

hircus, L.); Yellow limestone statue; U 81036; Mohenjodaro Museum (H: 16.5 cm.; L: 22 cm; B: 12.3 cm.) [loc. cit. Jansen and Urban, 1987, p. 67].



Ram's body and the elephant's trunk; SD 1109; Stone statue; Mohenjodaro Museum 430 (H 25.5cm; L: 19.5 cm; B: 13 cm.)



Kalibangan: copper bull (ca. 2300 to 1750 BCE, Period II); Pl. XXV, Possehl, ed., 1979, *Ancient Cities of the Indus*.



stone bull, Period I, Neolithic (5378+/-

Towns and Villages of Hill and Plain, in 1984,

Mehrgarh; 290 and 5182+/-80 BCE); Jarrige, Jean Francois, *Frontiers of the Indus Civilization*, Fig. 33.3



Inlay of a bull; Tell El-obeid, ca. 3300 BCE

Bull-god and goddess. Susa, 2nd millennium BCE (Paris) [Note the high quiver holding 5 spears indicating a hieroglyphic semantic link between the bull icon and weapons]. There are ligatured pictorials on the seals and tablets of the Sarasvati Sindhu civilization depicting a horned person with hoofs and tail.

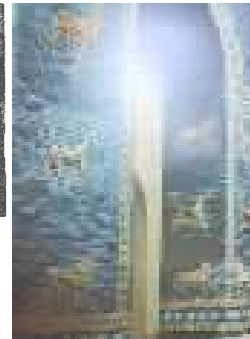
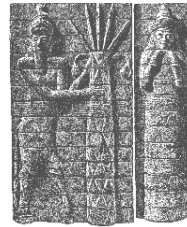


Image of the Ishtar gate. From the Babylon of Nebuchadnezzar Dr. Koldewey recovered the magnificent Ishtar Gate. It has been restored and erected

in the Berlin Museum. Note the depiction of the one-horned bull.



One-horned bulls. Terracotta figures from Chanhujodaro. The representation of this animal continued till early historic period in Central Asian art. [Source: Page 22, Fig. 11B in: Deo Prakash Sharma, 2000, *Harappan seals, sealings and copper tablets*, Delhi, National Museum].



possibly representing the of Untash-Napirisha. (Sb 67 = Pl. 7.4) Detail of the inscribed forearm of Sb 67. Musee du Louvre, Antiquites Orientales

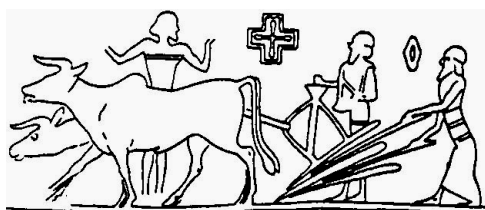
The statue of, or commissioned by, Untash-Napirisha are thought to have been brought to Susa by the later Middle Elamite III ruler Shutruk-Nahhunte, who says in one of his inscriptions, 'I (am) Shutruk-Nahhunte, son of Hallutush-Inshushinak (the beloved servant) of (the god Inshushinak). I removed the statues which Untash-Napirisha had placed in the siyankuk when Inshushinak, my god, demanded it of me, and at Susa dedicated them to Inshushinak, my god' (Konig 1965: 75-6, #21). "The siyan-kuk where Untash-Napirisha originally displayed these works was at Al Untash-Napirisha, modern Choga Zanbil, an entirely new



White limestone statue fragment from Susa, god Napirisha, patron deity

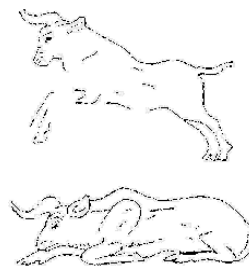
city founded by the king approximately 40 km. Southeast of Susa.” [cf. Amiet 1973a: 18, Spycker 1981: Fig. 75, p.307; Pl. 7.4 and 7.5 and Fig. 7.5 in: DT Potts, 1999; F. Vallat, 1988, *Legendes elamites de fragments de statues d’Untas’-Napiris’a et Tchogha Zanbil*, *IrAnt* 23, 169-77]

One-horn motif on Mideast bulls (*bos primigenius*). A relief of a hunting scene at King Ashurnasipal’s palace. Nimrud. [After Fig. 21.1 in: Caroline Grigson, *Some thoughts on unicorns and other cattle depicted at Mohenjo-daro and Harappa*, in: Bridget Allchin, 1984, *South Asian Archaeology 1981*, Cambridge University Press].



A Babylonian seed-drill; from a Kassite seal impression. University Museum, University of Pennsylvania, Philadelphia.

That one-horn on the bull is an artistic style is apparent



from this seal impression and a similar style is apparent in many inscribed objects of SSVC depicting the one-horned bull.

One-horned heifer (damr.a), artisan’s workshop

Ligaturing components of the composite motif:

Heifer (steer), pannier, rings (on neck), one horn: *damr.a, pakha_l, kan.d.hli_ (kot.iyum), kod.*

Artisan’s workshop for: copper, steel, beads: *ta_mbra, paghal, kandl, kod. (kod.iyum)*

damr.a ‘heifer, steer’; *ta_mbra* ‘copper’

go~r.e~ a pannier, a bag slung across a bullock’s back, one on either side (Santali)

gote, gotle wry, oblique (Santali)

got.i_ ‘lump of silver’ (G.)

Glyph: **pakha_l** (Skt. payah, water + khala, skin] a double water-skin carried on a bullock [Ligaturing element, hence, rebus substantive: *paghal* ‘steel’.]

Glyph: *kan.t.hla_* (H.) **kan.d.hli_** (P.) = ring round the neck; necklace of beads (See the rings on the neck of the bull)

kot.iyum a wooden circle put round the neck of an animal (G.)

Substantive: *kan.d.hli_* (P.) = necklace of beads *kandi* = necklace, beads; *kandl* = beads (Ga.)

kod. ‘horn’; *kod.* ‘artisan’s workshop’; *kod.iyum, kod.* place where artisan’s work (G.)

A characteristic ligature on a one-horned heifer is the pannier.

Glyph: **pakha_l** (Skt. payah, water + khala, skin] a double water-skin carried on a bullock; *pakha_la_, pakha_laci_* = the driver of a bullock carrying a *pakha_l*, a water-carrier (G.lex.) [Note the accent on the pannier ligatured to the one-horned bull-heifer]. *paghaia d.an:gra* a pack bullock (Santali) [Note the pannier on a one-horned bull]. **pakka_li ma_tu** ‘water-carrier bullock’ (Ta.)

Substantive: **paghal** = steel; *paghal me~r.he~t lagaoatinme t.an:ga dharre* = apply some steel to the edge of my axe (Santali); *pagha_l* (H.)(Santali.lex.Bodding) *pa_kala* = quite black (TS.)(CDIAL 8024). *paghal* pig-iron (Santali.lex.)

Thus, the ligatured heifer + pannier connotes two minerals: **ta_mbra** (copper) (glyph: **damr.a** 'heifer, steer') + **paghal** (steel)(glyph: **pakha_l** 'pannier')

pagela_ a harmless snake (Ka.); *pagele* a kind of harmless snake (Tu.)(DEDR 3809). [Ligaturing element in a composite animal; hence, rebus substantive: *paghal* 'steel'.]

pagal.i, *pagari* arrow, dart (Tu.); *pakar..i* arrow (Ta.Ma.)(DEDR 3806).

pagad.e = a die (or cowry) for playing; a kind of back-gammon; a mark on a die (Ka.); *pagad.a_* (M.); *pakat.ai* (Ta.); *pagad.e*, *pagid.e* (M.); *pagad.e* = an ace on a die (Ka.lex.) *pagad.a* = one (at dice), an ace; same as *pad.aga* (a snake's crest or hood; a flag, a banner (Te.lex.)

pagad.amu = coral (Te.lex.)

pa_gad.amu = a silver ornament worn by women round the ankle (Te.lex.)

pan:gat.i = forked, bifurcated, bifurcate, pronged, placed wide apart; **pan:gat.i ka_l.l.u** = widely separated legs, bandy legs (Te.lex.)

pa_gal, *pa_gara*, *pa_gala*, *pa_ga_ra* (Tbh. of *pra_ka_ra*) = an encircling wall, a surrounding wall elevated on a mound of earth, a rampart, a fence, an enclosure (Ka.lex.) [Note the glyph of an enclosure ligatured with a wide-mouthed pot].

pagad.e = a tree, frequently cultivated, *mimusops elengi* (Ka.); *pogad.e* (Ka.Te.); a small tree, wild and cultivated, *nyctanthes arbor tristis* (Ka.Te.)(Ka.lex.)

bali iron stone sand, iron ore (Santali)

bali bullock (Skt.)

damr.a a steer, a heifer (Santali)

ta_mbra copper (Ka.); **damr.i**, **dambr.i** one eighth of a pice (Santali) **damd.i_**, **damd.o** lowest copper coin (G.) **ta_mbad.a** copper plate; **ta_mbad.i_**, **ta_mbad.o** a copper pot; **ta_mbum** copper (G.)

Thus, another animal may be ligatured to indicate another types of mineral treated in the furnace/hearth:

melukka 'copper'; **melh** 'goat or antelope'



Amri06 Ligatured animal **san:gad.i** = joined animals (M.) **sagad.i_**, **saghad.i_** a pan to hold live coal or embers; a fire-pan; a portable iron grate (G.) **san:gha_d.iyo** worker on a lathe; **san:gha_d.o** a lathe (G.)

The zebu bull is a unique case since it connotes native metal:

aduru 'native metal'; **adra** 'bra_hman.i bull'

Glyph: *vahur.o* young bullock (S.); *vohur.* heifer (L.); *vahar.*, *vahir.* heifer (P.)(CDIAL 11459). *paghaia d.an:gra* a pack bullock (Santali)

berga small of stature, undersized, as an ox; *berga d.an:gra okaenae*? Where is the undersized ox? (Santali.)

Substantive (trader) [*begri* lapidary (H.)] *vahoro*, *vohharo*: *vahoro*, *voro* (Hem. Des. *vohharo* = Skt. *ma_gadha* a mixed tribe, a bard) a trader, a *bora_*; an individual of a particular sect of Indian Muhammadans (G.) *vaha_n.a* a ship, a vessel; *vaha_n.avat.i_* a merchant who carries his merchandise in ships to a foreign country; a great merchant (G.) *vahivat*. Business, traffic; *vaheva_r* transaction, dealings; *vaheva_riyo* a dealer; a man of credit (G.)

Glyph: *vaheravum* to saw (wood); to cut timber with a saw; *vaheva* sawdust (G.)

veggal.a, *veggal.e*, *eggla.a*, *heggla.a* a great man (Ka.); *veggali~_d.u* a great or extraordinary man (DEDR 5467)

Substantive: *garn.d.a_lu* a stalwart man, giant (Kod.); *gan.d.a~_d.u* a brave, strong man (Te.); *gan.d.i_ra*, *gan.d.a* hero (Skt.); *gan.d.a* a strong, manly male person (Ka.); *gan.d.* male (Ko.); *kan.t.an-* warrior (Ta.); *gan.d.u* manliness (Ka.)(DEDR 1173)

Glyph: *kan.t.ha_li* a bag having opening in the middle (M.); *kan.t.a_l.am* traveling sack placed on a bullock, pack-saddle (Ta.); *kan.t.a_l.a*, *kan.t.le* double bag carried across a beast (Ka.); *kan.t.alamu*, *kan.t.lamu* bullock-load consisting of two bags filled with goods (Te.)(DEDR 1174). *kan.t.ha_l.* a double-sack (G.)

Place where artisans work, lump of silver

The one-horned bull is shown with rings on the neck.

Substantiv: *kod.*, *kod.iyum*, *kahod.iyum* the place where artisans work; a cow-pen; a cattlepen, a byre; (G.) *kahod.a* fr. Skt. *gos.t.ha* fr. *go* a cow + *stha_* to stand], *kod.a*, *kahod.a* a cow-pen (G.) *got.*, *got.h* the place where the village cattle rest at mid-day (Santali); *got.hao* to collect cattle together for their mid-day rest; *ad.a* id., a group, a herd; *gor.a* a cow-shed, a cattle-shed; *gai gor.a* a cow-shed (Santali) *got.ho* a cattle-yard, particularly for cow kind; *got.ho* a nest (G.) *go.t.* wall (Ko.); *ko.t.* castle (Ko.)(DEDR 2207). Cf. *kole.l* smithy, temple in Kota village (Ko.); *kolmi* smithy (Go.)(DEDR 2133).

[There seems to be an elongation of the vowel *o* and replacement of *d.* with *l* in Tamil, Telugu and Kannada. Other examples are cited in this section.]

got.i_ a lump of silver (G.); **god.** a boil, a tumour (G.) *kuro* silver (Kol.)(DEDR 1782).

got.hiyo a male companion or friend (G.) *gor.o* to assist, to accompany; *kami gor.o* to assist in work (Santali) *god.i_*, *gaud.i_* a magician, a juggler, a Bengali gaud. (G.) *gond.a* man of Gond tribe (Kol.); *go_nd.* (Pe.); *go_nd.a* (Kui); *gon.d.a* a man of low tribe (in the Vindhya mountains), a mountaineer (Skt.); a forest, jungle (Pkt.)(DEDR 2077; CDIAL 4276).

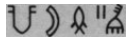
Substantive: *gon.d.a* out-lying hamlets of a village, suburbs of a town; out-lying fields of a village; *ga~gon.d.ape dar.ana* you visit villages and their outlying hamlets; *ga~o gon.d.a* villages and hamlets (Santali)

Glyph: *gon.d.a* a set of four (Santali)

Glyph: *go~r.e~* a pannier, a bag slung across a bullock's back, one on either side (Santali)

xon.d.xa_, *xo~_r.xa_* deep; a pit, abyss (Kur.); *qond.e* deep, low lands (Malt.)(DEDR 2082). Cf. *kol.l.a* a deep place, a depth, the cleft in a rock, a cave (Ka.); *kolame* a very deep pit, abyss, hell (Tu.)(DEDR 2157).

got.h, *got.hd.i_* a secret and confidential talk (G.)



1330 **zebu bull** field symbol [This inscription starts with a sign (right-most sign on the inscription, read from right to left) which is a variant of the 'roof or canopy or chariot-box' pictograph included in Sign 393; on the roof is a 'flag?' (**dhvaja** or a synonym).

Heifer, **vahar.**, 'a helper' of the smithy, **kod.**

vahar., **vahir.** heifer (P.); vahur.o young bullock (S.)(CDIAL 11459). paghaia d.an:gra a pack bullock (Santali.lex.) bal.ada (G.); baled = herd of bullocks (L.)

Bull **vayilo** (Hem.Des.); bel (G.); waihra_, wair.ka_ = bull calf (P.) va_hr.ka_, vehr.ki_; vehir., vehar., va_har., vohur. = young bull, heifer (L.); vehr.ki_ = heifer (L.); vahar. , vahir.a_, bahir.a_ (P.); bahar. = young bullock (Ku.)

High, crooked horn(s) ara_la = crooked (TS); ara_d.yau divyau (S'Br.); ara_d.ya (KS. v.10.1)
ara_lam (Ta.)
ra_d.i = battle (Pkt.)

va_huru_ helper (S.); va_har, vahar crowd of people, help (P.); va_ha_ra help (OG.); vaha_r, vha_r, va_r help (G.)(CDIAL 12217). **va_ura_d.i**, **va_ura_d.ia_**, 'workman' (Kon.lex.) **kod.ken~** can also be depicted by the **kot.ukku**, 'claws' of a crab. **va_ur kar**, **va_ur** = work (Kon.lex.)

Uruk IV. Seal and sealing. Cylinder seal with loop at shows the king with a netted skirt; the attendant behind the has branches to supplement the king's offerings to two animals. Ht. 63 mm (seal 46 mm), dia. 37 mm. New Yale Babylonian Collection (See B. Buchanan, Early Near Seals in the Yale Babylonian Collection, New Haven, University Press, 1981), no. 134. In the early 3rd millennium BCE, the Sumerians suddenly switched to the Gulf trade for copper. A text from Ur, dated to the reign of Sin of Larsa (1822-1763 BCE), recorded the receipt of in Dilmun (perhaps from Magan), which weighed, according to the standard of Ur, 18333 kilograms. One- this copper was earmarked for delivery to Ea-nasir of Ur, a merchant with close copper trade contacts with Dilmun Magan. The logographs on this cylinder seal are comparable to the logographs on Harappan inscriptions.



the top
king
rows of
Haven,
Eastern
Yale

Persian
Rim-
copper

third of
and



va_karan- = warrior (Ta.lex.)

vahatu = a bridal procession (to the husband's house)

nuptial ceremony (RV.AV.AitBr.); pl. the objects constituting a bride's dowry (TBr.)(Skt.lex.)(CDIAL 11455)



va_hini_ = an army, host, body of forces (AV.MBh.); a particular division of an army (consisting of 3 gan.as, i.e. 81 elephants, 81 cars, 243 horses, 405 foot (Skt.lex.)

kun.d.i-a = village headman; kun.d.i_ = waterpot

Spoked wheel glyph on the neck of (1) a lion ; and (2) a one-horned bull

Ligaturing a glyph depicting a nave of a spoked wheel occurs in a



bronze plaque from Haft Tepe: "...a deity, possibly the god Nergal...standing on the back of a lion with a nude female kneeling in front of him and a praying figure behind him." The person is carrying a bow on his left hand, wearing a horned hat and a saw (ara_?) on his right hand. The lion has a six-spoked wheel inscribed on its shoulder. The pictorial motif of a six-spoked wheel is paralleled on SSVC inscribed objects. On one seal, the spoked-wheel (ara_?) is inscribed on the neck of the one-horned bull. ara_ is a lion in Akkadian. [After EO Negahban, 1990, *The Haft Tepe bronze plaque: an example of Middle Elamite art*, in: F. Vallat, ed., 1990, *Melanges Jean Perrot*, Paris, Editions Recherche sur les Civilisations, 137-42; EO Negahban, 1991, *Excavations at Haft Tepe*, Iran, Philadelphia: University Museum Monograph 70: III.48; D.T. Potts, 1999, *The Archaeology of Elam*, Cambridge University Press, p. 200] The texts from Haft Tepe temple complex (Table 7.2 in DT Potts, 1999) refer to accounts of silver paid for bracelets, of silver and gold, commodities such as flour, linen, chariot parts, lapis lazuli, bronze, armour plates, belts, weights of talents and minas; reference to guards and funerary offerings.

A similar ligature occurs on a Mohenjodaro seal, m0712:



m0712  1091 Note Sign391  ligatured on the animal's neck.

era, eraka = nave of wheel (Ka.); rebus: **era, eraka** 'copper' (Ka.)

gun.d.ige = thorax, chest (Ka.lex.)

va_han.a_ = neck, throat (Pkt. Lex.) vahas = the shoulder of a draught animal (S'Br.)(Skt.lex.)
vaha = shoulder of an ox (AV.Pkt.); ba (A.)(CDIAL 11459)

va_kara = warrior; va_hin.a_h = commander of an army; va_har. = young bull

va_karan- = warrior; learned person; va_kan- = beautiful person; watchman; porter (Kathirvelpil.l.ai Tamil lexicon) va_haka = a driver or attendant of cattle (EI3, IEG); va_hali = official designation explained as 'the lord of horses' (BL, IEG) va_hini_pati = leader of forces; a general (EI 28; IA 10, IEG) va_hini = a self-sufficient division or unit of an army (Te.lex.) va_hin.i_ = army, a force; a troop; a number, multitude; va_hin.a_ha [va_hin.i_ + n.a_h or na_tha], va_hin.i_s'a = sena_pati, commander of a force or commander of an army (Pt. Hargovind Das T. Seth, 1928, *Pa-ia-sadda-mahan.n.avo, a comprehensive Prakrit-Hindi dictionary*, Delhi, Motilal Banarsidass – Pkt.lex.) vaha_n.avat.i_ = a sailor; a merchant who carries his merchandise in ships to a foreign country; a great merchant; vaha_n.avat.um = voyaging in ships; a sea-voyage (G.lex.) va_hana = an army (S'is. Xix.33)(Skt.lex.)

garn.d.a_lu = stalwart man, giant (Tu.); kan.t.an- = warrior (Ta.); kin.t.an = big; a stout, bulky fellow (Ma.); gan.d.a = a strong, manly male person (Ka.); gand.u~d.u, gan.d.a~d.u = a brave, strong man (Te.); gan.di_ra hero (Skt.)(DEDR 1173).

gan.d.a_d.u = to copulate (Te.)(DEDR 1173). [Note glyphs showing copulation].

kandala = a new shoot or sprig (Ka.lex.)
kandal.amu = a germ or shoot, a sprout (Te.lex.) [Note the sprig on the headdress of standing persons]. **kan.d.ike** = a stalk or stem (Ka.lex.)
kandala = skull (Ka.lex.)

kan.t.ha_l.a, kantha_l.a = a double sack with which asses, mules etc. are laden (G.lex.)
kandal.amu = a pack-saddle; kandarikamu = a pad put under the pack-saddle; kantha = a patch-

work quilt; a rag (Te.lex.) **kan.t.a_lam** travelling sack placed on a bullock, pack-saddle (Ta.); kan.t.ale, kan.t.a_l.a, kan.t.a_l.e, kan.t.l.e double bag carried across a beast (Ka.); kan.t.a_lamu, kan.t.lamu bullock-load consisting of two bags filled with goods (Te.)(DEDR 1174). kan.t.ha_l.i_ a bag having opening in the middle (Mara_t.hi_). kan.t.a_l.averutu = pack-bullock (TED. Ta.lex.) **kan.t.ale, kan.t.a_l.a, kan.t.le** = a double bag carried across a beast (Ka.); kan.t.ha_l.a (M.); kan.t.a_la, kan.t.la (Te.); kan.t.a_lam (Ta.)(Ka.lex.) **kantal.am** coat of armour, armour for the body (TED. Ta.lex.). kattal.amu = armour for the body, coat of mail (Te.lex.)

kan.t.a_lam, kantal.am = battle, war (TED. Ta.lex.) cf. **kantar..i** = theme of celebrating the destruction of Ba_n.a's fortress by Kr.s.n.a (TED. Ta.lex.) **ka_du** to kill, murder; murder (Ta.)(DEDR 1447). **kandala** = war, battle (Ka.lex.) **ka_da_d.uni** = to fight; ka_d.a_t.a = a fight, war, battle (Tu.lex.) **kadanamu** = battle, combat, an encounter; slaughter (Te.lex.) ka_du = to war, to fight; to fight, to contend with (Ka.Ta.Tu.); ka_duha = fighting (Ka.); ka_disu = to cause to fight (Ka.)

kandali = a species of deer (Ka.lex.) **kandali, kadali** = a small deer (Te.lex.) [Note the dotted circle, **kandi**, orthographically emphasized on the eye of the deer].

kander-a = the eyelid (Te.lex.)

kan.d.ali = a kind of billhook or cleaver (Ka.M.)(Ka.lex.)

kan.dla gold or silver wire; **kan.dle kash** one who draws silver thread (P.lex.)

kot.t.u spade (Ta.)

[kot.t.u-k-kan-n-a_r = coppersmiths using drill; braziers who work by beating plates into shape, not by casting; kot.t.u-ccempu = copper pot made by beating plates into shape; kot.t.u = perforate (Ta.)] kot.t.uva_n- = brazier who works by beating plates into shape (Ta.)

kor.a_ = to dig, bore through, pierce (B.); ko_t.ayate_ = breaks (Dha_tup.); kor.na_, korna_ = to dig up, scrape out, carve (H.)

a_ca_ri **kot.t.ya** = forge, kamma_rasa_le (Tu.)
kod. = place where artisans work (G.)

kot.iyum [*kot.*, *kot.i_* neck] a wooden circle put round the neck of an animal (G.)
ko_d.iya, *ko_d.e* young bull; adj. male (e.g., *ko_d.e du_d.a* bull calf), young, youthful;
ko_d.eka~_d.u a young man (Te.); *ko_d.e_* bull (Kol.); *khore* male calf (Nk.); *ko_d.i* cow; *ko_r.e* young bullock (Kond.a); *ko_d.i* cow (Pe.); *ku_d.i* id. (Mand.); *ko_d.i* id., ox (Kui); *ko_di* cow (Kuwi); *kajja ko_d.i* bull; *ko_d.i* cow (Kuwi)(DEDR 2199). *kor.a* a boy, a young man (Santali) *go_nde* bull, ox (Ka.); *go_da* ox (Te.); *konda_* bull (Kol.); *ko_nda* bullock (Kol.Nk.); bison (Pa.); *ko_nde* cow (Ga.); *ko_nde_* bullock (Ga.); *ko_nda_*, *ko_nda* bullock, ox (Go.)(DEDR 2216).

kot.i banner, flag (Ta.); top, extremity, flag, banner, sprout (Ma.); *kod.i* point, end, sprout, flag (Tu.); tip (Te.)(DEDR 2049). *kot.i-dhvaj* a man on the top of whose house there is a banner to show that he possesses a crore of rupees, a millionaire (G.)

karoliyo, *karoliyo* a seller of earthen pots (G.); skt. *kaula_laka*

kot.i_ the highest point (G.)

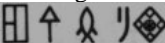
kot.ho the upper part of an angarkha (G.)

kot.i creeper (Ta.Ma.)(DEDR 2050).

kho~edak, *kho~edok* a pit, a mine (Santali)

List of possessions: Copper ingot merchant, metal furnace



m0296 Two heads of one-horned bulls with neck-rings, joined end to end (to a standard device with two rings coming out of the top part?), under a stylized tree with **nine leaves**.  1387

kamat.ha 'ficus religiosa'; rebus: **kampat.amu** 'furnace'.

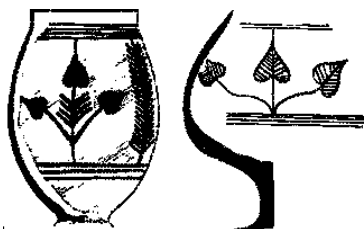
Substantive: *lo* 'iron' (Assamese, Bengali); *loa* 'iron' (Gypsy)

Glyphs: *lo* 'nine' (Santali, Desi); *lo* 'a species of fig tree, *ficus glomerata*' (Santali) [That is, glyphs showing nine 'leaves'.] If tied to a bull or gaur, the

phrase can be: *lo + sal* 'iron workshop'.

Substantive: *aduru* 'native metal'.

ad.rna_ to twist back one's limbs or bend the body inward (as under threat of a blow)(Kur.); *ad.re* to strut; *ad.ro* a swaggerer (Malt.)(DEDR 108). [cf. the glyphs of antelope and tiger with their heads turned backwards.]



ad.aru twig; *ad.iri* small and thin branch of a tree; *ad.ari* small branches (Ka.); *ad.aru* twig (Tu.)(DEDR 67).

Goblet, black on red slip, Nausharo ID, Kachi Plain, Baluchistan (After Samzun, A., 1992, Observations on the characteristics of the pre-Harappan remains, pottery, and artifacts at Naudsharo, Pakistan (2700-2500 BCE) in: C. Jarrige, ed., *South Asian Archaeology 1989*, 245-252, Madison, Wisc.: 250, fig. 29.4, no.2, Mission Archeologique de Indus.

Goblet. Mundigak IV, 1, eastern Afthanistan (After Casal, J.M., 1961, *Fouilles de Mundigak, I-II, Memoires de la delegation archeologique francaise en Afghanistan 17*, Paris. II: fig. 64, no.171, Delegation Archeologique Francaise en Afghanistan.

A twig of three ficus leaves are shown on the Nausharo goblets: **t.ebra** = three; rebus: **tambra** = copper; ficus religiosa = **loa**; rebus: iron '**loha**'; twig = **aduru** 'metal'

khu~t.a_, *khu~t.i_* wooden post, stake, pin, wedge; *kut.hara*, *kut.a_* ram = post around which the string of a churning stick winds; churning pot

There is an intriguing lexeme *nyoh* in Khotanese which connotes 'nine'. [Whence *y*? *-h* from Persian? Belvalkar Vol. 94]. Is it possible that *n-* in *nyoh* was derived from *loh*? The transformation *lohe* > *nohe* is attested in Santali. *lohe*, *nohe* = v.a.disregard, disown, disobey (Santali); *nohe* = is not (B.)(Santali.lex.) **lo** = nine (now often heard)(Santali); **lo** (desi); *noe* (B.)(Santali.lex.Bodding) *nava* = nine (RV.Pali); *n.ava* (Pkt.); *nau* (D.); *no*, *nu_* (Ash.); *nu~_* (Wg.); *nu_* (Pr.); *no~_* (Dm.); *na_h* (Tir.); *nawa*, *na_u*, *na_* (Pas'); *nu_* (Shum.); *nu~_* (Gaw.); *no_* (Kal.); *nyoh* (Kho.); *nah*, *num* (Bshk.); *nom* (Tor.); *nau_* (Kand.); *nau_* (Mai.); *no_u* (Sv.); *nau*, *nu_*, *nu~_* (Phal.); *nau~*, *na_u_* (Sh.); *nav*, *nau*, *nam*, *na_u* (K.); *na_va* (S.); *no~_*, *nau_*, *nao~* (L.); *nau~*, *nau* (P.); *nao* (WPah.); *nau*, *no* (Ku.); *nau* (N.); *na* (A.B.Or.); *naa* (Or.); *nau* (Bi.Mth.Aw.H.); *nam* (H.); *nova* (Omarw.); *nav* (G.); *nav*, *nau_* (M.); *nav* (Kon.); *nava* (Osi.); *namaya* (Si.); *nuva* (Md.)(CDIAL 6984). *Navaka* consisting of 9 (RV Pra_t.); collection of 9 (R.); *n.avaga* (Pkt.); *nomu* (K.); *nawwa_*, *namma_* (H.); *navvo* the 9 in cards (G.)(CDIAL 6985).

Since the rebus uses Santali lexeme it is apparent that the numeric counting (often indicated by short linear strokes to connote the count of countable objects) uses Munda substrate. The Santali numerals are:

mit eka one; bar barea don two; pea pe pene three; pon, ponea, car four; **mo~r.e~** five; **turui** six; **eae**, sat seven; iral eight; are, **lo** nine; gel ten.

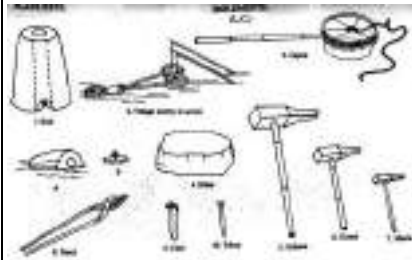
lo = nine (Santali.lex.)

loe (longe) the penis; loe!-go to have a penis; cakurako kako loeakana, hermaphrodites have no penis (Mundari.lex.)

loa = a species of fig tree, *figus glomerata*, Roxb. (Santali.lex.) loa = the fig tree, *figus glomerata* and its fruit. Loa bele jom dela = come along to eat figs; loa talsa jomteko bancaena they were saved (kept alive) by eating fig-flour. The unripe figs are steamed and when dried husked in a mortar; a small vessel is heated, whereupon some oil is poured in; when this is boiling the figs are thrown in, salt and spices are added; when ready this is eaten as curry. The juice of the tree is used as a remedy against boils, also as a kind of lime. Bahu loa = a kind of fig tree, the figs of which expand and break like a flower. ? *figus tiela*, Roxb. (Santali.lex. PO Bodding) **loa** = the fruit of *figus glomerata*, *figus lanceolata* or *figus carica*; loa-daru (Sad. Dumair) *figus glomerata* (Mundari.lex.)

loha = iron utensils and implements (Santali.lex.) loha = red, copper-coloured (S'rS.); made of copper (S'Br.); copper (VS); iron (MBh.); lo_ha metal, esp. copper or bronze (Pali); iron (Pkt.); liha, lihi, elhas, loa (Gypsy); loa steel (Wg.); loh copper (Kho.); lohu iron (S.); loha_, loa_ (L.); loha_ (P.K.); lo~u, lo_, lo_h, luha_, loha_ (WPah.); luwa_ (Ku.); lohu, loha_ (N.); lo (A.B.); no (B.); loha_, luha_ (Or.); loh (Mth.); loha_ (Bhoj.H.); lo_h (Aw.); loh (H.G.M.); loho, lo_ metal, ore, iron (Si.); ratu-lo_ copper (Md.)(CDIAL 11158). Lo_haka_ra iron-worker (Skt.); coppersmith, ironsmith (Pali); loha_ra blacksmith (Pkt.); luha_ru (S.); loha_r, loha_ri_, luha_r (L.); luha_r (WPah.); loha_r (N.B.Bi.Bhoj.Aw.H.); lova_r (G.); lo_varu coppersmith (Si.)(CDIAL 11159). lohsa_ri_ smithy (Bi.)(CDIAL 11162). Loh large baking iron (P.); luhiya_ iron pan (A.); lohiya_ iron or brass shallow pan with handle (Bi.); frying pan (G.)(CDIAL 11179). lauha made of copper or iron (Gr.S'r.); red (MBh.); iron, metal (Skt.); lo_ha made of iron (Pkt.); loha_ iron-coloured, reddish (L.); reddish-brown (of cattle)(P.)(CDIAL 11172a). Note the following riddle, the answer to which is **loa**: gar.a japare nao~a cat.uko hakatada, near the stream they have hung up new pitchers (Mundari.lex.) John Hoffmann and Arthur Van Emelen, *Encyclopaedia Mundarica*, Vol. 16, Pl. XVI, New Delhi, Gian Publishing House, 1990.

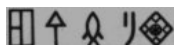
lohar kamar = a blacksmith, worker in iron, superior to the ordinary kamar, a Hindu low caste (Santali.lex.)



lo_hala made of iron (Skt.); lohar, lohariyo self-willed and unyielding man (G.)(CDIAL 11161). Tool-bag: lokhar bag in which a barber keeps his tools (N.); iron tools, pots and pans (H.); lokhar. iron tools (Ku.); lokhan.d. iron tools, pots and pans (H.); lokha~d. tools, iron, ironware (G.); iron (M.)(CDIAL 11171). lod.hu~ pl. carpenter's tools (G.)(CDIAL 11173). karuvi-p-pai instrument-case; barber's bag (Ta.lex.) cf. karuvu-kalam treasury, treasure-house (Ta.lex.) Cobbler's iron pounder: lohaga~ga_, lahau~ga_ cobbler's iron pounder (Bi.); leha~ga_ (Mth.); luha~_gi_ staff set with iron rings (P.); loha~_gi_ (H.M.); lavha~_gi_ (M.); laha~_gi_, loha~gi_ (M.)(CDIAL 11174). Image: frying pan: lohra_, lohri_ small iron pan (Bi.)(CDIAL 11160). lo_hi_ any object made of iron (Skt.); pot (Skt.); iron pot (Pkt.); lo_hika_ large shallow wooden bowl bound with iron (Skt.); lauha_ iron pot (Skt.); loh large baking iron (P.); luhia_ iron pan (A.); lohia_ iron or brass shallow pan with handles (Bi.); lohuyu~ frying pan (G.)(CDIAL 11170). lauhabha_n.d.a iron pot, iron mortar (Skt.); lo_habhan.d.a copper or brass ware (Pali); luha~_d.ir.i_ iron pot (S.); luha~_d.a_ (L.); frying pan (P.); lohn.d.a_, lo~_hd.a_ (P.); luhu~r.e iron cooking pot (N.); lohora_ iron pan (A.); loha~r.a_ iron vessel for drawing water for irrigation (Bi.); lohan.d.a_, luhan.d.a_ iron pot (H.); lod.hu~ iron, razor (G.)(cf. xolla_ razor (Kur.); qole id. (Malt.); hola'd razor (Santali)(DEDR 2141)); lod.hi_ iron pan (G.)(CDIAL 11173).

med.hi, 'pillar' is also shown, apart from nine ficus leaves: lohar kamar: **lo**, 'nine'; **kamat.ha**, 'ficus'.

me_dha = a sacrifice; medho_ho_ta = a sacrificial priest; name of a brahmara_ks.asa; me_dhya fit for sacrifice; me_dha_vi, me_dha_vanta learned man; me_de, me_dha_ understanding, wisdom (Ka.lex.) [cf. the name Ahura Mazda in Avestan tradition].



1387 The fifth sign (left-most) on Text 1387: **kole.l** = smithy, temple in Kota village (Ko.)(DEDR 2133). This sign also appears on a unique seal with three ligatured tigers (**kol**). The first sign is a ligature of four-corners and a spoked-wheel:

The emphatic rings on the neck of the two heifers: **kod.iyum**, reinforces the **kod.**, 'horn'; rebus: kod., 'artisan's workshop'.

Glyph: *sal* a gregarious forest tree, *shorea robusta*; *kambra* a kind of tree (Santali)

Second sign from the right on the text is a composite with a slanted line and a short linear stroke:

Substantive: *kan.t.am* iron style for writing on palmyra leaves (Ta.); *gan.t.amu* id. (Te.)(DEDR 1170) [The owner of the seal had the tool to engrave such an exquisite seal!]

gan.d.e 'to place at a right angle to something else, cross, transverse'; *gan.d. gan.d.* 'across, at right angles, transversely' (Santali)

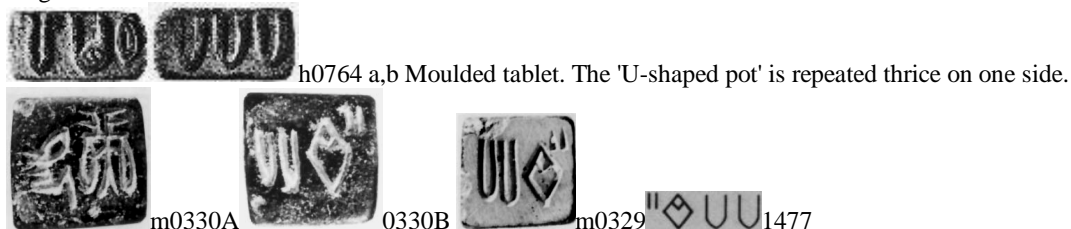
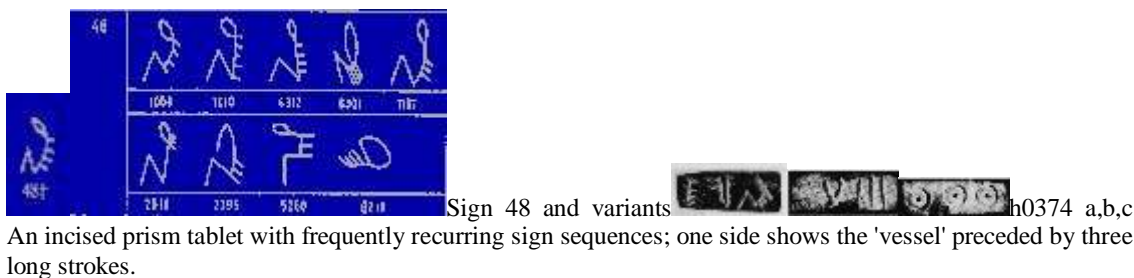
The last sign is a 'wheel' glyph ligatured with (inlaid within) four cornered rombus:

kanda kondo 'with lumps'; rebus: *kan.d.* 'furnace' Glyph: square '*khon.d.*' (Santali)

Glyph: *kanac konoc, kana kona, kana kuni* 'the corners, in the corners' (Santali) Substantive: *kan~cu* 'bronze' (Te.)

Glyph: *kanas* 'ambush, direction, aside; *kanasre okoeeye tabena?* 'Who will lie in ambush? (the person who keeps out of sight near the net into which hares are driven is said to be '*kanasre*'); *khanca* 'a cage, a large basket' (Santali)

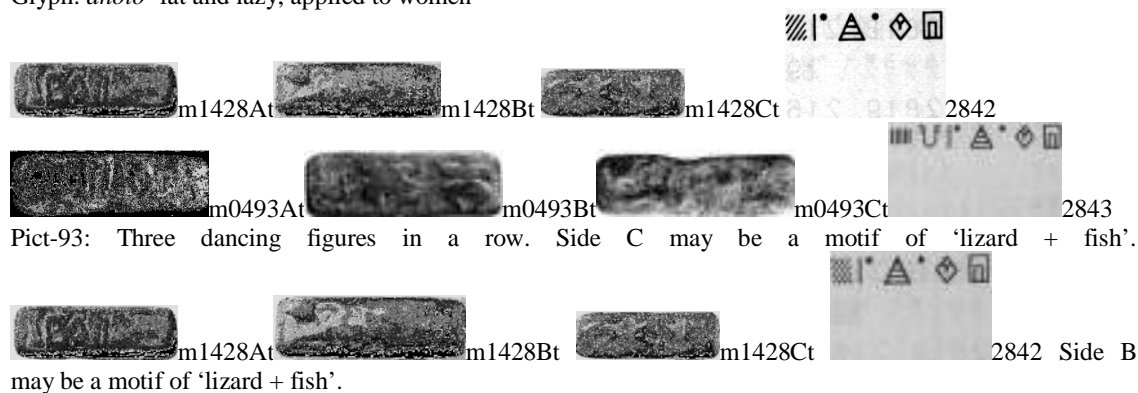
Glyph: *kamsa kamsi, kamsa kadak* 'to jump, to frisk, to gallop'; *kamsao* 'to cause a horse to gallop' (Santali) [cf. the imagery of a jumping tiger. Hence, *kamsa kol* lit. 'jumping tiger'; rebus: copper/bronze furnace] [Note the orthographic style showing the tiger jumping] Hence, the tiger shown may be a kamsi-kula = rebus, bronze kol or bronze furnace. kso = bell-metal tray for food (OMarw.); kenzu = clay or copper pot (K.); ka~_hi = bell-metal dish (A.); kam.sa = bell-metal (Skt.); metal cup (AV); kam.sa = bronze dish (Pali); kan~jho = bell-metal (S.); ka~_h gong (A.); ka~sa_ big pot of bell-metal (Or.)(CDIAL 2576).



me_n.te = a couple (Tu.lex.) **mel.ai** = couple (Kon.lex.)

m330A, reading: **kamar, kan.d., kamat.ha_yo** = smith, furnace, carpenter; m330B, m329: **barea kammat.a, kanac med.** = two portable furnaces, bronze copper (med. 'copper') (glyphs: two **U**'s, corner, splinter) [The splinter glyph can also be read as: **s'al**, splinter, i.e. m329 can be read alternatively as: **kanac s'al** (bronze workshop) **barea kammat.a** = two portable furnaces].

