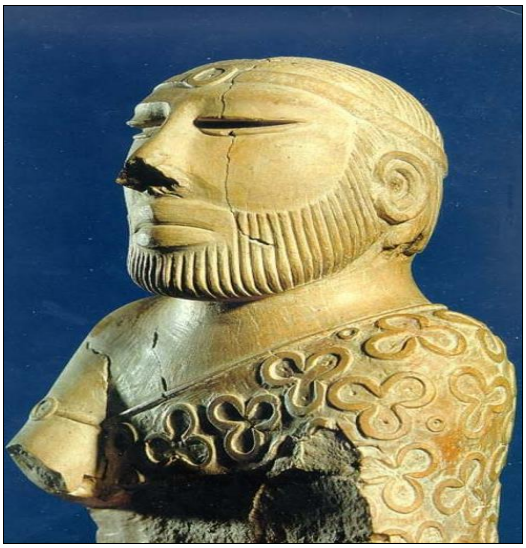


Fig 16: The Priest-King [18].

Everything points to the fact that he was a high priest (but as ancient kings had also the title of the "high priest", "pontifex maximus", he could have been a king too; note that the very first oracle of the "Irk Bitig" says: "I am the emperor; morning and evening (which can mean "all day") sitting (motionless) on the golden throne I enjoy bliss; thus you should know: this oracle is good" [19]. His almost shut eyes, concentrated on something immaterial, show that he was in a state of deep meditation or "samadhi"; his mouth tightly shut gives an impression that his breathing has temporarily stopped in "prāṇāyama"; all that he is wearing is symbolic and sacred; even his ears have been made to resemble 3 concentric circles, which is also a sacred Hindu symbol: the first thing that children learn to draw in a Hindu school. Of course, you have already noticed the motive that decorates his robe: it is identical to the Old Turkic syllabogram for OM. By the way, his eyes are the stereotypical Japanese or generally "Asian" eyes, as expected for an ancient Altaic nation, who were Asians like the Japanese. Actually, the Indus priest is wearing the vestments of their religion, just as the Christian Orthodox vestments are all covered by the symbol of the holy cross (example in Fig. 17).

Fig 17: Common Christian Orthodox vestments.

In a similar manner, the Indus priest vestments are covered by their religious symbols, of which the foremost was the 3-joint-circles, named by the sacred syllable OM.

It would be too superficial to agree with Wikipedia, which in many pages and templates holds that the Brahmi, the Kharosthi and the Old Turkic script came from the Aramaic alphabet. Such scripts consist of a much larger number of signs than the 22 letters of the Aramaic alphabet, and it is obvious that the large number of signs did not come from modification of Aramaic letters. In the Old Turkic script, no letter comes from the modification of another.

A few letters of the Brahmi and the Kharosthi are indeed modifications of other letters

- In both Brahmi and Kharosthi, "ph" is a modification of "p".
- In Brahmi, "h" is a modification of "gh", while "ch" is a modification of "c".
- In Kharosthi, "gh" is a modification of "g".

However, these instances are few and cannot explain such large inventories of letters from a set of 22. If Old Turkic, or Brahmi or Kharosthi came from Aramaic, then at least half of the letters would have been modified forms of other letters, which is not the case. Moreover, the nature of modified letters indicates that the original language of the scripts that came to be Brahmi and Kharosthi was Turkic, namely:

- "ph" was made from "p", because Old Turkic had no "ph" or something similar, like "f";
- Brahmi "h" was made from "gh", because Old Turkic had /ɣ/ that was used for the similar "gh", but had no /h/, which had to be made from the similar /ɣ/;
- "ch" was made from "c", because Old Turkic (until today) has /c/ but not the aspirated of /c/;
- Kharosthi used Turkic /ɣ/ for both "g" and "gh", because Old Turkic did not have /g/, so Kharosthi used the letter /ɣ/ for "g" and then modified the frequent "g" to make the infrequent "gh".

On the other hand, Brahmi and Kharosthi use various different letters to differentiate between retroflex and dental, and then between aspirated and unaspirated of them, because the Turkic syllabaries of those times had plenty of letters with "t" and "d", e.g., "at", "et", "ot", "ad", "ed", "od" and so on. In [13], many of the Brahmi letters, and some of the Kharosthi, are explained as originating in certain Old Turkic letters.

Here a question arises: the two "comebacks" of Turkic speaking tribes, which account for the Kharosthi and the Brahmi, were they from the Indus civilization people who had been forced to move after they were conquered by the Aryans, or were they different Turkic speaking tribes that came later from the north? But this is already answered in the previous paragraph, where it is shown that the characteristics of Brahmi and Kharosthi are due to a phonology close to historical era Turkic and not the already simplified phonology of the Indus nation. Therefore, different Turkic-speaking tribes had different versions of the script (just as in historical times); so, from two different tribes in different places, two different scripts evolved, those being the Brahmi and the Kharosthi. Because the Old Turkic syllabary at that time had a number of signs for each consonant, the Indian speaking people had a variety of choices for what sign to use for each consonant.

Conclusion

In conclusion, the Indus culture, which was of Altaic origin [20], was not extinguished when the IndoEuropeans took over. Simply, the IndoEuropeans mingled with the previous population and absorbed their whole civilization, with the only exception of writing. The Indus writing was too difficult for the IndoEuropeans to learn, because for them there was no connection of each sign's image to its sound, as was for the creators and users of the script. Thus, to the extent that the Indus language (an ancient language closely related to Sumerian) was forgotten (replaced by Old Sanskrit), the script was forgotten too.

If the Indus language were Dravidian, the Dravidians would uninterruptedly retain the script that would be always easy for them, as the signs would always explicitly depict the objects named by their phonetic value. Then the whole Dravidian population would know how to read, so there would be many inscriptions found from the period known as the "dark ages" of India, from which there is no extant written document. In other words, if the Indus script language were IE or Dravidian, it would have never ceased to be used and it would always be pictographic and syllabic at the same time; that was not the case.

Now, the next task is to identify all the signs of the Indus script, i.e., what each sign depicted and what its name was. That seemed to be a long quest, but with serious work, about the 20th of May 2025, the basics have already been found and will be published soon. It is only 67 syllabic signs, and a grid with them, showing the sign for each syllable, is already complete.

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