## Indus script orthography

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The logo-syllabic syllabary of Indus will be described here as it is in use. We try to discern if there are broad rules of orthography in this writing system that we can observe. We will start with some simple number systems and see how they can prefix or suffix to other symbols/syllables in the system.

To begin with we use a simple rule that there is one and one syllable to which each of these signs get assigned to. This is a simple rule to follow and it can be easily discerned if it breaks. We will now describe the other patterns or rules that we observe.

Let us now consider the sign-375  $\bigcirc$  to which we assign the syllable "pa". For the sign-86 | we assume has the value "mutal" and then see how it applies to the sign-375  $\bigcirc$ . We believe that this value is indicated by the sign-376  $\bigcirc$  that is attached to it. So we have:

$$pa + mut-al = pal$$

Now let us consider the sign-391  $\$ , a sign that we know has strong correlations with elephant seals, so we asign the value "palla" that also has close proximity to "pal", but we can see there are three cross-lines and/or six small pieces, making it more like "pillir". There is also another possibility that this is decided by DED 1045 ōṭai/ōṭa, a metal badge that is applied to forehead of the elephant. As can be seen although broad rules are applied, there are also *ideosyncracies* of local culture that also apply a few interesting twists and turns, but it tries to confirm to some broad outlines.

We will now move to the intresting sign-287 ), which we have assigned the value "valai" after looking at it's close cousins sign-298 )))) and sign-290 which has five strokes affixed to it's top-right. We also observed sign-62 that we can assign value "vālai" (scabbard fish that has sharp teeth). The sign-295 "iru-valai" cognates with "ēri-vāļai". These signs also indicate that such deformation of the base syllable is possible, i.e., "vālai"  $\approx$  "vālai" and "ēri"  $\approx$  "iru".

Next, we look at sign-81 that we assign the value "valai-puri", while we assign sign-63 (4) the value "kanni-pori". This then decides "kanni" for fish-sign and "puri"  $\approx$  "pori".

Based on these success we then decide to take on the other variants of fish-sign. For sign-70 ♠ we apply "kāl" (DED 1483 assigns the semantic value of "cart") and for sign-72 ♠ "kōl" (DED 2238 assigns a semantic value of "raft/float"). One might ask why not assign the values the other way around, but the important clue comes from the cross-line that looks more like paddle/oar. Yes, again there are some ideosyncracies that comes with it.

We now move on to sign-332 ¼ which we assign value "vai". In the case of "ūr" we have for example sign-347 <sup>™</sup> that takes the value "vel-ūr", so the base comes after it in some cases reversing the order that we assigned for sign-332.

169	Ÿ	nilam
171	4	nilai
174	#	iru-nilam
88		nal-iru

These are decided more by the context of IVC barter transactions than any great orthography rules.

So as a broad outline we can say that the signs in IVC script are strongly associated with unique syllables and there is plenety of ways to mutate them in many ways from their base ideographic glyphs. However, it is not clear that in the case when there are multiple affixes applied then which comes first and whether base glyph applies first etc. In general one can say it flows from right-to-left and top-to-bottom, but I suppose there are exceptions and the

For example the famous sign-116 "" can take the value "nellai/nallai" but the other-way around can also be "ayal" but quite unlikely in the IVC transaction context. Sign-112 "" works as "munnāl" but in the semantics of IVC transactions "ñālam" works better. Of course, both are possible and even within the context of IVC "munnāl" might be a better choice in some particular case.

The non-affixed pure IVC signs have unique syllables associated with them, which have either single consonant and two consonants at the most. The combining rules usually seem to drop the middle consonants, and of course the vowels are modified as pertinent to the situation.

Finally I would like to bring to attention a nice little sign-310  $\mbox{\ensuremath{\beta^{\prime}}}$  with a probable value of "vilavila" (DED 5424) that cognates with "vavvāl" (long-tailed fruit bat):



Trembling with fear "vilavila" congnates well with eerie but I hope one day we can decipher this line. Vilavan trembling with fear loading the bow, but what's to the right of vilvan, a tiger? Tiger trembling or the hunter trembling?