Glyph: *dholo* 'fat and lazy, applied to women'



khod = a step in a dance (Santali.lex.) [Or, *khel* = to play, dance (Gy.)(CDIAL 3918) and *khe_r*. shield (Phal.).]

kod.a, kor.a = in arithmetic one; 4 kor.a or kod.a = 1 *gan.d.a* = 4 (Santali.lex.)

kod. ‘artisan’s workshop’ (G.)

kud.rau, kudrau = to strike with the heel of the fist, not with the knuckles (Santali.lex.) **kudra kudri** = to fight by striking each other with the heel of the fist (Santali.lex.)

kudrau = to propitiate, to appease; *ma bon:geko kudraukotam* = propitiate the objects you worship (Santali.lex.) *kod.hok* = bent, stooping (Santali.lex.) *kud.bur* = to hand or bow the head (Santali.lex.)

kudur, kudur. = sound of footsteps (Santali.lex.) [Note three persons in dancing steps].

kudra = one of the Santal godlets; **kudri** = a female godlet of the Santals; *kudra than* = the place where Pargana Bonga is worshipped (Santali)

dun:ger. ‘a dance danced at the place where the night is spent when out at one of the annual hunts’; *don:ger.* ‘a dance by men only on the evening of the first day of an annual hunt’ (Santali)

belcad.e a devil-dancer (Tu.)

The glyphs showing three fat, dancing persons may connote three *dolan* ‘brick-houses.’ (with) *dokhra* ‘smithy’

Glyph: *ghera* ‘a ring, circle, enclosure’; *gerwel* ‘ring on underside of neck, said of birds such as the Ring dove, the quail etc.’; *gun.d.ri doko gerwelana* ‘quails have a ring round the neck’ (Santali)

Glyph: *baggare* thorax (Kod.); *baggari* id. (Ka.)(DEDR 3815).

Substantive: *bakher* ‘homestead’; cf. *pangal di_na* the plains country (Kui); *pangenga* plains people; *panga ra_ji* the plains (Kuwi)(DEDR 3819).

Substantive: *ke.r, ke.ry* street, exogamous division in Kota village (Ko.); *ce_ri* town, village, hamlet; street, quarters of the Pariahs (Ta.); assemblage,

village street (Ma.); *ke_ri* street (Ka.); *ke.ry* street of Badaga village (To.); *ge_ri* street, passage (Te.); *se_ri* street, quarter; *s’e_ri* lane, alley (M.)(DEDR 2007). [Note: *kentum* phase of the languages]

Glyph: *ko.t.* castle, palatial mansion (Ko.); *kwa.t.* bungalow (To.); *kot.e* fort, rampart (Ka.); *ko.te* palace (Kod.); *ko_t.a* fort (Te.); *kot.t.a, kot.a* fort, stronghold (Skt.)(DEDR 2207).

Substantive: **kod., kod.iyum** place where artisans work (G.)

Glyph: **kod.a_m** shells; *kod.i_* a small cowry; *kod.um* a sea-shell; *kod.o* a large cowry (G.)

Glyph: *ko_t.u* horn (Ta.); *ko.r.* horns (Ko.); *kwi.t.* horn (To.); *ko_d.u* horn (Ka.Tu.Pa.); *ko_r* horn of cattle (Go.)(DEDR 2200).

Thus, the orthography of the one-horned bull is made up of:

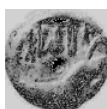
Glyphs: Pannier (*kan.t.ha_l.am*), rings on neck (*gera*), one horn (*ko_t.u*); heifer (*ver.ha*)

Substantives: *garn.d.a_lu* ‘warrior’, *ke.ry* ‘street’, *kot.e* ‘rampart, fort’, *ve_la* ‘worker’ [i.e. fort-street warrior-worker].

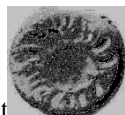
Glyph: *ve_l* petty ruler, chief, hero (Ta.); *be_las* king (Kur.)(DEDR 5545).

Glyph: *bela_* [Dh. Des. *beli_* = Skt. *stambha* a pillar, a support

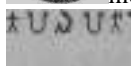
Glyph: *bela*, the sun, time



m0428At



m0428Bt



1607 Pict- 132: Radiating solar symbol.

On this tablet, the rebus interpretation of the radiating solar symbol can be that it relates to arka (akka-) or copper metal. The inscription on the obverse can thus be interpreted as a list of tools made of copper (metal). The two 'man' signs on the inscription may relate to the representation of a (copper-) metal-smith.

5561.Sun: a_r.va_n- the sun (Ta.)(DEDR 396). aru sun (Skt.); yor (Kho.)(CDIAL 612). ravi sun (Mn.Pali.Pkt.); rivi (Si.)(CDIAL 10646). ilaku (ilaki-) to shine, glisten, glitter (Ta.); el sun, light, splendour (Ta.); lustre, splendour, light (Ma.); ilakuka to shine, twinkle (Ma.); ilankuka to shine (Ma.)(DEDR 829). arka flash, ray, sun (RV.); a_k sun (Mth.); akka sun (Pali.Pkt.); aka lightning (Si.); vid-aki lightning flash (Si.Inscr.)(CDIAL 624). aks.an.a_ lightning (Skt.); akkhan.a_ id. (Pali); akan.a, akun.a id., thunder (Si.)(CDIAL 27). pakal sun, the morning sun, day, daytime (Ta.)(DEDR 3805). an:ki sun (Tirukka_l.at. Pu. 30,14); fire; agni (Kantapu. Pa_yira. 53); an:kicuma_li a deity representing the sun, one of the tuva_taca_tittar (Ta.lex.)axrna_ to warm oneself (by the fire, in the sun)(Kur.); awgre to expose to the heat of the sun or fire; awgre to bask in the sun, warm oneself to a fire (Malt.)(DEDR 18).

kona_rka is a compound: kona, 'corner'; arka, 'sun'. arka also connotes fire in Skt.

Metal: akka, aka (Tadbhava of arka) metal; akka metal (Te.) **arka** = copper (Skt.) cf. arh, argha a collection of twenty pearls (having the weight of a Dharan.a) VarBr.S.; worth, value, price, Mn. Ya_jn~.; arghya = valuable (Skt.)

akka-ca_lai metal works (Cilap. 16,126, Urai); mint; akkaca_laiyar goldsmiths, jewellers (Ta.lex.) 5952a.Workshop of a goldsmith: aka-sa_la, aga-sa_la, aka-sa_liga, aka-sa_le a gold or silversmith; aka-sa_like the business of a gold or silver smith; akka-sa_le, aka-sa_le the workshop of a goldsmith; a goldsmith; akka-sa_liti a woman

of the goldsmith caste (Ka.); akka-c-ca_lai a shop where metals are worked (Ta.)(Ka.lex.)

arka connotes the sun and also saturn in Skt. This an equivalence is noticed in Greek manuscripts: "...as Boll discovered, this practice of "correcting" the name of Saturn, from Helios to Kronos, was quite common among later copyists. Based on his reading of the most original Greek manuscripts, Boll drew a startling conclusion: the sun god Helios and the planet-god Saturn were "one and the same god." Now if this only seems to accentuate the puzzle, there is more. Hindu astronomical lore deemed the planet Saturn as Arka, the star "of the sun." And certain wise men of India often asserted that the "true sun" Brahma, the central light of heaven, was none other than Saturn. This in turn, reminds us of a rarely-noted teaching of the alchemists, preservers of so many ancient mysteries. The planet Saturn, they recalled, was not just a planet; it was "the best sun"!" <http://www.kronia.com/thoth/thoth10.txt>



m0317silver 2016



Silver m1199Acolour 2520



Mohenjo-daro. Copper seal. National Museum, New Delhi. [Source: Page 18, Fig. 8A in: Deo Prakash Sharma, 2000, *Harappan seals, sealings and copper tablets*, Delhi, National Museum].



h868ABt



h86



9ABt



h859At



h859Bt

[One of the more frequently occurring sequence of epigraphs; tablets in bas relief.]



Kalibangan069A



h8109

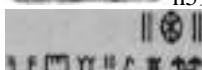
[Another frequent tablet epigraph.]



h598A



h598D



5073 [The ligature in-fixed on the last sign of the second line may be Sign



54]

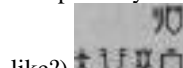


h1018copperobject Head of one-horned bull ligatured with a four-pointed star-fish (Gangetic octopus?)



m0297a Head

of a one-horned bull attached to an unidentified five-point symbol (octopus-



like?) 2641

ver.ha_ octopus, said to be found in the Indus (Jat.ki lexicon of A. Jukes, 1900)

This may be interpreted as a determinative of the grapheme: 'young bull'. [Could be a phonetic determinant for the substantive delineated by the one-horned heifer-bull, **va_hur.o**]. The star-fish glyph is viewed as a phonetic determinant of the one-horned animal which is a young male bull calf. The imagery of 'surrounding' is denoted by val.ai to surround (Ta.); val.aiyam ring (Ta.); val.a bracelet (Ta.); bal.e bracelet, hoop (Tu.); val to turn, turn round; valaya bracelet, ring, girdle, circle (Skt.)(CDIAL 11405, 11407; DEDR 5313). cf. val. sharpness, pointedness (Ta.); val.i (knife) to have cutting edge (Pa.); var.s to be sharp (Kond.a)(DEDR 5306).

[A phonetic determinant for the substantive delineated by the one-horned heifer-bull, **vehar.**] va_har., vohur., **vehar.** young bull (L.); vehir. heifer; va_hr.ka_, vehr.ki_ (L.); **vahar.**, vahir.a_, bahir.a_; vahir., bahir., vahir.i_, bahir.i_ (P.); bahar. young bullock (Ku.); bahar (N.); vahas shoulder of an ox (S;Br.); vaha shoulder of an ox (AV); vahata, vahatu = ox (Skt.); vaha shoulder of an ox (Pkt.); ba (A.); vahad.a calf to be trained (Pkt.); vahur.o young bullock (S.); vahur.i_ heifer (S.)(CDIAL 11459). Pack-bullock: pahur. animal for sacrifice (Santali.lex.) paghaia pack-bullock (Santali.lex.) phe~t.ar. a heifer (Santali. lex.)

ka_ma_rkod.ken~ = forge, i.e. artisan's workshop (Kon.); **kod.** = artisan's workshop (which is depicted by a curved horn); hence, **va_ura_d.i, va_ura_d.ia_**, 'workman' (Kon.lex.) **kod.ken~** can also be depicted by the **kot.ukku**, 'claws' of a crab. **va_ur kar, va_ur** = work (Kon.lex.)

A phonetic determinant (of the one curved horn, kod.u) very vividly shown on the shoulder of the one-horned bull is a pannier. **go~r.e~** = a pannier, a bag slung across a bullock's back, one on either side (Santali.lex.)

gon.d.a, kon.d.a = fire-pit (Kon.lex.) [Associated with **vahur.**, worker of the artisan's workshop depicted by a one-horned bull: **vahur.**, 'heifer'; **kod.** 'one horn'. The decoding of the one-horned bull and the orthographic ligatures is thus re-inforced: the owner of the seal is a worker of a fire-pit workshop.

got.i_ 'lump of silver' (G.)

god.et = one of the officials of a Santali village;
serma god.et = heavenly messenger, angel
(Santali.lex.) **ko_d.eka_d.u** = a young man
(Te.lex.) **kot.al** = watchman (Santali.lex.)
kot.t.ika_d.u, ko_t.ika_d.u, kot.ika_d.u =
watchman (Te.lex.)

va_holo = adze; vahola_ = mattock; bahola_ = a
kind of adze (P.lex.) Mattock, adze:bahola_ adze
(P.); basulo (N.Ku.< P.); basu_la_ (Bi.); basula_
(Mth.); basola_, basu~_la_ (H.); va_hola mattock
(S.); vahola_ mattock (L.)(CDIAL 11588).
7477a.Spade, mattock, hoe: phaur.o a kind of
mattock, spade (Ku.); pharuwa_ mattock, hoe
(N.); phya_uri long-handled implement for
levelling rice-field (N.); pha_ura_, pho~r. spade,
hoe (B.); pha_ur.a_ digging hoe (Or.); phahuri,
pharuhi_, phar.ua_, phar.uhi_ scraper for making
banks of irrigation beds (Bi.); pha_wr.a_,
phaur.a_, pharuwa_ mattock, hoe; pharu_ha_ a
kind of rake or hoe (H.); pha_vd.a_ large hoe (esp.
a wooden one)(M.); pha_vd.i_ wooden hoe-
shaped instrument for skimming molasses, large
hoe; pha_vd.e~ hoe or scraper (M.)(CDIAL
13839).

Fish vaguli (Ta.), va_gu (Ka.),
baggad.e (Ka.); va_gat.e_ (M.)

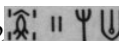
vanju = seer fish (Te.) **va_holo**
(S.), bahola_, basula_ (P.), basilo (N.),
behalo, behil (WPah.), basulo (Ku.)

Stream vaho_la (Pkt.); va_hur.u = backwater
(S.)

va_gal.amu, va_gal.lamu = circular space round
a threshing floor (Te.lex.)



m0232



2234

'Unicorn'
with two horns! "Bull with two long horns
(otherwise resembling the 'unicorn')", generally
facing the standard. That it is the typical 'one-
horned bull' is surmised from two ligatures: the
pannier on the shoulder and the ring on the neck.

The 'one-horned' bull with two horns and two
heads ligatured to the body of a bull!

Squirrel and glyphs on weapons



[The first sign may be a squirrel as in Nindowaridamb 01 Seal].

Squirrel

A harp **sani_i** (P.)



Sign 187

sanni_, **sannhi_** = pincers, smith's vice (P.)



tša_ni, **tša_nye** = squirrel (Kon.lex.) [Alternatives: tor. = squirrel; sega = squirrel; sisiar.in. = squirrel (Santali.lex.) Rebus: tor.a = a bag for holding money carried bound round the waist underneath the clothing, a long narrow purse; sisiar.i = thin, slim, as a stick (Santali)] **canil**, **can.il** (Tu.), an.n.al (Ma.), an.n.a_n (Ma.), an.il, an.ilam (Ta.) [Tol. po. 561] **sanja_b** = the grey squirrel (U.Pers.)

sanil (Tu.); **sa_n.a_**, **s'a_n.a** (M.), **saniyamu** (Te.) = a bayonet or short dagger; [san.gi_n, s'ani_n = bayonet; hard, solid (P.); san:gin = bayonet (Santali)] **san:gin** = steel dagger at the end of a gun (G.), **can-iyān-** = bayonet, **kuttuva_l**. (Ta.)

san.g = a stone; **aki_k** or carnelian stone (P.) a chisel for cutting metals

s'a_ne, **sa_n.e**, **sa_n.ekallu** = a grind-stone; a whetstone; **sa_n.e** pattuni = to grind, to sharpen (Tu.lex.) **sa_na** = a grindstone, a whetstone, a hone; a kind of fine sandstone on which sandal paste is prepared; **sa_nakatti** = a kind of sword; **sa_napat.t.u** = to grind, as a knife, etc. to cut and polish as a precious stone (Te.lex.)



sa_na = a demon shrine (Tu.); **stha_na** (Skt.)(Tu.lex.)

san:gil = to look up, to raise or throw back the head (Santali.lex.)

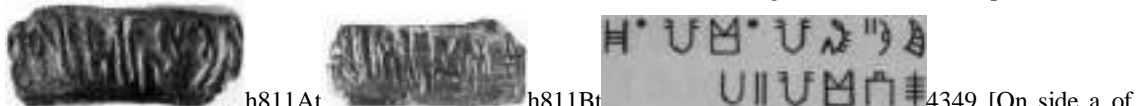
Nindowari-damb01 Seal from Nindowaridamb. The sign that appears close to the horn of the bull is a squirrel. (cf. Asko Parpola, 1994, p. 103).



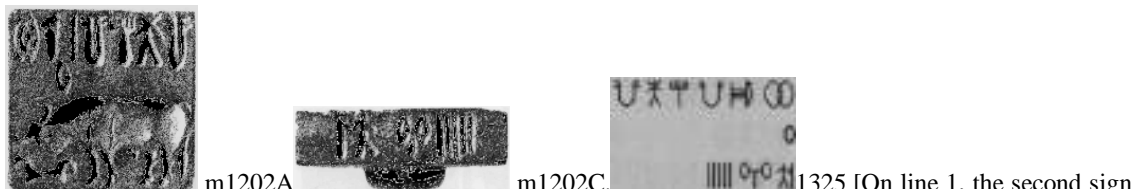
Squirrel sign



h771At h771Bt 4678 [The second sign on line 1 is a squirrel].



h811At h811Bt 4349 [On side a of h811, the first sign on the left is a squirrel].



m1202A m1202C 1325 [On line 1, the second sign from right is a squirrel]. Space on the side of the seal was used to inscribe a third line.

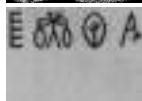
Weapon shapes



h189A



h189B



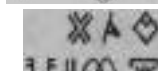
4341 Pict-126: Anchor?



h236A



h236



B 4658 Incised miniature tablet.
Object shaped like fish or sickle? h825A h825B



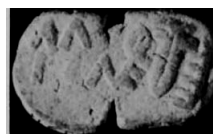
h237A



h237



B 5337



h232A



h23

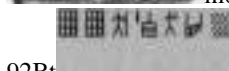
2B tablet in bas relief 4368 Inscribed
object in the shape of a double-axe.



m0592At



m05



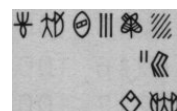
92Bt 3413 Pict-133: Double-axe (?)
without shaft. [The sign is comparable to the sign
which appears on the text of a Chanhudaro seal:
Text 6402, Chanhudaro Seal 23].



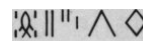
Chanhudaro23

Goat-antelope with a short tail.

The object in front of the goat-antelope is a double-axe.

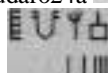


6402



Chanhudaro24a

6116



h816Bt

4602



h817At



h817Bt Inscribed object in the shape of a double-axe. One or more dotted circles.



h818At



h818Bt Inscribed

object in the shape of a double-axe.



4376



h819At



h819Bt

Shape of object: Blade of a weapon?



5302



h821At



h821Bt Shape

of object: axe.

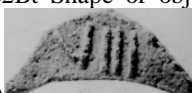


h822At

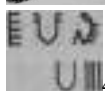
h822Bt Shape of object: axe.



h233A



h233B



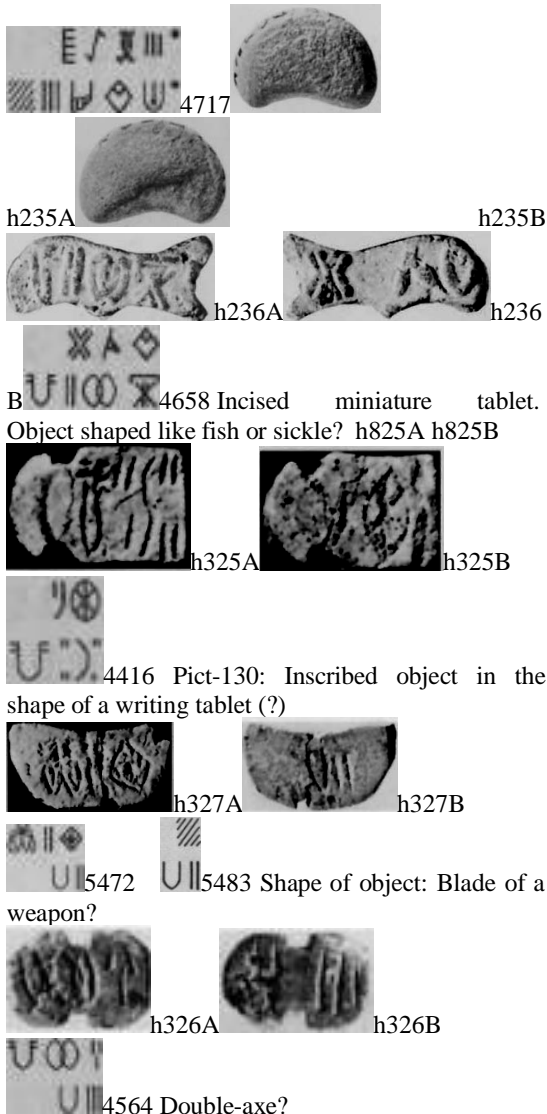
4387 Tablet in bas-relief. Sickle-shaped.
Pict-131: Inscribed object in the shape of a crescent?



h234A



h234B



Substantive: *bar*, *bar.i* house, household; *cas bari*, *cas bar.i* farm and stock; *cas*, *casbas* cultivation; growing crops; *casedale* we cultivate (for a living); *cas bar.i* a farm, an agricultural holding; *cacasic* a husbandman; *casa* a husbandman, a farmer (Santali) *ba_r* [Dh. Des. *dva_ra_yi_*, *duva_ra_i_*, fr. *dva_ra_ni* door, fr. *dva_ra* a door] a door; a courtyard in front of a house; *ba_ran.um* a door; a gate; an entrance; the courtyard in front of a house (G.)

Substantive: harbour: *ba_rum* a door; a gate; an opening; a harbour; a haven; a port; the mouth or entrance of a harbour; *ba_ri_* a window, a sally-port; an escape (G.)

bha_ravum to keep live coals, buried in the ashes; *ba_ran.iyo* one whose profession is to sift ashes or dust in a goldsmith's workshop; *ran.i_* a small part of gold handed over to a goldsmith to make ornaments of [Hem. Des. *rayan.i_* fr. Skt. *ratni_* a small jewel](G.)

Glyph: *bar*, *barea* two (Santali)

Glyph: *garo* eleven (Santali)

Glyph: *ga~r.a~* shoot springing for toot of a plant (Santali)

Substantive: *garia* in comp. possessed of; doer or agent; *badgaria* wise; *bal garia* strong; *dahgaria* envious; *rojgaria* one who provides for daily wants (Santali)

The first sign may be: *kol* 'smithy, blacksmith' of *bolom* 'spear'; rebus: *bal* 'iron ore' or, *dol* 'arrow'; rebus: *dolan* 'a large house built of brick or stone having a flat terraced roof' (Santali) *d.olo* gain, profit; an important business (G.)

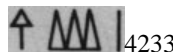
Glyph: fish '*hako*'; rebus: *hako* 'axe'

bar, *barea* 'two'; *bari_* 'blacksmith'; thus, the two heads of one-horned bulls may connote: *bari_vahoro* (glyphs: two, heifers); substantive: blacksmith, trader. The nine leaves connote: *lo* (nine); *lo* (figus); *lo* [*loha*, metal (copper)].

bari_ = blacksmith, artisan (Ash.)(CDIAL 9464). *bari_*, *ba_ri_* (Wg.); *bari_* (Kt.); *ba_ri_* (Pr.) *bha_ran.* = to spread or bring out from a kiln (LO.); *bha_rvu~* = to keep live coals buried in ashes (G.); *bha_rm.e~*,

bha_l.n.e~ = to make strong by charms
(weapons, rice, water), enchant, fascinate
(M.)

The staff (+ sheaf?) with a ligatured device in the center may connote: *kan:gra* 'portable furnace' (as a possession of the seal owner, together with other possessions indicated by the epigraph, text 1387). The two heads are joined into the device with dots, perhaps connoting dotted circles. A pair of beads are seen to be emanating from top of the device, below the branches with nine ficus leaves. *ha_s* 'beads'; *hasanti* 'furnace'



Nippur; ca. 13th cent. BC; white stone;
zebu bull pictograms and **two**

Glyphs: 'joining' 'a staff'; brahmani bull: ad.ar
d.angra Brahman.i bull; rebus: aduru 'native metal';
d.han:gra 'smith', i.e. metalsmith.

Alternative:

khun.t.iyo an uncastrated bull (Used in
Ka_t.hia_wa_d.); *khu_n.t.ad.um* a bullock (used in
Jha_la_wa_d.) (G.)

khun.t.i 'a post' (Santali) *khun.t.um* a stump; portion
of a tree or plant left in the ground; *khu_n.t.iyum* an
upright support in the frame of a wagon (G.)

khun.t.au 'to tie or bind to a post' (Santali)

Glyph: *khan:ghar*, *ghan:ghar*, *ghan:ghar gon:ghor*
'full of holes' (Santali)

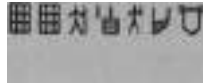
Substantive: *kan:gar* 'portable furnace' (K.) *kag*
deep pool in river (Ko.) (DEDR 1085).



m0519At



m0519Bt



1710

berga small of stature, under-sized, as an ox (*berga*
d.an:gra okaenae? Where is the undersized ox?
(Santali) [*begri* lapidary (H.)]

d.an:gra an ox, a bullock; *mun.d.ra d.an:gra* a
polled ox; *ran:gia d.an:gra* a red ox; *d.an:gri* cattle in
general, a cow (Santali.lex.) [cf. *kot.u* (Ta.) > *d.o_ng*
(Kuwi) bent, crooked (DEDR 2054). cf. *mat.an:kal*
bending, being bent, crook, angle (Ta.) (DEDR
4645)]. *d.ege* old, weak (Wg.); *d.a_g*, *d.ye_g* old
(Wot.); *d.aga* (Gaw.); *d.a~_go* lean (eg. of
oxen) (Ku.); *d.ha~_go* lean; skeleton (Ku.); *d.a~_go*
male of animals (N.); *d.a_n.* wicked (A.); *d.a_n:ga*

one who
is
reduced
to a
skeleton
(Or.);
dan:gor
lazy



(Bashg.); *d.angur*, *d.angaras* fool (K.); *d.an:gar*
stupid man (P.); *d.a_n.re* large and lazy (N.); *d.in:gar*
contemptuous term for an inhabitant of the Tarai
(N.); *d.in:gar* vile (B.); *di~_glo* lean, emaciated (Ku.);
d.in:gu crook; *d.in:go* crooked (S.); *d.in:ga_* (L.P.);
d.i~_go, *d.in:go* abusive word for a cow (N.);
d.hagga_ small weak ox (L.); *d.han:garu* lean
emaciated beast (S.); *d.hin:garu* id. (S.) (CDIAL
5524). *t.u_n.d.a_* decrepit (L.); *t.un.d.a* one who has
a naturally crooked or withered arm (K.) (CDIAL
5468). *d.ha~_kal.*, *d.ha~_ku_l.* old and decaying,
bare of leaves etc. (M.); *d.han:garu* lean emaciated
beast (S.); *d.in:gu* crook; *d.in:go* crooked (S.);
d.in:ga_ (L.P.) (CDIAL 5524). *ton:ku-kir..avan-*
decrepit, old man (Ta.lex.) **Strong:** *tumra* big, strong
(RV.); *trum*, *trom* to dare; *trom* to be able

(Gypsy)(CDIAL 5873). d.an:gur bullock (K.); horned cattle (L.); d.a~gar horned cattle (L.); d.an:gar cattle (P.); d.an:gara (Or.); d.a~_gar old worn-out beast, dead cattle (Bi.); dhu_r da~_gar cattle in general (Bi.); d.a_n:gar cattle (Bhoj.); d.a~_gar, d.a~_gra_ horned cattle (H.); da~_gar id. (H.); d.hagga_ small weak ox (L.)(CDIAL 5526).

Bulls and other animals are represented in sitting posture, both a. in profile and b. also seen from the front with their legs turned to either side. One bull with one horn is carrying daggers and tongs on either hand. Protol-Elamite seals from Susa, c. 3000-2750 BCE. [After Amiet 1980: pl. 37, no. 570 and 569].

d.an:gr.a (Sad.) = the time of youth; adj. With kor.a or hor.o, a young man, a youth; asul-dan:gr.a = to bring up to manhood; dan:gr.ane = like a young man; dan:gr.a-dan:gr.iko = collective noun, the youths and maidens (Mundari.lex.) d.an:ggar = a stupid, a simple man (P.lex.)

dhagun sagun = bristly, coarse (Santali.lex.) dandle = hair hanging loose, hair unfastened and unkempt (Santali.lex.)

Sign 48 and variants [Orthography: seated skeletal person].**d.ha~go** = skeleton; lean (Ku.); d.a_n:ga = one who is reduced to a skeleton (Or.); d.a~_gar, d.a~_gra_ = starveling (H.); d.ha~_kal., d.ha~_ku_l. = old and decaying (M.); d.ege = old, weak (Wg.)(CDIAL 5524).

Glyph: *ur-ukku* to jump, leap over (Ta.); *uRk* to run away (Kond.a); *urk* to dance (Kuwi)(DEDR 713). Substantive: *urukku* steel, anything melted, product of liquefaction (Ta.); *urukku* what is melted, fused metal, steel (Ma.); *uk* steel (Ko.); *urku*, *ukku* id. (Ka.)(DEDR 661).

Dholavira Sign-board

Two views of the find-spot in Dholavira (Kotda) on Kadir island, Kutch, Gujarat, of a 'sign-board' inlaid with signs; each sign is 37 cm. high and 25 to 27 cm. wide and made of pieces of white crystalline rock; the



inscription with the set of 10 signs was found near the western chamber of the northern gate of the citadel high mound (Bisht, R.S., 1991, Dholavira: a new horizon of the Indus civilization. *Puratattva*, Bulletin of Indian Archaeological Society, 20: 81; Bisht, 1991: 81, Pl. IX; now also Parpola 1994: 113). The signs were apparently inlaid in a wooden plank ca. 3 m. long; maybe, the plank was mounted on the facade of the gate to command the view of the entire cityscape. Some archaeologists believe that the gate was an entry into the upper town.

Evidence of trading links between communities in the Sarasvati-Sindhu Valleys

and Mesopotamia exists from as early as about 2600 B.C. lead us to surmise that the sign-board should also have been visible to the traders sailing on boats into the port-town of Dholavira on the Gulf of Kutch which should also have been a water-way circa 5500 years ago linking with the Makran Coast (south of Karachi) and the Persian Gulf.

Ten signs on the sign board



Ten signs presented on a monolithic sign-board of Dholavira (Kotda):

The 'spoked circle' sign seems to be the divider of the three-part message, advertising the processing facilities of a smelter/metal-smith's workshop.



The glyph could be **era**, **erka** 'nave of wheel'; rebus: **era**, **eraka** 'copper'. The third sign from left could be a glyph of **kamat.ha** 'figus leaf'; rebus: **kamat.amu** = a portable furnace for melting precious metals (Te.)

The left-most part of the three-part message could connote: portable furnace for melting copper, tin (?) [The second sign from left could be **khu~t.i** 'pin or peg' (M.); rebus: **kut.hi** 'smelting furnace' (Santali)]

The middle part of the three-part message could connote: copper, bronze (**kanac** 'corner'; rebus: **kan~cu** 'bronze' (Te.), mineral (**dha_tu**; rebus: **d.a_t.o** 'plug or cork'); **kod.** 'workshop'; **kon.d.a** 'fire-pit'.

The right-most part of the three-part message could connote: mineral (**d.ato** 'claw'; rebus: **dha_tu** 'mineral') copper furnace (**bhar** 'oven or kiln'; rebus: **bar**, **barea** 'two'); **d.ato** 'claw'.

The sixth sign from left could be glyph **d.a_t.o, da_t.o** a plug, a cork, a stopple (G.); tenth sign from left could be a glyph of **d.ato** 'claw'; rebus of both glyphs could be:

Substantive: **dha_tu** 'mineral' (Vedic); a mineral, metal (Santali); *dha_ta* id. (G.) dha_tu substance (RV); elemnt (MBh.); metal, mineral, ore (esp. of a red colour)(Mn.); ashes of the dead (Skt.); dhatu relic (KharI.); dha_u metal, red chalk (Pkt.); dha_u ore (esp. copper)(N.); dha_u_, dha_v a partic. Soft red stone; dha_vad. A caste of iron-smelters; dha_vd.i_ composed of or relating to iron (M.)(CDIAL 6773). dhau dhau = blazing, flaming, brightly (Santali) dhatu = a mineral, metal (Santali)

Glyph: strand: tridha_tu = threefold (RV); **ayugdha_tu** having an uneven number of strands (Ka_tyS'r.); **dha_i** wisp of fibres added from time to time to a rope that is being twisted (S.); dha_i~ id. (L.) (CDIAL 6773).

Glyph: attack: dha_d.i_ assault (Pkt.); dha_r. attack by robbers (H.); sudden assault (G.); dha_d. attack (M.); dha_d.i id. (Kon.)(CDIAL 6772). Ta_t.u = to strike against (Ka.); ta_d.u = to butt with horns (Ka.); ta_d.uni = to gore, butt; ta_d.u goring; ta_n.t.a_vuni to make collide (Tu.); ta_n.t.i to hit (Kor.)(DEDR 3156).

Glyph: leaping: ta_n.t.u = leap across (Ta.); ta_n.t.uka to jump across (Ma.); ta_n.t.u to leap, cross; da_t.u, da_n.t.u to jump, cross (Ka.); da_t. to cross (Kod.); da_n.t.uni to cross (Tu.); da~t.u to leap, jump, cross over; a leap, a jump, crossing or passing over (Te.); dat. to cross (Kol.); d.a_t. to hop, jump (Kond.a); trad.d.ing to skip, prance (Br.); ta_n.d.ava S'iva's dance (Skt.)(DEDR 3158). [Glyph of a leaping tiger.]

Glyph: leaf stalk: d.i~t.u, d.i~t.u~ leaf stalk (G.); d.a_t.ho fibres and stalk of tobacco leaf (S.); t.a_n.d.a_ dry stalk of ba_jra_ (L.); t.a~d.a_ (P.); ta_ndro dry stalk or straw (Or.); da_n.t.hi hard stalk of a creeper, stalk-like bean (Or.); d.a~t.h, d.an.t.ha_ stem, stalk (H.); tan.d.aka tree-trunk (Skt.)(CDIAL 5527). ta~t.a = bark (Te.); ta_t.i = bark, skin (Ka.)(DEDR 3155). tan.t.u = stalk, stem (Ta.Ma.); tad., tan.d. = stem of plant, trunk of tree (Ko.); tod. = trunk of tree (To.); dan.t.u, dan.d.a stalk (Ka.); dan.t.u stalk of certain grains and vegetables; dan.d.u stalk, as of a plantain leaf (Tu.); dad.d.u short stubble left after reaping (Tu.); dan.t.u stalk of great millet (Te.); dend.e stalk(Kol.); d.an.diid. (Kui); d.and.a sugarcane (Kui)(DEDR 3056). D.ha_t. = a kind of coarse high grass (Santali) d.at.hi, d.at.i = the petioles and mid-ribs of a compound leaf after the leaflets have been plucked off, stalks of certain plants, as Indian corn, after the grain has been taken off (Santali)

da_t = a pick, a mattock; dauli = a weeding knife, of iron or wood; datrom = a toothed sickle; sambhe datrom = a sickle with a ferrule or iron ring on the handle where the tang enters to keep it from splitting; datre = a small sickle (Santali) [Note glyph of a person carrying a sickle in front of a woman with disheveled hair.]

d.ato 'claws or pincers (chela) of crabs'; **d.at.om, d.it.om** to seize with the claws or pincers, as crabs, scorpions; d.at.kop = to pinch, nip (only of crabs) (Santali)

dar.u = large, big; d.at.hu, d.at.kup, d.at.u = big headed, bullet headed (Santali)

Glyph: Boar with huge tusk

Alternative: dat.t.ha_ = large tooth, fang, tusk (Pali); dam.t.ha_ fang (Pkt.); da_t.hiru = tusked (S.); da_t.ha_, da_t.ha large tooth, tusk (Pali); da_r.h = tusk, root of tooth, bite (of an animal) (L.)(CDIAL 6250). da_t = a tooth; d.at.a = a tooth, the teeth (Santali)

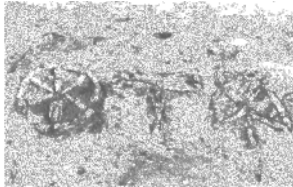
da_tela = a large wild boar with huge tusks (Santali)

The seventh sign from left is a long linear stroke: | This connotes **kod.a** 'one' and rebus could be: **kod.** 'workshop'; **gon.d.a, kon.d.a** = fire-pit (Kon.lex.)

kod.a, kor.a = in arithmetic one; 4 kor.a or kod.a = 1 gan.d.a = 4 (Santali.lex.)

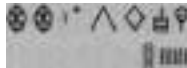
A variant of Sign 256 – T -- also occurs on a Rehmandheri seal and is flanked by two scorpions; a frog (or, a woman with spread thighs also appears).

Reduplication of 'wheel' glyph: *bar got.an*: two each, *bhar* 'oven', *kod.* place where artisans work. *gad.i got.an*: two wheels; *gad.h* fort, *kod.* smithy; or, *kun.d. got.an*: 'furnace (*kun.d.*), smithy (*kod.*)'

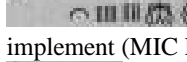



Segments of the inscription on the Dholavira sign-board occur together with the Bra_hman.i bull pictograph indicating the essential link between the sign-board obviously indicating the wares produced by the armourer and the list of weapons detailed on the Bra_hman.i bull seal (either as property items or as bills of lading for transporting the produced items for packaging and trade).

Inscribed weapons

 2925 Inscribed bronze implement (MIC Plate CXXVI-5)

 2903 Incised copper tablet

 2923 Inscribed bronze implement (MIC Plate CXXVI-2)

 2924 Inscribed bronze implement (MIC Plate CXXVI-3)



cf. also text 2119
on a seal
inscribed with a
zebu or
brahamni

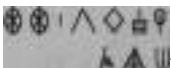

bull:  2119 Seen from left to right, the two spoked wheels, a linear stroke, a ^ sign, a rhombus sign -- the set of five signs -- constitute the fifth to ninth signs (i.e. five signs) of the Dholavira sign-board, read from left to right. The signs of this Brahamni bull seal and the Dholavira sign-board can be explained in the context of the armoury of the kutaharu, a basic contextual key to the decipherment of many


Table 4
(reading after Parpola No. 685)

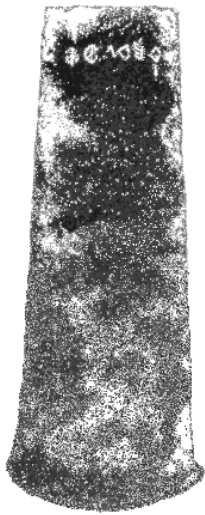
DK 7535		/	
DK 7814			
DK 10551		/	
HR Sealing			
DK 7856		/	

inscriptions deduced from the fact that the sequence of signs occurs also on weapons themselves, and the reasonable assumption that only a metal-worker had the competence to inscribe on metal.

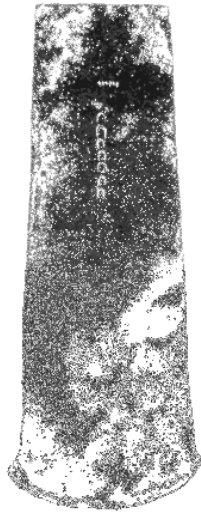
The inscriptions on the bronze-weapons as read by Parpola (1975: 184) and tabulated in Ute Franke-Vogt, *Inscribed bangles: an inquiry into their relevance*, in: Frifelt, Karen and Per Sorensen (eds.), *South Asian Archaeology*, 1985, Curson Press. Inscribed blades have also been found at Ugarit. "The axe-blades from Ugarit are found in the house of the 'High Priest', and dated 15th-14th centuries BCE. (Schaeffer 1939: 107ss, Figs. 10-103, Pl. XXII-XXIV; For the Ugaritic axes, cf. Pritchard 1954, 81, No. 261). Some of these also occur on inscribed stone bangles. Also found in a hoard they form part of offering gifts to the 'Grand Pretre' (Schaeffer 1956: 269). Inscribed weapons are further reported from Harappa Vats 1940: 384ss, Pl. CXX, 5,19), Chanhu Daro (Mackay 1943: 178, Pl. LXXIV, 1-1a,8) and Kalibangan (Mahadevan 1977:7). Decorated arrowheads are known from the Arabian Peninsula (Donaldson 1984: 257, Fig. 26), but cannot be dated before 1600 BCE (pers. comm. B. Vogt)." (Ute Franke-Vogt, *opcit*, 1985, p. 245).

 2926 Inscribed bronze implement (MIC Plate CXXVII-1)

 2928 Inscribed bronze implement (MIC Plate CXXXIII-1)



(a)



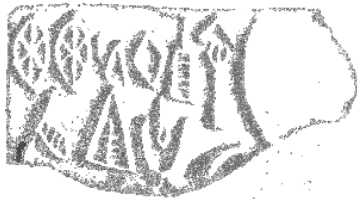
(b)



(c)



(d)



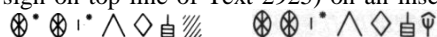
(e)



(f)

Seven script signs recurring on two inscribed copper axes and on a seal and a seal impression, Mohenjodaro; obverse (a,c) and reverse (b,d) of two axe blades (2798=DK7856 and 2796=DK7535) in room 15, house I, block 12A,G section, DK area together with a copper hoard; e is a fragmentary seal (2119) from room 5, house I, block 26,G section, DK area; f is an impression of a seal (c. 4.5cm sq.) on a clay tag found in the drain 124, house X, block 8, HR-B area. Drawn after Mackay 1938: II, pl. 126:t and pl. 131:35-6; Photo archive of the ASI, Sind Vol. 17, p. 79: 400 (=a,b); Mackay 1938: II, pl. 126:2; pl. 131:31; Sind vol. 17, p. 80: 403-4 (=c,d); Mackay 1938: II, pl. 85: 119 (=e); CISI 2: 183, M-1384 (=f); cf. Parpola, 1994, p. 108. e and f: Mohenjodaro, HR Sealing; Seal impression (HR-B, Bl. 8, X, 124); depicts the impression of a huge square seal (about 4.5 cm. square) on a lens of fine tempered clay which is burnt at low temperature. Almost all the ten signs seem to be intact with indications of the ear of a 'one-horned bull' on the right portion of the seal impression. The text of the inscription is similar to the inscriptions found inscribed on bronze weapons (DK 7535, DK 7814) and on a seal with inscriptions above a zebu bull (DK 10551, Mackay 1938 No. 119). DK 7535 is a bronze-blade which is part of a copper-hoard discovered in DK-G, Bl. 12A, I, 15 at a depth of 24.4 ft. The zebu seal also comes from DK-area, but Bl. 26, I,5 and a depth of only 6.7 ft. below surface.

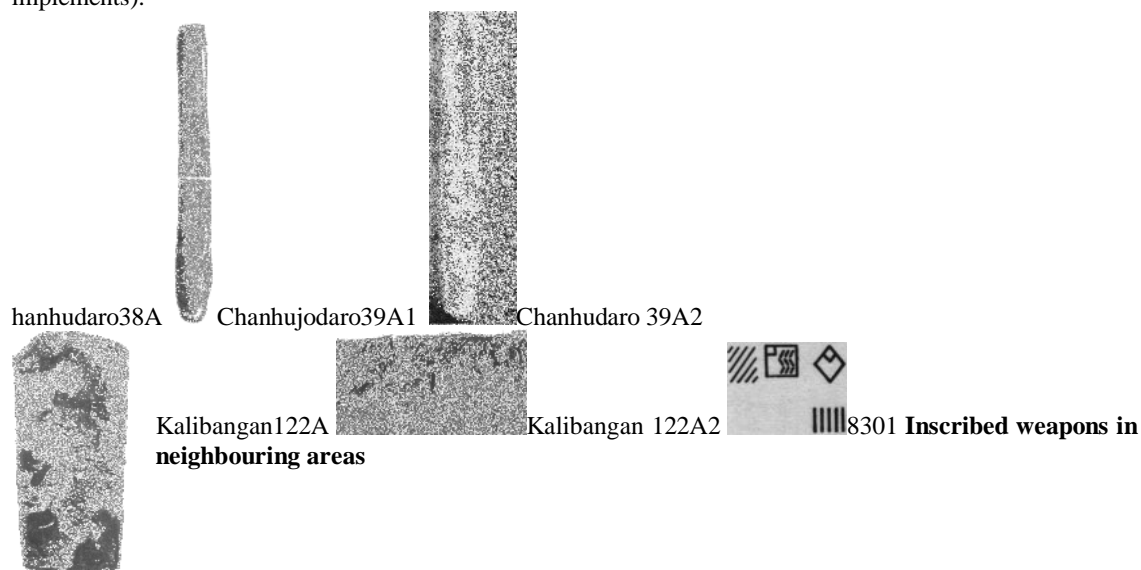
Its ligature (inlaid) in a oval (first sign from r. on bottom line) on an inscribed weapon (Text 2923) and another ligature (first sign on top line of Text 2925) on an inscribed weapon indicates a possible association with a



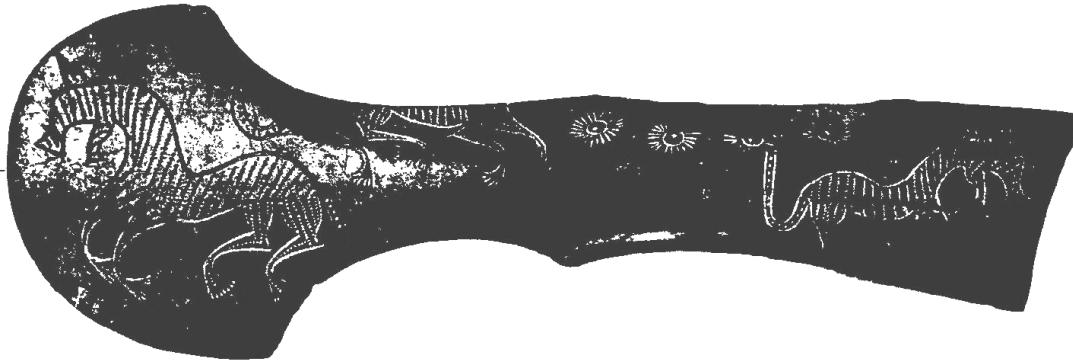
metal artefact.     2923    2925

That a line on text 2119 on a zebu seal (1) is identical with that on a seal impression of another zebu seal and (2) is also identical with the text on an inscribed bronze implement is instructive and leads to three hypotheses:

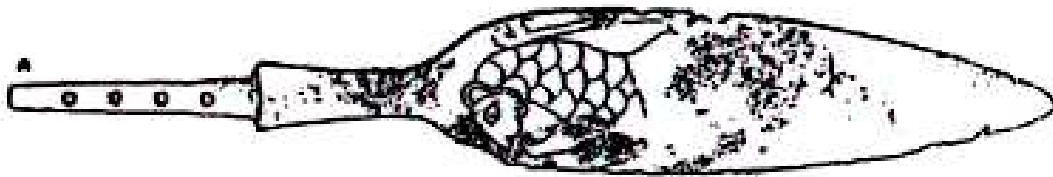
1. The list composed as a text line containing 'signs' is a catalogue of metals (weapons or commodities); hence, each sign is a rebus representation of a 'metal (weapon or commodity)'.
2. The seal impression constituted a bill of lading for traded metal (armour and weapons or commodities).
3. The zebu [khu~t. (G.)] is a rebus representation of a metal-smith, an armourer, maker or manufacturer of weapons, kut.ha_ru (also interpreted in Skt. as 'writer', a person also capable of inscribing on metal implements).



Tigers inscribed on an axe. Axe from Anoukhva, early first millenniu. Koban culture, North Caucasus. Similar axes have been found in Transcaucasia (western Georgia – ancient Colchis –) and are part of a rich florescence of bronzework in this period. Hermitage Museum, St. Petersburg. [After Philp L. Kohl, *Central Asia and the Caucasus in the Bronze Age*, in: Jack M. Sasson (ed.), *Civilizations of the Ancient Near East*, p. 1057].

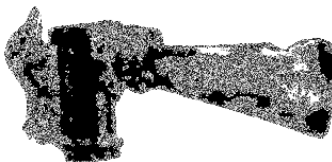


Weapons of copper have been discovered at Nippur, Fara, Tell Sifr: hammers, knives, daggers, hatchets, fetters, fish-hooks, spear-heads; some weapons have **rivets for wooden handles**; also found were: **mirrors**,



net-weights, vases, dishes and cauldrons (cf. *King, Sumer and Akkad*, p. 26; and *Hilprecht, Explorations*, p. 156).

ara = lion (Akkadian); **ara** = copper (Akkadian)



Shaft-hole axe. Silver and electrum. Boar and lion adorn the axe. 5.9 X 12.5 cm. From the temple of goddess Kiririsha at Tchoga-Zanbil (near Susa in southwestern Iraq), capital of king Untash-Napirisha, c. 1250 BCE. Cuneiform inscription in Middle Elamite language; trans. 'Me, Untash-Napirisha'. Musée du Louvre. AO (sb 3972). [After *Naissance de l'écriture : cuneiform et hieroglyphs*, Paris, 1982: 103, no. 60].



Axe-head, Hamadan (Ecbatana), Persia [British Museum, 1904, *A Guide to Antiquities of Bronze Age*, London, British Museum, Fig. 124] 'The Persian bronze industry was probably influenced in the first instance by Mesopotamia. Axe-heads with shaft-holes and ornamentd with lions in relief have been found in the country, and one from Ecbatana is in the collection (fig. 124); tanged spear-heads and other bronze objects were excavated from a mound at Asterabad; and from Khinaman in West Kerman come similar

spear-heads, bronze cups, large pins, and a remarkable axe-head, in the ornamental projection of which we may trace the degradation of the lion-design of fig. 124. To judge from their types, and from the reported

discovery in association with them of late Greek pottery, these objects must belong to a period when iron had long been in use further to the west. In the district of Lenkoran, on the south-west shore of the Caspian, now Russian territory, M. de Morgan discovered tombs of an early and a late Bronze period, characterized respectively by large cists containing daggers without metal handles, and by small cists in which were found daggers with cast hilts, and long sword-blades.' (ibid., pp. 128-129).



Axe-adze. Ram Shamra (ancient Ugarit), Syria. Cuneiform inscription: **h.rs.n rb khum** 'axe of the high priest'. 13th cent. BCE. Bronze. 23 X 5 cm. Musee du Louvre. AO 11 611. [After *Naissance de l'écriture : cuneiform et hieroglyphs*, Paris, 1982: 178, no. 117].



Inscriptions on metal objects

Copper celts with various indentations. Ganeshwar (Rajasthan). 3rd millennium BCE, OCP Complex. [After Pl. 11.5 in RC Agrawala and Vijay Kumar, 1982]

The early intimations of 'writing' are found on Ganeshwar flat celts. "The average weight of a Ganeshwar celt is approximately one to 1.5 kilograms. All these flat celts were prepared from molds by cire perdue technique. The butt portion of the celts have round indentations in groups of four, five, six, eight, nine, 12 and as many as 15 in different combinations of one, two, three, four and six dots. These combinations are repeated on many inscribed objects of SSSVC with short strokes (instead of dots); the practice of incising on the butt ends of weapons also continues. The varied permutations and combinations of dots recall somewhat similar marks on the Chalcolithic celts

from Navdatoli (Wheeler 1959: Pl. 25) and Kayatha (Ansari and Dhavalikar 1975: 150). At Kayatha these celts were assigned a date of 2000-1800 BCE by C14 determination...The indentations on these objects were made with pointed copper drills which have been found at Ganeshwar." (RC Agrawala and Vijay Kumar, 1982, p. 128).

Two double axes of Copper Hoard culture are found from Bhagrapir (Orissa); about 40 cm. Wide, 1 to 3 mm. Thick. Apparently, these could not have been used as axes. Five such double axes have been found from the Kangsavati valley in Bengal. **Such types of metal objects have been used for land grants in historical periods.** [DH Gordon, *Prehistoric background of Indian culture*, Bombay, Mandhuri Dhirajlal].

Silver and copper plate epigraphs

There are seals of silver and copper. Copper plates are also used to record epigraphs.



m1199A



2520 Silver seal



m0317



2016 Silver seal



Mohenjo-daro. Copper seal. National Museum, New Delhi. [Source: Page 18, Fig. 8A in: Deo



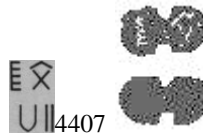
m0475At 3247 Copper tablet

Inscriptions on bangles and metal-weapon-shaped tablets

In the Bharatiya tradition a bangle is also worn by a warrior. It is the kan:kan.a, a badge of valour.

Some objects are shaped like a double-axe (FS 133), some like a sickle (?or crescent FS 131), some like a fish (FS 68), some like a tortoise (FS 70), some like a leaf (FS 79).

MN-S 83-625	MN	o
84-9		o
MN 83-2966	MN	oo
DK 8309	DK-G	oo
DK 7386	DK-G	oo
SD 187	SD	oo
SD 1263	SD	oo
MD 83-620		oo
DK-G 83-618	DK-G	oo
DK-A 83-627	DK-A	oo
HR-E 83-621	HR	oo
84-5		oo
84-1		oo
SD 76	SD	oo
SD 558	SD	oo
DK-M 83-615	DK-M	oo
E 83-613	DK-E	oo
MN-E 83-616	MN	oo
MN-S 83-629	MN	oo
84-18		oo
84-7		oo
HR-E 83-622	HR	oo
84-8		oo
84-9		oo
DK 834	DK	oo
84-6		oo
DK-G 8380	DK-G	oo
MN-S 83-624	MN	oo
MN-S 83-626	MN	oo
MN 83-617	MN	oo
MN-E 83-612	MN	oo
MN-S 83-623	MN	oo
HR-E 83-619	HR	oo
DK 7383	DK-G	oo
E 83-624	DK-E	oo
W-S 83-628	83-611	oo
84-4		oo
HR 8376	HR-E	oo

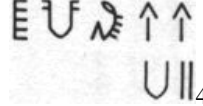


4407 Pict-129: Inscribed object in the shape of a double-axe or double-shield? [17 out of 17 occur at Harappa]

There are tablets shaped like weapons: double-axe, sickle.



h232A h232B tablet in bas relief



4368 Inscribed object in the shape of a double-axe.



h233A h233B



4387 Tablet in bas-relief. Sickle-shaped. Pict-131: Inscribed object in the shape of a crescent?

Inscriptions on bangles

Reg. Number, area and inscription on bangles and bangle-fragments. "From the 38 inscriptions at disposal 17 consist of 1 sign, 11 of 2 signs, 4 of 3 signs, 2 of 4 signs and 1 of 5 signs...Two bangles, Nos. W-S 83-628 and 84-4, bear similar 2-line inscriptions, consisting of 3 and 1 sign

respectively. These two pieces are also noteworthy with regard to their exceptional red ware and polish." [After Table 1 in Ute Franke-Vogt, Inscribed bangles: an inquiry into their relevance, *South Asian Archaeology* 1985].



h236A



h236B



4658 Incised miniature tablet.



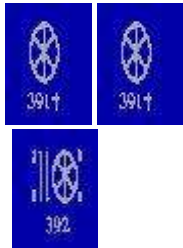
2929 Incised on pottery



2931 Graffiti on pottery

The sign also gets ligatured to three linear strokes (an apparent indication of counted objects) in text 2931.

Signboard on north-gate, Dholavira [Association with *kot*. fort is also apparent from the name of the Dholavira village: *kot.d.a*]

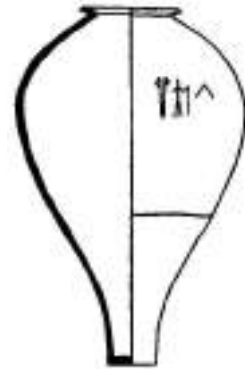


The 'spoked-wheel glyph' is the divider of the three-part message.



The reduplicated 'spoked-wheel glyph' is associated with 'claw of crab' glyph in the first part of the three-part message of the sign-board. The latter glyph is *dat.o* 'claw of crab'; rebus: *dha_tu* 'mineral' (perhaps tin); hence, the three signs together may be read as: two wheel + claw (*barea ara* + *dat.o*); rebus: *baria ara* (merchant copper) + *dha_tu* (tin), i.e., tin, copper merchant.

The components are: *bar*, *barea* 'two'; rebus: *baria* 'merchant'; alternative 1: *kin* 'double'; *gina* 'metal vessel'; alternative 2: *dohra* 'double'; *dohra* metal-workers; *dohr.a* 'two houses' (substantive: metal-work), *gad.h* fort. The circumgraph of four short strokes is: *gan.d.a* 'four'; *gan.d.a* warrior. Thus, the glyph combinations connote: metal-workers house; and a warrior living in a fort: *gad.h* [*dohn.i* pot containing the funeral fire; a milkpan; a trough (G.); *dohro*, *duho* a couplet (G.)] *d.oh* a pit for water; a deep pond (G.); *sandoh* (Skt.)



phut.ia = coppers, bronze coin; *phut.ia* banuktina = I have no coppers (Santali.Bodding); *phu_t.a_* = broken (H.) *phut.ia* *kaud.i*, *put.aia* *kaud.i* = shells used as money, cowries; twenty make one pice. Commonly used as ornamentation on bullocks, buffalo calves and on drums; *phut.ia* *kaud.i* = *ka_r.a_* *kaud.i* (Santali.Bodding) **pe_d.ha** = lump (Pkt.); *pud.a*, *pud.aia* = lump-shaped (Pkt.); *pum.d.aia* = id., globular (Pkt.); *pu~r* = spleen (Wg.); *pun.d.ik* = upper knob of an axe (Pr.)(CDIAL 8377)


Is the lady pushing aside the two quarrelling persons carrying two uprooted stumps of trees on m0478B the same lady (with one left eye, **da_kannu**), *d.a_kin.i*, shown pushing aside two quarrelling tigers or jackals?




Inscription on pottery storage jar {After Pl. LXIII, 3 in: Mackay, EJH, Further Excavations in Mohenjodaro, Vol. II).

dhakna = an earthenware lid for a t.ukuc; dhakni, dhaknic = an earthenware lid for a kan.d.a; d.hakon = a cover, lid, to hush up (Santali.lex.) d.hakao = to cover, obscure (Santali.lex.) d.alu, ad.alulo to cover something (Boind.a) d.a_narai lid of pot (Bond.a.Hindi) d.aren-mund.i lid of pot; d.aren, ad.aren to cover up pot with lid (Bond.a); d.arai to cover (Bond.a.Hindi) d.a_gu, da_gu = to hide (Te.lex.) da_gu = to be hidden or concealed; da_gud.u = to hide oneself (Te.lex.) d.han:ka_vum = to be covered; to be closed; to be concealed; d.ha_nkakum, d.ha_n:kan.um, d.ha_n:kan.um, d.ha_n:kan.iyum = a lid; a cover; a covering; protection, protector; d.ha_nkan.i_ = a lid; a cover; a covering; an earthen vessel serving as a lid for another; d.ha_n:kavum [Hem. Des. d.han:kan.i_ = Skt. pidha_nika_, a lid, a cover from api-dha_na a cover fr. api all round + dha_ tto put Or, Hem. Des. d.hakka = Skt. Skt. cha_dayati it covers] to cover; to close with a top or lid; to overspread a thing with something else; to shut, close; to hide, to conceal (G.lex.)



The lid on top of the narrow-necked jar [See  m0478B] is paralleled on the Dholavira sign board by



Sign , an inverted V; this sign occurs in the second of three sequences (read from left to right) started by the spoked-wheel glyph (rebus, put.hi, 'copper ingot'). Does it connote **d.a_kin.i**, 'sword', a phonetic determinant of khan.d.a, 'sword' (kan.d.a, 'pot'; kan.d. kanka, 'gold altar, furnace')?

man.d.iga = an earthen dish (Te.lex.) man.d.e = a large earthen vessel (Tu.lex.) man.di earthen pan, a covering dish (Kond.a); cooking pot (Pe.); brass bowl (Kui); basin, plate (Kuwi)(DEDR 4678). man.d.e = head (Kod.)(DEDR 4682).



Sign 256



Sign 261



Sign 266

Sign 266 is a ligature of Sign 256 and Sign 261. Sign 256 also occurs on the Dholavira Sign board together with Sign 261.

Sign 256:

pacar = a wedge driven into a wooden pin, wedge etc. to tighten it (Santali.lex.)
 paci = an enclosing wall, to enclose by a wall (Santali.lex.)
 pacr.ao = to thrown down, to overcome (Santali.lex.)
pasra = a smithy, place where a black-smith works, to work as a blacksmith; kamar
 pasra = a smithy; pasrao lagao akata se ban:? Has the blacksmith begun to work?
 pasraedae = the blacksmith is at his work (Santali.lex.)

The sign-board has ten signs of which as many as four depict a spoked wheel with six spokes. This sign occurs on inscribed weapons and is closely associated with the zebu bull pictorial motif [read as a rebus representation of kut.ha_ru, armourer, inscriber]. This sign of a spoked wheel also occurs in association with a sign depicting an armed guard on a seal, Chanhudaro30

mat.od.um earth, clay, mud; a clod of earth; *mat.od.i_* earth, clay, dust; *mad.iyo*, *mad.a* gravel (G.)

mat.akki to bend as the arms or knees (Ta.); *mat.aku* knuckle (Ta.)(DEDR 4645).



Glyph: *sal* 'horns of a bull'; substantive: *sal* 'smithy, workshop'

mod.um the face; *mun.d.a* the head; *mon.d.um*, *mod.hum*, *mon*: [Hem. Des. *mod.e* fr. Skt. *mun.d.am* the head] the mouth; the tongue; the face; the forepart; an entrance, a passage (G.) *mun.d.a* the head, the neck, the skull; *mu_d.i_* the head (G.)

mon.d. the tail of a serpent (Santali)

men.d.ho [Dh. Des. *mid.ia_o* fr. Skt. *men.d.h*, *men.d.* a ram; Skt. *medhya* a goat, fr. *medha* a sacrifice] a ram, a sheep (G.) Glyph: *bhed.a*, *boda* 'ram'; substantive: *bhin.d.ia* 'a lump, applied especially to the mass of iron taken from the smelting furnace'

mehra_b = an arch; a vault; a building in the form of a segment of a circle (G.lex.) [cf. the arch surrounding a spoked wheel sign on texts on zebu seals].

mehro = a *pa_lki_* bearer (G.lex.)

med.hi = pillar, support (Pkt.lex.)

me~r.he~t = iron (Santali.lex.) **men.d.a_** = lump, clot (Or.)(CDIAL 10308). *mer* = a kind of large copper or brass pot (G.lex.) *mer.ed.*, *me~r.ed.*, *me~r.e~d.* iron; *en:ga mer.ed.* soft iron; *sand.i mer.ed.* hard iron; *ispa_t mer.ed.* steel; **dul mer.ed.** cast iron; *bicamer.ed.* iron extracted from stone ore (Mundari.lex.)

min.t.e, *mit.t.i* = a kind of weapon, *s'aramun.d.i* (Ka.lex.)

min.d.u, **min.d.a** = a man of high position or character; a hero; *katte citraga_r-ana min.d.a* = is an object that he never can draw well; *min.d.a* = somebody that is above or beyond another's reach, beyond his faculties, or out of his power; *han.a no_t.aga_r-ana min.d.a* = is something he likely to make mistake about (Ka.lex.) *me_n.t.a*, *me_n.t.u* = adj. showy, boastful; *me_n.t.a ga_re* = a fop; a rake (Tu.lex.) *min.t.iteruvari* = the sun, a god, a deity (Te.lex.)

Head servant

mente = an affix signifying for, for the purpose of; also a conjunctive particle which constitutes the sentence it subordinates an adverbial clause of purpose or a noun clause; *nahel menteye mak keda* = he cut it (a piece of timber) for a plough; *rupa menteko idikeda* = they took it away thinking it silver (Santali.lex.) *mente* – affixed to certain roots to form adverbs implying sudden and single action; *dhau mente jod gotena* = it burned with a sudden blaze (Santali.lex.) cf. *me~t* = eye (Santali) [The dotted circle could be rebus: **min.d.a**, hero]. *Me_t.t.i* = excellenece, chief, head, land granted free of tax to the headman of a village (Te.); *me_ti* = greatness, a big man, a chief, head servant (Ka.); *me_t.ari*, *me_t.i* = chief, head, leader, lord (Te.)(DEDR 5091).

me~d.ha_ = crook or curved end (of a horn, stick etc.)(M.); *me~r.a_*, *me~d.a+* ram with curling horns (H.)(CDIAL 10120). Cf. *me_n.d.ha* = ram (Skt.)(CDIAL 10310). *me_l.h* goat (without etymology)(Brahui); *mr..e_ka* (unknown meaning)(Te.); *me_~ka* = goat (Te.)(DEDR 5087).


me_d.i = glomerous fig tree, *ficus racemosa* (Ka.); *ficus glomerata* (Te.); *me_r.i* (Kol.)(DEDR 5090).

mendi_ = eyelashes (Halbi); *kandl mindig* (pl.) eyelash (Kol.); *mind*, *mind* (Go.); *kon.d.a-min.di* eyelid, eyelash (Go.)(DEDR 4864). *mitn.e~* = to close the eyes (M.)(CDIAL 10119).

[Thus, when glyphs of an antelope or markhor with curving horns and a ficus leaf are shown, the rebus is: **me_t.i** = an eminent person, head servant; this may explain why a leaf glyph is ligatured with a special crowning on top of the grapheme; when a warrior is shown with a glyph depicting an eye-lash (as on an ivory

plaque), the rebus is: **me_t.i, me_t.ari** an eminent person, hero, warrior. Note the ligature of leaf to the body, **me_ndur** = body; hence, the standing person sign may simply represent **me_ndur**, body].



m1653 ivory plaque  1905

men.du = abundance (Te.); **me_nd.** full (Go.); **me_r.** = full, whole, entire, complete (Go.); **na_r.** mend.u = the whole village (Go.)(DEDR 5060).

me_n.i = body (Ta.); **me_l** = body (Ta.); **me_ndur** (Go.); **me_ndol** human body (Kond.a); **me~_d, me_d** body, womb, back (Kur.); **meth** = body (Malt.)(DEDR 5099).

mi~r.u~ = rimless, not having a rim (Santali.lex.)

me_l.amba = the black humble bee (Ka.); **milind** = a bee of the large black kind (Mar.); **milinda** = bee (Skt.)(DEDR 5098). [Note the black ant glyphs].

min.d.u = animal passion, sensual longing, lustiness; **min.d.i** = a lusty female; a woman of nubile age (Ka.lex.) **me_n.t.ige** = coupling, union (Tu.lex.) [Note coupling, copulating imageries]

me_n.te = a couple (Tu.lex.) **mel.ai** = couple (Kon.lex.) [Note pairing of signs; more importantly, note the pairing of animals: two scorpions (kamar, smithy), two antelopes (tagar, tin), two tigers (kol, smithy or forge), two short-horned bulls (d.an:gar, smith), two faces of one-horned bulls ligatured [vahur., worker (of a furnace/workshop, kod.)]. This pairing may be a rebus representation of an honorific, a titling by assigned function: **me_t.i** = an eminent person – a clause of purpose as in Santali; cf. **nahel menteye mak keda** = he cut it (a piece of timber) for a plough].

Scorpion



Tepe Yahya.
Scorpion, palm-tree
(?), fish and two
stars – each image
is carved on each
side of the four-
sided bead steatite
stamp seal. The
bead is perforated.
(After Lamberg-
Karlovsky and Tosi
1973: fig. 121)



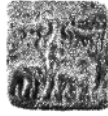
Sign 51 and Sign



327



Scorpion and rogalidha on early Cretan seals (After Fig.3 in: Sinclair Hood, 1971, *The Minoans: Crete in the Bronze Age*, Thames and Hudson)



clay nest (H.); ku~bha_r,

kummarpurugu = a kind off insect resembling the gryllus; the beetle called by the English a carpenter or mole cricket (Te.lex.)

kuma_li a particular insect (Ku.); kumbhaka_ri_ wasp (Skt.); kuma_l-kot.i, kamalkot.i a kind of wasp (N.); kuma_rni = the mason wasp (A.); kumha_ri_ wasp-like insect which makes a ku~bha_ri_, ku~bheri_ = vespa solitaria (M.)(CDIAL 3312).

kummarincu (caus. of kummarillu) to pour out of a vessel, bag, basket or the like, to empty, to discharge; to scatter (as perfume); kummarilu = to fall, pour or flow out, gush out, issue forth from a vessel (Te.lex.) [Note the water pouring out of the kumbha or kalas'a in the Mohenjodaro pectoral showing a one-horned bull].

kum.va_ra, kum.vera = the aloe plant (G.); kuma_ri_ (Skt.)(G.lex.) ghi ku~a~r. = cactus species (Santali.lex.) kuma_ri a plant (Pkt.); kuma_ri_ capparis trifoliata (Skt.); ku~a_r-bu_t.i_ = aloe perfoliata (S.)(CDIAL 3304).

kr-ummu, kummu = to butt or gore with the horns; a butt with the head or horns (Te.lex.) **kummula_t.a** = a rough-and-tumble fight, squabble, quarrel; kummula_d.u = to fight, quarrel, wrangle (Te.lex.)

kr-ummu, kummu = to pierce (with a lance-head or rapier point)(Te.lex) **kummu** = v.t. to butt, gore, pierce, as animal with the head or horns, or a man with the elbow, fist etc.; to mix or beat mud chunam or any other thing with a pestle or the feet, to tread; n. a butt, goring; smouldering ashes (Te.lex.)

kummusuddi = a talk or communication by means of signs of symbolical language (Te.lex.) This is mlechhita vikalpa! Cryptography.

2189.Image: bending: kumbu bending, bowing down: a bow, an obeisance (Ka.Ta.Ma.) (Ka.lex.) Image: salutation: kumbu bending, bowing down, obeisance; kumbid.u to bow down, do obeisance (Ka.); kump-it.u (it.uv-, it.t-) to join hands in worship, make obeisance with the hands joined and raised, beg, entreat; n. worship (Ta.); kump-it.uka, kumm-it.uka to bow down, prostrate oneself, worship (Ma.); kub.ir- (it-) to bow down, pray; kumit.e- salutation used by Kota to generally called mundas simply, in contrast to mahali mund.a, ho_

ku~ar = family title of ks.atrivas, boy (Or.)(*CDIAL 3303). ku~ar. = the patronymic of the Hembrom sept of the Santals; ku~ar = prince, the title borne by the second son of a Bhuiya ra_ja_ or zamindar (Santali.lex.)

kummari = a potter; kummra = the caste of potters; kummaravad.u = a potter; kummarasa_na, kummarasa_re = a potter's wheel (Te.lex.) 2192.Potter: kumbhaka_ra potter (Ya_j.Pali); kumbhaka_ri_, kumbhaka_rika_ (Skt.); kumbhaka_raka (Pali); kum.bhaa_ra, kum.bha_ra_ru~d.u (Te.); kumari (Te.); kummal (Pa.Go.); kumbarenju, f. kumbareri (Kui); ku_mbra, kumbra (Kuwi) (DBIA 109). Crucible: kuvai crucible, melting-pot, pon-n-ur-ukkum-kukai < guha_? [iruntai-k-kuvai yotteana (Tan.ikai-p- (Tu.) ; kuyam (kucam- first member of compound) potter caste (Ta.); kuyavan- potter (Ta.Ma.); kucavan- potter (Ta.); kus'avan (Ma.); kuyatti fem. potter (Ta.Ma.); ko.v Kota man (Ko.); kwi.f Kota man (To.)(DEDR 1762). ko_la_la potter (Dardic); kula_la-cakka potter's wheel (Pali); kra_l potter (K.); kula_l.a (Or.); kara_l.iyo seller of earthenware (G.); karol.iyo potter (G.)(CDIAL 3341). ko_ potter (Ta.); kuvara, ko_va potter (Ka.); ko.v Kota man (Ko.); ko.ka.l Kota village (Ko.); kwi.f Kota man (To.); kwi.ko.l Kota village (To.); kuyam potter caste (Ta.); kuyavan potter (Ma.)(DEDR 1762). kuyam, (kucam- first member of compound) potter caste; kuyavan-, kucavan- potter; fem. kuyatti, kucatti; ko_ potter (Ta.); kuyavan, kus'avan potter (Ma.); fem. kuyatti, kuyavi, kus'avi (Ma.); ko.v Kota man (Ko.); ko.ty Kota woman (Ko.); ko. mog Kota child (Ko.); ko. ka.l Kota village (Ko.); kwi.f Kota man (To.); kwi.ty Kota woman (To.); kwi.ko.l Kota village (To.); ko_va, kuvara potter (Ka.); kusave id. (Tu.)(DEDR 1762). ko.ty Kota woman (Ko.); ko_ potter (Ta.)(DEDR 1762). ko_ve_l. potters (irun:ko_ve_t.kal.u cempu ceyarum :

Badaga or Kurumba (Ko.); kub-id- (it-) to salute (not used of religious salutation); ku.d- (ku.d.0-) to bow, bend down (To.)(DEDR 1750). cf. ku_ppu (ku_ppi-) joining hands as in worship; to join hands as in worship (Ta.); ku_ppuka salute by joining both hands (Ma.)(DEDR 1894).

2136.Munda: kompat., kompa_t., kumpa_t. adj. with mund.a, a genuine munda, one of those

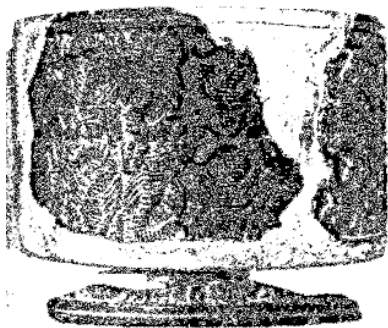
(Pkt.); ku~bha_ru (S.); kumbha_r, kumbha_ri_, kubha_r, kubha_ri_ (L.); kumha_r, kumha_ri_, kamhea_r, kamha_r (P.); kuma_r, kumha_r (Ku.); kum(h)a_le (N.); kuma_r (A.B.); kumbha_ra, kuma_ra (Or.); kumha_r, kumhara_, ku~ha_r, koha_r (Bi.); kumha_r, kumh^ra_ (Mth.); ko~ha_r, ku~bha_r (Bhoj.); kumha_r (H.); ku~bha_r (G.M.); kumba_ru (Konkan.i); kumbala_ (Si.)(CDIAL 3310). kumpaka_ran- potter (Ta.); kumbhaka_ran id. (Ma.); kumo.r-n id. (To.); kumbhaka_ra (Ka.); kumbhaga_r-a (Ka.); kumba_r-a (Ka.); kumbar-a ((Ka.); kuba.re id., stupid fellow (Kod.); kumbaka_re potter (Tu.); kumba_re (Tu.); kumbare potter (Tu.); kumbhaka

pu.Tiruna_t.t.u-p-pu.63)](Ta.lex.) ko_ve crucible, mould (Tu.); crucible (Ka.); kuva crucible (Ma.); kuvai, kukai crucible (Ta.)(DEDR 1816). Potter: kuvara, ko_va potter (Ka.); kusave id

Man.i. 28,34)(Ta.)(Ta.lex.) ve_t.ko_ potter; ve_t.ko_pan- potter; ve_t.ko_van- potter (ve_t.ko_cir-a_ ar te_rkka_l vaitta pacumat. kuru_uttiral. : Pur-ana_. 32)(Ta.lex.) ve_l. one belonging to the Ve_l.ir class (Pur-ana_. 24); Ca_l.ukya king; petty ruler, chief; title given by ancient Tamil kings to Ve_l.a_l.as (Tol. Po. 30); (cempiyan- tamir.ave_l. ennun. kulappeyarum : S.I.I. iii,221); illustrious or great man; hero; ve_l.vi (Ta.Ma.); be_luve sacrifice (Ka.); (mun-muyan- r-aritin-in- mut.itta ve_l.vi : Akana_. 220)(Ta.lex.) ve_l(u)pu god or goddess, deity, divinity, a celestial, demi-god, immortal (Te.)(DEDR 5544). ko_van- herdsman, king (ko_va n-iraimi_t.t.an-n- (Ci_vaka. 455); ko_valar herdsmen, men of the sylvan tract (kruntan. kan.n.i-k- ko_valar (Ain:kuru. 439); ko_varttan-ar, ko_vintar herdsmen (Ta.)(Ta.lex.). Prince; boy: kuma_ra boy (RV.); prince (Ragh.); young boy (Pali); boy, prince (Pkt.); kuma_raka little boy (RV.); young boy (Pali); kuma_la prince (As'); koma_r youth (only in razakoma_r)(K.); ku~a_ro bachelor (S.); ku~va_ra, kua_ra bachelor (L.); ku~va_r bride (L.); kava_r, ka~va_ra, kava_ra, kua_ra, kama_ra bachelor (P.); ka~var

prince (P.); kaur boy, prince (P.); ku~ar prince (Ku.); ku~wa_r, kuma_r unmarried, a caste of Chettris (N.); ku~wa_ro, kuma_ro boy, young bachelor (N.); ku~wa_r, kumar, kamar prince (N.); ko~war prince (A.); ko~ya_r prince (B.); kua~_ra bachelor; kua~_ra unmarried (of males)(Or.); kua~ra boy, family title of Ks.atrityas (Or.); ku~wa_r unmarried boy (Bhoj.); ku~ara prince (OAw.); ku~a_r unmarried (OAw.); ku~wa_r unmarried youth, prince; ku~war prince; ku~wa_ra_, kwa_ra_ bachelor (H.); kavara prince (OMarw.); ku~var, ku~ver boy, prince (G.); ku~va_r.d.u~ funeral ceremonies four days after death of an infant (G.); ku~var boy under five years old, prince (M.); komarun obl. pl. boys (OSi.); kumaruva_ child, prince (Si.)(CDIAL 3303). kumaran- young man, youth (Kampara_. Mitilaik. 157); son; Skanda, as son of S'iva (Kantapu. Kat.avul.. 16); kumari perpetual youthhood (Cilap. 10,123); kuma_ra-mat.ai-p-pal.l.i a sub-caste of mat.ai-p-pal.l.i who got their name from their ancestors having been cooks of princes; kuma_ran- Skanda, as son of S'iva (Kantapu. Kuma_ra. 16)(Ta.lex.) 2191.Potter: ko_va a Kur-umba; a potter; kur-umbar; ba_mbar endum ko_var endum kumbar-ar; ba_mbar ene ko_var ene kur-ubar; ba_mbar ene ko_var kumbar-ar (S'abdaman.idarpan.a; Kabbigara Ke_ypid.i; loc. cit. Ka.lex.) kus'ava a potter (Ma.); ko_vara cakram potter's wheel (Ka.); ko_vida skilled, experienced, learned, wise (Ka.Skt.); kor-ava a man of a now settled tribe, who speaks Kannad.a, makes baskets, mats etc., is a musician; kur-ava a wandering tribe of basket-makers, snake-catchers and gypsies (Ta.Ma.); kor-avaji a female of the kor-avas, who commonly is a fortune-teller (Ka.Te.); kur-avaci, kur-atti (Ta.); kor-avajikathe a story about Arjuna disguised as a kor-avaji (Ka.)(Ka.lex.) kur-uba, kur-aba, kur-umba a man of the shepherd caste, a shepherd (who worships maila_la lin:ga and the masan.i; ja_ba_la, aja_ji_va; ba_mba; golla (Ka.); kurupe, kuruma (Te.); kur-umpan- (Ta.); kur-umba (Ma.); kur-uba a stubborn, foolish man (Ka.); kur-umba (Ma.); kur-uba-heggad.e a chief among shepherds (Ka.); kur-uba a potter; kur-ubagitti a kur-uba woman; kur-ubitti, kur-ubati, kur-umbiti id. (Ka.)(Ka.lex.) kuvara a potter; ba_mba (a kur-uba or kur-umba; a potter; fr. ba_n, ba_na = a pile of earthen vessels), kummar-a (Ka.lex.) ko_valan- hero of the epic Cilappatika_ram (Ta.lex.)

Vessel with two rows of scorpions from Nippur, Inanna Temple, level VIII. Baghdad Museum.



kamar = a semi-hinduised caste of blacksmiths; kamari = the work of a blacksmith, the money paid for blacksmith work; nunak ato reakin kamarieda = I do the blacksmith work for so many villages; **kolhe kamar** = a Kolhe blacksmith and iron-smelter; **lohar kamar** = a caste of blacksmiths that live more in conformity with Hindu caste rules (do not eat meat, do not drink beer; rare in the Santal country); rana kamar = the ordinary blacksmith in the country (rana is their caste or tribal name); saloi kamar = a kind of blacksmith; to put teeth on a sickle he gets two seers of paddy; kamarera = the wife of a blacksmith (Santali.lex.)kamar (Desi); karmka_r (H.); ka_ma_r (B.)

kamar kidin = a small species of scorpion; a kind of scolopendre, said to be the same as **mahle kidin** (Santali.lex.)

In later-day sculptural tradition, a lady is shown with a scorpion on her thigh. This can be explained: **era** 'woman'; rebus: 'copper'; **kamar** 'scorpion'; rebus: blacksmith; that is, coppersmith.



Shell inlay from the king's grave at Ur. [V. Gordon Childe, 1929, *The Most Ancient East: the oriental prelude to European prehistory*, London, Kegan Paul, Trench, Trubner and Co. Ltd., After the frontispiece, Plate I]. This is a dramatic demonstration of contacts -- exchange of ideas and goods -- of Sumerian civilization with Bharat and Egypt. Contacts with India are clear from the depiction of the one-horned bull (the so-called 'unicorn') in the third register of the archaic plaque. The jackal brandishing a sistrum and a bear dancing to its tune is also shown on the third register. The bear is surely a native of Armenia or Syria or India. [Sistrum is a musical instrument of ancient Egypt consisting of a metal frame with transverse metal rods which rattled when the instrument was shaken]. The wolf in the second panel has a dagger tucked in the belt. The knife shown on the wolf's belt is similar to the one found at Ur. The bottom panel shows a scorpion-man being offered two vases by an antelope.

Uruk Period; BM 102427; Above: Tethered bull, three dots above back; scorpion, bearded man chases bull. Below: man with bucket watches fallen animal (?). Man protects goat from leopard (lion? contest scene?). Probably recut Early Dynastic period, authenticity questioned; Gypsum (worn); D.J.Wiseman, opcit, 1962, Pl. 1d. (Not illustrated)

BM 102418; Wiseman, opcit, 1962, Pl. 23b; Above: scorpion, goat, bull with lizard (gharial?) on back. Below: goat couchant between goats walking. In field: pot, crescent moon. Jamdat-Nasr-Early Dynastic? Red marble. (Not illustrated)

BM 22962; Wiseman, opcit, 1962, Pl. 22d; Above: Bull-men crouch beside triple-plant on mountain. Vultures on their backs. Hero and bull-man: In field: snake, scorpion. Below: Bulls bow below eagle: Stag and goat. In field: bird. Wiseman, *Cylinder Seals*, 21. Lazulite. (Not illustrated)

Mitannian seal; ca. 1450-1300 BC; chert; cat. 630; animal row: two antelopes and a lion. In the sky: scorpion, drill hole. (Not illustrated)

The scorpions on the Rehmandheri seal flank what is referred to as a 'frog'. The pictograph may perhaps connote the spread thighs of a person, perhaps intending to denote the female organ. (Not illustrated).

The message can be read as: **bica bari_ kut.hi** = stone ore artisan's (blacksmith's) furnace.

The Sanskritization of Assamese **bica_**, des'i_ **vachi** is: vr.s'cika scorpion (RV); vicchika (Pali); vicchia, vim.chia (Pkt.); bich (Sh.); bichi_ (Ku.); **bica_** (A.); bicha_ (B.Or.); bu_ch (Mth.); bi_chi_ (Bhoj.Aw.H.); vi_chi_, vi~chi_ (G.); ucum (Pas'); vichu~ (S.); vicchua, vim.chua (Pkt.); vichu~ (L.); bicchu~ (P.); bichu (Or.); bi_chu (Mth.); bicchu~, bi_chu_ (H.); vi_chu (G.); viccu, viccu, vim.cua (Pkt.); byucu (K.); biccu_ (P.); biccu_ (WPah.); vi_cu_ (M.); viccu, vim.cu (Kon.); bacchius_ large hornet (n.)(CDIAL 12081).

The early form is likely to be close to: bica_ (A.); or byucu scorpion (K.); bu_ch (Mth.) bacchius_ large hornet (N.); if so, there is are substantive words in Mundari and Gujarati for a rebus representation:

bica, bica-diri (Sad. bica_; Or. bici_) stone ore; mer.ed.bica, stones containing iron; tambabica, copper-ore stones; samr.obica, stones containing gold (Mundari.lex.)

vachiya_t a foreign merchant who seeks to make purchase and sales; an agent; vacye adv. Pre. (Skt. madhye, middle] in the center, in the middle; between (G.lex.) cf. bi_c [Hindi vacye] in; inside; between (G.lex.) ?vicchita in phrase balavicchita-ka_rin at Miln 110 is to be read balav' icchitak-ka_rin ' a man strong to do what he likes', i.e. a man of influence (Pali.lex.)

bichwa_ = a type of dagger (H.lex.)

ko_la, ko_lana = elongatedness, elongation; ko_lani = elongated (Te.lex.) [Note the elongated body of a horizontal person shown in the context of zebu bull, scorpion and tagara shrub]. kun.d.lan: = to lie down (Santali.lex.)

kol 'metal, alloy of metals' (Ta.)

kandankund.an (Sad. kandan-kundan) of bipeds, to walk looking lanky; to walk with long strides; kand.an-kond.on, kind.an kond.on, kon.do-kon.do, kond.an kond.an = lean and long-necked, lanky (Mundari.lex.) [Note the lean and long-necked glyph on a seal being trampled by a short-horned bull and horizontally on top of another cylinder seal which also shows tabaerna Montana shrub, zebu bull, scorpion and cactus].

kanda-kanda = to divide into small compartments or plots (Mundari.lex.)

kan.d. = a furnace, altar (Santali.lex.)

*A pot on top of this person



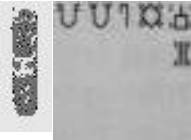

*A wavy line (snake?) bracketing this person and the scorpion

kan:g = brazier, fireplace (K.)(IL 1332) Portable brazier; **ka~_guru, ka~_gar** (Ka.) whence, large brazier = **kan:gar** (K.) *ka~_gri_* small portable brazier (H.)(CDIAL 3006).

kavar-u = dice, gambling (Ta.); kavar-u = die (Ma.)(DEDR 1329). [Note the glyph of dotted circle; also shown on ivory objects].

kavar-ai = Balija caste among the Telugus (Ta.); *kavar-a* = a tribe trading with glass bracelets, baskets etc. (Ma.); *gavariga* = a man of the basket and matmaker caste (Ka.)(DEDR 1330)

kacara_ dealer in glass bangles (IL 3012) *kha~_ca_* hen-coop B.H.P.); *kha~_c* basket for carrying birds (such as quails)(N.); **kha~_ca_** large basket of tamarisk twigs (Mth.); *kha~_ci_* small basket of tamarisk twigs (Mth.)

	<p>ursea111Seal; UPenn; a scorpion and an elipse [an eye (?)]; U. 16397; Gadd, PBA 18 (1932), pp. 10 11, pl. II, no. 11 [Note: Is the 'eye' an oval representation of a bun ingot made from bica_, sand ore?] The oval or eye sign is a <i>kat.akam</i>, a bangle; can be seen as a hieroglyph, a phonetic determinant of the substantive pictograph of the field, the scorpion, <i>kat.kom</i>. Or, does the 'oval' glyph connote a bun ingot? "The device is notable, a scorpion and an eye (?). The latter (or at least a similar elliptical character) appears in the script both alone and with a number of modifications...Mackay suggests (M.II, p. 392) that the fairly common character (ibid., pl. cxxviii, no. cccLI) 'may be a scorpion'..." (C.J. Gadd, <i>Seals of Ancient Indian Style Found at Ur</i>, in: G.L. Possehl, ed., 1979, <i>Ancient Cities of the Indus</i>, Delhi, Vikas Publishing House, p. 119).</p>
	<p>Rahman-dheri01A and B Rhd1: Two scorpions flanking a 'frog?' [<i>?kamat.ha</i>] and a sign T with two holes on the top, possibly to be tied on a string [Together with <i>bica_</i>, sand ore, the sign, 'T' may connote another ore, perhaps tin].</p>
<p>Rectangular stamp seal of dark cm.; Woolley, Ur Excavations, IV</p>	<p>steatite; U. 11181; B.IM. 7854; ht. 1.4, width 1.1 (1956), p. 50, n.3. Scorpion.</p>
 <p>2045 Pict-40:</p>	 <p>Frog.</p>

If the early form is: vat.t.u_ha, the possible homonyms are:

vartaloha a kind of brass (Skt.); vat.t.alo_ha a partic. kind of metal (Pali); valt.o_a_ metal pitcher (L.); valt.oh, balt.oh (P.); bat.lohi_, bat.loi brass drinking and cooking vessel (H.); vat.loi (G.)(CDIAL 11357). Bar stone (Gypsy); bar. Stone (Seur.Gypsy); bot. Stone (D.);; wa_t. (Ash.Wg.); wot. (Kt.); bo_t. (Dm.); bat. (Tir.Wot.); wa_t. (Gmb.); wa_t. stone, millstone (Gaw.); bat stone (Kal.); bort (Kho.)(CDIAL 11348).

vat.hu_ha_, vat.t.hu_ha scorpion (L.); vi_cd.a_ large scorpion (M.); bachiu_ large hornet (N.); vr.s'cika scorpion (RV.)(CDIAL 12081).

Image: turned; circle: vr.tta turned (RV.); rounded (S'Br.); vat.t.a round; circle (Pali.); round (Pkt.)(CDIAL 12069). vat.t.am circle, circular form, ring-like shape (Tol. Col. 402, Urai.); potter's wheel; wheel of a cart; revolution; varut.t.am egg (Na_mati_pa. 255); prob. vr.tta (Skt.) Image: rim of a wheel: vat.t.ai felloe, rim of a wheel (Cilap. 29, Uraippa_t.t.umat.ai); car, chariot; cf. vat.t.am circle, circular form, ring-like shape (Tol. Col. 402, Urai.); vat.t.a-p-po_tikai a circular piece placed under the capital of a pillar (W.)(Ta.lex.)

A distinction is made among ores: (1) stone ores, **bica**; and (2) sand containing ores, **bali**.

Smelting what? Stone ores. Rebus, scorpion: The early form is likely to be close to: *bica_* (A.); or *byucu* scorpion (K.); bu_ch (Mth.) bacchiu~ large hornet (N.); if so, there are substantive words in Mundari and Gujarati for a rebus representation:

bica, bica-diri (Sad. bica_; Or. bici_) stone ore; mer.ed.bica, stones containing iron; **tambabica**, copper-ore stones (Mundari.lex.) dhiri = stone (Santali.lex.)

The duplication of the pictorial motifs of the scorpion and the antelope on the Rehmandari seal may be related to the rebus homonym: bar, barea = two. The substantives relate to: bari_ = blacksmith; baria~o = a peddler or merchant.

bari_ = blacksmith, artisan (Ash.)(CDIAL 9464).

ba_ru = betel (B.)(CDIAL 9213; cf. ta_mbu_la).

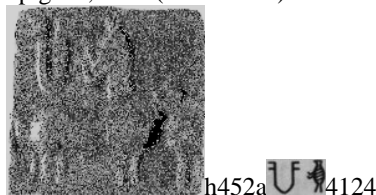
baru_, baro = a tall grass or reed (H.); baru = a reed (G.)(CDIAL 9151). Cf. the bush in front of the hare on copper tablets.

baria~o, ba~r.ia~ = a shopkeeper, a peddler who sells salt, spices, tobacco; baria~u = rich, great, powerful, arrogant (Santali.lex.) van.ika (Skt. Van.ik) a trader, a merchant; a grocer; a grain-vendor (G.lex.) va_n.iyo (Dh.Des. va_n.iyaya_ fr. Skt. va_n.iya-ka_ traders) = a Bania, an individual of a particular caste in Gujarat, the members of which are generally traders, shop-keepers, or money-lenders; a trader, a merchant; a dealer in grain (G.lex.) van.aja_r = a caravan; a camp or company of traveling merchants; a number of bullocks laden with corn, salt and other merchandise; van.ajaro = a traveling merchant who carries for sale goods in a caravan (G.lex.) van.ij = trader (RV); trade (Gaut.); van.i = trader (Pkt.); van.ic, va~r.ic = to sell (Ash.); vra_le (Kt.)(CDIAL 12230)

Rebus images (homonyms)

potam bele = *epsilon lyrae*, two small stars very close to each other, near Vega, in the constellation Lyra (Santali.lex.)

potam = a pigeon, dove (Santali.lex.)



pot.ea gar.ai = a species of fish; **pot.ha hako** = a species of fish; the fry of this fish are known as put.hi hako (Santali.lex.)

Substantive: **pota** [Hem. Des. potti_ = Skt. ka_cah 'glass'] beads of glass (G.)

pota a boat; a raft (G.Skt.) po_tram a boat, ship (Skt.lex.) po_ta-va_kan- boatman (Can.. Aka.); po_tam vessel, ship, boat (po_tan:ko n.et.un tan-ip poruvil ku_mpot.u : Kampara_. Pal.l.ipat.ai. 68)(Ta.lex.)

pota calf of leg (Pe.); pata id. (Mand.Ku.)(DEDR 4513)

pot upper part of back; pottel back; adv. Behind (Pa.); pot., pot.tl, pot.t.u back (Ga.)(DEDR 4514).

pota adj. 'six' (used in secret conversation by merchants)(G.)

potam cupi t.en:goc = a small sized axe of a peculiar shape; cupi = tail of bird or fish, rudder of boat; hence, the reference is to an axe shaped like the tail of a pigeon (Santali.lex.) **t.engra hako** = a species of river fish (Santali.lex.)



Homonym: **tengo, ten:gon** = to stand, to stand still, to assume an upright position (Santali.lex.)

Spoked-wheel sign: has 203 occurrences in the corpus of texts (Mahadevan).

phut.ia = the wooden rim of a cart wheel; hal = the iron tyre of a wheel (Santali) put.hiya_~ = pl. the felloes of a wheel (G.) put.t.hi = a section of the felloe of a wheel (P.lex.) putia = the centre piece of a solid cart wheel (Santali); pat.i = each of the outside planks of the solid wheel of a sagar. (Santali)

2866a.Cart; s'akat.a cart (R. S'a_n:khS'r.); s'akat.i_ (RV.); s'akat.ika adj. (Pa_n..gan.a); s'akat.ika_ small cart (Skt.); sakat.a cart, waggon, cartload (Pali); ya_l.a cart (Si.); hagar^u cart (K.); sagr.a_ bullock-cart (B.); sagar.a (Or.); saggar.ia_ driver of a cart (Or.); sa_gar., saggar.a_ smaller cart (Bi.); sagar. (Mth.); saggar., sagar. cart; sagr.i_ small cart (H.); chakir.o cart (S.); chakr.a_, chikr.a_ large two-wheeled bullock-cart (P.); chakr.a_, s'akr.a_ cart (B.); chakar.a_ large cart (Bi.); chakkar., chakr.i_ (Mth.); chakr.a hackney carriage (Or.); chakr.a_ two-wheeled bullock-cart (H.); chakr.u~, chakr.o cart (G.); sa_kd.a_ the box of a load-cart (M.)(CDIAL 12236). Wheel; cart: ca_ka_t.u < s'akat.a cart, carriage (Kur-al., 476); cart wheel (accut.ai-c ca_ka_t. t.a_ram: Pur-ana_. 256); cakat.a-k-ka_l cart-wheel, carriage-wheel (Na_lat.i. 2); cakat.a-p-por-i a machine in the shape of a wheel, used as a weapon of defence (Cilap. 15,216, Urai.); cakat.am cart, wheeled conveyance drawn by cattle, carriage, chariot (Ci_vaka. 363); car (Kantapu. Ka_ppu. 1); wheel; cakat.u cart (Periyapu. Tiruna_. 6); id. (Ma.); cakat.ai id. (Pur-ana_. 60, 8, Urai.)(Ta.) (Ta.lex.) cakad.a_, cakkad.i, cakkad.a_ (Tadbhava of s'akat.a) a cart; a travelling cart (Ka.); chakad.a_ (M.); cekad.a_ (Te.); cakat.am, cakat.u (Ta.); cagad.u, ca_d.u (Ma.)(Ka.lex.) cf. tagori the potter's wheel (Tu.); tikiri circle, circular form, wheel, potter's wheel, the discus weapon, chariot, car (Ta.); tayrgan. potter's wheel (Ko.); tiguri, tigari, tiguru a wheel, esp. a potter's wheel (Ka.)(DEDR 3201). **szekér** = cart, wagon (Mg - According to MÉK, possibly of F-U, Iranian or Dravidian origin) // [? gigir2 = chariot; wagon; wheels (Su)] // [? *sakar (Middle Iranian)]Ural-Altaic etymological word-list, Part 7 (R-Sz) - Peter D. Chong (1998 VI.) <http://www.2.4dcomm.com/millenia/uaetym7x.html> A solid cart wheel; cart with solid wheels: sagar. a cart with solid wheels; to cart; sagar. gad.i a cart with 2-spoked wheels; sagar. jhagar. driving a cart; sagar.ia a carter; sagar. cak a cart wheel; sagar solid cart wheel (Santali.lex.) sagar.i, sagir.i, sagr.i a rudimentary cart, called sometimes a block-wheeled cart because its two wheels (ca_ka) are spokeless and made of three blocks of wood (cf. Pl.XV,(1)(Mu.); sagar. (Sadani. Oraon); ... used to transport bales, sheaves of reaped paddy, straw, firewood and timber (Mu.lex.) sakat.a cart; cakkamagga cart-rut (Pali)(Pali.lex.)



Pirak24



m0272

Goat-antelope with horns bending backwards and neck

turned backwards



2554 [Is it a four-spoked wheel?]



m1005Bovid



m1001



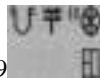
m1101



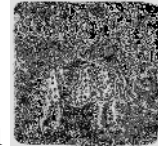
2431



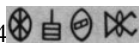
m1139



1341



m1134



2651



Surkotada 4



9094



Surkotada

7



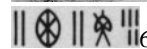
m1066



1547



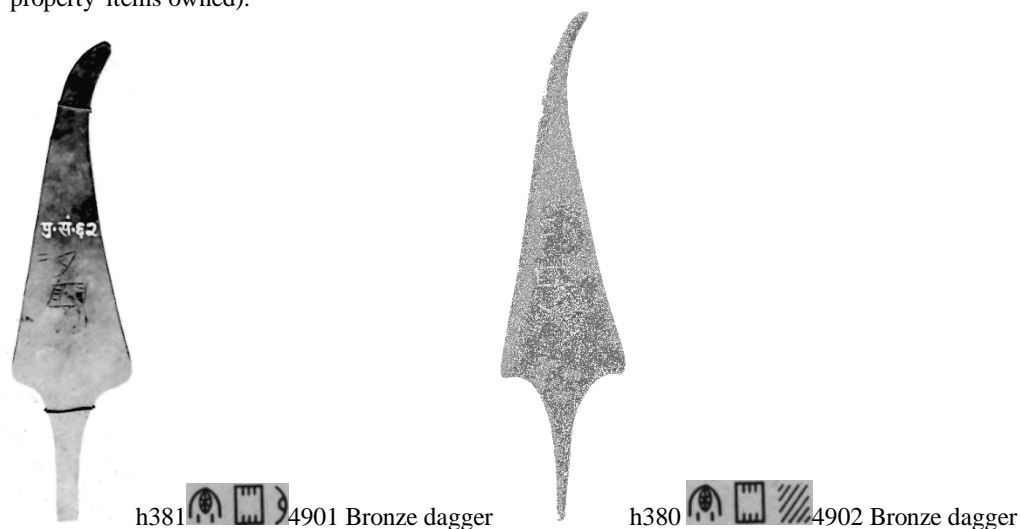
Chanhudaro30



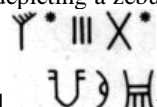
6111

The sign occurs at Surkotada, another fortified settlement close to Dholavira.

Sign 393 occurs on two copper 'daggers' from Harappa (the inscriptions -- 4901 and 4902 -- are the lists of 'property' items owned).



The first sign begins with Sign 393 and the third sign [] ligatured with an 'eye-ball'] is the same as that shown on Chanhudaro inscription 6306 incised on both sides of a bronze tool; the inscription includes a graphemic) sign without the 'eye-ball'; two other examples are on m257a seal, depicting a zebu bull as a field symbol and



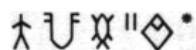
on inscription which is incised on a Harappan bronze weapon or tool

The X on line 1 (top line) and the first sign of line 2 (bottom line) is relatable to the signs incised on two tin ingots (each weighing about 11 kgs.) found from an ancient (ca. 1400 BC?) ship-wreck at Haifa, Israel -- the sign apparently connotes the nature of the 'alloy or metal' used. The first sign of line 2, inscription 5601 (Sign 182) may also be a variant an animal pictograph, the wild goat, **tagara** or **ba-ont.ia**, a species of deer; rebus: **bat.i** = oven (Santali.lex.) The ligatures Sign 184 may be a specific bat.i = can.d.bol bat.i = tail + furnace = refined silver furnace.



Signs 312 to 315

The inverted U sign also occurs on one side of Kalibangan k121A and B inscribed bronze rod



Kalibangan121A, B

See Chanhudaro bronze tool: Inscription 6306 incised on two sides c040 a,b; the cross-hatched oval sign follows the sign three inverted U-s:





Chanhudaro40A



Chanhudaro40B



6306 The first line of this inscription 6306 (which includes the three inverted U signs ligatured one on top of another) is incised on one side of copper tool.



Signs 313-317, 393+variants

kumpat.i = ban:gala = an:ga_ra s'akat.i_ = a chafing dish, a portable stove, a goldsmith's portable furnace (Te.lex.)

kumme = a dent, a notch, depression (Te.lex.)

2134. Image: dome, arch: gumat.a, gumut.a, gumuri, gummat.a, gummut.a a copula or dome (Ka.); ghumat.a (M.); gummat.a, gummad a dome; a paper lantern; a fire-balloon (H.Te.); **kummat.t.a** arch, vault, arched roof, pinnacle of a pagoda; globe, lantern made of paper (Ta.)(Ka.lex.); gumat.a a high, huge figure of stone, representing a Jaina saint (Ka.); gummat.e id. (Tu.)(Ka.lex.) kumbutalaya place of an elephant's frontal globes (Si.)(CDIAL 3314). kot.ko a mound, raised ground (Santali.lex.) Image: capital of a pillar: kut.a-ta_t.i capital of a pillar (Ci_vaka. 593, Urai); kut.am globe, ball, sphericity (Ta.lex.) 2135. Image: arch: komd.ed, komd.on with sa_n, curved, arched firewood (Mu.); gumbaz, gumbad an arch, a vault (Pers.)(Mu.lex.) 2133. Images: hump-backed; protuberance: kubja-kira_ta a hump-backed person and a dwarf (Skt.lex.) kumpam upper part of the back between the shoulders (Ta.lex.) kubhra hump-backed bull (Sat. xix.1); kumba hump, the portion that rises above; kubja hump-backed (VS. xxx.101) (Vedic.lex.) kubhra the humped buffalo (Skt.); kubd.a_ hunchback (M.)(Bloch, p. 317). kubja a hump on the back; kubja_ a young female servant of Kamsa, said to be deformed in three parts of her body (Skt.lex.) kat.wic bent, hunch-backed, applied to females; kat.wic mara aimai a hunch-backed jade; kat.be kot.be crooked, curved, bent; kat.buc round shouldered, hunch-backed, hanging the head; kat.ac kut.uc uneven, crooked; kat.bac kut.buc irregular, crooked (Santali.lex.) ku_vara, ku_bara a hump-backed man (Skt.lex.) kubi gai a cow with horns bent forwards; kuba crooked, bent; kuba d.an:gra an ox having horns bent forwards; kubja crooked, bent, curved; kubra, kubr.a, kubr.an. crooked, bent (Santali.lex.) ku_rpara the elbow, the knee (Skt.lex.) Image: humpbacked: kob^u hump on back (K.); kob^u humpbacked (K.); kubu hump (S.); kub bend, curve, distortion (L.); kubba_ humpbacked (L.); kubb hump on back (P.WPah.); kub (H.); kubro humpbacked, bent with age (N.); kubar. hump on back (H.); kubr.u~ (G.); kubad. (M.)(CDIAL 3301). kumba thick end (of a bone or club)(TS.); kumtale shoulder (Wg.); kum (N.)(CDIAL 3307). ku_high mountain (Pr.); ku_hump (Kt.)(CDIAL 3521). Crooked-armed: kumpa crooked-armed (Skt.); ko~pa_, kopa_ (B.)(CDIAL 3306). ku_bar. a crooked beam (Bi.)(CDIAL 3301). Images: knob, stud; protuberance: guburu protuberance (Te.); gubbi id., knob (Ka.); guba_ru swelling (Ka.); kumir.. knob, stud, pommel (Ta.); pommel, knob (Ma.)(DEDR 1743). kuppi ferrule (e.g. on scabbard, horn of ox)(Ta.); brass knob on tip of bullock's horn (Ma.); gubbi, gubbe stud, ornamental knob, button (Tu.); gubaka knob, boss,

stud; gubba id., protuberance, woman's breast; guburu protuberance (Te.); kuppe knob (Te.); koparam hump of bullock (Kond.a); gomon. hump of ox (Pe.); guper. id. (Mand.)(DEDR 1743). gu'u hump of ox (Kuwi); qope heap, pile (Malt.)(DEDR 1731a). Image: upper part of the back between the shoulders: kub back, behind (To.); kumpam upper part of the back between the shoulders (Ta.); kumbi buttocks (Ma.); kipc id. (?Ko.)(DEDR 1747). kappu shoulder (Tiv. Periya_r... 3,1,5)(Ta.lex.) cf. cumal shoulder (Ma.); cuval nape of the neck, upper part of the neck (Ta.)(DEDR 2696). Bullock's hump: kumir.. hump of an ox, pommel (Ta.); pommel (Ma.); guper. hum of ox (Mand.); koparam hump of bullock (Kond.a); gomon. hump of ox (Pe.)(DEDR 1743). gu_mbat.u bullock's hump (S.); gumbat., gummat. bullock's hump (L.)(CDIAL 4217). gu'u hump of cow (Kuwi)(DEDR 1927). ku_u the hump on a bull's shoulders (Ma.); kunj_a.r.i hump of bullock (Go.); koonjaree id. (Go.); gunzam, guzam shoulder (Kond.a)(DEDR 1643). khu~_dh hump on the back (G.); khu~_dhu~ hump-backed (G.)(CDIAL 3902). Humpbacked; dwarfish; bent: khummia bent (Pkt.); khumle, khomle id. (N.); khumre decrepit, old (N.)(CDIAL 3905). khujja humpbacked, small, inferior (Pali); khujja, khujjaya, khujjiya humpbacked, bent (Pkt.); khuja_ dwarfish (M.); kuda humpbacked (Si.)(CDIAL 3903). khubar. hump on back, knuckle, joint (M.)(CDIAL 3904). kujja humpbacked, dwarfish (Pali.Pkt.); kuju hunchback (Sh.); ku~j hump on back (A.); hump (B.); kuja_, ku~ja_ humpbacked (B.); kuja hump (Or.); kuja_ humpbacked (Or.); kuja hunchback (OG.); ko~ja_, ko~jha_ dwarfish (M.); kubja humpbacked (VS.)(CDIAL 3300).

kabua = bent, curved, arch, arched; kabja kubja = crooked; kabjun = bent, curved, stooping (Santali.lex.) Or, does it represent a pavilion, an awning, a tent?

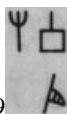
ak = a bow (Santali.lex.) [Could this be represented by the arch ligatured on Sign 393? The inverted U incised on weapons, could be erka, arka, copper (ingots)?]

ba~ont.ia, a species of deer; a homonym is: **ba_vut.a_** = flag, a banner, a standard (Te.); **ba_vat.a_** = flag (H.); ba_vut.e, ba_vat.a, ba_vat.i, ba_vat.e (Ka.M.)

See the glyph in front of the rhinoceros on a seal:



Kalibangan039



8011



m0669



2686

ko_d.i = a kind of flag, an image of garud.a, basava, or other demi-god set upon a long post before a temple; cf. gud.i, temple (Ka.lex.) [Note the flag in front of a procession on an inscribed tablet]. kot.i = a flag (Ta.lex.)
ko_d.e du_d.a = young bull (Te.lex.)

Sailing boat ko_t.ya, **ko_t.iya** = sailing vessel (Tu.), ko_t.t.iya = a sea-boat (Ceylon)(Ma.)

Rebus representation of phut.ia (felloe of wheel), 'copper ingot' explains why this sign also is inscribed on weapons -- inscribed copper axes. **san:gha_ta phut.ia** = **alloyed** copper (a pair of felloes); san:gha_ta = composite material (Skt.)



This sign pair occurs on Dholavira sign-board; thus, the sign board can be seen as an advertisement board announcing the products made in the metal-smithy of the fort.

Spindle whorls



Spindle-whorls have been found in many sites of the Sarasvati Sindhu Civilization attesting to the widespread practice of spinning and weaving. [Plates CLVI and CLVII, *MIC*].

"Spindle-whorls are found in such numbers at Mohenjo-daro that the art of weaving must have been practised extensively. We know for a certainty that cotton was one of the materials used for this purpose, and there can be no doubt that wool was also employed as the sheep was well known, being one of the many animals portrayed in clay... Spindle-whorls were

mostly made of pottery, but there are some shell and many of faience...The spindle-whorls made of shell (Pl. CLVI, 8-10) are somewhat rare. They range in size from 1.5 inches to 1.85 inches in diameter and the single hole in the centre averages 0.18 inch in diameter...Faience whorls... Pl. CLVII No. 36, 40, 41, 47...Nos. 41 and 47 were evidently made in the same mould... Small faience spindle-whorls very similar to those just described have been found in pre-Sargonic graves at Kish. One found in a grave of that period was mounted on a copper shaft." (John Marshall, ed., *Mohenjo-daro and the Indus Civilization*, London, 1931, pp. 468-470).

R.gveda uses **taks.** to denote a variety of creative skills:

composing hymns and praises (RV 5.73.1; 6.32.1; 9.97.22; 10.80.7);
framing of chariots (RV 1.111.1; 4.33.8; 7.32.20; 8.64.5);
making armour for deva-s (RV 4.34.9);
carving of a *yu_pa* (RV 1.162.6; 3.8.6);
wooden vessels (RV 10.53.10; 101.10);
fashioning of *vajra* (RV 1.32.3; 52.7; 61.6; 121.3; 10.48.3; 99.1).

Rebus: *takoe* = to spin on the *charkha* or spinning wheel; *sutamko takoeveda* = they spun the thread; *takkoe kanae* = she is spinning (Santali).

Avestan refers to Ahura-Mazda as the fashioner of the earth, as **Geus-tas.a_** (lit. carpenter of the Mother-Earth *Yasna* 29.1; 31.11; 44.6; 51.7). Homer refers to **tekton** as a worker in wood, a carpenter or a joiner (*Iliad* 5.59; 6.315; 13.390; *Odyssey* 9.126; 17.384; 21.430).

t.an:ka leg (Pkt.); **t.an:ga** (S.); **t.a_n:ka** leg, thigh (Or.); **t.a_n:ku** thigh, buttock (Or.)(CDIAL 5428).

t.aku = the spinning axle of a spinning wheel, on which the thread is wound as it is spun (Santali.lex.)

Ancient Phoenician Spindle Whorl



"I recently purchased a stone spindle whorl from a dealer who dates it to Phoenicia somewhere between 1200-800 B.C. I was interested in creating a working tool with it. Here are some shots of what I rigged up.

"Whorl: smooth black stone, about 1 inch in diameter. Weight .5 oz (?)

Shaft: 3/16-inch birch dowel, about 6 inches long

Hook: steel wire cut from a safety pin and bent into shape.

The shaft was wound with layers of sewing thread until the whorl could sit securely with a pressure fit. I left the sharp safety-pin point on the end of the hook, which made it easy to wedge into the shaft.

"This little spindle works wonderfully. It's extremely fast (speeds comparable to a *takli*), spins for a long time, and produces thread-sized yarn with little effort. I've experimented and found that so far, it does best with fine fibers such as silk and fine Merino. If the wool is too coarse the spindle starts to backspin too quickly. I have not tried it with linen yet. " <http://people.ne.mediaone.net/benfatto/phoenicia/index.html>

Worker in wood, metal and leather: spindle, fish with six curls and tiger stool



Elamite lady(?) spinner, 3000 years BP and the language of the civilization in Elam Musée du Louvre. Paris. An elegantly coiffed, exquisitely-dressed and well fanned Elamite sits on a lion footed stool winding thread on a spindle. This five-inch fragment is dated 8th century BC. It was molded and carved from a mix of bitumen, ground calcite, and quartz. The Elamites used bitumen, a naturally occurring mineral pitch, or asphalt, for vessels, sculpture, glue, caulking, and waterproofing.

<http://www.oznet.net/iran/elamspin.htm>

A lady is **era** (Santali); rebus: **era, ara** = copper (Ka.) Wooden stool is **gan.d.o** ‘a small piece of wood from 6 to 12 inches long and 3 or 4 high, used as a stool to sit on’ (Santali) Rebus: **khan.d.a** = instrument, implement, weapon (Santali) **kan.d.** ‘altar, furnace’ (Santali); Rebus: **gan.d.a** = hero (Ka.) cf. **takta** = a plank, a board (Santali)

The worker makes implements and weapons of wood and iron! He has a furnace for working with copper and (other) metals!

The stool on which the lovely Elamite lady sits has the legs of a lion or panther; the fish is also placed on a similar stool in front her.

The glyphs are a representation of a worker in wood and metal and also leather. He is **taks.aka**.

bad.hi = a caste who work both in wood and iron (Santali) **bad.hoe, bad.horia** = a carpenter, expert in working in wood (Santali) **badha** = wooden sandals (Santali) **badhor.** = knotty; **noa kat. do ad.i badhor.a** = this wood is cross grained (Santali)

badhor., badhor. hako = a species of fish with many bones (Santali) Homonym glyph: **bad.hia** = a castrated boar, a hog (Santali)

ca.mara = fly whisk (Skt.) Rebus: **camar, chamar** = a semi-aboriginal caste who deal in hides and make shoes (Santali) metath. **carma** = skin (Skt.)

The fish is ornamented with six circles arching around. **pot.ha hako** = a species of fish; rebus: **pota** = six (G.)

potam tengoc, ‘a type of small axe’.

Alternative:

khat.a ‘six’ (G.)

kata = a pit saw (Santali)

kat.a kat.i = cutting; to slash, kill (Santali)

kat, kaitha = the hindu caste of kayasth; **kat.**

bad.hoe a worker in wood, a carpenter (Santali).

tan:ga = a large axe; **ten:goc** = a small axe (Santali)

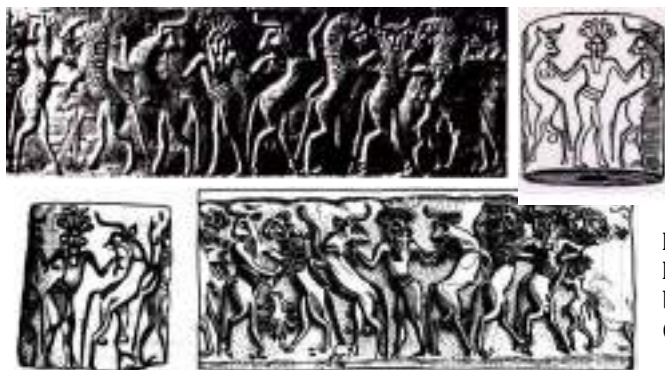
t.an:k = a hatchet (Skt.); **t.a_n:k** [Hem. Des. **t.an:ka** = Skt. chinnam cut up] a nib; a stel nib of a pen (G.lex.) **t.an:ka** spade, hoe, chisel (R.); **t.an:ga** sword, spade (Skt.); **t.an:ka** stone mason’s chisel (Pali); **t.am.ka** stone-chisel, sword (Pkt.); **t.ho_ axe** (Wot.); **t.hon:** battle-axe (Bshk.); tanger axe (Tor.);

t.ho_n:gi (Phal.); **t.onguru** a kind of hoe (k.); **t.a~n:gi** adze (N.); **t.a~ki** chisel (H.); **t.a~k** pen nib (G..H.); **t.a_ki_** chisel (H.); **t.a_n:gi** stone chisel (A.); **t.a_n:g, t.a_n:gi** spade, axe (B.); **t.a_n:gi** battle-axe (Or.); **t.a~_n:ga_** adze (Bi.); **t.a_n:I** axe (Bhoj.); **t.a~gi_** hatchet (H.)(CDIAL 5427). **t.an:kita-man~ca** a stone (i.e. chiseled) platform (Pali); **t.a~_kvu~** to chisel (G.); **t.a~_kn.e~** (M.)(CDIAL 5433). **t.an:kas’a_la_** mint (Skt.)(CDIAL 5434).

taks.an.i = a carpenter’s axe; **taks.akud.u** = a carpenter; name of one of the kings of the **na_ga** or serpents of **pa_ta_l.a** (Te.lex.)

If the spinner connotes **takoe** 'carpenter' (**taks.aka**), the fish in front of the spinner placed majestically on a stool ligatured with tiger's legs may connote: **hako** 'axe'; **kol** (tiger, rebus: metal). Cf. **ten:gra hako** = a species of rive fish (Santali)

Six locks of hair, weaver's beam, toggle, a nail pointed at both ends



From the Early Dynastic period onwards the scene usually comprises a man fighting with one or two

The woman with six lockf of hair is thus a ligatured rebus for: a worker in wood and metal, **kat. bad.hoe**.

Alternative: **pot**a 'six' (G.); hence, **potam tengoc**, 'a type of small axe'.

potr. = priest participating in soma processing (RV)

tuli, tuliau = rich, well-to-do, to rise in social position; tuliau hor. kanae = he is a rich man (Santali.lex.)

tura_, tura_yi = a plume, a crest; a head ornament of the shape of a feather; a nosegay (Te.lex.) **tuila, tuili** a lock of hair left on the crown, having a lock of hair on the crown, slim, lanky (Santali.lex.) cf. tulna_, tulya = equality, likeness; match, comparison, resemblance (G.lex.)

turui = six (Santali.lex.) turyamu = fourth, a fourth part (Te.lex.)

bulls, and a bull-man fighting with one or two lions....North-west India of the third millennium BCE can be considered as an integral, if marginal, part of the West Asian cultural area." (Parpola, A., New correspondences between Harappan and Near Eastern glyptic art, in: Bridget Allchin (ed.), *South Asian Archaeology, 1981*, Cambridge, Cambridge University Press, 1984). Cylinder seal impression; scene representing mythological beings, bulls and lions in conflict. A hero with six locks of hair checks two bulls. An Early Dynastic II/III cylinder seal from Fara (BM 89538), c. 2650 BCE. (after Mallowan, 1961: 75, no.34).

The six locks of hair of the woman may connote:

khat.a 'six' (G.)

kata = a pit saw (Santali)

kat.a kat.i = cutting; to slash, kill (Santali)

kat, kaitha = the hindu caste of kayasth; **kat. bad.hoe** a worker in wood, a carpenter (Santali).

Era = woman (Santali); era, ara = copper (Ka.).

turi_, tura_yi, tu_ra [Skt. tu_rya] = a trumpet (G.); tu_ryamu = a brass wind instrument; a sweet-tongued bugle trumpet (Te.lex.)

turi_ = a toggle; a nail pointed at both ends; tura_yi = a weaver's beam; a toggle (G.lex.) tur = the roller on which the cloth

is rolled by the weaver as he weaves (Santali.lex.)

turi_ = a horse (G.lex.)



An Early Dynastic II (circa 14th century BCE) votive plaque from the Inanna temple at Nippur VIII. "It has something very

Harappan about it also in the lower part depicting two 'unicorn' bulls around a tree. The six dots around the head of the Harappan hero, clearly visible in one seal (Mohenjodaro, DK 11794; cf. Mackay, 1937: II, pl. 84:75) may be compared to the six locks of hair characteristic of the Mesopotamian hero from Jemdet Nasr to Akkadian times (cf. Calmeyer, 1957-71: 373). Lower register shows two one-horned bulls flanking a tree (?). A person is holding back two contesting hyenas. [After James Pritchard, 1969, *The ancient near East in pictures, relating to the Old Testament*, Princeton, 356, no. 646; Gibson, M., 1977, Indus seal from Nippur, *Man and Environment* I: 67; Iraq Museum, Baghdad].



176bb 4303 Tablet in bas-relief h176a Person standing at the center between a two-tiered structure at R., and a short-horned bull (bison) standing near a trident-headed post (or holding a rimless pot on his left hand) at L. h176b From R.—a tiger (?); a seated, pig-tailed person on a platform; flanked on either side by a person seated on a tree with a tiger, below, looking back. A hare (or goat?) is seen near the platform.

kand.o seal, stool (Malt.); **kan.d.o** a stool (Kur.)(DEDR 1179).

Is the two-tiered structure a *kuruju*?

Glyph: *kuruju* framework of bamboo slats covered with paper or cloth or leaves, used to put idols in, or by the bride and bridegroom to sit in (Ka.); *kuruji*, *gurji* a temporary halting place for idols, decorated with leaves, flags; a temporary shed covered with awning for offering oblations to the manes of deceased s'u_dras (Tu.); *gurykat*. funeral car, the bed on which the corpse is placed under the tail, storied framework (Ko.)(DEDR 1786).

kha_ti member of a caste of wheelwrights (H.); **ks.attr.-** carver, distributor (RV.)(CDIAL 3647). **kat**, **kaitha** = the Hindu caste of Kayasth; **kat**. **bad.hoe** = a worker in wood, a carpenter (Santali) **katkianari** = soldiers (Kuw); **katk-** = to cut with axe (Nk.)

ka_t.hi a stick, a staff; five-cubits; five hand-breadths (G.) **ka_s.t.ha** wood (Skt.) **ka_t.hiyo** the wooden frame of a wagon (used in Ba_baria_wa_d)(G.)



Reading epigraph 4303:

There is a seal which combines the features of a one-horned bull and a rhinoceros (boar):

vara_ha metath. **va_kar** or **va_har**. May explain this ligatured animal on Seal m1135.

badhor, **badhor.ia** = crooked, cross grained, knotty (Santali.lex.)

vardhaka, 'carpenter, mason'

What could have been the early phonetic form of words connoting, 'artisan' or workers in stone, wood and metal (ores)? Were there distinct words connoting a differentiation of functions among, say, a wood-worker, a stone-worker and a metal-worker?

bad.dha = pl. stumps of stalks of the last harvest standing in a field (G.lex.) **vad.lu** = unhusked rice, paddy (Te.lex.) **bad** = third class rice land; **bad hor.o** = rice grown on third class land (Santali.lex.) **ba_t.u** = pl. stalks of corn with their ears; **ban.t.i** = a kind of corn (G.lex.) **buda** = stalk, stock, root, clump; **mit buda khonbo hec akana** = we all come from the one stock (Santali.lex.) **vad.d.h** = ears of corn remaining in a field after sheaves have been removed (L.); **vad.d.h**, **bad.d.h** = a cut in a piece of wood, chip,

stubble of grain (wheat, maize etc.); vad.d.ha_, bad.d.ha_ = cut, mark (P.); va_d.h = cut, wound, reaping a field (G.)(CDIAL 11372). bu~t.ha_ = reduced to a stump (M.); bu~t.han. = stump, stub (M.)(CDIAL 9268).

There is another semantic stream, **vad.d.e** (Telugu), **vad.d.haki** (Pkt.), connoting, respectively, a digger of tanks (perhaps the same group of people who had the competence to create a rock-cut reservoir in Dholavira) and carpenter, mason.

Substantive: *bad.hoe* 'a carpenter, worker in wood'; *badhoria* 'expert in working in wood'(Santali) **vad.d.e** = the tank-diggers' caste; of the country of Oriya; vad.d.eva_d.u = a man of the tank-digger's caste; a native of Oriya; vad.d.emu = Oriya language; vad.la, vad.ramu, vad.d.ran:gamu = carpentry, joinery; vad.langi, vad.ran:gi, vad.lava_d.u = a carpenter, a joiner; vad.lan:gipit.t.a = a wood-pecker (a bird); vad.lata = a woman of the carpenter caste or class (Te.lex.) bad.aga = a servant; Tbh of vat.uka? (boy) (Ka.lex.) bad.agi, bad.a_yi, bad.iga, bad.ige, bad.igya_, bad.d.agi Tbh. of vardhaki = a carpenter (Ka.; bad.agitana = carpentry (Ka.lex.)

Woman with six locks of hair subduing two tigers standing up

ten:goc = standing (Santali) ten:go, ten:gon = to stand, to stand still, to assume an upright or perpendicular position, to raise to an upright position (Santali)

ten:goc = a small axe; t.an:ga = a large axe; ten:gen = to kill for sacrifice by cutting off the head with a knife (Santali)

era = female (Santali); rebus: **era, ara** = copper (Ka.).

On seal m0308, the woman is also shown with one left-eye:

d.a_kannu = the left eye (Te.lex.)

d.a_kini, d.a_kin.i = a kind of female demon attending Ka_l.i (Ka.lex.) d.a_kan., d.a_kan.i_ [Skt. d.a_kini_] a witch; a sorceress; a monstrous woman; an old hag; d.a_kan.um, d.a_kiyum adj. Wicked; monstrous; horrible (G.lex.) d.a_gin.i_ =

Pkt. Form of d.a_kini_; cf. d.a_kini_ka in Pa_n. 4.2.51, Pat. (Skt.lex.)

Substantive: **d.a_kin.i, d.a_kini, d.a_hin.i** = the sword of a female demon (Ka.lex.) **darkha_n.** = adze; taks.an.a = cutting and paring.

dak, dakh = a vine (Santali.lex.)

d.ak = the Indian moorhen, gallinula chloropsis indicus (Santali.lex.)

d.aeka = long, widespread, with an upward turn, as horns; d.akd.aka = long, tall, high, projecting (Santali.lex.)

d.a_n:k, d.a_n:kh = a large green wasp; d.an:kh, dam.s'a [Skt. dam.s' to sting, to bite] a sting; a bite ntali.lex.)

d.a_n:k, d.a_n:kh = a bright piece of metal placed under a precious stone to make it shine brighter; a metallic cement (Santali.lex.)

d.a_ku, d.a_gu = a spot, stain, bot; a mark put on cattle with a red-hot iron; inoculated cow-pox (Ka.M.); d.a_ga (H.); d.a_gu (Ta.Te.)(Ka.lex.)

d.en:kan.i, d.en:kan.a, d.hen:kan.i = the flag-staff (with or without its flag) on the bastion of a fort (Ka.lex.)

d.an:ko = a large kettle-drum; d.a_kalum, d.a_khalum [Skt. d.hakka+ a kind of drum] a kind of drum; d.a_khalum besa_d.avum to get a drum beaten before a person by a spirit or ghost (G.lex.) d.an:ke, d.akke = a pretty large double drum (Ka.); d.an:ke (Te.); d.an:ka_, d.a_n:ka_, a large kettle drum (M.)(Ka.lex.)

d.an:gorum, d.an:go, d.an:goro = a thick club; a cudgel (G.lex.) d.akka = stick (Skt.); d.aku = stick put up to keep a door shut (S.); d.akka_ = straw (P.) d.a_garn.e~ = short thick stick (M.); d.an:ga_ = stick (Pakt.); d.a_n: = thick stick (A.); d.a~_klo = stalk, stem (N.)(CDIAL 5520). **t.he~gd.a_** cudgel (M.); **t.hi~gd.a_** cudgel (M.); **t.hen:ga_** cudgel (B.Or.)(CDIAL 5500). **Image: club: d.a~_g** club (H.) > stick (P.G.); club, mace (K.)(CDIAL 5520) **d.angi, d.ange** staff, cudgel, etc. (Ka.); **d.anke, t.anke** id. (Ka.); **t.ankam** mace (Ma.)(DEDR 2940). **t.in:gri_** bough (L.); **t.in:gar** contemptuous term for a tall and thin man (N.); **t.ikorn.e~** stick (M.)(CDIAL 5460). **Mace, cudgel; chisel: t.an:kam** mace (Ma.); **t.an:ke, d.an:ke, d.an:gi, d.an:ge** staff, cudgel, etc. (Ka.)(DEDR 2940). **tunger** axe (Tor.); **t.ho_n:gi** (Phal.); **t.on:gur"** a kind of hoe (K.); **t.a~_gi** adze (N.); **t.a_n.i** battle-axe (Or.); **t.a_n:g, t.a_n:gi** spade, axe (B.); **t.a~_ga_, t.a~_gi** adze (Bi.); **t.a_n.i_** axe (Bhoj.); **t.a~_gi_** hatchet (H.); **t.ho~** axe (Wot.); **t.hon.** battle-axe (Bshk.); **t.hen.** small axe (Bshk.)(CDIAL 5427). **t.an:kita-maca** a stone (i.e.chiselled) platform (Pali); **t.a~_kvu~** to

chisel (G.); **t.a~_kn.e~** (M.)(CDIAL 5433). **t.angi** axe (Didey); **t.angia** id. (Bonda); **t.anga** big axe (Asur); **t.angeja** small axe (Asur); **t.engoc** small axe (Santali); **t.anga** axe (large) (Santali). (S.Bhattacharya, Some Munda Etymologies, 1966, p.29).

4098.**Image: stone-cutter's chisel: t.an:kam** < **t.an:ka** stone-cutter's chisel (Ta.lex.) **t.an:ka** stone mason's chisel (Pali); spade, hoe, chisel (R.); **t.an:ga** sword, spade (Skt.); **t.am.ka** stone-chisel, sword (Pkt.); **t.a~_ki** chisel (H.M.); **t.a~_k** pen nib (G.M.); **t.a_n:gi** stone chisel (A.)(CDIAL 5427). **Image: staff, cudgel: t.an:ke, d.an:ke, d.an:gi, d.an:ge** a staff, a cudgel etc. (Ka.); **t.an:ga** (Ma.); **tay, tay** to strike, beat (Ta.Ma.)(Ka.lex.) **Rod, spike: t.an:g** projecting spike which acts as a bolt at one corner of a door (K.); **t.a_n.o** rod, fishing rod (N.); **t.a_n.i** measuring rod (N.); **t.a~_k** iron pin, rivet (H.); **t.a~_ki** thin iron bar (Ku.)(CDIAL 5428). **dasi** stake, pointed wooden peg, silver in the foot (Ka.); a painted (?pointed) palmyra stick, a stake (made of wood) (Tu.); **dasiku** a pointed wooden peg (Ka.)(DEDR 3017). **d.a_ha_** piece of wood fastened to neck of cattle to prevent straying (L.); **da_so** rooftop (Ku.); beam (N.); **da_sa_** broad and thin piece of stone or wood (H.); **da_s'a_** lath used to reinforce a thin wall (M.)(CDIAL 6318).

Glyph: *ka~rec* one eyed, blind of one eye (Santali) *kharen* a pupil of eye (Santali)

Glyph: *kero~t.* to turn half round, facing the right or left (Santali) **ked.e** behind; **ked.a** the back, the rear (G.)

Glyph: **ked.o, ked.i_** a track. A way, a road (G.)
Glyph: *ka_nta_* woman (Skt.)

Substantive: *ke~r.e~ ko~r.e~* an aboriginal tribe who work in brass and bell-metal; *ker.e sen:gel* fire in a pit, as the Koles burn charcoal (Santali) *kerani* a writer, a clerk (Santali)

Glyph: *kaidau* to subdue (Santali)

Substantive: *kat, kaitha* the hindu caste of kayastha (Santali) *ka~t* a wall built of mur or clay, to build a wall with clay (Santali) *kat. bad.hoe* a worker in wood, a carpenter (Santali)

Substantive: *kho~edak* mine; *kha~edak kho~edak* mines (Santali)

Substantive: *mat.akku* (*mat.akki-*) to engage as a servant, secure for oneself as an article or cargo (Ta.)

mer.ed, *mr.ed*, *mrd* iron; *enga mer.ed* soft iron; *sand.i mer.ed* hard iron; *ispa_t mer.ed* steel; *dul mer.ed* cast iron; *i mer.ed* rusty iron, also the iron of which weights are cast; *balimer.ed* iron extracted from sand ore (Mu.lex.)

nan:ga naked (Santali)

na_ga lead (Skt.)

Glyph: *mar.k* to subdue, make to obey (Ko.)(DEDR 4645). *mad.avum* to subjugate; to control; to make crooked (G.)

Glyph: *mat.al* eyelid (Ta.); *mat.a* eyelashes (Pe.); *kanu mat.a* eyebrow, eyelid (Kuwi)(DEDR 4650).

me~t kut.i the eyebrows (Santali)

Glyph: *lot.om* to subdue (Santali)



Image: parting the legs wide; stand astride; forked branch: pan:ga parting the legs wide; **forked branch of a tree** (Te.); *pan:gat.i* forked, pronged, placed wide apart; *pan:gat.i-ka_l.l.u* bandy legs; *pan:gat.incu* to part wide, straddle (Te.); *panla* fork (Kond.a); *pan:ga* state of being astride or forked (Ka.); *bagat.u* open the legs, straddle, to disjoin the legs (Ka.); *pan:gad.a* distinct, apart; *bagat.uni* to straddle, stand astride (Tu.)(DEDR 3818). **Image: astride:** *pan:ga* the state of being astride or forked: a fork, the forked branch of a tree (Ka.); *pan:ge* (Te.); *pan:ga-na_ma* a large sprawling forehead mark (Ka.Te.); *pan:gad.a* astride, apart, distinct (Ka.); *pan:gat.i* (Te.)(Ka.lex.) *phe~gd.a_*, *phegd.a_* bowlegged (M.)(CDIAL 9037). **To divide; images: to separate; to straddle:** *vaku* to divide, separate (Ta.Ma.); *bagi*, *bagaru* to separate, to disunite; to divide, to make pieces, to cleave, to tear (Ka.); 5580. **Image: astride:** *bakkar*, *bakka_r* a stride (Tu.lex.) **Tin; lead:** *van:ga* tin, lead (Skt.); calx of tin (used as an aphrodisiac)(S.); *van:g*, *ban:g* (P.); **ba~g** tin, lead, calx of tin; *ba~ga_* having a metallic or brackish taste (of water)(H.)(cf. *ven:ka_ram* a kind of caustic (Ta.lex.))(CDIAL 11195).

Cylinder seal. Susa. Early Dynastic III. After Legrain 1921: 252. Theme: a person flanked by two jackals (?) in conflict.



Ivory handle of a flint-bladed knife. Gebel el-'Araq in Upper Egypt. Style of the Jemdet Nasr period ca. 3000 BCE. After Pritchard 1969b: 9, no.290.



Gold seal. Bactria. A winged person flanked by two heads of lions (a) obverse; (b) reverse. After Ligabue and Salvatgori n.d. (1989): figs. 58-9; cf. Asko Parpola, 1994, Fig. 14.29, p. 255.

Khafaje bowl. Dark grey steatite (?serpentine) bowl carved in relief. Early Dynastic. (BM 128887). 1. A bull, a vulture, a lion, fish?; lion and bull in battle; lion is helped by a vulture; a scorpion is in front of the bull which is lying on its back; a small bear stands facing a palm tree; the tree is placed under the legs of the lion. Ears of corn (or trees) are seen in the background. 2. A man sitting, with his legs bent underneath, upon two zebu bulls. Zebu or brahmani bull is shown with its hump back; a male figure with long hair and wearing a kilt grasps two sinuous objects, representing running water, which flows in a continuous stream; linked to the sun and star: a sickle moon and a rosette-formed star are in front of his head. 3. Around the bowl, another similar male figure stands between two lionesses with their head turned back towards him; he grasps a serpent in each hand. In front of his head there is a rosette-shaped star. This evokes the proto-Elamite bull-man; the man holds in his hands streams of water and is surrounded by ears of corn. He has a crescent beside his head. On the other side of the bowl, a man is standing upon two lionesses and grasping two serpents. The zebu is reminiscent of Sarasvati Sindhu seals. The stone used, steatite, is familiar in Baluchistan and a number of vessels at the Royal Cemetery at Ur were made out of this material. The bowl dates from c. 2700-2500 B.C. and the motif shown on it resembles that on a fragment of a green stone vase from one of the Sin Temples at Tell Asmar of almost the same date.

BM 103240; Wiseman, *opcit*, 1962, Pl. 22c; Above: eagle, goats kneel before shrine. Below: contest frieze. Lapis lazuli.





Bronze foot and bronze anklet: Mohenjo-daro [After fig. 5.11 in: DP Agrawal, 2000].

“In the style of wearing ornaments and amongst toilet objects there are quite a few instances which seem to have continued through the ages. For example, the Marwari ladies of Rajasthan wear a large number of bangles on their lower and upper arms reminding one of the manner in which the famous dancing figure from Mohenjodaro did (Marshall, 1931: Vol. III, Pl. XCIV, 6-8). An engraving on a stone stele found at

Banawali (Bisht, 1987: 150) shows a person wearing a **d.amaru**-like armlet and wristlet, which reminds one of a similar ornament worn by women folk in Rajasthan and Gujarat. The anklet (**pa_yala**) worn by another figure from Mohenjodaro (Mackay, 1938, Vol. II, Pl. LXXIII,5) is still used by Indian women, sometimes disappearing from and at others re-emerging on the fashion scene. The gold hollow cone (called **chauk** in Hindi; Marshall, 1931: Vol. III, Pl. CXLVIII,2) is used even now on the forehead by the ladies of Rajasthan and Haryana. Referring to it Vats (1940:442) says: ‘By Hindus in northern India **chauks** are regarded as essential ornaments which every man, rich or poor, has to give at the wedding of his daughter-in-law. This ornament is now worn chiefly on religious and important domestic ceremonies only’. Reference may also be made to girdles worn by the Harappan terracotta figurines (mackay, 1938, Vol. II, Pl. LXV, 21,22). While girdles have almost gone out of fashion in urban areas, one may still see them around the waist of womenfolk in rural north India. Spiral finger-rings, though of a rather universal character, may not be out of place to be mentioned in the present context as well...” (BB Lal, 2000, opcit.)

era, er-a = eraka = ?nave; **erako_lu** = the iron axle of a carriage (Ka.M.); cf. irasu (Ka.lex.)



[Note Sign 391 and its ligatures Signs 392 and 393 may connote a spoked-wheel, nave of the wheel through which the axle passes; cf. ara_, spoke] eraka, era, er-a = syn. erka, copper, weapons.

The pair of ‘spoked wheel’ glyphs may be related to **san:gaḍi**, ‘a pair’ and the following etyma: **ara, ara_** (RV.) = spoke of wheel; [**a_r.i** = circle (Ta.Ma.)

a_r = battle (Ta.)

[a_r-a, ar_a = suffix to denote one who makes things: kamma_r-a, uppa_r-a = smith, salt-maker (Ka.); a_r-r-u = to do, make (Ta.); a_re, a_reka_r-a, a_reya = a Mahratta man (Ka.Te.)]

a_ra brass (Ka.) a_raku_t.a (Skt.)

[**a_re, a_ra_** = shoe-maker’s awl or knife (Ka.)]

eran. = an anvil (G.)

arka = name of the tree *colotropis gigantea* (AV 6.72.1)(Vedic.lex.) [cf. sal, sp. Tree; thus a tree may be a rebus representation of arka-sa_la or agasa_le, goldsmith’s workshop or goldsmith]

erake, er-an:ke, r-akke, r-ekke = a wing; a fin; an arm (Ka.); ir-aku, ir-ai, cir-aku (ta.); ir-agu, egir-u (Ma.); er-ake, r-ekke (Te.); a rib (Te.)(Ka.lex.) [Glyphs of two winged birds flanking a tree on a Yale tablet and other birds with wings, may be rebus for: erake, arka bat.a sa_la = copper furnace (arkasa_le, agasa_le)].

era_ = claws of an animal that can do no harm (G.) [Note the U sign ligatured with fig leaves and a glyph denoting claws]

er.ka ir.ki, era iri, er.a ir.i = be at enmity with each other (Santali.lex.Bodding)

er.an = to leave behind, dodge; turn aside, parry; escape (Santali.lex.Bodding) erer. = to turn aside, to parry, to avoid, to dodge, to give the go-by (Santali.lex.)[Note the two animals shown with their head turned backwards: tiger and antelope].



Glyph: *tapor* 'a hod, cover of a cart' ligatured with a pair of wheels. *dohra gad.h tapor*. Substantive: *trapu* 'tin' (Skt.) The ligatured glyph may connote a tin-metal-smithy. [lit. tin metal-work fort.]



This segment of the epigraph on the Dholavira sign-board, read from left to right, may thus mean: **put.ia** or **eraka** (or, *kundau*) **s'a_lika (loh)** **kamat.ha_yo** [fellies (or, nave of wheel), pin, ficus leaf; rebus: copper, workshop, (metal) artisan]

A rebus of **put.ia** could also be **put.a**, 'calcining (or purification) of metals': **put.a** = the purifying or calcining of metals etc. by fire (Tu.lex.); put.amu = refining a metal; calcining, calcinations (Te.) put.a = crucible; put.akke ha_ku = to put into a crucible in order to prepare drugs; to refine, as metals (Ka.); put.avikku = to apply fire in order to refine metals; to burn (Ka.lex.) **put.-** (-t-) to set fireto, kindle (Pe.); put.pa (put.t-), pur.pa (pur.t-) to roast (Kui)(DEDR 4260).
put.abhedana = a town, a city (Ka.lex.)
put.t.a = fox, jackal (Ma.); put.t.e id. (Tu.)(DEDR 4261).

The next two segments of the epigraph on the Signboard can be interpreted in this context:



The next two signs are: dhakna, 'lid'; rebus: d.ha_kin.i, 'sword'; kod.a, 'one'; rebus: kod., 'artisan's workshop'. Alternative: man.d.e = covering dish; rebus: man.d.a_ = warehouse, workshop (Kon.)

The lid may also be read as: *bakkare*; rebus *ban:gala*, chafing dish, furnace.

Glyph: *d.ha_n:kan.i*, *d.ha_n:kad.um*, *d.ha_kan.u*, *d.ha_n:kan.iyum* a lid, a cover; protection; a protector (G.) *dhakni*, *dhaknic*, *dhakon* 'a lid, a cover' (Santali)^



m0478At



m0478Bt



m0479At



m0479Bt

3224



m1425At



m1425Bt



m0480At



m0480Bt

Tablet in bas-relief. Side a: Tree Side b: Pict-111: From R.: A woman with outstretched arms flanked by two men holding uprooted trees in their hands; a person seated on a tree with a tiger below with its head turned backwards; a tall jar with a lid. Is the pictorial of a tall

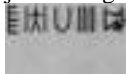
jar the Sign 342



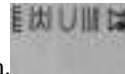
with a lid? Sign 45



seems to be a kneeling adorant offering a pot (Sign 328)



Pict-77: Tree, generally within a railing or on a platform.



3230

erukku = to cut, hew (Ta.); erk- to cut down bushes (Pa.Go.); **erga** to make a clearance, clear jungle or thick grass or scrub; act of clearing jungle (Kui); erg to cut, slash (Kuwi); en-gde to cut down a jungle (Malt.)(DEDR 824).

erkem = billhook (Go.)(DEDR 824).

eruvai = copper (Ta.); **ere** - a dark-red colour (Ka.)(DEDR 817). **eraka**, **era**, **er-a** = syn. **erka**, copper, weapons (Ka.)

Glyph: *sal* a gregarious forest tree, *shorea robusta*; *kambra* a kind of tree (Santali)
Substantive: *sal* workshop (Santali)

gand.ra trunk of a tree (Kuwi)(DEDR 1176). Cf. *gan.d.ra god.d.ali* a battle axe (Te.); *ko_t.a_li* axe (Ta.); *god.el* (Go.); *kut.ha_ra* (Skt.)(DEDR App. 32; CDIAL 3244).

The last or fourth sign is: **kod**. 'one'; **kod**. 'artisan's workshop'

The segment of four signs can be read as: put.ia kon.d. dhakna kod. = fellies, corner, lid, one; rebus: copper (calcining, **put.a**) fire-pit (furnace, **khu~t**.) **man.d.a_kod**. (artisan's warehouse) workshop.



The message on the Signboard of Dholavira is an advertisement board of the products and services offered by the metal worker community of the fortified place (since the board adorned the Northern gateway):

Could **put.a-** in **put.abhedana** also have represented calcined copper (hence, put.ia?); cf. ve_ti = homa-kun.d.a or pit for yajn~a; bhe_dana = breaking, splitting, separating (impurities); bhe_daka = refining(Ka.lex.) Thus, put.abhedana could connote the urban settlement where copper (ore) is calcined.

Plough without a pole: **kur** ploughshare (L.); **ku_t.a** part of a plough (Pali); id., its share (Skt.); **kut.aka** plough without a pole (Skt.); **kur**. ploughshare, sole of plough (L.); **ku_r**., **ku_r.ha_** (X **ka_r.hna_** to plough) body of a plough (H.)(CDIAL 3393). **kur..a**, **kur..u**, **gur..a**, **gur..u** ploughshare, iron used in cauterizing (Ka.); **kor..u** bar of metal (Ta.); ploughshare (Ta.Ma.); **ku**. id. (To. < **gu-** Badaga); **koru** a bar of metal (Tu.)(DEDR 2147).

It is possible that the Signs 162, 167, 169 and their variants as well as ligatures including these pictographs, are stylized versions of the 'tree' pictograph, since some of these signs and variants are comparable to the orthography of a tree with varying sizes of branches depicted. The pictograph is apparently a widely distributed 'weapon' category with a number of stylized variants (perhaps, next in importance only to the 'weapon' connoted by the one-horned bull pictograph, the 'jar' pictograph and the 'wide-mouthed pot' pictograph), given the number of signs which are concordant or include the pictograph as part of the ligatured signs.

Occupancy, possession, stone-cutter

There is a word in Santali which connotes both occupancy and possession.

Substantives: *dok* 'to shelter, save, protect, rescue, preserve, shield' (Santali) *dokhol* to occupy, or be in possession; occupancy, possession; *gan: ra~i parom no parom dokhol tahe~kantalea* we were in possession of both banks of the Gang river; *manjhi do noa jaegae dokhol akawadina* the village chief put me in possession

of this land; *noa bar.ge in dokholre menaka* this garden is in my possession. (Santali) *toku* 'to accumulate, collect'; add, summarise; *tokuti* class, herd, flock, aggregate, total (Ta.); *tokai* 'flock, herd, sum (Ta.); *tuka* sum, assembly (Ma.); *toga* party (Te.)(DEDR 3476). *don:gol* 'a large house, a palace' (Santali) *dun:ger.*, *dun:gel* 'in vast numbers, in crowds; a party, a group'; *don:gol* 'company, detachment, party, group, crowd, sect'; *bar pe don:golko calacena* 'two or three parties have gone' (Santali) *dondad.i*, *dondan.a*, *dondan.i*, *dondul.i* mass, crowd, throng, squeeze, tumult, fray; *dodde* mass, heap, crowd (Ka.); *dondad.i* crowd, throng; *dontara*, *donti* pile, heap (Te.)(DEDR 3505. *don* herd of goats (Sh.); *dhana* contest, prize, booty, property (RV.); *dhana* wealth (Pali.Or.); *dhan.a* (Pkt.); *dhan.u* herd of cattle, flock of sheep (S.); *dhan.* herd of cattle, wealth (P.); herd (WPah.); flock of goats and sheep (WPah.); herd of cattle (G.); *dhan* wealth in cattle (B.); cattle (H.); enrichment (M.); wealth (A.B.Mth.H.Ku.G.M.); *dhanu id.* (S.); *dana* possessions (Si.); wealth (K.) (CDIAL 6717).

Glyphh: *d.okiyum* looking at by raising the head; *d.ok* the neck (G.)

Substantive: *t.aka* 'silver, rupee, money' (Santali)

Substantive: *deko* 'hindu' or *t.aka* 'silver' (Santali) *deko per.a* 'relative Hindu'; *per.a* 'a kinsman, a relative, to receive one as a kinsman, to show hospitality, to visit' (Santali) This term is used together with *deko*. *deko per.a* = a courteous term applied to Hindus; *deko per.a janum jhan.t.i rorokgea* = a Hindu and a thorn fence prick; *per.a hor.ok ko calaoena* 'they have gone on a visit to relatives' (Santali) *t.aka kaud.i* 'money' (Santali)

Glyph: *daeka* 'wide-spreading horn'; *d.aeka kad.ru* 'a buffalo having long, spreading horns with an upward turn' (Santali) [Sometimes, two stars are depicted in the curve of the horns; rebus: *t.aka* 'silver'?]

Glyph: *deke* 'the hip, rump, buttocks (Santali) *d.heko* = a protuberance; a knot; *d.haiyum* = a large lump of clay (G.lex.) *d.heo* = a weight, solid measure (Santali.lex.)

Substantive: *ghorko rna* goods, property; *nunak hoyok kantaere ho~ enreho~ bae ghorkorna dar.eaka* although he gets so much still he can't collect any property (Santali)

Glyph: *kok-* (-*t-*) to raise and project the head (while seeing a distant object)(Kond.a); *go_pka* to stretch forth, stretch the neck in order to observe something, crane the head out, put forth the ear (corn)(Kui); *go_k* to look up, await; *go_khmu_* look up! (Kui)(DEDR 2180). *ghoce*, *ghocr.e* awry, wry, off the straight; *ghoce hot.ok* wry neck (Santali)

Glyph: *gorka* spear (Pa.Go.); *gohka* (Go.)(DEDR 2126).

Glyph: *gok* to carry on the shoulder; *gok idi* to carry away on the shoulder (Santali)

Glyph: *d.ehka* = carrying on shoulders; *tegal* = upper part of shoulder

deko = a Hindu (Santali)

tega = scimitar, cutlass

si~ghaut.a weapon-cleaner's polishing horn (Bi.)(CDIAL 12585). cf. **sikala** polishing, furbishing, burnishing; **sikiliga_ra**, **sikalaga_ra** a polisher of tools, weapons (Ka.); cf. **sikata** sandy soil (Ka.)(Ka.lex.) cf. **sita_** candied sugar, sugar (Skt.lex.)

mandil, *mandir* = temple (Santali) *ma_d.a* = shrine of a demon (Tu.); *ma_d.ia* = house (Pkt.); *ma_l.a* a sort of pavilion (Pali); *ma_l.ikai* = temple (Ta.)(DEDR 4796).

See the glyph on side c of tablet m0488.



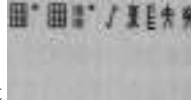
m0488At



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2802

Substantive: *man.uko* a bead; a gem (G.)

Glyph: *man.uko* a single vertebra of the back (G.)

A variant of Sign 12 shows a glyph of a bearer of burden slung on a pole across the soulder.

This combined with 'rim of pot' glyph may connote: spit + copper furnace (*sike* + *kan.d.kankha*); rebus: *sikuar* sling; *kan.d.kankha* rim of pot.

man.i jewel of office (Skt.); *man.iyam* office of the village headman (Ta.); superintendence of temples, palaces, villages (Ma.); *man.e.v*, *man.ye.v* the office of monegar (Ko.); *man.iya*, *man.iha*, *man.eya*, *man.e* superintendence of temples, maths, palaces, custom-houses (Ka.); *man.iga_re* revenue inspector (Tu.); *man.iyamu* office or duties of the manager of a temple (Te.)(DEDR 4674).

man.n.u to do, perform, adorn, decorate, polish (Ta.); *man.ai* to create, fashion (Ta.); *manayuka*, *maniyuka* to fashion, form earthenware, make as a potter (Ma.)(DEDR 4685).

Glyph: *man.ai* low wooden seat, low earthen dais, wooden base of cutting instyruments, footstool (Ta.); *man.i*, *man.e* stool, low bench, seat (Ka.); *man.e* low stool to sit upon (Tu.)(DEDR 4675).

ka_n.t.o the backbone; a fish-bone (G.)

From a survey of the following semantic clusters which could have formed the basis for the depiction of pictographs on inscribed objects -- to represent life-activities of a people --, it is hypothesised that the orthographic representation of a backbone (**barad.o** -- Gujarati) and a bull (**baradh** -- Punjabi) -- both connote a mason, with an early phonetic form: ***bard.a** which gets 'refined' (hyper-sanskritized) into Sam.skr.tam as **vardhaka**. [semantic: cutting , dividing , cutting off , shearing; a carpenter (Ra_ma_yan.a); cf. homonym: **vr.dh** = exhilarate (esp. the gods , with praise or sacrifice) RV.; cf. **bharad.o**, 'devotee of S'iva (Gujarati); **vr.dhat-** elevate , raise to power , cause to prosper or thrive AV. S'Br. MBh. ; to exalt , magnify , glorify (esp. the gods) (Skt.)]. A superb example of the evolution of a few Sanskrit words from the substratum Meluhhan or indic, since the words find their echoes in almost all languages of Bha_rata.

bal.ad = an ox; a bullock; a bull (G.lex.) baredi_ = herdsman (H.); baldi_ = oxherd (P.); baldiya_ cattle-dealer (Ku.)(CDIAL 9177). **balivarda** = ox, bull (TBr.); baleda_, baled = herd of bullocks (L.); baledo (S.); bald, baldh, balhd = ox; baled, baleda_ = herd of oxen (P.); bahld, bale_d = ox (P.); balad, bald = ox (Ku.); **barad** (N.); balad(h) (A.); balad (B.); bal.ada (Or.); **barad(h)** (Bi.); barad (Mth.); barad (Bhoj.); bardhu (Aw.); balad, barad(h), bardha_ (whence **baladna** to bull a cow (H.); bal.ad (G.)(CDIAL 9176). Cf. Naha_li_baddi_ = ox ; **pa_d.o** = bull (Sikalga_ri_, mixed Gypsy language.)(CDIAL 9176). **pa_r-al** = bull (Ta.)(DEDR 4020). **bare itat** = a bullock given at marriage by bridegroom to bride's brothers (Santali.lex.) baro barabbar = opposite, face to face; baro, baron. = provisions, food rations, supplies (P.lex.) barotwa_la_ = a partner (K.)(P.lex.)



Steatite ornament, a pectoral with just one ligatured sign

m1656 Steatite ornament. On this pectoral, a pot is depicted as overflowing in two streams. [The standard device in front of the bull will be analysed in a separate section.]

The depressed edge of the pectoral indicates that the object could have been encased in metal and worn like a pendant on a necklace.

The dominant orthographic features of this pectoral which can be interpreted as an inscribed object are:

29. One-horned heifer, young bull with a pannier on the shoulder and ligatured with a single, curving horn, with rings on the neck
30. An over-flowing pot shown on top of the heifer bull
31. A standard device in front of the heifer bull

Each of these pictorial motifs can be elaborated using lexemes of Proto-Indo-Aryan languages and using the rebus method of decoding (i.e. the use of pictures to denote similar sounding, substantive words).

bharat. bharat., bar. bhar. = to issue uninterruptedly, to come away continuously (Santali.lex.) **bharati** = the flux of the ocean; the tide (G.M.lex.) **bharn.d.o** = a whirlwind (Santali.lex.) **bharta, bharti, bharata** = the high tide, flow (Tu.lex.)

bharad.avum = to scribble; to scrawl; to write in paste (G.lex.)

bharia = stick with slings at each end in which anything to be carried is placed, carried over one shoulder (Santali.lex.) **bha_rayas.t.i** = bearer of a **ka_vad.i** (Te.lex.); **bharakud.u, bharat.ud.u** = a porter, a servant (Te.lex.) **bharia** (Mth.); **bha_ria** (Or.); **bha_ri** (A.B.); **bhariya** (N.); **bha_ri** porter (Ku.)(CDIAL 9464). **bha_rakud.u** = one who carries a load; **bha_rava_hud.u** = id., a porter (Te.lex.)

bha_rat.iyo, bha_ro, bha_rat.iyum, bha_ravat.iyo = a beam; **bha_ra, bha_ro** = a load, a burden (G.lex.)

bharad.o = cross-beam in the roof of a house (G.lex.) **bha_rat.iyum, bha_rvat.iyo, bha_rot.iyo** = a beam (G.lex.) **ba_ri** = bamboo splits fastened lengthwise to the rafters of a roof from both sides (Tu.lex.) **ba_rapat.t.e** = chief beam lying on pillars (Te.lex.)

bharata = casting metals in moulds; **bharatiyo** = a caster of metals; a brazier; **bharatar, bharatal, bharatal.** = adj. Moulded; an article made in a mould; cf. **bharavum** = to fill (G.lex.) **bha_ravum** = to keep live coals, buried in the ashes (G.lex.)

?furnace. Suffixed o-grade form **g^hhor-no-*. **a.** *fornax*, furnace, hornito, from Latin *furnus, fornus, fornax*, oven; **g^hhr-*. **a.** *burn* from Old English *beornan, byrnan* (intransitive) and *bærnan* (transitive), to burn; **?forge.** Middle English, from Old French, from Vulgar Latin **faurga*, from Latin *fabrica*, from *faber*, worker. **?hearth.** Middle English *herth*, from Old English *heorth*.

bharata = a factitious metal compounded of copper, pewter, tin etc.; green carbonate of lime (M.lex.) **barad., barhat.** = rough; not hard; brittle (G.lex.) **bharata** = fire in which the rice for **bra_haman-s** is boiled; name of Rudra (the Maruts are called his sons: RV 2.36.8); name of an **A_ditya**: Nir. 8.13); name of Agni (kept alive by the care of men)(RV); of a particular Agni (father of Bharata and Bharati_)(MBh.); a priest (r.tvij: Naigh. 3.18)(Skt.lex.) **bharta** = a method of cooking fish, mushrooms and vegetables by wrapping up in leaves and roasting in ashes (Santali.lex.) **bara_t.a** = a kind of firework (Tu.lex.) **bharta** = bake in live coals (Santali); **bharta** (Desi)(Santali.lex.) **bharan.yu** = fire (Skt.lex.)

Glyph: *tapu* 'to overflow as water' (Santali)

Substantive: *tapu* 'tin' (Skt.)

Glyph: *kan.d.a* 'waterpot' (Santali)

Substantive: *kan.d.* 'furnace' (Santali)

vahoro 'trader'

vahur.o 'heifer'

Backbone , caster of metals, devotee

Substantive: *bharatiyo* a caster of metals; a brazier; **bharata** casting metals in moulds; *bharatara*, *bharatala*, *bharatal.a* adj. moulded; *bharavum* to pour into; to fill in; to put in; to fill; *bharatiyum* an invoice (G.)

The orthographic accent is apparently on depicting the backbone of the kneeling adorant which has been stylized as a sign.



[Note the glyph of a kneeling adorant offering a pot; alternative readings: Reading 1: **kammara** (krem, 'back'); Reading 2: **karod.** (spine, **khara_di** turner, sawyer) + **kammat.a** (pot, coiner) or, karad.o, 'goldsmith's tool'; kammat.a, 'mint']

bador sat.ok = short neck and projecting chin, ugly, disgusting (Santali.lex.) bed.ol. = shapeless, ugly (G.); sat.ok = to bite, to snap (Santali)

marud.iyo = one who makes and sells wristlets, and puts wristlets on the wrists of women (G.lex.) **marad.a** = twisting; a twist; a turn; marad.avum = to twist, to turn; marad.a_vum = to bend; marod.a = a twist, a turn; writhing, a bend; marod.avum = to writhe, to twist, to contort; to bend (G.lex.)

barad.u, **bar-ad.u** = an empty pot (Ka.lex.)

bharad.o a devotee of S'iva; a man of the *bharad.a* caste in the bra_hman.as (G.) **barar.** = name of a caste of **jat-** around Bhat.in.d.a; barar.an da_ mela_ = a special fair held in spring (P.lex.) **bhara_d.** = a religious service or entertainment performed by a bhara_d.i.; consisting of singing the praises of some idol or god with playing on the d.aur (drum) and dancing; an order of at.hara_ akha_d.e = 18 gosa_yi_ group; bhara_d. and bha_rati_ are two of the 18 orders of gosa_yi_ (M.lex.) **bharat.aka**, **bharad.aka** = a particular class of mendicants (Skt.lex.) **bharat.a** = a potter or a servant: Un. 1.104 (Skt.Ka.lex.) **bard** Middle English, from Irish and Scottish Gaelic *bardand* from Welsh *bardd*. One of an ancient Celtic order of minstrel poets who composed and recited verses celebrating the legendary exploits of chieftains and heroes. **2.** A poet, especially a lyric poet. **ballad**: etymology: Middle English *balade*, poem or song in stanza form, from Old French *ballade*, from Old Provençal *balada*, song sung while dancing, from *balar*, to dance, from Late Latin *balla_re*, to dance. <http://www.bartleby.com>

ba_rn.e, **ba_ran.e** = an offering of food to a demon; a meal after fasting, a breakfast (Tu.lex.) **barada**, **barda**, **birada** = a vow (G.lex.)

barad.o = spine; backbone; the back; barad.o tha_bad.avo = lit. to strike on the backbone or back; hence, to encourage; barad.o bha_re thato = lit. to have a painful backbone, i.e. to do something which will call for a severe beating (G.lex.) barad., barad.u = barren, childless; baran.t.u = leanness (Tu.lex.) *man.uk.o* a single vertebra of the back (G.)

vara_d., **vara_d.h** = a quarrel; vara_d.havum = to cause to quarrel (G.lex.)

bara_d.o = a loud cry (G.lex.)

bha_rot.i = a bundle of fuel; bha_ro = a load, a bundle (g.lex.)

d.had. = leader, ring-leader, guide, veteran (Santali.lex.)

da_d.i = a military expedition, invasion (Te.lex.)

Occupation of a new house

A terms signifies occupation of a new house: *man.d.iau*, *man.d.au* to occupy a new house, to take up one's residence, to take shelter, as a wild animal in a thicket; *neako man.d.iauena* 'they occupied the house this year'; *per.a heckateko an.d.iauena* 'friends (or visitors), have come and encamped'; *on.d.eye sen man.d.iau akana* 'he has gone there and taken up his residence' (Santali)

Rebus (glyph): *man.dhwa* a temporary shed or booth erected on the occasion of a marriage; *man.d.om* a raised platform or scaffold (Santali) *man.d.apa* a bower; an arbour; a temporary structure erected on festive occasions (G.) *ma~r.o~m* a platform, used to keep straw on, or from which tow atch crops (Santali)

Glyph: *man.d.man.d.e* 'to stand in the way of others' (Santali)

Glyph: *pagela* 'a harmless snake' (Ka.); *pagele* 'a kind of harmless snake' (Tu.)(DEDR 3809).

Glyph: *mali* a small earthenware cup in which oil is burned for lighting purposes; *diuhe mali* the earthenware vessel which holds the oil for a lamp; *maliya benaceda* she pushes out her underlip like an oil vessel (she is pouting)(Santali) *mallam* cup, porringer, plate; *mallai* mendicant's begging bowl (Ta.); *malla*, *mallika* earthen cup, bowl; *mallam* a vessel of a coconut shell (Ma.); *malla*, *mallike* a sort of drinking vessel, earthenware vessel of a peculiar form (Ka.); *malla* shallow earthen dish; *mallakamu* oil cup in a lamp; *malaka* dish (Te.); *malla* pitcher for water; *malla* waterpot (Go.); *malla* bowl (BHSkt.)(CDIAL 9909; DEDR 4744).

Substantive: *mal* a bead, beads; a necklace; *munga mala*, *sa-k mala* coral beads of a large size; *bha-uri mala* beads made from a certain fruit about the size of round pepper; *muti mala* a pearl necklace; *sikr.i mala* a chain worn round the neck; *bar lar. mala* two strings of beads (Santali) *malaku* a round ornament of glass beads and coral or pearls strung upon a thread, so that each bead is separated by a knot, worn by females on the head; a kind of necklace (Ka.); a kind of necklace (Tu.)(DEDR 4733). *ma_lai* garland, necklace (Ta.Ma.); *ma_le* (Ka.); *ma.le* necklace (Kod.); *ma_le* (Tu.); *ma_la* id. (Te.); *ma_la* (Skt.)(CDIAL 10092; DEDR 4827).

Substantive: *ma_l.am* hole in earth (Ma.); *ma_l.i* rat's hole (Ka.); *ma.l.i* long hole (Kod.)(DEDR 4832). *malkat.a* coal miner (Santali)

Glyph: *ma_la* a creeping or climbing plant (Kui); *ma_r.a*, *ma_rra* creeper (Kuwi); *ma_r.a* creeper (Pe.)(DEDR 4833).

Glyph: *malukku* slip-knot (Ta.); *malaku* a turn, twist, fold (Ka.); *mala-gonu* to be twisted; *maluku* a turn, slip-knot (Te.)(DEDR 4734).

Glyph: *mala_pu* to turn back; *malapu*, *mala_cu* id. (Te.); *malay* to return (Kol.); *mal*, *mall* to return (Go.)(DEDR 4734). *malar* to turn the face or mouth upward (as a pot)(Ta.); *mala.ra* outstretched with face upward (Kod.)(DEDR 4740).

lar. a string, as of beads, once round, as a chain (Santali)

lar., *lat. membrum virile*, penis (Santali)

Glyph: *mall* to root out (Kol.); to uproot (Nk.)(DEDR 4745).

Glyph: *malan:ku* eel (Ta.); *malu-gu* a fish (Te.)(DEDR 4737).

Glyph: *malagu*, *malan:gu* to recline (Ka.)(DEDR 4735). *va_lu* to bend, slope (Ka.); *v(r)a_lu* to incline, bend (Te.)(DEDR 5369).

Glyph: *malai* to oppose, fight (Ta.); *male* to oppose, fight against (Ka.); *malayu* to rage, wrestle (Te.)(DEDR 4741). *malla* wrestler (Skt.); *mal*, *mallam* wrestling (Ta.)(DEDR 4730; CDIAL 9907). *lat.ao* to lie in wait, as a beat of prey, tiger (Santali)

mon.d.ol the headman of a village; a name of the Hindu caste sun.d.i (Santali)

mun.d.a a Kolarian tribe inhabiting the Chota Nagpur division; the Paharias of the Rajmahal hills; *kol mun.d.a*, *lar.ka mun.d.a* division of the Mun.d.a tribes (Santali) *mudi* a shopkeeper (Santali)

motm Kurumba village (Ko.); *mut* id. (To.)

Glyph: *mod.ha_mod.h*, *mod.a_mod.* face to face (G.) *mun.d.amun.d.i* head for head; *mu-ha~ mu-hi-* face to face (Santali)

Glyph: *mund.e* to gore (Malt.); *mu~_d.na_* (*mud.d.yas*) to strike or dash in one's course against some obstacle (Kur.)(DEDR 5039)l

mun.d.a tank (Pa.Ga.Go.); bund, embankment (Kond.a); tank, bund (Pe.); tank, reservoir (Kui); *mund.a_* tank (Halbi)(DEDR 4945).

malkat.a a coalminer; *mal*, *maljal* goods, effects, merchandise; *maldar* owner, proprietor, wealthy (Santali)

mad.havum to encase with a metal leaf (G.)

ma_t.ai being bent downwards as horns of cattle (Ta.); *ma_t.a* cow with horns bent downwards (Ma.); *mat. et* bullocks with horns curving back (Ko.); *mo_d.e* ox or buffalo with curved horns (Tu.)(DEDR 4799). *ma_t.u* ox (Ta.Ma.)(DEDR 4798). *mad.avum* to bend; to incurvate; to incline (G.) *mad.avum* to make crooked (G.)

mad.a_ga_nt.h a fast knot; *mad.avum* to twist (G.) *mut.ai* to braid, plait (Ta.)(DEDR 4927).

mad.hi_, *mad.hud.i_* a hut, a shed, a cottage (G.)

Glyph: *me_lh* goat (Br.); *mr..e_ka* (Te.)(DEDR 5087).

mat.akku (*mat.akki-*) to engage as a servant, secure for oneself as an article or cargo (Ta.); *mod.x-* (*mod.xy-*) to keep lover (of either man or woman; not of Todas)(To.); *mad.agu*, *mad.an:gu* to lay down, place, put, take into one's service as a man etc., procure and keep for one's use as a horse etc., hire (Ka.); *mad.aguni* to lay, put down, place (Tu.)(DEDR 4644).

mad.ake earthen vessel for collecting toddy (Tu.); pot (Ka.); *mad.ike* pot (Ka.); *mat.a_*, *mit.a_* large earthen vessel (Ta.); *mat.akku* a large, earthen plate (Ta.); *mit.a_vu* large waterpot (Ma.); *mir..a_vu* large pot (Ma.); *mat.a* pot (Kui); *met.a* chatty, pitcher (Malt.); *mad.akka* pot, pitcher (Pkt.); *mad.ki_*, *mad.ke_* water-jar or pitcher (M.)(DEDR 4651). Image: pot: *mad.ake*, *mad.ike* a pot; *mad.aki_*, *mad.aki_m* a water-jar (M.); *man.n.a* *mad.ake*, *us.t.rake*, *kad.ava* *mad.ake*, *manthani*, *gargari* (Ka.lex.) *matika_* earth, clay (Pali); *mr.ttika_* (VS.); *mat.t.i_*, *mat.t.ia_*, *mattiya_*, *mittiya_* (Pkt.); *mat.hi_* earth, clay, brick (Dm.)(CDIAL 10286). *ma_t.a* an earthen pot (G.)

man.d.i earthen pan, a covering dish (Kond.a); cooking pot (Pe.); brass bowl (Kui); basin, plate, bowl (Kuwi)(DEDR 4678).

ma~r. game killed at a hunt (Santali)

man.uko a bead; a gem (G.)

man.uko a single vertebra of the back (G.)

mad.iyo gravel; *mad.a* gravel, gravelly soil (G.) *mat.i* earth, soil; *mat.ia pathra* a kind of soft, slatey stone (Santali) *man.al* sand, gravel (Ta.); *man.l.* (Ko.); *man.al*, *mal.al*, *malal*, *maral*, *malar* (Ka.); *man.a* sand (Kod.); *man* id. (Pa.Ga.); *man.u* id. (Kond.a)(DEDR 4666b)

mad.a~gu, *mad.u~gu* to turn back, return (Te.)(DEDR 4645).

mar.k to subdue, make to obey (Ko.)(DEDR 4645). *mad.avum* to subjugate; to control; to make crooked (G.)

man.d.al.ika adj. a tributary chief; *man.d.al.i_* an assembly; a company; a meeting; a society, an association (G.)

man.d.al, *man.d.al.* disk or orb (for the sun or moon); a circle; a ring; a circumference (G.)

mandoli a hollow ornament of various metals, worn usually round the neck and often filled with something in the nature of a charm; *madoli* a piece of bone of certain snakes is considered an effectual charm against lumbago. It is placed in the *mandoli* which is worn attached to a string round the waist (Santali)

me_d.a illu storied house (Kuwi); *me_r.a* upstairs building (Kuwi); *met.a* whitewashed storied house (Skt.); *med.aya* id. (Pkt.)(DEDR 4796). *me_r.a* mide terraced building (Kond.a); *mettai* storied house, upper story (Ta.); *metta* terrace (Ma.)(DEDR 5069) *mad.hi_*, *kad.hud.i_* a hut; a shed; a cottage (G.) *mat.h* A monastery (G.)

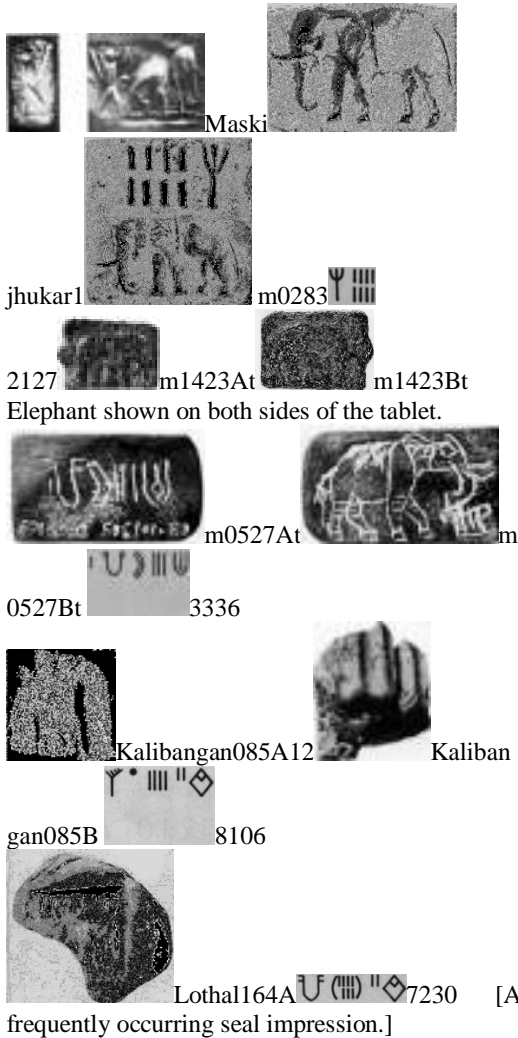
mad. – (*mad.i-*) to do; *ma.d.i* burned clearing in jungle where grain is grown (Kod.); *ma_r.* to make (Go.); *ma_r.uka* to build, construct (Ma.); *mat.m* fashion of doing things (Ko.); *ma_d.u* to do, make, perform, manufacture, construct, build, execute, cultivate as a field; n. doing, making (Ka.)(DEDR 4797).

mat.al eyelid (Ta.); *mat.a* eyelashes (Pe.); *kanu mat.a* eyebrow, eyelid (Kuwi)(DEDR 4650). *me~t kut.i* the eyebrows (Santali)

mat.al blade of a weapon (Ta.)(DEDR 4663).

Substantive: *mad.aka_* plough with bullocks complete (Te.); *mad.ike* a kind of harrow or rake (Ka.)(DEDR 4656).

Elephant



Substantive: *ib* iron (Ko.); needle (To.); *irimbi* iron (Kod.); *inumu* id. (Te.); *inum* iron, sword (Kol.); *rumba vad.i* ironstone (Kui); *irumpu* iron, instrument, weapon (Ta.); *irumpu, irimpu* iron (Ma.)(DEDR 486). *vad.i, vali* stone (Kui); *mesival* whetstone (Go.); *vwalli, valli, vali* (pl. *valka*) stone (Kui)(DEDR 5285). Cf. *bali* iron stone ore (Santali)

Substantive: *imbu* a halting or resting place, home, place, space, room (Ka.); *imba* width, breadth (Ka.); *imbu* place, room, space, refuge, opportunity; broad, wide (Tu.); *immu* a place, home, room, space; convenience (Te.)(DEDR 467). *Iruppu* seat, residence, merchandise, wares (Ma.); *irippu* sitting, residence, position (Ma.); *irpga.rn* rich man (Ko.); *iravu, irapu* being, staying, resting state; *irke, ikke* being, abode, seat, place (Ka.); *iruvu* neighbourhood, place, home (Te.); *re'nai* to abide (Kuwi)(DEDR 480). Glyph: *ibha* elephant (Skt.) *ibo obo* thick and heavy, fat (Santali)

karat.i = an elephant (Te.lex.)

e_nu (pl. -l) elephant (Pa.); **e_nu~gu, e_nika, e_niga, e_nige, e_nuga** elephant (Te.); *ena_gi_, e_ngi* (Kol.); *e_nagi_* (Nk.); *e_nig* (Ga.); *ye_ni_, aini_, e_nal, e_ni, e_n* (Go.); *e_ngu, e_ni* (Kond.a); *ya_n-ai, a_n-ai* (Ta.); *a_na* (Ma.); *a_n* (Ko.); *a_n* (To.); *a_ne, ya_ne* (Ka.); *a.ne* (Kod.); *a_ne* (Tu.)(DEDR 5161).

e_nu one edge of a blade of hoe or spade (Te.); **e_n., e_n.i** boundary, limit (Ta.); **e_n.u** edge, chiefly the three edges of the coconut (Ma.); **e_n.er** edge (Ko.); **e_n., e_n.u** edge, border, point (Ka.)(DEDR 886). **Barber: e_n-a_ti** barber; name of a division among Sha_n.ans (Ta.); **e_na_di** barber (Te.)(Ta.lex.) **Soldier: e_n-a_ti** an ancient title conferred by a king on his minister (**Man.i. 22,205**); general; soldier, warrior; **e_na_ti-mo_tiram** ring being the insignia of the title of **e_n-a_ti** (**Ci_vaka. 2569, Urai**)(Ta.lex.) cf. **se_na_di** (Skt.lex.) **e_n-am** tool (Ta.); **e_nam** tool (Ma.)(DEDR 918). **e_nu** one edge of a blade of hoe or spade (Te.); **e_n. e_n.u** edge, point (Ka.); **e_n.er** edge (Ko.); **e_n.u** edge, chiefly the three edges of the coconut (Ma.); **e_n. e_n.i** boundary, limit (Ta.)(DEDR 886). **e_n., e_n.am, e_n.ai, e_t.ci** firmness; **en.** strength (Ta.); **e_n.am**

steadfastness (Ma.); **e_n.u** energy, firmness, stability (Ma.)(DEDR 886).

Some Assyrian/Akkadian lexemes

a_ru = offspring, child
erimu = foe
a_ru = enemy (lit. one marching against another) (Akkadian/Assyrian)
arru, irru = sling, fetter; **aru_** = outfit, harness
arxu = ox
arxu, uruxxu = way
araku = arrange, fit out; **erikku** = outfit
urgu_, urku_ = title of an officer
ur-ra-ku = stone mason [urra-ku = sculpture]

ebru = corn, food (a-ru = germ, sprout, flower, blossom)

ebru = friend

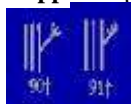
uru = animal

uru, eru = settlement, city

armu = ibex, mountaingoat (W. Muss-Arnolt, *A concise dictionary of the Assyrian language*, Berlin, Reuther and Reichard, 1905).

If the rebus principle is used to explain the glyphs of Assyria or Akkadia showing, say, a lion attacking a bull or a tiger with wings of an eagle, these Assyrian/Akkadian lexemes may point to the glosses which lead us to the homonyms.

Copper or griddle, three long linear strokes



Signs 90, 91 On many epigraphs, three long linear strokes (with or without ligatures) appear in contexts connoting the glyph as a lexeme (and not a numeral count).

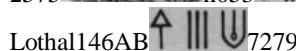
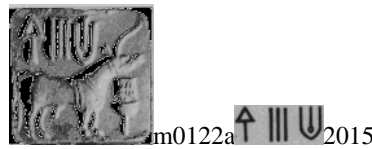
Glyph: **tebr.a** = three; rebus: **ta(m)bra** = copper

Alternative: Glyph: **pene** 'three'

Substantive: **penamu** = griddle, metal plate or pan for baking (Te.) **pen.i_** a frying pan (G.);

pahen.ayam = Skt. bhojano pa_yanam, a cooking vessel; Hem. Des. pa-i-n.o = broad (G.)

Glyph: plug: **ben.e** peg, plug, stopple, cork (Ka.); **bu_n.a** peg, wedge (Tu.)(DEDR 4396).



Arrow, Sign 211

3810.Image: boatman's pole: callam boatman's pole (Ma.); jallu id. (Ka.); jalla id. (Tu.)(DEDR 2380). jalle, jar.ave a bamboo pole; a sugar-cane (Ka.); jalle cane of sugar (Kod.)(DEDR 2383). cel. long, round stick, stick of fairly large size (Ko.); sel.e twig, small branch, stick, rod, also one for training or punishing children; to cane with a stick; cal.l.u, cel.u, cel.l.u, sel.l.u a long flexible twig or rod (Ka.); jal.e long thin pliable stick; (jal.ev-, jal.and-) to sway like a long pliable stick; jal.a- (jal.ap-, jal.at-) to make sway (Kod.); cil, s'il a fishing-rod (Tu.); sela twig (Te.)(DEDR 2790). Image: pitchfork, fishing rod; spiked stick: [The image is related to pearl fishery: a forked lance, to hook a mother-of-pearl shell]: salage (Tadbhava of s'ala_ke) a javelin, a dart (Ka.)(Ka.lex.) s'alyas'an:ku spiked stick (Skt.); salhan:g, salhan:ga_, salan:gh, salan:gha_ small pitchfork (P.)(CDIAL 12355). s'ala_ka_ small stake (S'Br.)(CDIAL 12355). cf. sa~_gi_ pitchfork (P.)(CDIAL 12260). [The etyma with consonants csp semantics: oyster shell] and the associated images of the spiked stick and lance cil- clash resulting in the description of the business of pearl fishery]: s'ila_pam pearl fishery (Ma.); sala_pam id. (Ma.); sala_pamu id. (Te.); cala_pam, cila_pam id. (Ta.)(DEDR 2369). cala_pam pearl fishery (S.I.I. iii,145); cala_patturai id. (Ta.lex.) Image: bow: cila bow (Ma.); cilai id. (Ta.)(DEDR 2571). Image: arrow: gi'erri arrow shaft (Kuwi); keeri arrow (Kui)(DEDR 1932). Images: fork; dart: cil.l.u a fork (Te.); cil.l.a bifurcated (Te.); cella, jella branch, bough (Pa.); cil.l.e a fork (Ka.); cil branch of a tree

(Ko.); cilla small branch of a tree (Ma.)(DEDR 2587). s'ili_ dart, arrow (Skt.); s'e_lla (<? s'ailya), se_la, se_lla a kind of weapon (Skt.); s'ili_pr.s.t.ha epithet of a sword (MBh.) > sil (Persian.Psht.); sil spear, arrow (Ash.); siu spear (Kal.); s'il id. (Wg.Gaw.); sel arrowhead (K.); sella, silla spear, arrow (Pkt.); se_l spear (Wg.); sel (Kal.); selhu large thorn (S.); sel long spear (P.); sela_ spear (P.); xel dart, stake (A.); sel dart, javelin, spit (B.): sella, helle_ (pl. hella) spear, dart (Si.)(CDIAL 12466). cili_mukam arrow, ampu (cilai-y-itu cili_muka-n-kal.ivai (Parata. Tirau. 31); bee; nipple of woman's breast; battle, fight (Ta.lex.) cili_muka-k-kai hand-pose in which the tip of the thumb touches the first line of the forefinger and the tips of the other fingers touch the palm (Ta.lex.) sili_muha arrow (Pkt.); silimuva_ bee (Si. < prob.Skt.); s'ili_mukha arrow (MBh.)(CDIAL 12469). For semant. 'bee' cf. cil.-van.t.u cricket (Ta.)(DEDR 2588). Image: arrow; lance, javelin, sharp stick to dart a fish: cilukku iron staple, tooth of a saw, barb (Ta.); spike, iron barb, javelin (Ma.); cille_li a sharp stick to dart (sic) a fish with (Tu.); cillako_la lance, javelin (Te.); ciluku, sela arrow (Te.); selago_la goad (Te.); selapandi porcupine (Te.)(DEDR 2568). [cf. s'alyaka porcupine (VS.); sallaka porcupine (Pali); salla_ armadillo (L.); sellaga porcupine (Pkt.); -sayake prob. porcupine (As'.); ka~_ta_-sariyo hedgehog (G.)(cf. kan.t.aka thorny and ka~_ porcupine (Pas'.)(CDIAL 12353; poss. non-Aryan origin). ey, ey-p-pan-r-i porcupine (Ta.); s'e_d id. (Kol.Nk.); ce_dir (Pa.); e_du, e_du-pandi (Te.)(DEDR 2776). cf. s'va_vidh porcupine (AV.); se_dha, se_ha (Pkt.); seh, si_, si~_h (H.)(CDIAL 12766).] jhi~k the Indian porcupine (Santali.lex.)

Image: arrow: s'aru missile (RV.); arrow (AV.); s'ur arrow (Kt.); sari_ straight like an arrow (P.); sara arrow (Or.); sar (Mth.); sara (OAw.); sar (H.); sara (OMarw.); sar (G.); sara, sara-ya (Si.)(CDIAL 12336). s'ara reed from which arrows are made (RV.); the reed saccharum sara, arrow (Mun.d.Up.)(CDIAL 12324). s'arya arrow (RV.); s'e_ra, s'a arrow (Kal.)(CDIAL 12339). s'alya arrow, javelin (RV.); salla arrow, dart, piercing sting (Pali); spear, javelin, thorn in body (Pkt.); s'al spear; s'il (Ash.); s'al (Bshk.); salu hole (S.); sall dart, perforation, hole (P.); xa_l spike, wedge; xli thin long slip of bamboo or iron etc. (A.); sa_l impaling stake (B.); sa_la thin projection of wood fitting into mortise, tenon (Or.); sa_l thorn, pang, pain (Mth.); thorn, pain, hole made in ground by a spike (H.); tenon, cause of pain, impediment (G.); splinter

remaining in flesh (M.); sala arrow, spear (Si.)(CDIAL 12352).

A synonym, salla = spear [or, a ligatured pole]

kod.a, kor.a professional digger; an aboriginal tribe cognate to the Santals, and speaking a similar language; *kod.ra* to scourge; *khot.rao* to scrape out of a hollow, to gouge (Santali)

kottan- mason (Ta.); *kot* to peck (Ko.); *kothke* to peck or strike with the beak, sear with a hot iron (Malt.)(DEDR 2091).

Association of elephant and eagle

Elephant glyph: *ibha* + *s'un.d.* (elephant + trunk); rebus: *ib* (iron) + *sun.d.* (furnace)

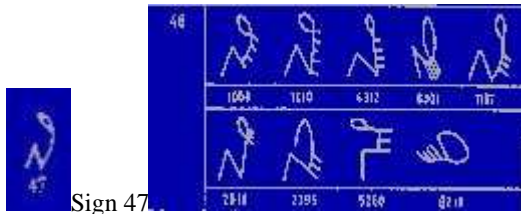
Eagle: *pajhar.* (eagle); rebus: *pasra* (smith's forge)

Thus, the elephant and the eagle may represent two types of furnaces: a furnace and a brick kiln.

pagar = a water channel; *pagrao* = to construct a water channel, to lead water by clearing a way for it (Santali.lex.)

panjhet.i_ = a farmer's tool; a harrow; a rake (G.lex.) [Note the harrow glyph].

pan~ja = heap, pile (Pali.lex.) **pagar** = a heap of corn; *pagor* = a heap of ears of corn, made to separate the grain from the husk (G.lex.) [Note the glyph of a hayrick within a platform on which the horned person with armlets sits].



Offerings; provisions: cf. *pa~ji_* offering of food to a ghost (M.)(CDIAL 8251). *pacakku* substance (Ta.Na.); *pacai-tal* to gather, get ready as necessary materials (Tiv. Iyar-. 3,64); *paccai* offering to a superior or a deity (I_t.u, 5,1,3); present as to a newly married pair (Ci_vaka. 823, Urai.); tribute (I_t.u, 4,1,1); compensation, return (I_t.u, 2,3,4); provisions (I_t.u, 1,6,1); profit; *pacumpatam* raw materials for food (Pat.t.in-ap. 203); *paccai-k-kaliya_n.am* ceremony on the fourth day in a marriage festival, as the time of presenting gifts (Ta.); *paccai-kat.t.u* trifling presents, commonly to the headman of a village (Ta.lex.)

pan~ca ricefield (Ma.Tu.)(DEDR 3834). *pacat.i* to make a beginning with rice planting; *tehen:ko pacat.i akata* they have planted the first rice of the season today (Santali)

pacar a wedge driven into a wooden pin, wedge, to tighten it (Santali)

pachr.ao pachr.a pachr.i to be thrown down, overcome (Santali)

ko_lemmu = the backbone (Te.lex.)

kolhe 'smelters of iron'; **kolimi** = a furnace; *kolimi-titti* = bellows used for a furnace (Te.lex.)

arara an awl (Skt.lex.) **ara, arna** a file (Ka.); **ara** (Tu.Ta.Ma.) (Ka.lex.) **Grinding, polishing, sharpening:** **aram** file, rasp (Ta.); **ara_vu (ara_vi-), ira_vu (ira_vi-)** to file, polish, rub, grate (Ta.); **aram** file (Ma.); **ira_vuka, ra_kuka** to file (Ma.); **arm** (obl. **art-**) file (Ko.); **ara, arna** id. (Ka.); **ara** id. (Tu.)(DEDR 228).

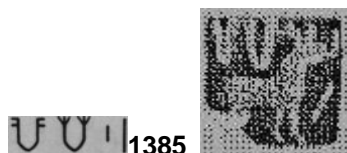
vallu_r-u royal falcon, falco peregrinator (Tan-ippa_i,171,23)(Ta.); **vallu_r-r-ukkuruvi** id. (Ta.lex.) **va_re(n)jan** = falcon (Avestan).

d.e_ge a hawk, a falcon (Ka.Te.)(Ka.lex.) **t.e_kai** a wild bird (Ta.lex.)

kelur..an- < *garud.a* *Garud.a* (Ci_vaka.1926) (Ta.lex.) *garud.a_* eagle (Kon.Skt.lex.) cf. **glez** kite (WPah.)(CDIAL 4231) **kalur..an-** < *garud.a* eagle (Kampara_. Tiruvava. 13)(Ta.lex.) **karu** eagle, vulture (Tu.); *kar..uku, kar..u* (Ma.Ta.)(Ka..lex.) 2300.Image: vulture: **garud.** eagle (Kon.lex.) *karu* vulture (Tu.); *kor.l.* kite (To.); *kal.u* vulture (Tu.); *kar..u, kar..uku* griffin vulture, gyps indicus, pharaoh's chicken neophron gingimanus, eagle (aquilinae falconidae)(Ta.); eagle, vulture (Ma.); *kar..ukan* id. (Ma.)(DEDR 1362). *kar..u, kar..uku* griffin vulture, pharaoh's chicken, eagle (Ta.); eagle, vulture (Ma.); **kor.l.** kite (To.); *karu, kal.u* vulture (Tu.)(DEDR 1362). **garud.a** a mythical bird (Mn.); *garul.a* (Pali); *garud.a, garula* (Pkt.); *garar.* the bird *ardea argala* (P.); *garul* eagle (N.); *gar.ur* (Bhoj.); *garura* blue jay (OAw.); *garur.* hornbill; *garul* a large vulture (H.); *gurul.a_* bird (Si.); *gor_ve_lik* kite (Kal.)(CDIAL 4041). *ku_l.i* large species of eagle (Ta.); *gu_l.i* vulture (Te.)(DEDR 1920). **kurara** osprey (Ya_j.); *kurala* (Skt.); *kurara, kurala* (Pali); *kurara* (Pkt.); *kurala, kurali_*, *kurura* (Pkt.); *kurla* (S.); *kural* (L.); *kurl* (P.); *kuruwa_* (A.); *kurar, kural* (B.); *kurara, kurari_*, **kural.a**, *kurura, kururi_*, *kurul.a* (Or.); *kurari_* (Mth.); *kuraraya_*, *kuralaya_* sea-eagle (Si.)[*kurara* = *kirala_* lapwing](CDIAL 3323). *kuvaya* a partic. kind of bird (MaitrS.); *kvayi* (TS.); *kuhi_* a bird of prey smaler than a hawk; *ku_hi_* a bird of the hawk tribe (H.); *ku_i_* hawk (H.)(CDIAL 3356). Image: heron: *gar.u_r* a sort of black heron (Kur.); *gad.ure* the adjutant bird, a crane (Malt.)(DEDR 1155). cf. *kolor* a kind of heron (Pa.)(DEDR 1808).



Central Asia and Northwest Bharat in the 5th to 8th centuries (After Kuwayama, Literary evidence in dating the colossi Bamiyan, in G. Gnoli and L. Lanciotti (ed.), *Orientalia Iosephi Tucci Memoriae Dicata*, 2: 703-27, Roma. 1987).



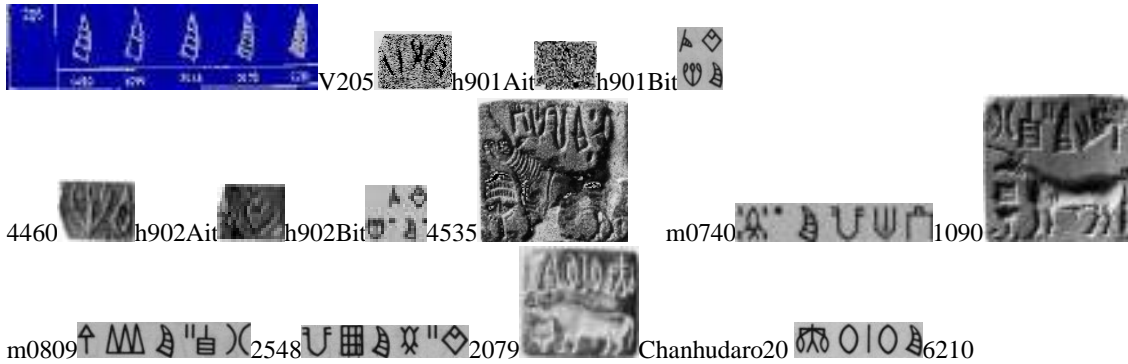
1385

Pict-49 Uncertain animal with dotted circles on its body, a boar's tusk ligatured to the nose and a dotted circle for the eye.

Glyph: *merom* a goat; *merom hopon* a kid; *merom me-t* the goat's eye, name of two plants: *izora parviflora* and *olax naua* (Santali) *hon*, *hopon* child, young of any animal (Santali)

Substantive: *me~r.he~t* iron (Santali)

Glyph: *son.d.* 'tusk of boar' (Santali)



Glyph: *cun.t.u*, *con.t.u* bill, beak (Ta.Ma.); *cun.d.u* a bird's beak (Ka.); *sud.a* mouth, beak, brim (Kui); *son.d.e* lip (Go.); *cond.i* beak of bird (Pe.)(DEDR 2664).

Glyph: *cot.t.a* ornamental dot on knife-handles etc. (Ma.); *cot.t.ai* a knob-like contrivance for hanging anything (Ta.)(DEDR 2839).

Glyph: *son.t.a* hip, loins, waist (Ka.); *son.t.a*, *on.t.a* id. (Tu.); *ton.t.i* loins, hip (Te.)(DEDR 2840).

Glyph: *sun.d.* 'trunk of elephant'

Substantive: *sund* 'pit (furnace)'; *sum*, *sumbh* a mine, a pit, the opening into a mine, the shaft of a mine; *sum bhugak* the entrance to a mine, pit's mouth (Santali). *sun.d.i* a semi-hinduised aboriginal caste; this caste are the distillers and liquor sellers; *sun.d.i gadi* a liquor shop (Santali) *cun.d.* to boil away (Ko.); *sun.d.u* to evaporate (Ka.); *cun.d.u* to be evaporated or dried up (Te.); *s'un.t.hi* to become dry (Skt.)(DED 2662).

Glyph: *su_nd gat.* knot of hair at back (Go.); *cundi_* the hairtail as worn by men (Kur.)(DEDR 2670).

Glyph: to seize: *sum* to seize (Kol.Nk.); *cumm* to seize, catch hold of (Pa.)(DEDR 2679).

Alternative:

Substantive: *eruvai* copper, blood (Ta.); *ere* a dark-red or dark-brown colour (Ka.)(DEDR 817). *ere* black soil (Ka.)(DEDR 820). *ke~r.e~ ko~r.e~* an aboriginal tribe who work in brass and bell-metal (Santali) *ker.e sen:gel* fire in a pit (Santali)

Substantive: *araka* a plough with bullocks complete (Ta.); *are* a plough (Malt.)(DEDR 198).

Glyph: *garud.a* eagle (Skt.)

Substantive: *gara_d.o*, *gara_d.* a ditch, a pit (G.)

Substantive: *garad.o*, *garod.o* A priest of the pariahs (G.)

Substantive: *kut.hi* 'a furnace for smelting iron ore, to smelt iron'; *kolheko kut.hieda* koles smelt iron (Santali)

Glyph: *kur.it* the pariah kite, mivus migrans govinda (Santali)

Inscribed objects showing the ligature of a serpent-like tail and the depiction of hooded snake

Ligaturing components resulting in the composite motif:

artisan's workshop and hearth (bed.a) for: copper, steel, beads, iron

pagela_ a harmless snake (Ka.); *pagele* a kind of harmless snake (Tu.)(DEDR 3809). [Ligaturing element in a composite animal; hence, rebus substantive: *paghal* 'steel'.]

damr.a 'heifer, steer'; *ta_mbra* 'copper'

sun.d. 'elephant trunk'; rebus: *sun.d.* 'a pit (furnace)'

Glyph: kan.t.hla_ (H.) kan.d.hli_ (P.) = ring round the neck; necklace of beads (See the rings on the neck of the bull)

kot.iyum a wooden circle put round the neck of an animal (G.)

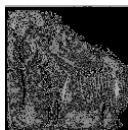
Substantive: kan.d.hli_ (P.) = necklace of beads *kandi* = necklace, beads; *kandl* = beads (Ga.)

kol 'tiger'; *kolhe* 'smelters of iron'

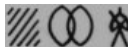
kol metal (Ta.) **kol** = pan~calo_kam (five metals) (Ta.lex.) Thus, the entwined figures of 3 or more tigers may connote an alloy of 3 or more metals.

bhed.a 'ram'; *bed.a* 'either of the two ends of a hearth' (hence, hearth)

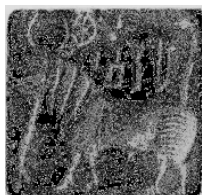
kod. 'horns'; *kod.*, *kod.iyum* 'place where artisans work'



m0299 Composite animal with the body of a ram, horns of a bull, trunk of an elephant, hindlegs of a tiger and an upraised serpent-like tail.



1381



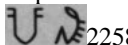
m0300 Pict-51: Composite animal: human face, zebu's horns, elephant tusks and trunk, ram's forepart, unicorn's trunk and feet, tiger's hindpart and serpent-like tail.



2521



m0301 Composite motif: human face, body or forepart of a ram, body and front legs of a unicorn, horns of a zebu, trunk of an elephant, hindlegs of a tiger and an upraised serpent-like tail.



2258



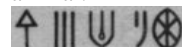
m0302 Composite animal with the body of a ram, horns of a bull, trunk of an elephant, hindlegs of a tiger and an upraised serpent-like tail.



1380



m0303 Composite animal.



2411

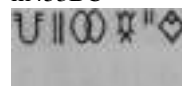


m

0453At



m453BC



1629 Pict-82 Person seated on a pedestal flanked on either side by a kneeling adorant and a hooded serpent rearing up.



m448t



m449Bt



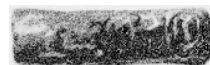
m449AC



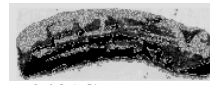
2836



m0481At



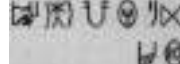
m0481Bt



m0481Ct



m0481Et



2846 Pict-41: Serpent, partly reclining on a low platform under a tree



m

0488At



m

0488Bt

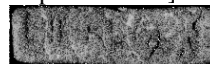


m

0488Ct



2802 [See side b showing the composite animal with an upraised serpent-like tail]



m0492At

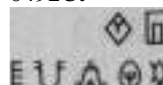


m0492Bt Pict-14: Two bisons standing face to face.



m

0492Ct

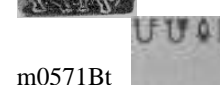
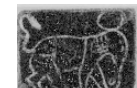


2835 Pict-99: Person throwing a spear at a bison and

placing one foot on the head of the bison; a hooded serpent at left.



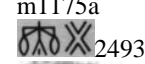
m0571At



m0571Bt 2913 Horned elephant. Almost similar to the composition: Body of a ram (with inlaid 'heart' sign), horns of a bull, trunk of an elephant, hindlegs of a tiger and an upraised serpent-like tail



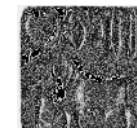
m1175a



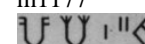
2493



m1176



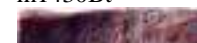
m1177



2450



m1430Bt



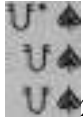
m

1430C



m1430At Pict-101:

Person throwing a spear at a buffalo and placing one foot on its head; three persons standing near a tree at the centre.



2819 Pict-60: Composite animal with the body of an ox and three heads [one each of one-horned bull (looking forward), antelope (looking backward) and bison (looking downwards)] at right; a goat standing on its hindlegs and browsing from a tree at the center.

Substantive: *kabbin.a* iron (Ka.); *karba* iron (Tu.) *ka~r.ba* a plough handle; *ka~r.ba nahel* plough and handle in one (Santali)

Glyph: *kar.ban*: *kur.ban*: serpentine, crooked (Santali) [The glyph: elephant (ibha) + trunk (sun.d.) rebus: *ib* 'iron stone'; *sund* 'pit']

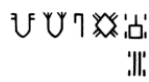
Substantive: *sund*, 'a pit'; *sum*, *sumbh* 'a mine, a pit, the opening into a mine, the shaft of a mine' (Santali) cf. *ku~n.d.* 'pit' (Santali) *yajn~a kun.d.am* (Skt.)

Substantive: *ve_l.* 'to offer sacrifices' (Ta.); *be_l.* 'to offer into fire' (Ka.); *belcad.e* a devil-dancer (Tu.); *ve_lucu* 'to put or throw in a sacrificial fire' (Te.); *ve_limi* 'oblation' (Te.)(DEDR 5544).
Glyph: *ve_r..am* 'elephant' (Ta.)

Glyph: *sun.d.* 'an elephant's trunk'(Santali) Glyph: *son.d.a* 'a tusk, as of wild boar, elephant' (Santali)

sonda 'a bill hook, for cutting firewood' (Santali) *sun.d.* 'the uvula of human beings' (Santali)

Frog



2045 Pict-40: Frog.

ror.a 'small stones, gravel'; Glyph: *rot.e* 'a frog, a toad'

s'ala = dart, spear; s'ala_ a small stake or stick (TBr. 3.6.6)(Vedic.lex.)

s'alla = a frog (Skt.lex.)

Tortoise



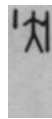
FS 70: Inscribed object in the shape of a tortoise



h241A



h241B



4663 Pict-69: Tortoise. *kumd.hia* *horo* 'a species of tortoise'

(Santali)



h337A



h337B



4417 Pict-79: Inscribed object in the shape of a leaf.

Dottec circle on obverse.



h338A



h338B



4426 Pict-39: Inscribed object in the shape of a tortoise (?) or leaf (?). Dotted circles on obverse.

kuḷ.ṛ battle-axe; trident; sickle (kuḷ.ṛpurai kot.un:ka_y : Malaipat.u. 110); knife for cutting the stems of leaves (Ta.lex.) cf. kuḷis'a or s'u_la (Skt.) kor..u awl (Tol. Pa_yi. Urai)(Ta.lex.)

kuṛul.ai tortoise (?Ta.)(DEDR 1795). horo, kat. horo, kumd.hia horo tortoise (Santali.lex.) kuṛul.ai tortoise; young of certain animals (dog, pig, tiger, hare, jackal); young of a snake (Ta.lex.) ku_rma tortoise (VS.); kumma (Pali.Pkt.); ku_rmi_ (MBh.); krum, krumu, kurm (K.); kumi_ tortoise, turtle (S.); kar-kumma_ tortoise (L.); kar-kumma_ turtle (L.); kumma~_, kummi~_ tortoise, turtle (P.); kumu tortoise (Si.)(CDIAL 3414). Roof: kaurma appertaining to a tortoise (Skt.); kum portion of a roof midway between ridge-pole and eaves (A.); klo_m roof (Ash.); krum (Kt.); **krem** back (Kho.); lu_nd roof; kundu_r, s.ond, tu_n, te_n, plen, obl. plende (Pas.')(CDIAL 3415).

Glyph: *vahur.o* young bullock (S.); *vohur.* heifer (L.); *vahar., vahir.* heifer (P.);(CDIAL 11459). *paghaia d.an:gra* a pack bullock (Santali)

Substantive (trader) *vahoro, vohharo*: *vahoro, voro* (Hem. Des. *vohharo* = Skt. *ma_gadha* a mixed tribe, a bard) a trader, a *bora_*

khon.d. = a square (Santali.lex.) **ku_t.ara** = a hornless animal; **ku_t.a** = an ox whose horns are broken (Ka.lex.) gutrut = a deer that has lost his horns (Santali.lex.)

ibha s'un.d. elephant + trunk; *ib* iron + *sund* furnace pit

kot.iyum a wooden circle put round the neck of an animal (G.)

kot.iyum a canoe, a small boat; kot.d.i_ a room (G.)

Ligatured animal, headless trunk: gu~n.d.

Glyph: *gu~n.d.* trunk of body without head, applied principally to the bodies of animals which have been killed in sacrifice by beheading (Santali)

Glyph: *sun.d.* 'trunk of elephant'

Glyph: *son.d.* 'tusk of boar' (Santali)

Substantive: *sund* 'pit (furnace)'.

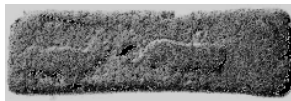
Glyph: *ke.l.e*, *ko.l.e* barking deer (Ir.); *ke.yi* id. (A_IKu.); *ke.y* wild goat (Ko.); *ko.g* barking deer (To.); *ke.me* id. (Kod..)(DEDR 2016). *keli* sheep; ewe three or four or more years old (Kho.); **kaid.ika_* (*ka_-*, *e_d.a-*) a small sheep (CDIAL 3476).

[The cognate phonemes: *kolum* 'tiger' and *ke.me* 'deer'; *ko.l.e* id. May indicate the reason why these are the only two animals which are orthographically depicted with their heads turned backwards, in a wry fashion: Substantive: *khokrao* 'to carve, to cut out, scrape, gouge, hollow out' (Santali) Glyph: *kokr.e* 'to carry the head sideways, wry-necked' (Santali)] Thus, a tiger or an antelope with head turned backwards may connote a forge where carving work is done.

Alternatives (copper or alloyed metal):

kol metal (Ta.) **kol** = pan~calo_kam (five metals) (Ta.lex.) Thus, the entwined figures of 3 or more tigers may connote an alloy of 3 or more metals.

melukka 'copper' (Pali); rebus: **melh** 'goat' (Br.)



m448t



m449Bt

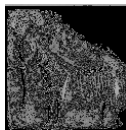


m449AC

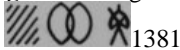


2836

xola_ (Kur.) = tail; *kolu* = royal presence (Ta.)



m0299 Composite animal with the body of a ram, horns of a bull, trunk of an elephant, hindlegs of a tiger and an upraise serpent-like tail.



m0571At

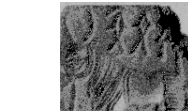
m0571Bt



2913 Horned elephant. Almost similar to the composition: Body of a ram (with inlaid 'heart' sign), horns of a bull, trunk of an elephant, hindlegs of a tiger and an upraised serpent-like tail

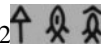


m0301



2258

m0302



1380



m1175a

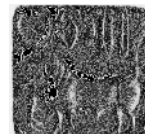


2493

Composite animal: human face, zebu's horns, elephant tusks and trunk, ram's forepart, unicorn's trunk and feet, tiger's hindpart and serpent-like

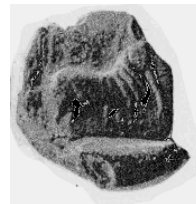


m1176



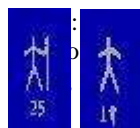
m1177

tail. 2450 Composite animal: human face, zebu's horns, elephant tusks and trunk, ram's forepart, unicorn's trunk and feet, tiger's hindpart and serpent-like tail.



h168

pan.ai drum, large drum (Ta.); *pan.e*, *pan.a* small drum or tabor (Ka.); *pan.ava* (Skt.)(DEDR 3893; CDIAL 7716).



lum 'a step, the distance between the two feet in walking; a pace (G.) *ta_k* to walk (Pe.); *ta_n*; *ta_ka* act of walking (Mand.)(DEDR 3151). *ta:kam* mace (Ka.); *d.an:ke*, *d.an:gi*, *d.an:ge* staff, cudgel (Ka.)(DEDR 2941).

Glyph: *d.okke* the body (Ka.)(DEDR 2976).

Rebus glyph is: *me~_d, me_d* ‘body’ (Kur.); *meth* body (Malt)(DEDR 5099). Sign 1 occurs 131 times on epigraphs.



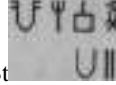
phot., kan.d.(kanka), bakher ‘copper (ingots), (copper) furnace, homestead’
[glyphs: ear or corn, rim of pot, teeth of comb]



h733At



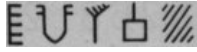
h733Bt



5222



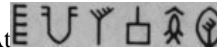
h755At



5287



h752At



5275

[At least 16 inscribed objects with epigraphs contain the sequence of last three signs (Statistics Mahadevan corpus; the first two of these signs (read from right) in Text 5287 pair in 88 epigraphs]

Substantive: *dar* ‘a trench’; Glyph: *dare* ‘a tree’ (Santali)

Glyph: *sal* a gregarious forest tree, *shorea robusta*; *kambra* a kind of tree (Santali)

Substantive: *sal* workshop (Santali)

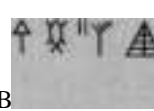
Sharpened metal tool or python entwined around a pillar¹²



h254A



h254B



5214

Is the sign on h254A a stylized representation of the standard device? The inscription is among the most frequently occurring on tablets in bas relief. (The first sign from r. on h252A is a roof over the pillar with ring-stones; the obverse has a one-horned bull pictograph)

Glyph: **tambu** [Skt. *stambha*, a pillar, a pole, fr. *stambh*, to be stiff] a movable lodging place made of canvas extended upon poles; a tent; a pavilion (G.lex.) **tambu** = a tent (Ka.M.); **tambu_** (H.)(Ka.lex.) **tambu** = a tent (Santali)

tamba = copper (Santali) **tam(b)ra** = copper (Skt.)

tamro = a precious stone (Santali.lex.)

tamba_ku = an alloy of copper and other metals (Te.lex.) [cf. **ba_ku** = a dagger (Te.lex.)]

Alternative: **buru d.an:gra** = the *jambr.o* or python (Santali.lex.)

buru = a spirit, an object of worship, synonym of *bon:ga*; *maran*: **buru** = the chief of the *burus*, or *bon:gas*; **buru** = a mountain, hence **buru d.an:gra** may connote a mountain python.

Rebus: **d.ha~gar** ‘blacksmith’

bata_ bamboo slips (Kur.); **bate** = thin slips of bamboo (Malt.)(DEDR 3917).

hadi = a layer of stone or brick in the ground (Ka.); **padre** a layer (Ka.); **paduru** = id., stratum (Tu.)(DEDR 3915). [Note glyph of ringstones on pillar on tablets in bas-relief.]

Substantive: **patam** = sharpness (as of the edge of a knife)(Ta.); **padm** (obl. *Padt-*) temper of iron (Ko.); **pada** = keenness of edge or sharpness (Ka.); **hada** = sharpness (as of a knife), forming (as metals) to proper degree of hardness (Tu.); **panda_** sharpness (Go.); **padanu**,

padunu = sharpness, temper (Te.); padnu = sharpening (of knife by heating and hammering)(Kond.a); pato = sharp (as a blade); **patter** = to sharpen (Malt.)(DEDR 3907).

An inscription on tablets in bas-relief recurs on 30 tablets in bas-relief, see for example: h-860 to h-870 (Freq. 30).

Glyphs on Gundestrup Cauldron and parallels with Sarasvati hieroglyphs

One of the vivid images of the Gundestrup cauldron is a person seated in penance or in a yogic posture, holding a snake in his left hand. The 'snake' pictograph is equally vivid on the inscribed objects of the Bharatiya (Sarasvati) civilization. While browsing a number of 'pictographs' on inscribed objects and attempting to match the 'pictographs' with 'sound-bites' drawn from the lexemes of Bharatiya civilization (Vedic, Mun.d.a and Dravidian languages -- of the extensive linguistic area), an assumption was made that the inscriptions 'convey' metal weapons, tools and equipment of a warrior or a metalsmith -- either as property items possessed by the holder of the object or used as bills of lading of these products traded.

Some of the images on the Gundestrup cauldron, almost all of which have parallels on many inscribed objects of Indian civilization (ca. 3500 to 1500 BC) will be evaluated further in archaeo-philological terms.

The smith, the weapons

"VORTA, THE SMITH: It's always the same isn't it? Them that does the least shouts the loudest. What does meat give? - it gives strength - who needs strength most? - the smith does. Who makes the swords and the spears, the hammers and the tongs? Who sheds the wheel, and what cuts the meat? the knives I have fashioned - bent double all my life over the hot fire. Without iron we'd be nothing, hacking the ground with stones - there's no battle won without my sharp blades, no fast horses without my shoes upon their feet - they should all think of that when they shout and boast. Nothing's won without my metal, without these arms and hands and the knowledge I've learned over the years, given me by my father, learned by hammer and anvil, day after day, year in year out. Where would the warrior be without the weapon, the farmer without the plough, the chief without the torque around her neck, the Druid without his sickle, the butcher without his knife - all their boasts come to nothing without my iron - them that makes the knife cuts the joint to serve himself I say. Still, might as well bash my head against my anvil before I'll ever get any thanks from this lot."

<http://www.celtica.wales.com/arddangosfa/gof/index.english.html>

Celts in battle (225 BC): <http://www.oakharbor.net/connolly/battle.htm>

Ancient Celts' clothing: <http://www47.pair.com/lindo/Classical.htm>

Copenhagen, Nationalmuseet



The Gundestrup Cauldron discovered in 1891.



Kernunnos or Cernunnos is a solar divinity in Celtic art, and was perhaps influenced by art from Bharatiya civilization. Kernunos is depicted on the Gundestrup cauldron sitting in meditation, in a Yoga position. Many imageries of the Gundestrup cauldron depicting Kernunnos surrounded by animals and snake, are paralleled in the inscribed objects of Sarasvati civilization. Almost all the glyphs on the cauldron (with the exception of riders on horse-back) are clearly taken from the epigraphs of the civilization.

Slide 207 Tablet with inscription. Twisted terra cotta tablet (H2000-4441/2102-464) with a mold-made inscription and narrative motif from the Trench 54 area. In the center is the depiction of what is possibly a deity with a horned headdress in so-called yogic position seated on a stool under an arch.

Cenunnos, the Stag Lord and Pas'upati



It was beaten out of 10 kg of silver, probably in the second century BC, constructed from 13 heavily decorated rectangular panels and a plain bowl containing a 14th circular one (possibly a late addition). Its measurements are fourteen inches high, twenty-eight inches in diameter, and weighs twenty pounds. The Gundestrup Cauldron now stands in the Musee Lapidaire at Avignon.

Sometime around the beginning of the Common Era, it was taken to pieces and apparently just left on the ground in a bog near what is now the hamlet

of Gundestrup in Northern Jutland, where it gradually became overgrown and covered with peat. It remained there until its discovery by peat cutters in 1891.

The eight external panels (of which one is missing) each feature what appears to be the single face of a different divinity, male or female, surrounded by much smaller humanoids or beasts. The five interior panels each depict many characters, men, women, divinities and beasts, in what may be a story of a civilization which spread from Bharat into Europe.

One of these panels depicts Cernunnos.

He is seated cross-legged. He has antlers with seven tines (or points per horn), and is, unusually, depicted clean-shaven. He wears a torque and carries a second one in his right hand. He wears a tunic and braccæ (Celtic trousers) which cover him from the wrist to above the knee, and a patterned belt. He wears sandals on his feet. His hair appears to be brushed straight back.

In his left hand, he holds the ram-horned serpent. This serpent also appears on another two of the five interior panels.

Surrounding him are many beasts. The nearest, on the left, almost touching horns with him, is a stag, itself of seven tines, indicating his special affinity with this beast. Close to him on the right is a dog. There are also two horned animals that may be ibexes, three long-tailed animals that could be lions, and a boy on a fish. The space between the beasts is decorated with a simple pattern of vegetation.

The five internal panels are complex, and feature many characters who may be gods, goddesses or heroes. All of these characters seem to appear also on one of the eight external panels, with the exception of Cernunnos, who clearly does not. Did his image appear on the lost eighth external panel ?

Pas'upati

The origins of the Celts are obscure, but it has been suggested that they lie far to the East around the

Indo-European Plateau. If so, we should not be so surprised to find ancient divinities there who might be cousins of our own local horned deity. This ancient image came from Mohenjo Daro, in the North-West of modern Bharat on the River Sindhu, and is believed to have been made around 2,000 BCE. It is thought to be the seated figure of a very early version of Pas'upati, the Lord of the Animals in Hindu tradition, peacefully surrounded by his beasts.

The resemblance is striking.

"The Cernunnos face (on the left) is from Europe, whereas the Pas'upati mask (on the right) is from the Indus Valley. These two facial depictions of the horned God, created thousands of years apart, display only one distinct difference: their racial features." (Dr Jonn Mumford)

Hindu Deities in Iron Age Denmark: The Religious Iconography and Ritual Context of the Gundestrup Cauldron

Taylor's paper considers aspects of the second century BCE iconography of the Gundestrup cauldron in relation to the idea of death in various frameworks of thought and belief: Shamanistic, Mithraic, Pythagorean, Hindu, Celtic, Orphic, and Christian. Following from this, some general theoretical considerations about the relationship of iconographic, ritual, textual, and oral religious modes are presented. In the light of this, a precise context for the cauldron's production and use is suggested. [Dr. Tim Taylor (University of Bradford). Univ. of Birmingham, Archaeology and World Religions, Session held on 19 December 1998].

<http://www.bham.ac.uk/TAG98/pages/abs>

"The interior relief of the Gundestrup Caldron, a 1st-century-BCE vessel found in Denmark, provides a striking depiction of the antlered Cernunnos as "Lord of the Animals," seated in the yogic lotus position and accompanied by a ram-headed serpent; in this role he closely resembles the Hindu god S'iva in the guise of Pas'upati, Lord of Beasts. Another prominent zoomorphic deity type is the divine bull, the Donn Cuailnge ("Brown Bull of Cooley"), which has a central role in the great Irish hero-tale Táin Bó Cuailnge ("The Cattle Raid of Cooley") and which recalls the Tarvos Trigaranus ("The Bull of the Three Cranes") pictured on reliefs from the cathedral at Trier, W.Ger., and at Nôtre-Dame de Paris and presumably the subject of a lost Gaulish narrative."

<http://www.britannica.com/bcom/eb/article/4/0,5716,119804+5,00.html>

The Gundestrup Cauldron

The Gundestrup Cauldron is believed to be of Celtic or La Tene art. It is thought to have been produced in the late La Tene period after 120 BCE because the ornamentation on it is not as extravagant as that of the earlier period.

Due to the size of the vessel it is clearly recognized to have been used for sacrificial purposes. This is also in keeping with the Celtic religion of Druidism of that time.

Some claim the figures on the sides of the cauldron amount to the primitive Celts' version of their own hell. But, others dispute this interpretation because of the peoples' Druidic religion by which they held a strong belief in reincarnation. The drawings may, however, account for these peoples' collective subconscious.

Some may consider the cauldron grotesque and a depiction of the cruel nature of the early Celtic people, since one of the drawings on the cauldron depicts an uprooted tree-trunk being carried by sinister warriors to a priest who is pushing some man into the pot; but, the cauldron itself is in keeping with the nature of other magical cauldrons. This is especially true in connection of the folklore of ancient Ireland. The early Celts associated cauldrons with fertility, abundance, and the revival of the dead.

This is why the Celtic god Cernunnous is depicted on the Gundestrup Cauldron since he is the divinity of all of these things. He was thought to be the divinity of fertility, abundance, death and rebirth.

Cernunnous was the Horned Divinity of the Celts. He was associated with the hunt and fertility. Occasionally he was portrayed with serpent legs, torso of a man, a head of a bull or ram, or shown with stags wearing antlers. The name Cernunnous means horned.

He is the lord of life, death and the underworld. Being the Sun to the Goddess of the Moon, he alternates with her in ruling over life and death. With her, he cooperates in continuing the cycle of life, death and rebirth, or reincarnation.

His own life is said to be circular. The Horned God is born at the winter solstice, marries with the Goddess at Beltane (May 1), and dies at the summer solstice. His death represents a sacrifice to life.

The Horned Divinity's origin possibly dates back to Paleolithic times, as evidenced by a ritualistic cave drawing found in the Caverne des Trois Freres at Ariège, France. The picture is with one of a stag standing upright on its hind legs, or a man dressed in a stag costume performing a dance. The wearing of animal clothes in rituals to secure game was practiced in Europe for thousands of years.

He was worshipped by the Romans and Gauls who portrayed him with a triple head. Sometimes, the Romans depicted him with three cranes flying above his head.

Other deities associated with, or claimed to be representative of Cernunnous are: Herne the Hunter, a ghost of Britian; Pan, the Greek god of the woodlands; Janus, the Roman god of good beginnings with his two faces looking in opposite directions representing youth and age, and life and death; Tammuz and Damuzi, the son-lover-consorts of Ishtar and Inanna; Osiris, the Egyptian lord of the underworld; and Dionysus, the Greek god of vegetation and the vine, whose cult observed rites of dismemberment and resurrection."

The Celtic god Esus was analogous to Cernunnous. Similarly the animal of Esus was the bull. Esus was sometimes identified with Cernunnous. Supposedly Esus was also ruler of the underworld, but this did not keep his worshippers from considering him to be a divinity of plenty and portraying him holding a sack of coins.

Most frequently, whenever Cernunnous was depicted or portrayed, he was shown as an animal, usually a stag, or surrounded by animals.

In the Welsh tale "Owain" his role as a herdsman-god and a benign keeper of the forest is told. Here he summons all the animals to him through the belling of a stag. All the animals even serpents obediently came to him "as humble subjects would do to their lord."

Some feel that the honoring of Cernunnous even continued in the early Christian era. Many of the early ascetics still had pre-Christian longings for nature. To substantiate this, there is the account of Saint Ciaran of Saighir. This humble man went into the wilderness to establish a cell that would eventually become a monastery. A boar came, seeing the man he was terrified, but later returned and was submissive to the man of God. Saint Ciaran considered the boar his first monk. The boar was later joined by a fox, a badger, a wolf and a stag. These animals left their lairs to join the community.

There are other tales such as this one that give rise to suspicions that caused early Christian writers and artists to associate Cernunnous with Satan, although some Christians never lost their love of nature. Saint Francis of Assisi is well known for his love of animals and birds.

Cernunnous is still honored in some modern Druid organizations, in Neo-pagan witchcraft and by the Church of All Worlds

The Gundestrup cauldron : its archaeological context, the style and iconography of its portrayed motifs, and their narration of a Gaulish version of Tâain bâo Cûalnge by Garrett S. Olmsted.

Gundestrup cauldron was found in a bog near Gundestrup, Denmark.

See photos of the bodies found in the bog:

<http://jamesmdeem.com/bogphotos.htm>

Dutch early and middle Bronze age pictures:

<http://www.angelfire.com/me/ik/pics.html>

The cauldron is forged and made of silver (96%) and consists of seven outer plates, five inner plates, and separate rim and base pieces. It is decorated with Celtic and exotic imagery using repousse and engraving techniques. Recent study has determined that no less than five crafts-workers worked on it, all using different tools for the moulding, engraving and assembly of the cauldron. It was not from Denmark originally, but probably made in the south-east of Europe for a Celtic clientele.
<http://www.celtic-cauldron.com/>

Its typical Celtic decorations include an elephant.

One of the panels with a figure having upraised arms on the Gundestrup Cauldron is accompanied by the wheel.

"A romanized, female face with empty eyes (once filled with inlaid glass) and a buffer ended torc is flanked on each side by ox-heads. Two wild beasts flanking a triskele are found on the inner plate. Possibly made by more than one person, the symbolism is Celtic and it probably made its way to Denmark via trade or the warlike wanderings of the Cimbri. The torc is of a type that was current in France in the last years of the 1st century BCE or the early years AD. The most famous cauldron is, of course, the Gundestrup Cauldron which was found, dismantled, on the surface of a peat-bog in northern Jutland. With a combined weight of almost 9kg, five internal plaques, a basal disc, and seven out of eight square external plates survived. Recent study has shown that the plates were made by several different artists, perhaps by 2nd century Thracians.

"Some of the iconography is Celtic: a cross-legged, antlered god, wearing a torc and holding another in his hand; warriors with helmets crested with boars or birds of prey; animal-headed war trumpets; circular harness mounts; shield-bosses of the Late La Tene type. Celtic dogs, wolves and bulls are seen, but so are more exotic animals - lions, dragons/griffons, elephants, and even a boy on a dolphin...

"Processions of warriors, a squatting god with antlers and holding a snake and a torc, passively standing lions, ibex, griffons, elephants and leopards are some of the images found on the side plates of the cauldron. An oversized figure holding another, smaller, figure upside-down over a cauldron has been interpreted as possibly a god of war offering sacrifice or as a representation of the bringing a dead hero back to life by immersing the body in the 'cauldron of plenty'." *Celtic Art - A Brief Overview* by Tara NicSciothach bean MacAnTsaoir <http://clannada.org/docs/art.html>



Cernunnos, 'the horned-one or the peaked-one' is named on an altar in Paris (carving made by sailors from the Gallic Parisii tribe). Or, Herni, the Celtic Forest God (?), who appears on the Gundestrup Cauldron and is seen sporting an antlered head dress.

The carynces on the Gundestrup cauldron show what might appear as horns, but are really the cropped ears of the animal. On the latter the boar's crests are very

clear, as are the snouts. The symbolism of the boar is that of the underworld or the "deep" -- "dubno" in Celtic.

Cernunnos is holding both a snake and a torc (variant of the ring). The snake in this context is...the cycles of the heavens. As for Hindu mythology, we can cite the serpent-king Sesha, who coiled, represents eternity. The ram-horned serpent is particularly interesting. The serpent occurs in myths all across the world, and is nearly always associated with knowledge.

Torque or torc. In jewelry, metal collar, neck ring, or armband consisting of a bar or ribbon of twisted metal curved into a loop, the ends of which are fashioned into knobs ornamented with motifs such as volutes or depicting animal heads, or drawn out and bent abruptly so as to hook into one another. The torque is a unique neck ornament in that it is not flexible and was often of great size and weight.



Achaemenidian jewelry made in Persia from the 6th to the 4th century BCE contains examples of torques, the terminals of which are made in the form of lions, ibex, rams' heads, or purely fantastic animals. The torque was a characteristic male neck ornament of such peoples as the ancient Teutons, Gauls, and Britons. The Romans, when they invaded Britain, were so intrigued with the torques that they awarded them to their soldiers for brave acts.

<http://www.britannica.com>

Slaying of a Bull: from the Bottom of the Gundestrup Cauldron

Various beasts and fish-rider on right

"The leaping horned figure with a chariot-wheel as his weapon; he also leaps upon and breaks the neck



of a horned serpent. This deified bull of fertility, is himself ritually slain. The Hop is associated with the wild wolf, which in Celtic mythology ruled

over the winter months of the dead time. February was called the 'wolf month' and thus the wolf is associated with Imbolc. The Wolf has connections with underworld deities, and stands beside Cernunnos on the Gundestrup cauldron. The Greek Wolf-goddess Leto gave birth to the sun-god Apollo - an underworld/winter deity giving birth to the new sun at the Winter solstice."

[Excerpt from: *"Herb Craft - a guide to the shamanic and ritual use of Herbs"* by Susan Lavender and Anna Franklin. Capall Bann Publishing 1996.]

This detail from the Gundestrup Cauldron shows warriors on foot with shields and spears, and on horseback with decorated helmets. The style is simple with motifs referring to recognised Celtic mythology and legend.

Three aspects. Top: An ally and 3 riders try to jump the felled tree obstacle; next warriors and trumpeteers march; finally wrestling and drowning the enemy.



The goddess endows the sovereign with his powers and the Earth with fertility, rides upon her wheeled chariot in a sunwise direction. The elephants, the griffins and lion relate her as War Goddess.

The rich iconography of the Gundestrup cauldron also shows a dog underneath the cauldron in which a man or child is being immersed head-first - usually considered to be a sacrificial act.

Sources:

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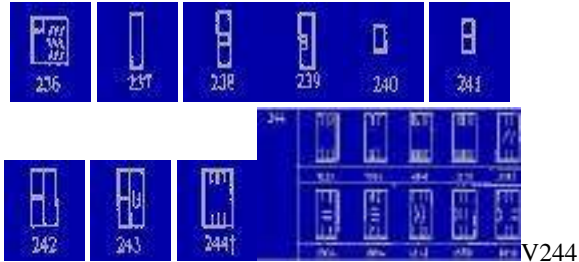
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Glosses from Bharatiya languages

Many clusters of lexemes were scanned to establish a set of homonyms and their rebus representations which may help unravel the messages contained in epigraphs of the civilization.

An attempt can be made to match the orthography of a glyph with a corresponding lexeme (based on the **Indian Lexicon**) which may describe it. A homonym rebus then establishes the substantive conveyed by the glyphs.



ku_t.am = a room (Ta.lex.)

ku_t.am = smith's sledge hammer, heavy hammer (Ta.)



kakkat.a = dagger (Ma.); kakkad.e, karkad.e = a kind of weapon (Ka.)

Sarasvati Civilization

An overview

A historical project in search of River Sarasvati to discover our roots, has become a magnificent opportunity for national resurgence and to make Bharat a developed nation.

This is presented in three sections: observations, conclusions and areas for further research.

Observations

Many sparks have emerged from the anvils of scholars and researches of a variety of disciplines – all focused on the roots of civilization of Bharat.

Collated together, these sparks have become a floodlight which throws new light on the civilization of Bharat.

It is a new light on the civilization because of the following reasons:

- A mighty river, a river mightier than Brahmaputra had drained in North-west Bharat for thousands of years prior to 1500 BCE (Before Common Era).
- The collective memory of a billion people, carried through traditions built up, generation after generation, recalls a river called Sarasvati; this memory is enshrined in the celebration of a Mahakumbha Mela celebrated every 12 years at a place called Prayag where the River Ganga joins with River Yamuna. River Sarasvati is also shown as a small monsoon-fed stream in the topo-maps of Survey of India and in village revenue records in Punjab and Haryana.

Yet, the tradition holds that there is a triveni (confluence of three rivers). The third river is River Sarasvati. This tradition has now been established as a scientific fact – ground truth -- thanks to the researches carried out using satellite imageries, geo-morphological studies, glaciological and seismic studies and even the use of tritium analysis (of traces of tritium present in the bodies of water found in the middle of the Marusthali desert) by atomic scientists. The desiccation of the river was caused by plate tectonics and river migrations, between 2500 and 1500 BCE.

These studies have established beyond any doubt that River Sarasvati was a mighty river because it was a confluence of rivers emanating from Himalayan glaciers; the River Sutlej and River Yamna were anchorage, tributary rivers of River Sarasvati. The river had drained over a distance of over 1,600 kms. from Manasarovar glacier (W. Tibet) to Somnath (Gujarat) with an average width of 6-8 kms. At Shatrana (south of Patiala), satellite image shows a 20 km. wide palaeo-channel (ancient course), at the confluence of five streams – Sutlej, Yamuna, Markanda, Aruna, Somb – referred to as Pan~ca Pra~ci_ Sarasvati in Bharatiya tradition. This becomes Saptatha Dha~ra Sarasvati when two other

- A civilization was nurtured on the banks of this River Sarasvati as recognized through the work of archaeologists and the geographical/historical facts contained in ancient texts of Bharat, such as the *Mahabharata* and *Pura_n.a*. This civilization was an indigenous evolution from earlier than 10000 BCE and can be said to be one of the oldest civilizations in the world, heralding the Vedic heritage.

Over 2,000 archaeological sites have been discovered in the Sarasvati River Basin. There is a description, in 200 s'lokas, in the S'alya Parva of Mahabharata of a pilgrimage undertaken by Balarama, elder brother of Kr.s.n.a, along the River Sarasvati from Dwaraka to Yamunotri.

- The oldest extant human document is the R.gveda which is a compilation of 11,000 r.ca-s perceived by hundreds of seers. An understanding of this document is fundamental to an understanding of the cultural ethos of Bharat.
- R.gveda presents a world-view in allegorical and metaphorical terms perceiving an essential unity in cosmic phenomena and r.ta (a rhythm which modulates the terrestrial and celestial events alike). While the document presents the early philosophical thought related to *dharma*, it also describes the lives and activities of people – the Bharatiya. R.gveda thus presents a variegated picture covering a variety of facets of a maritime-riverine civilization, such as transport systems, agriculture, use of fire, minerals and metals to produce household utensils, ornaments, tools and weapons. Archaeologists have unearthed many examples of technology used in the days of the Sarasvati Civilization (from circa 3500 BCE to 1500 BCE). These provide evidence for the evolution of s'ankha industry in 6500 BCE, preparation of alloys such as pan~caloha, bronze, brass, pewter and bell-metal.
- A dialectical continuum has existed in Bharat from the days of R.gveda and Sarasvati Civilization. The civilization constituted a linguistic area, as it is even today in Bharat. Mleccha was a language spoken by Vidura and Yudhis.t.hira as evidenced by *Mahabharata*. Mleccha were vra_tya-s who worked with minerals and metals. The semantic structures (words and meanings) of all languages of Bharat – Munda, Dravidian or Indo-Aryan categories – present an essential unity among the speakers of various dialects of Bharat. The seven volume work on Sarasvati substantially draws upon the *Indian Lexicon*, which is a comparative dictionary of over 25 ancient languages of Bharat.
- Using this lexical repertoire of the linguistic area called Bharat, it has been possible to crack the code of the epigraphs of the civilization inscribed on over 4,000 objects including seals, tablets, weapons and copper plates. The epigraphs are composed of hieroglyphs (referred to as Mlecchita Vikalpa – picture writing --, one of the 64 arts listed by Va_tsya_yana).

The code of hieroglyphs is based on rebus (use of similar sounding words and depicted through pictures) and represent the property possessions of braziers – possessions such as furnaces, minerals, metals, tools and weapons. These were also traded over an extensive area upto Tigris-Euphrates river valley in Mesopotamia and the Caspian Sea in Europe.

- The tradition of epigraphy evidenced in punch-marked coins and copper plate inscriptions in the context of Sarasvati Epigraphs points to millions of manuscripts and documents remaining unexplored all over Bharat.
- Ongoing projects for the rebirth of River Sarasvati has opened a new vista in water management in Bharat, which has an ancient tradition of water management exemplified by the rock-cut reservoir in Dholavira, the grand anicut on Kaveri, the step wells and pus.karin.is in all parts of Bharat.
- Desiccation of River Sarasvati is a warning to us about the unpredictability of the impact of tectonics on hydrological systems sourced from the Himalayas, for e.g. the Rivers Ganga and Brahmaputra.

Conclusions

- River Sarasvati is neither a legend, nor a myth, but ground-truth, a river which was flowing for thousands of years prior to Vedic times.
- Bharatiya Civilization is an indigenous evolution and cultural continuity is established from the Vedic times to the present day.
- For thousands of years before the days of Mahabharata War (ca. 3000 BCE), the Bharatiya had contacts with neighbouring civilizations.
- The historicity of *Mahabharata* has been established making it a sheet anchor of Bharatiya Itihasa.
- After the desiccation of River Sarasvati (finally by about 3000 years ago), Bharatiya-s moved to other parts of the world.
- The metaphor of Samudra manthanam (celebrated in the *Bhagavata Purana*) is a depiction of the reality of a cooperating society which had united all the people of Bharat into life-activities including the environmentally sustainable use of natural resource offered by Mother Earth (Bhudevi).
- Sarasvati is adored in Bharatiya tradition as a river, as a mother and as a divinity – *ambitame, nadi_tame, devitame sarasvati*. This is an abiding spiritual foundation which resides in the heart of every Bharatiya.
- The epigraphs evidence one of the early writing systems of the world.
- The search and discovery of River Sarasvati has revealed a thread of essential unity – a bond among the people of Bharat. This has emerged from Vedic times and continues even today. This is the unity of an integral society, a resurgent nation and a unified culture which can be found in all parts of Bharat, from the Himalayas to the Indian Ocean.
- Research Institutions have to be established in different disciplines of historical studies to study the manuscripts and documents in the archival collections in all parts of the country.
- The initiation of a project for interlinking of rivers is a laudable, first step in creating a National Water Grid which has the potential to ensure equitable distribution of water

resources to all parts of the country and to make Bharat a developed nation in 15 years' time.

The establishment of the Water Grid is a national imperative and should be an unmotivated action (*l'acte gratuite*) devoid of political overtones.

- The establishment of an inter-disciplinary Sarasvati Research Centre in Kurukshetra will help in progressing further researches on water resources management, and study of our history, heritage and culture.

Areas for further researches

- Glaciological researches are needed in relation to the glacial source of River Sarasvati which is referred to as *Plaks.a Pras'ravan.a* in the ancient texts.
- Seismological studies are needed to determine the chronology of events connected with the submergence of Dwaraka, the Gulf of Khambat and other coastal regions of Bharat.
- Meteorological, glaciological and seismological studies have to be related to plate tectonics – the dynamic Indian plate and the evolving Himalayas – for a better understanding of the hydrological systems, sustainability and management of a National Water Grid for Bharat.
- Archaeological work on the 2,000 sites on Sarasvati River Basin have to be related to the events described in the ancient epics: *Ramayana* and *Mahabharata*
- The Vedic texts, epics and Purana-s contain historical information which can be validated through archaeological, astronomical and geographical studies.
- Epigraphical and language studies in relation to the evolution and spread of languages and scripts of Bharat.
- Scholars have to be encouraged to study the unexplored manuscripts lying in museums, libraries and private collections.
- Researches for establishing the National Water Grid should be objective and provide a new vision to reach out the water and agricultural resources of the country, equitably, to all people and for the development of the nation.

Index

- Agastya, 37
agriculture, 33, 45, 46, 304
Akkadian, 48, 50, 51, 64, 65, 67,
115, 128, 129, 203, 204, 205, 206,
207, 216, 240, 265, 281
antelope, 50, 51, 53, 59, 107, 111,
113, 121, 122, 123, 124, 132, 137,
139, 142, 144, 145, 146, 147, 149,
150, 152, 153, 154, 167, 168, 170,
172, 173, 174, 179, 182, 183, 184,
206, 213, 219, 230, 245, 250, 253,
256, 270, 288, 291
अनु, 144
Arabia, 65, 66, 309
Arabian Gulf, 11, 64
arch, 89, 127, 145, 146, 169, 245,
259, 296
archaeo-metallurgy, 10
archer, 129, 202
armies, 33, 88
arrow, 36, 38, 78, 88, 108, 125, 129,
146, 155, 163, 166, 174, 182, 193,
213, 231, 281, 282
arrowhead, 282
arsenic, 139, 144, 145
Atharva Veda, 158
Austro-Asiatic, 21, 27, 28, 54
Avestan, 6, 35, 126, 222, 261, 283
axe, 47, 49, 53, 55, 71, 96, 111, 115,
116, 121, 122, 123, 136, 137, 145,
149, 153, 157, 166, 167, 170, 171,
190, 194, 213, 230, 231, 237, 239,
240, 241, 242, 243, 253, 263, 264,
265, 266, 267, 272, 290
Bactria, 32, 37, 41, 155, 172, 268
Bahrain, 51, 64, 65, 66
Balakot, 173
Baluchistan, 24, 33, 41, 46, 94, 104,
144, 219, 269
Banawali, 75, 135, 193, 270
barber, 114, 133, 184, 222, 280
barley, 141, 205
barter, 65
bead, 132, 160, 246, 274, 278, 279
beads, 76, 81, 130, 137, 179, 212,
232, 253, 278, 286
bed, 69, 70, 71, 76, 79, 109, 137,
153, 164, 175, 190, 195, 265, 276,
286
belt, 43, 149, 170, 250, 296
Bha_rata, 8, 9, 10, 11, 39, 46, 47, 48,
51, 53, 54, 55, 57, 60, 63, 69, 88,
91, 94, 163, 274
bha_s.a_, 13, 26, 48, 53, 59, 60, 61,
63
Bharata, 26, 46, 158, 275
Bhr.gu, 49, 54, 55
blade, 71, 78, 83, 86, 94, 121, 133,
159, 163, 237, 239, 279, 280, 294
BMAC, 37, 41
boar, 55, 72, 112, 122, 123, 124,
126, 127, 148, 149, 159, 235, 263,
265, 284, 289, 291, 298, 299
boat, 87, 119, 133, 150, 160, 192,
194, 253, 260, 290
bone, 4, 39, 200, 259, 274, 279
boss, 259
bow, 31, 72, 145, 168, 216, 224,
248, 250, 259, 281
brahman, 186
Brahui, 15, 20, 45, 48, 52, 245
brass, 73, 77, 80, 93, 99, 133, 139,
140, 144, 146, 150, 154, 158, 167,
184, 186, 220, 222, 244, 245, 252,
259, 264, 267, 270, 285, 304
brazier, 24, 48, 74, 117, 137, 146,
180, 217, 251, 275, 276
brick, 14, 24, 37, 70, 127, 166, 175,
224, 231, 279, 282, 293

bronze, 14, 17, 23, 36, 37, 38, 48,
 50, 53, 54, 58, 60, 62, 65, 69, 80,
 91, 92, 98, 104, 106, 110, 122,
 140, 141, 144, 145, 149, 153, 155,
 158, 159, 168, 198, 203, 204, 216,
 220, 222, 223, 234, 237, 239, 240,
 243, 257, 270, 304
 Buddha, 27, 95, 104, 105, 189, 192
 buffalo, 114, 123, 129, 130, 131,
 132, 137, 138, 148, 149, 152, 162,
 163, 167, 169, 176, 182, 193, 200,
 243, 259, 273, 278, 288
 buildings, 130
 bull, 13, 24, 35, 48, 51, 73, 74, 77,
 86, 89, 99, 105, 112, 115, 123,
 124, 128, 129, 131, 132, 136, 139,
 143, 145, 148, 149, 152, 159, 166,
 169, 170, 172, 173, 176, 177, 179,
 181, 182, 186, 187, 191, 193, 194,
 195, 199, 200, 201, 202, 207, 208,
 210, 211, 212, 213, 214, 215, 216,
 217, 218, 219, 224, 226, 227, 228,
 232, 233, 236, 237, 239, 244, 245,
 247, 250, 251, 257, 259, 260, 264,
 265, 269, 272, 274, 275, 281, 286,
 287, 288, 292, 293, 297, 298, 300
 bun, 109, 111, 140, 179, 206, 252
 camel, 159, 170
 caravan, 81, 91, 94, 253
 carnelian, 64, 65, 179, 228
 carp, 150, 184, 190
 carpenter, 48, 49, 92, 96, 112, 115,
 125, 134, 136, 148, 153, 157, 158,
 159, 163, 171, 180, 184, 194, 222,
 223, 247, 261, 263, 264, 265, 266,
 267, 274
 cart, 47, 86, 115, 125, 153, 157, 159,
 184, 192, 201, 252, 254, 271
 cattle, 17, 37, 88, 110, 122, 123,
 125, 148, 165, 166, 173, 182, 191,
 198, 200, 212, 214, 217, 220, 224,
 232, 254, 267, 273, 274, 278
 cemetery, 91, 179
 Central Asia, 32, 33, 41, 51, 55, 57,
 91, 104, 113, 155, 211, 240, 284
 Chalcolithic, 80, 98, 241
 Chanhudaro, 113, 146, 172, 179,
 183, 194, 230, 239, 257
 chert, 64, 250
 chipped, 50, 117
 chisel, 96, 115, 136, 149, 163, 164,
 182, 185, 228, 263, 267
 Cholistan, 16
 cistern, 164
 citadel, 24, 37, 234
 cities, 16, 23, 37, 42, 51, 104, 144,
 202
 city, 24, 50, 55, 63, 64, 158, 202,
 203, 205, 212, 271, 281
 clay, 24, 71, 74, 81, 133, 143, 187,
 190, 206, 222, 239, 244, 247, 260,
 267, 273, 279
 cloak, 127
 cloth, 62, 66, 76, 84, 127, 147, 160,
 165, 170, 264, 265
 clothing, 205, 228, 295
 cobra, 193
 cocoanut, 95
 coins, 80, 102, 103, 104, 105, 186,
 187, 202, 203, 204, 206, 207, 298,
 305
 conflict, 34, 88, 128, 184, 264, 268
 cooking pot, 99, 133, 134, 222, 244,
 279
 copper, 13, 14, 17, 35, 36, 38, 48,
 49, 52, 53, 59, 61, 62, 63, 64, 65,
 66, 73, 74, 76, 77, 79, 80, 81, 82,
 83, 85, 86, 87, 93, 94, 99, 102,
 103, 108, 109, 110, 111, 112, 115,
 119, 122, 127, 128, 132, 133, 134,
 137, 139, 140, 141, 144, 145, 146,
 147, 149, 150, 152, 153, 155, 157,
 158, 166, 167, 168, 169, 170, 174,
 179, 181, 184, 187, 199, 204, 205,

206, 207, 209, 211, 212, 213, 215,
 217, 219, 220, 222, 223, 225, 226,
 231, 234, 235, 237, 239, 240, 241,
 242, 243, 244, 245, 250, 251, 252,
 253, 257, 258, 259, 260, 263, 264,
 266, 270, 271, 272, 274, 275, 281,
 285, 286, 291, 293, 304, 305
 cotton, 24, 66, 149, 260
 crocodile, 60, 74, 134, 177, 192
 crown, 119, 200, 264
 crucible, 80, 248, 271
 cubical, 24, 64
 cuneiform, 17, 33, 34, 60, 62, 65,
 240, 241
 cylinder seal, 17, 51, 52, 60, 64, 66,
 82, 87, 91, 98, 107, 108, 112, 128,
 129, 174, 177, 178, 202, 207, 215,
 251, 264
 dagger, 78, 82, 87, 89, 96, 97, 148,
 159, 228, 250, 251, 257, 293, 302
 deciphering, 26, 60, 120
 deer, 53, 70, 138, 142, 144, 150,
 152, 163, 168, 182, 185, 189, 217,
 257, 259, 290, 291
 deity, 50, 53, 79, 95, 106, 107, 131,
 164, 193, 211, 216, 225, 245, 248,
 283, 296, 297, 300
 dharma, 304
 Dholavira, 14, 41, 54, 59, 109, 110,
 137, 164, 234, 236, 237, 243, 244,
 256, 260, 266, 271, 272, 305
 dice, 137, 213, 251
 digger, 177, 266, 282
 Dilmun, 51, 64, 65, 66, 67, 113, 215
 dog, 87, 115, 154, 290, 296, 301
 dotted circle, 163, 174, 217, 230,
 232, 245, 251, 284
 Dr.s.advati, 303
 Dravidian, 6, 14, 16, 17, 18, 20, 21,
 22, 23, 27, 28, 38, 45, 46, 47, 48,
 54, 55, 57, 58, 60, 254, 295, 304
 drill, 116, 136, 212, 217, 250
 drilling, 132
 drummer, 82, 138
 duck, 119, 120, 121, 150
 Durga, 28
 eel, 278
 Egypt, 14, 27, 67, 104, 206, 250, 268
 Elam, 34, 62, 205, 216, 262
 elephant, 28, 39, 55, 60, 89, 99, 115,
 117, 123, 124, 130, 132, 137, 139,
 149, 166, 175, 179, 193, 209, 211,
 259, 280, 282, 285, 286, 287, 289,
 290, 291, 292, 299
 embroidery, 160
 endless-knot, 13, 80, 82, 83, 85, 86,
 87, 98
 engraver, 125, 146
 faience, 17, 260
 Fairservis, 46
 farm, 231
 figurine, 168
 fillet, 114
 fish, 44, 70, 71, 72, 80, 81, 89, 115,
 120, 121, 122, 123, 126, 129, 137,
 139, 150, 153, 160, 175, 176, 182,
 184, 188, 189, 190, 193, 197, 198,
 210, 223, 226, 227, 230, 231, 240,
 242, 246, 253, 261, 263, 264, 269,
 274, 275, 278, 282, 296, 300
 Ganga, 69, 303, 305
 gateway, 272
 gazelle, 170
 Ghaggar, 303
 gharial, 139, 250
 glass, 152, 192, 251, 253, 278, 299
 goat, 52, 53, 59, 70, 113, 115, 125,
 139, 141, 147, 148, 154, 163, 167,
 168, 172, 173, 174, 182, 213, 230,
 245, 250, 257, 265, 279, 284, 288,
 291
 goddess, 8, 47, 50, 90, 95, 192, 204,
 211, 240, 248, 300, 301

gold, 24, 38, 51, 52, 64, 65, 66, 73,
 74, 75, 77, 79, 95, 104, 110, 133,
 140, 142, 156, 157, 158, 159, 160,
 170, 179, 184, 192, 197, 202, 203,
 204, 205, 206, 216, 217, 225, 231,
 244, 251, 270, 309
 goldsmith, 73, 79, 133, 134, 137,
 146, 179, 192, 225, 231, 259, 270,
 276
 graffiti, 61, 74
 granary, 133, 134
 grapheme, 226, 245
 Gujarat, 11, 45, 46, 47, 48, 66, 69,
 234, 253, 270, 303
 Gujarati, 40, 45, 60, 124, 251, 252,
 274
 Gulf of Khambat, 11, 53, 54, 59, 66,
 69, 130, 307
 gypsum, 155
 hammer, 36, 71, 73, 88, 91, 92, 119,
 133, 139, 141, 154, 159, 163, 295,
 302
 Harappa, 16, 24, 40, 41, 51, 57, 59,
 60, 73, 77, 109, 130, 131, 207,
 209, 212, 237, 242, 257
 hare, 152, 169, 253, 265, 290
 headdress, 131, 155, 217, 296
 hearth, 70, 76, 190, 213, 275, 286
 Hindu, 10, 53, 71, 76, 79, 105, 148,
 150, 152, 220, 225, 250, 265, 273,
 278, 297, 300
 hoard, 237, 239
 horned, 13, 50, 51, 70, 71, 74, 86,
 89, 99, 112, 115, 116, 123, 124,
 125, 128, 129, 130, 131, 132, 133,
 136, 139, 149, 155, 159, 163, 169,
 172, 173, 176, 178, 181, 182, 191,
 193, 194, 199, 200, 201, 202, 207,
 208, 210, 211, 212, 214, 215, 216,
 219, 224, 226, 227, 231, 233, 239,
 246, 247, 250, 251, 265, 272, 275,
 282, 288, 293, 296, 297, 298, 299,
 300
 horse, 28, 31, 35, 49, 55, 56, 88, 92,
 152, 175, 201, 222, 264, 279, 296,
 301
 hunter, 139
 Ibex, 210
 incised, 61, 74, 81, 111, 113, 168,
 203, 204, 223, 257, 258, 259
 Indo-Aryan, 5, 14, 15, 16, 17, 18,
 20, 21, 22, 29, 35, 36, 38, 41, 42,
 43, 45, 46, 47, 49, 54, 58, 275,
 304
 Indo-Iranian, 32, 33, 36, 41, 42, 43,
 46, 49
 ingot, 13, 14, 70, 71, 80, 109, 110,
 112, 123, 125, 130, 146, 150, 152,
 153, 167, 179, 193, 197, 206, 219,
 244, 252, 260
 inlaid, 73, 82, 84, 189, 222, 234,
 239, 287, 292, 299
 inscription, 7, 50, 66, 67, 79, 98,
 106, 107, 111, 120, 131, 152, 155,
 188, 204, 215, 225, 234, 236, 239,
 240, 241, 242, 257, 293, 294, 296,
 309
 ivory, 64, 127, 140, 159, 245, 246,
 251, 309
 jackal, 137, 250, 271, 290
 Jarrige, 211, 219
 Jat.ki_, 120
 jewelry, 84, 300
 Jhukar, 113, 172, 179
 Kalibangan, 41, 74, 107, 108, 179,
 211, 237, 239, 257
 Kalyanaraman, 1, 2, 3, 8, 9, 10, 12
 Kannad.a, 5, 48, 249
 Kashmir, 11, 14, 69
 Kashmiri, 20
 Kenoyer, 41, 130, 166, 168, 207
 kiln, 73, 122, 124, 125, 127, 128,
 132, 158, 231, 234, 282

Kish, 50, 62, 94, 260
 kneeling, 50, 89, 99, 139, 146, 191,
 216, 271, 276, 287
 Kon
 kan.i, 5, 48, 52, 152
 Kutch, 11, 16, 66, 69, 234
 Lal, 40, 75, 177, 270
 language, 4, 5, 8, 10, 13, 14, 15, 16,
 17, 19, 20, 21, 22, 24, 25, 26, 27,
 28, 29, 30, 31, 32, 33, 34, 35, 36,
 39, 41, 42, 43, 44, 46, 47, 48, 49,
 50, 51, 53, 54, 55, 57, 58, 59, 60,
 61, 63, 64, 92, 106, 109, 126, 148,
 169, 204, 240, 247, 262, 266, 274,
 281, 282, 304, 307
 languages, 3, 5, 6, 8, 10, 13, 14, 15,
 16, 17, 18, 19, 20, 21, 22, 23, 25,
 26, 27, 28, 29, 31, 32, 33, 35, 39,
 40, 41, 42, 43, 44, 45, 46, 47, 48,
 50, 51, 54, 55, 57, 58, 60, 61, 63,
 69, 126, 173, 190, 204, 224, 274,
 275, 295, 302, 304, 307
 lapidary, 214, 232
 lapis lazuli, 65, 216
 lattice, 97
 lead, 48, 62, 80, 84, 96, 158, 177,
 203, 234, 268, 281, 282
 lizard, 74, 89, 112, 123, 124, 194,
 223, 250
 Lothal, 16, 24, 36, 41, 80, 206
 Mackay, 94, 113, 168, 172, 179,
 194, 209, 237, 239, 244, 252, 265,
 270
 Magadha, 68
 Magan, 51, 64, 66, 67, 215
 Maha_bha_rata, 14, 48, 55
 Mahadevan, 61, 179, 201, 237, 253,
 293
 Makran, 51, 66, 234
 Markhor, 155
 Marshall, 17, 77, 82, 94, 102, 187,
 270
 Meadow, 41, 130
 Mehrgarh, 41, 54, 59, 211
 Meluhha, 48, 50, 51, 52, 62, 63, 64,
 65, 66, 67, 98, 111
 Meluhhan, 15, 41, 48, 49, 50, 51, 52,
 59, 60, 63, 174, 274
 merchants, 24, 65, 66, 91, 113, 133,
 157, 159, 205, 206, 253
 Mesopotamia, 11, 16, 17, 24, 32, 33,
 41, 48, 50, 51, 57, 60, 62, 65, 66,
 90, 113, 155, 178, 184, 203, 204,
 205, 208, 234, 240, 305
 metal, 8, 14, 36, 37, 38, 48, 49, 51,
 52, 59, 62, 63, 74, 76, 77, 79, 82,
 85, 89, 91, 92, 107, 108, 109, 110,
 112, 114, 115, 122, 123, 124, 126,
 127, 129, 133, 134, 139, 140, 141,
 144, 145, 146, 149, 150, 152, 154,
 157, 158, 159, 165, 170, 179, 181,
 182, 185, 186, 190, 193, 195, 197,
 202, 203, 204, 205, 206, 213, 219,
 220, 222, 225, 231, 232, 233, 234,
 235, 237, 239, 241, 242, 243, 250,
 251, 252, 257, 260, 261, 263, 264,
 265, 267, 271, 272, 275, 278, 281,
 285, 286, 291, 293, 295, 300, 304
 metallurgy, 10, 18, 81, 111, 158
 metals, 14, 33, 36, 48, 50, 52, 62, 79,
 86, 108, 122, 134, 137, 149, 150,
 157, 158, 166, 197, 203, 204, 205,
 225, 228, 234, 239, 251, 263, 271,
 275, 276, 279, 286, 291, 293, 304,
 305
 Mleccha, 14, 49, 59, 63, 64, 66, 68,
 304
 Mlecchita, 59, 304
 Mohenjodaro, 17, 40, 60, 66, 77, 94,
 107, 119, 130, 131, 150, 168, 193,
 207, 209, 211, 216, 239, 244, 247,
 265, 270
 molded, 131, 262
 monkey, 113, 124, 166, 193, 194

mortar, 23, 47, 48, 120, 220, 222
 mould, 48, 110, 114, 122, 126, 146,
 154, 174, 248, 260, 275
 Mundari, 48, 52, 77, 121, 129, 132,
 135, 136, 148, 150, 159, 162, 167,
 177, 184, 220, 233, 245, 251, 252
 Nausharo, 166, 219
 necklace, 90, 137, 140, 184, 189,
 212, 275, 278, 286
 Neolithic, 47, 211
 Nilgai, 182
 one-horned, 13, 74, 86, 112, 123,
 129, 132, 136, 139, 149, 172, 178,
 182, 193, 194, 199, 200, 201, 202,
 207, 208, 210, 211, 212, 214, 215,
 216, 219, 224, 226, 227, 231, 239,
 246, 247, 250, 265, 272, 288, 293
 ore, 36, 41, 77, 80, 109, 110, 123,
 127, 128, 132, 134, 138, 144, 145,
 152, 153, 154, 158, 165, 167, 179,
 182, 184, 185, 190, 195, 213, 220,
 231, 235, 245, 251, 252, 268, 272,
 280, 285
 organization, 10, 16, 20, 22, 25, 65,
 207
 Oriya, 266
 ornaments, 14, 114, 165, 193, 231,
 270, 304
 Pakistan, 39, 57, 58, 68, 201, 209,
 219
 Palaeolithic, 35
 Parpola, 19, 37, 40, 45, 51, 61, 63,
 65, 66, 73, 91, 107, 180, 201, 209,
 228, 234, 237, 239, 264, 268
 peacock, 46, 187
 pectoral, 247, 274, 275
 pendant, 275
 perforated, 60, 94, 130, 172, 246
 Persian Gulf, 16, 24, 41, 215, 234
 pictographic, 23, 25, 127
 pipal, 89, 99, 131, 182, 191
 plant, 23, 29, 122, 131, 163, 166,
 185, 196, 231, 232, 235, 247, 250
 plants, 22, 23, 25, 177, 235, 284, 309
 platform, 70, 71, 115, 122, 130, 136,
 138, 139, 160, 169, 175, 176, 263,
 265, 267, 271, 277, 282, 287
 Pleiades, 192
 Possehl, 36, 42, 77, 83, 179, 211,
 252
 pottery, 25, 34, 61, 64, 65, 104, 114,
 133, 153, 219, 241, 243, 244, 260
 Pra_kr.t, 19, 27, 61
 praying, 216
 Priest, 237
 Proto-Dravidian, 58
 punch-marked, 80, 102, 186, 187,
 305
 Punjab, 11, 16, 57, 158, 303
 Punjabi, 20, 60, 63, 114, 163, 274
 Puru, 68
 quartz, 262
 R.gveda, 2, 8, 10, 11, 29, 33, 47, 48,
 49, 54, 58, 63, 120, 158, 261, 304
 Ra_ma_yan.a, 55, 274
 Rajasthan, 11, 16, 17, 80, 107, 241,
 270
 Rakhigarhi, 41
 ram, 51, 52, 59, 70, 88, 89, 99, 115,
 122, 126, 132, 136, 142, 144, 146,
 149, 158, 167, 168, 191, 197, 219,
 245, 249, 254, 268, 286, 287, 292,
 296, 297, 298, 300
 ratha, 35, 88, 120, 140, 184
 Ravi, 16
 raw material, 283
 rebus, 48, 51, 53, 59, 61, 73, 74, 76,
 77, 79, 81, 82, 85, 86, 87, 88, 90,
 108, 109, 110, 112, 113, 115, 118,
 122, 123, 128, 132, 135, 137, 138,
 139, 141, 150, 153, 157, 159, 165,
 166, 167, 169, 170, 174, 177, 179,
 180, 181, 182, 185, 193, 194, 195,

199, 207, 212, 213, 217, 219, 220,
 222, 225, 231, 232, 234, 235, 236,
 239, 243, 244, 245, 246, 250, 251,
 252, 253, 257, 263, 264, 266, 270,
 271, 272, 273, 274, 275, 281, 282,
 286, 289, 291, 302, 305
 reservoir, 110, 164, 266, 278, 305
 rhinoceros, 60, 122, 123, 126, 130,
 137, 139, 153, 181, 209, 260, 265
 rice, 23, 47, 70, 95, 110, 121, 122,
 133, 134, 152, 153, 177, 178, 193,
 196, 227, 232, 265, 275, 283
 Rojdi, 82, 83, 87
 Ropar, 16, 41
 Sanskrit, 3, 5, 6, 18, 21, 22, 26, 27,
 28, 29, 30, 33, 41, 42, 43, 46, 47,
 57, 58, 60, 61, 62, 63, 95, 120,
 140, 166, 167, 188, 274
 Santali, 20, 22, 25, 26, 27, 28, 48,
 49, 60, 70, 71, 72, 73, 74, 75, 77,
 78, 79, 80, 85, 86, 88, 89, 91, 92,
 99, 107, 108, 109, 110, 112, 113,
 114, 115, 116, 117, 118, 120, 121,
 122, 123, 124, 125, 126, 127, 128,
 129, 130, 131, 132, 133, 134, 136,
 137, 138, 139, 140, 141, 142, 145,
 146, 148, 149, 150, 152, 153, 154,
 157, 159, 160, 163, 164, 165, 166,
 167, 168, 169, 170, 173, 174, 175,
 176, 177, 178, 179, 182, 184, 186,
 190, 191, 193, 194, 195, 198, 200,
 207, 212, 213, 214, 215, 218, 219,
 220, 222, 224, 226, 227, 228, 231,
 232, 233, 234, 235, 236, 243, 244,
 245, 246, 247, 248, 250, 251, 252,
 253, 254, 257, 259, 261, 263, 264,
 265, 266, 267, 268, 270, 271, 272,
 273, 274, 275, 276, 277, 278, 279,
 280, 282, 283, 284, 285, 289, 290,
 291, 293
 Sarasvati, 1, 2, 3, 8, 9, 10, 11, 12,
 13, 14, 15, 16, 17, 19, 20, 21, 23,
 24, 25, 26, 28, 29, 33, 36, 37, 38,
 39, 40, 47, 48, 49, 50, 51, 54, 58,
 59, 60, 61, 66, 68, 69, 80, 81, 90,
 106, 109, 113, 130, 155, 189, 192,
 206, 207, 209, 211, 234, 260, 269,
 295, 296, 303, 304, 305, 306, 307
 saw, 31, 72, 126, 145, 214, 216, 263,
 264, 282
 sealing, 113, 143, 187, 215
 seated figure, 50, 131, 297
 serpent, 89, 99, 115, 132, 145, 177,
 245, 269, 286, 287, 292, 296, 297,
 298, 300
 serpentine, 269, 289
 Shaffer, 40
 sheep, 70, 115, 122, 142, 148, 150,
 154, 163, 168, 206, 245, 260, 273,
 291
 shell, 136, 172, 208, 210, 224, 260,
 278, 281
 ship, 24, 55, 78, 81, 110, 111, 166,
 194, 201, 204, 214, 253, 257, 309
 Sickie, 230, 242
 siddham, 106, 107
 Signboard, 243, 271, 272
 Silver, 13, 70, 80, 203, 204, 207,
 226, 240, 241
 Sindh, 15, 17, 19, 20, 21, 23, 24, 25,
 26, 28, 29, 36, 45, 48, 50, 54, 60,
 66, 69, 192, 234
 Sindhi, 5, 20, 24, 45, 60
 snake, 85, 96, 113, 115, 122, 142,
 160, 176, 177, 185, 189, 200, 213,
 249, 250, 251, 278, 286, 290, 295,
 296, 299, 300
 soma, 23, 29, 35, 38, 51, 68, 69, 91,
 92, 169, 264
 spear, 82, 87, 88, 90, 91, 94, 96, 107,
 109, 125, 127, 129, 145, 162, 166,
 182, 187, 193, 231, 240, 273, 282,
 287, 288, 289
 spearing, 159

squirrel, 228, 229
 standing person, 70, 89, 127, 141,
 149, 177, 193, 217, 246
 steatite, 17, 60, 94, 112, 113, 162,
 178, 179, 246, 252, 269
 stone bead, 130
 stool, 131, 134, 137, 261, 262, 263,
 264, 265, 274, 296
 storage jar, 66, 166, 244
 storehouse, 133, 136
 Sumerian, 14, 17, 24, 48, 49, 50, 57,
 60, 63, 64, 66, 67, 82, 155, 174,
 178, 207, 250
 Susa, 52, 64, 129, 145, 159, 178,
 206, 211, 233, 240, 268
 Sutlej, 303
 svastika_, 80, 81, 82, 90, 91, 92, 94,
 95, 96, 99, 102, 103, 104, 105
 Swat, 36, 48, 98
 symbols, 13, 17, 20, 25, 26, 55, 81,
 82, 104, 106, 180, 187, 189
 tablets, 17, 26, 34, 49, 59, 64, 65, 98,
 99, 109, 122, 130, 131, 155, 165,
 169, 202, 208, 209, 211, 226, 242,
 253, 293, 294, 304
 Tamil, 3, 5, 20, 22, 25, 27, 28, 46,
 48, 49, 55, 58, 60, 77, 111, 120,
 125, 144, 148, 166, 202, 214, 217,
 248
 Taxila, 80, 82, 91, 102, 103
 Telugu, 3, 5, 40, 47, 48, 96, 138,
 165, 214, 266
 temple, 16, 64, 69, 91, 99, 105, 159,
 166, 181, 200, 214, 216, 222, 240,
 260, 264, 273, 274, 309
 Tepe Yahya, 98, 172, 246
 terracotta, 82, 163, 197, 270
 terracotta tablet, 82
 throne, 131, 210
 tiger, 13, 82, 89, 91, 99, 107, 108,
 111, 112, 119, 121, 122, 123, 125,
 126, 127, 130, 132, 136, 137, 138,
 146, 147, 149, 152, 157, 159, 166,
 167, 170, 172, 193, 209, 219, 222,
 235, 261, 264, 265, 270, 271, 278,
 281, 286, 287, 290, 291, 292
 Tigris, 34, 50, 60, 69, 305
 tin, 31, 62, 65, 80, 81, 110, 112, 114,
 125, 140, 144, 145, 149, 153, 158,
 165, 193, 205, 234, 243, 246, 252,
 257, 268, 271, 275
 tin bronze, 62, 110
 toilet, 102, 270
 tokens, 206
 tools, 17, 63, 79, 109, 122, 134, 149,
 157, 158, 159, 184, 222, 225, 273,
 295, 299, 304, 305
 tortoise, 149, 193, 242, 289, 290
 traders, 24, 48, 52, 64, 65, 98, 205,
 234, 253
 transport, 64, 204, 254, 304
 tree, 43, 44, 47, 70, 89, 90, 99, 106,
 107, 108, 114, 115, 123, 125, 134,
 135, 136, 139, 140, 146, 150, 153,
 159, 160, 162, 163, 166, 176, 177,
 182, 184, 186, 191, 195, 196, 213,
 219, 220, 222, 232, 235, 245, 246,
 265, 268, 269, 270, 271, 272, 281,
 287, 288, 293, 297, 301
 trefoil, 160
 triven.i, 69, 303
 Turkmenistan, 146
 Unicorn, 201, 227
 United Arab Emirates, 64, 65
 Ur, 14, 17, 60, 62, 64, 66, 67, 170,
 178, 179, 203, 204, 205, 206, 210,
 215, 250, 252, 269
 Vats, 237, 270
 vedic, 158
 vessels, 24, 37, 74, 77, 94, 127, 134,
 167, 249, 261, 262, 269
 Vindhya, 17, 88, 214
 votive, 153, 264

war, 28, 37, 39, 56, 62, 107, 138,
 158, 207, 210, 217, 249, 299
 water-buffalo, 152
 weapons, 13, 14, 17, 53, 59, 60, 82,
 87, 88, 94, 109, 120, 132, 149,
 158, 190, 199, 211, 228, 232, 236,
 237, 239, 240, 241, 242, 244, 259,
 260, 263, 270, 272, 273, 295, 304,
 305
 weaving, 25, 260
 weights, 24, 64, 65, 167, 202, 203,
 216, 240, 268
 wheat, 64, 177, 266
 Wheeler, 66, 81, 111, 241
 wild animals, 134, 200
 workshop, 50, 73, 79, 89, 99, 108,
 109, 117, 118, 122, 123, 125, 133,
 148, 150, 153, 157, 159, 164, 165,
 182, 193, 199, 201, 212, 219, 222,
 223, 224, 225, 226, 231, 234, 236,
 245, 246, 270, 271, 272, 286, 293
 worship, 88, 128, 133, 224, 248, 293
 writing, 8, 10, 12, 14, 16, 17, 23, 24,
 38, 40, 41, 59, 63, 75, 106, 108,
 130, 155, 159, 222, 231, 241, 304,
 305
 writing system, 8, 10, 12, 14, 16, 17,
 38, 40, 41, 59, 63, 106, 130, 305
 yajn~a, 38, 149, 175, 272, 289
 Yamuna, 69, 303
 yogic, 96, 130, 131, 134, 295, 296,
 297
 Yudhis.t.hira, 14, 48, 304
 Zebu, 130, 207, 269

End Notes

¹ Frankincense and myrrh from the land of Punt and gold from Ophir

"The only region to which the Egyptian pharaohs seem to have regularly sent expeditions by sea was the land called Punt (**pwnt**). It was here that the Egyptians acquired their frankincense (**sntr**) and myrrh (**'ntjw**, a word later used to describe aromatics in general), the latter commodity being of particular importance because of its employment in the process of embalming. Expeditions to Punt may have begun as early as the reign of Sahure (Fifth Dynasty, circa 2475), the twelfth year of whose reign no less than eighty thousand units -- the exact unit size is uncertain -- of myrrh from Punt were received, according to the Palermo Stone...Punt seems to have been reached by closely following the western shores of the Red Sea, and thence bringing the acquired goods overland through the Wadis Gasus and hammamat before sending them down the Nile to their final destinations. A high official of Sankhkare Mentuhotep II (Eleventh Dynasty, circa 1950) named Henenu left an inscription on a rock face in the Wadi Hammamat in which he declared that he had been sent out to build a ship intended to bring frankincense back from Punt...Without doubt the most famous testimony of the Egyptian Punt expeditions, however, is preserved on the temple relief of Dayr al-Bahri, where five ships sent to Punt by Queen Hatshepsut (circa 1478/72-1458) are depicted in great detail...In addition to frankincense and myrrh, a number of other commodities were acquired in Punt, including gold, electrum, slaves, ebony, ivory, baboons, monkeys, leopard or panther skins, eye paint, and various gums and resins...Hatshepsut's reliefs show no fewer than thirty-one **'ntjw** trees that had been brought back from Punt. Ramesses II (circa 1279-1213), moreover, boasted in his temple reliefs at Abydos of having planted many gardens with trees and plants from Punt, while Ramesses III (circa 1187-1156) says specifically that he planted frankincense trees at Thebes and both frankincense and myrrh trees (*Boswellia sacra* or *Commiphora myrrha*) at Memphis (Mit Rahina)...

"Solomon (circa 973-933) and Hiram of Tyre together attempted to reach Ophir, a land has been called the California of the biblical world because of its gold resources. In 1 Kings 9: 26-28, we are told, 'And king Solomon made a navy of ships in Ezion-geber (modern Tell al-Khalayfa at the head of the Gulf of 'Aqaba), which is beside Elath on the shore of the Red Sea, in the land of Edom. And Hiram sent in the navy his servants, shipmen that had knowledge of the sea, with the servants of Solomon. And they came to Ophir, and fetched from there gold, four hundred and twenty talents, and brought it to king Solomon.' Elsewhere we are told that Hiram's own navy returned not only with gold but with precious stones and many albug trees." (Potts, 1995, p. 1459-1461).

The location of Punt is suggested to be Somalia or eastern Sudan or northeastern Ethiopia and the location of Ophir somewhere in or near Arabia or Sofa on the east coast of Africa.

It should, however, be noted that Eusebius Pamphili (263-339 CE) and later Hieronymus (Saint Jerome, 348-420), identify **So_pheira** as a mountain in India.

² Prof. Misra counters this in Lecture 6 (1999):

"Progress toward the solution of the problems of continuity and discontinuity, which are so important for the Indo-European problem, can only be achieved after the possibilities of diffusion, trade and migration have been weighed against those of transformation" (Klejn, 1977, A Panorama of Theoretical Archaeology, *Current Anthropology*, 18, 1: 1-42). (Homer L. Thomas, The Indo-Europeans--some historical and theoretical considerations, in: Skomal, Susan Nacev and Edgar C. Polome (eds.), *Proto-Indo-European: the archaeology of a linguistic problem, Studies in honor of Marija Gimbutas*, Washington DC, Institute for the Study of Man, 1987, pp. 145-164).

³ The peculiar case of "Sindhu"

"Among IA-looking river names, a case can be made for surprising IE etymologies of names usually explained as loans. In particular, *sindhu* might be an "Indo-Iranian coinage with the meaning 'border river, ocean' and fits Paul Thieme's etymology from the IE root **sidh*, 'to divide'". (1999/1:387) Now, if the Vedic Aryans only entered India in the 2nd millennium BC, the name Sindhu cannot be older than that.

"According to Oleg Trubachov (1999), elaborating on a thesis by Kretschmer (1944), Indo-Aryan was spoken in Ukraine as late as the Hellenistic period, by two tribes known as the *Maiotes* and the *Sindoi*, the latter also known by its Scythian/Iranian-derived name *Indoi* and explicitly described by Hesychius as "an Indian people". They seem to have used a word *sinu*, from *sindhu*, for "river", a general meaning which it also has in some Vedic verses. Trubachov lists a number of personal and place names recorded by Greek authors (e.g. *Kouphes* for the *Kuban* river, apparently a re-use of *kubhā*, the *Kabul* river, Greek *Kophes*), and concludes that the *Maiotes* and *Sindoi* spoke an Indo-Aryan dialect, though often with *-l-* instead of *-r-*, as in king *Saulios*, cfr. *sūrya* (just the opposite from Mitannic, where *palita*, "grey", and *pingala*, "reddish", appear as *parita* and *pinkara*) and with *-pt-* simplified to *-tt-* (so that, just like in Mitannic, *sapta* appears as *satta*, a feature described by Misra 1992 as "Middle IA").

"Working within the AIT framework, Kretschmer saw these *Sindoi* as a left-over of the Indo-Aryans in their original homeland, and even as a splendid proof of the Pontic homeland theory (Trubachov is less committed to any particular homeland hypothesis). In that case, again, the name *sindhu* (and likewise *kubhā*) would be an Indo-Aryan word brought into India by the Vedic-Aryan invaders. .. (Koenraad Elst, *Linguistic aspects of the Aryan non-invasion theory*).

⁴ *tibira*, 'coppersmith, metal-manufacturer' and similar-sounding lexemes

Image: gimlet: tamar hole made by a gimlet; a borer, gimlet, drill (Ma.); tamar boring instrument; gimlet, spring awl (Ta.); tamiru gimlet (Tu.); tamire, tagire the pin in the middle of a yoke (Te.); tavar (-v-, -nt-) to bore a hole; *n.* hole in a board (Ta.)(DEDR 3078). tau~ri giddiness, dizziness (Ku.); tavar id. (M.)(CDIAL 5688). ta~v, tav, tava_ giddiness (M.)(CDIAL 5689). tavar to bore a hole (Tiv. Tiruva_y. 9,9,1); tamar hole, as in a plank, commonly bored or cut (Tiruvil.ai. Ma_n.ikka. 61) *Image: groove or mortise*: tavan.ai-p-poruttu a groove or mortise on the top of a gate or door-post (Ta.lex.) tamire = the pin the middle of a yoke (Te.lex.) tavan.ai joint, in carpentry (Ta.lex.) tavar = hole (Ta.lex.) tamar = hole, commonly bored or cut (Ta.Ma.)(Ta.lex.) tava_l.i-ttal = to make flutings or grooves, as in carpentry; to dig a channel; tala_l.ippu cavity in a moulding, groove (Ta.lex.) tavar-aiva_ri = handspike, a tool used on a ship; tavar-ai mu_t.t.a_n- = anchor chain; tavar-ai < dabara (Te.) capstan, machine for winding up a cable in small craft (Ka.lex.) tavan. = circle drawn with lime, or string tied around a limb, above the site of a poisonous bite with incantations to stop the spread of poison; tavan.ai = joint, as in carpentry (Ta.lex.) cf. ta_mare = ringworm (Ka.); ta_mara id. (Te.); ta_mra = a kind of leprosy with large red spots (Skt.)(DEDR 3164).

tavur, tavuruni to cut away any leaves or brushwood, to clear a bush (Ta.)

tavan.ai = raft or float for crossing rivers, especially one made of earthen pots and bamboos (Ta.lex.)

tavan.ai-k-kat.ai = banking house of a na_t.t.ukko_t.t.ai cet.t.i; tavn.aikkan.akku periodical accounts of land-revenues (Ta.lex.)

tamar = doorway (Ta.lex.) [Note the arch ligatured to a spoked-wheel].

tavali = bull, white cattle (Ta.lex.)

tavali = a fish (Ta.lex.)

takar = male of makara, cur-a_, alligator (Ta.lex.)

takar = ya_l.i (Ta.lex.)

takar = elephant (Ta.lex.)

Tin ingot

touren~, tourea_ = a lump of tin (Kon.lex.) ta_bulu = a tinsel, brass leaf; the cuts, as of a precious stone; ta_bu_tu = the cage made of paper and tinsel by mussalmans at the moharam (Tu.lex.) tavara, tagara, tamara, tavaru = trapu, tin (Ka.lex.) cf. tamara = tagara, tin; lead (Ka.lex.) tamaramu, tavaramu = tin (Te.lex.) takaram tin, white lead, metal sheet, coated with tin (Ta.); tin, tinned iron plate (Ma.); tagarm tin (Ko.) tamaru, tamara, tavana id. (Ta.); tagaramu, tamaramu, tavaramu id. (Te.); t.agromi tin metal, alloy (Kuwi); tamara id. (Skt.)(DEDR 3001). trapu tin (AV.); tipu (Pali); tau, taua lead (Pkt.); tu~ tin (P.); t.au zinc, pewter (Or.); taru_aum lead (OG.); tarvu~ (G.); tumba lead (Si.)(CDIAL 5992). **t.agara** = borax (VarBr.S); borax (Si.); t.agara, t.an:kan.a, t.an:gan.a, t.an:ka, t.an:ga (Skt.); dana_ka_r borax, alum (Kho.); tanga_r (Ir.Persian)(CDIAL 5437). tagad.u = a plate sheet leaf or foil; of metal (Te.lex.) tagara, tavana [Tbh. of tamara or trapu] tin (Ka.Te.Ta.M.)(Ka.lex.) Alloy: tara_ alloy of 8 parts of copper to 5 of tin, used for making metal vessels (pukar.tara_-p- po_kkillai) (Cine_n-. 169)(Ta.lex.) [The ligatured standard device can thus be explained as: tavaru san:gha_ta (lit. tin composite material), alloyed with tin or lead!] tamaram = lead (Kathirvelpil.l.ai Ta.lex.) tagad., tagd.a_ = tin, a sheet of tin (Kon.lex.)

tagat.u = gold lace; tagat.i = of gold lace; ornamented with gold lace (Te.lex.)

takaram = lead (Ta.lex.)

ta_val.am = a string or garland of beads, a rosary (Te.lex.) ta_vat.am = sacred elaeocarpus beads; necklace (Ta.lex.)

cf. tagori = potter's wheel (Tu.)(DEDR 3200).

mer = (Hem.Des. mera_ fr. Skt. meru, name of a mountain) the largest bead in a rosary from which the reckoning begins (G.lex.) [Note the trefoil glyph on the uttari_yam worn by the priest; mer could be represented by a dotted circle, like a bead].

taga_rum [Persian. taga_rah] a bricklayer's trough; a hod (G.lex.) tagar. = a trough; tagar.re surti ar cunko sipia = they mix surti and lime in a trough (Santali.lex.) taga_r = a tub, bucket, a trough, a platter, a mortar bed; taga_ri_ = a small tub, trough or bucket (P.lex.)

tagr.a = large, massive, strong (Santali.lex.)

t.agri han.d.i = pachwae, liquor made from rice, rice beer (Santali.lex.)

ten:gra hako = a species of river fish (Santali.lex.)

tagar = a flowering shrub (G.lex.)

⁵ Image: potter's wheel: tikiri wheel (Cilap. 4,2); potter's wheel (Ka_cippu. Tirunakarap. 76); discus weapon (Kampara_. cittira. 40); royal authority (Man.i. 22,16); chariot, car (Ja_n-a_. 7,17); sun (Akana_. 53); tikirikai wheel; potter's wheel (Ta.lex.) Image: wheel: tiguri, tigari, tiguru a wheel, especially a potter's wheel (Ka.); tigiri (Ta.); kumba_r-ada tiguri kula_la cakra (Ka.lex.) tekos, tekos imitative of the sound produced by the charka or spinning wheel, to whir; tekos marte sad.e gotena it gave a whir, it sounded whir; tekhar times; bar pe tekharic nelkedeade I saw him two or three times (Santali.lex.)

<http://www.hindunet.org/saraswati/dictionary/4052TO.HTM>

⁶ Nahali vocabulary

1	biDum
2	irar
3	moTho
4	na:lo
5	pāco
6	cha:h
7	sato
8	aTho
9	nav
10	das

The numbers 5-10 are clearly of IA origin. The numbers 1-5 are Dravidian:

biDum	cf.	Toda	wiD,	Kota	vodde,	Irula	vondu
irar	cf.	Toda	e:D,	Brahui	ira:,	Kolami	i:ral, Kannada
moTho	cf.	Toda	mu:D,	Telugu	mu:Du		

na:lo cf. Toda no:N, Koya na:lu, Tulu na:l, Malayalam na:lu

But the Munda layer is thicker, and the Nahali verb system is reportedly Munda-like. The unidentified substrate is said to account for about 25% of the vocabulary. Perhaps the fairest description of Nahali would be this: an old creole language that has been decreolised in favour of its Indo-Aryan component.

Nahali *ad.d.o*, *ard.u* 'tree, wood' Parengi. *ara?* Sora. *era_*

Nahali *ara* 'to see' Santali *arak* 'orok' 'gaping, staring; Mundari *arid* 'to gaze, look at'

Nahali *akhand.i* 'finger'

Nahali *baddi* 'bull' Gutob of Bastar state *ba_d.i_*; Kolami *barre* 'buffalo'; Telugu *bar-r-e* 'female buffalo'; Pkt. *pad.d.a*

Nahali *oba* 'bull'; Kurku *doba* 'ox, bull, bullock'; *dobaq* 'bullock'; Marathi *d.obad*. 'female buffalo'; Bhili *d.obe* 'cattle'

Nahali *bakra* 'a he-goat'; Hi. *bakra_*; Ku. *bokra*, *bon:gora*

Nahali *bard.o* 'sickle'

Nahali *bot.or* 'hare'; Gondi *bhat.e_lya_*; Munda *kuala* 'hare'; Kherwari *kulai*, *kulae*

Muci *jor.ta_* 'two'; Beng. *jor.a_* 'couple'

Nahali *cort.o* 'blood'; Tamil, Malayalam *co_ri*, Kod.agu *co_re* 'blood'

Nahali *cakot.o*, *cekot.o* ‘axe’; Kurukh *cakna_* ‘to sharpen’; Telugu *cekku-* ‘to pare’ Kui *sekali* ‘to scrape (with a hoe)’; Burushaski *cak* ‘axe For -*t.o*: *kalt.o* ‘a Naha_1 person’; du. *kalt.ihlt.el*, plur. *kalit.t.a*; -*t.o* seems to be a suffix; Skt. *karkat.aka* ‘name of a tribe in ancient Bharat’. *jakot.o* ‘male; *jakot.o ma_u* ‘horse’; *ja_kot.o haran* ‘male deer’

Nahali *cokob* ‘leaf of a tree, a Naha_1 clan-name’; Kurku Santali Mundari *sakom* ‘leaf’

Nahali *cha_h* ‘six’; Hi. *cha*

Nahali *ca_n* ‘fish’; Kurku *cade* ‘a certain kind of fish’; Muci *cha_n rui* ‘fish’ (lit. rohit fish caught in net)

Nahali *candi* ‘silver; Kurku *candi*; Hi. *ca~_di_*

Nahali *cana* ‘dance; *cana-* ‘to dance’

Nahali *carko* ‘black-faced monkey’; Mundari *sara*’; Ho Kurku *sara* ‘monkey’, ‘baboon, black-faced monkey’; Ainu *saro*; Jap. *saru?*

Nahali *dugi* ‘red-faced monkey’ Ku. *dhugi* ‘baboon, a red-faced monkey’; Sakai *dok*; Tembi, Senoi *dokn*, Stieng *duk*, Bahra *dok*, Chrau *dok*, Halang *modok*, Sedang *do* ‘monkey’

Nahali *cergo-* ‘to run’; Kurku *sarub-* ‘to run’

Nahali *cerk(o)* ‘to fall’; Tamil *carukku* ‘to slip’; Kannada *saraku* ‘to slip, slide’; Malto *jarqe* ‘to be dropped, fall’

Nahali *d.ad.i* ‘beard’; Kurku *dadi*; Hi. *da_r.hi*

Nahali *d.and.o* ‘upper arm’; Kurku *d.and.o* ‘upper arm’; Kolami *dand.a*; Parji *d.and.a*

Nahali *d.an:go* ‘branch of a tree’; Kurku *dagan*; Hi. *d.o~ghi_*; Kui *d.e_ga*

Nahali *d.ed.d.a* ‘frog’ Kurku *dedda*; Pkt. *d.ed.d.ura*; Skt. *dardura*

Nahali *d.on:ga* ‘a variety of ant of big size’; Kurku *don:ga* ‘a large black ant’; Mar. *d.o_gl.a_* ‘a species of large ant’

Nahali *d.on:gor* ‘hill, jungle, forest’; Kurku *don:gor*; Hi.Mar. *do_gar* ‘hill, mountain’

Nahali *balla* ‘hill’ Ku. *balla*, *bala*; Khandesi *balda_*; Kun.bau *bald.a_*; Hi. *ba_la_* ‘high, aloft’ Tamil *vallai* ‘hillock, mound’

Nahali *dhan:kar* ‘shepherd’ Hi. *dha~_gar* ‘caste whose business is to dig wells, tanks’; Kolami *dhan:gar* ‘shepherd’ from Mar.

Nahali *d.hol* ‘drum; Kurku *dhol*; Hi. *d.hol*

Nahali *d.hor* ‘cow’; *dhotta_* ‘cows, cattle’; Kurku *d.hor-ku* ‘cattle’; Nahali *bidi_ dhotta_* ‘a cow’, *dhatta_* ‘cow’; Baori (Lahore) *e_k d.hat.t.o_* ‘a bull’; Hi.Mar. *d.hor* ‘cattle, beast’; Kolami *do_r*, Gondi *d.ho_r.-k* ‘cattle’ Gutob of Bastar state *dhorai_* ‘shepherd. Probably connected with Gondi *t.a_li_*, Bhili *t.o_li_* ‘cow, Bhili *t.od.a~_* ‘cattle’

Nahali *t.o_t.a* ‘maize, a Naha_l clan-name’

Nahali *en:ger* ‘burning charcoal’; If direct borrowing from Hi. *a~_gra_*, *en:ger* is an instance of *a>e*; Mundari *en:gel*, remodeled after *sen:gel* ‘fire’

Nahali *e.t.t.hi*, *het.t.i* ‘elephant’; Kolami *etti*, Kurku *hethi*, *hathi*; Mar. *hatti_*, Hi. *ha_thi_*

Nahali *ha_t.u* ‘market’; Hi. *ha_t_*; Kurku *hatti* from Hi. *hat.t.i_*

Nahali *gad.ri*, *gadha* ‘ass’ Kurku *gadri*, *gadari*, *gidari*, *gideri*; Mar. *gadh.a_*; Kurku *gadar.a* ‘he-ass’, *gidir.i* ‘she-ass’; Hi. *gadaha_*

Nahali *ga_r.a* ‘cart’; Kurku *gar.a* ‘a native cart’; Hi. *ga_r.a_*

Nahali *gard.an* ‘neck’; Hi. *gardan*

Nahali *gora kelli* ‘male calf’; Kurku *gora* ‘male calf’

Nahali *got.hi* ‘clan’; Hi. *got.h* ‘assembly’; *goti_* ‘relation, kindred’

Nahali *ghut.ari* ‘a deer’; Kurku *ghotari*, *ghotar.i*, *gotari* ‘red antelope, deer, jungle goat’; Ho *kotharie seleep* [= *kothari_ silib*] Zide points to Santali *ghot.ret’jel*, *ghot.ra.jel*

Nahali *kot.ra* ‘inside’. Nid.irtan: *kot.ra* ‘inside of the anthill’; Hi. Mar. *kot.ar* ‘hole in a tree’; Hi. *kot.hri_* (Mar. *kot.had.i_*) ‘small room, cell’; Hi. Mar. *kot.ha_r* ‘storehouse’

Nahali *hond.ar* ‘rat’; Sora *on(d)re_n:* ; Kui *od.ri*; Kuwi *or.li*, *orli*; Skt. *undara*, *undaru*, *unduru* ‘mouse’

Nahali *hundar* ‘to prepare (food)’; Kurku *hundar*; Gutob *kund.ar* ‘to cook’

Nahali *iphil* ‘star’; Kurku *ipil*; Santali Mundari Ho *ipil*; Sakai *perlohi*, *pelo*i, Semang *puloe*, *peluih*; Khmer *phlu* ‘daylight’

Nahali *irar* ‘two (Masc.), *ir* (Fem. Ntr.); *ir-jen* ‘two persons’; *i_r*, *i_ra_*; Tamil *iru/i_r*, Kannada *iru*, *ir*, *i_r*

Nahali *ira* ‘to cut with a sickle’; Kurku *ir/hir* ‘to cut (grass), to mow’; Santali Mundari Ho *ir* ‘to cut, reap. The disyllabic root of Nahali is remarkable, but may be correct; cf. Mundari *gira*: Santali *ger* and Ku. *terae*:- Ho *ter* ‘to throw’

Nahali *geri* ‘fishing hook’; Kurku *gir.i* ‘fish-hook, to hook a fish’; Mar. *gal*. ‘fish-hook’; N.B. Santali *ger* ‘to catch fish’, Mundari *gira_* ‘net for catching fish’ are not related to *geri*.

Nahali Kurku *kat.ham* ‘tortoise’; Kurku *katkom* ‘crab’; Santali *kakkat.a*; Skt. *karkat.a*

Nahali *kapri* in *jiki kapri* ‘eye-brow’

Nahali *kapor* ‘winnowing basket’

Nahali *karchi* ‘pitcher’; Kurku *karsi*, *kharsi* ‘earthen basin, large earthen pot, water-pot with a wide neck’; Mar. *kal.s’i_*, *kal.si_* ‘a small metal vessel’

Nahali *ka_vra* ‘crow’; Kurku *kaur.a, kaua, kauwa* ‘raven, crow’ Parji *kavr.a*; Mar. from *ka_vl.a_*

Nahali *kirsan* ‘cultivator’ Kurku *kirsan, kisan*; Hi. Mar. *kisa_n*; modern borrowings from Sanskrit: Nepali *kirkhi* from Skt. *kr.s.i*

Nahali *ko_go* ‘snake’

Nahali *kokhor* ‘fowl’ Gondi *kukkura* ‘painted partridge’; Mundari Ho *kokor* ‘owl’; Sora *kukkur* ‘dove’

Nahali *komba* ‘cock’; Kurku *komba*, Mar. *komba_d.a_*; Konkani *kombo*

Nahali *khobo* ‘much; *khu_b* ‘very, many’; Kurku *khobo, khubo (kubo), khob (kob)*. Hi. Mar. *khu_b*

Nahali *ko_l* ‘woman, wife’ (dual *ko_lhilt.el*); Kolami *ko_lama* ‘wife’; Kashmiri *kolay* ‘wife’; Burgandi dialect of Tamil *kulis* ‘wife’, Yerukala *khulis_i_* (Malar *khulsa_* ‘husband: Sicalgari *kho_l* ‘house’); Kui *kola* ‘bride, son’s (yonger brother’s) wife’

Nahali *ko_lya* ‘fuel, Naha_l clan-name’; Kurku *kolya* ‘charcoal’, with metathesis from Hi. *koyala_*, *koela_* > Santali *koela, kuila*, Mundari *koila, kuila*

Nahali *kot.t.o, kat.t.o, ko_hat.* ‘to beat’; Tam. Mal. Tel. *kot.t.u* ‘[to beat’; Mundari *kut.ao* ‘to drub, strike violently or thresh soundly with a stick’; Hi. *ku_t.na_*

Nahali *kot.t.u* ‘to pound’; Hi. *ku_t.na_* ‘to macerate, to pound, to pestle, crush, beat’; Kannad.a *kut.t.u* ‘to beat, strike, pound, bruise’

Nahali *ku_d.u* ‘bamboo door’; Kurku *kur.* ‘wall (of wattle and daub), Mar. *ku_d., kud.an* (Kolami *kud.an*); Kui *kud.u* ‘wall’

Nahali *kui* ‘water well’; Kurku *kui, kuhi*, Santali *ku~i*; Hi. *ku_a_* (*ku_i_* in Dardic). Munda word perhaps a recent borrowing from some local Aryan dialect

Nahali *khand.a* ‘shoulde; to carry on shoulder’; Kurku *khanda, kha~_do~, Hi. kandha_*

Nahali *kharu ka* ‘many’; Kurku *kar.u, karu* ‘herd, crowd, flock, multitude’, *karuten* ‘in crowds’, *kad. karu kurku* ‘a great multitude’ (lit. a great many people); santali *khar* ‘herd, flock’; Mundari *ker.a, Ho. kera* ‘buffalo’, Mundari *kir.o* ‘a buffalo calf upto to 3 years old’

kat.iya_ **buffalo** heifer (G.); kad.a buffalo (Santali); **ka_t.i**, furnace (trench)(Ta.)

Nahali *khara* ‘field’; Mar. *khal., khal.e~* ‘yard, court’ [Kurku *khara* means ‘salt, brackish’ = Hi. *kha_ra_*]; cf. Nahali *kheriyan* ‘threshing floor’; Kurku *kharyan*, from Mar. *khal.iha_n*; cf. *khalihana, khali_ha_n*, Bihari *khariha_n*; Kurku *khari_n* from Mar. *khal.e~*

Nahali *kheda* ‘to drive a cart’ Kurku *kheda, kheda-ki* ‘to drive away’, *ke-keda, keda-k-ej* ‘to drive oxen’; Hi. *khedna_* id.

Nahali *kheri-kama* ‘to pull’; Kurku *kir.i* ‘to pull’; Kann. *ki_r.* ‘to draw or pull out, pluck up or out, uproot, pull off, rob’

Nahali *khet* ‘field’ Hi. *khet* id.; Kurku *kheti, khiti, khit.i, ket.i, kiti* ‘field’; Hi. Mar. *kheti_* ‘agriculture’; cf. Skt. *ks.etra* ‘field’

Nahali *khogir* ‘saddle’ Kurku Mundari Gutob *khogir*. Hi. Mar. *khogi_r*

Nahali *khuri* ‘leg’; *khuri_*, *khud.i_* ‘foot’; Mar. *khuri_* ‘forepart of the hoof’; *khu_r* ‘hoof, foot (of couch)’. The meaning ‘foot’ is also found in Kashmiri, Dardic, West Pahari.

Nahali *la_o* ‘to burn’; Naiki *lao* ‘to set fire, to put on (ear-ring), to shut (door)’; Santali Mundari *lo* ‘to burn, scald’, *lolo* ‘to heat, hot, warm, Birhor *lo*’ ‘to burn’, *lolo* ‘hot, warm’, Ho *lo* ‘to burn, *lolo* ‘hot’

Nahali *lokhand.o* ‘iron’; Kurku *lo-khand.o* (*lo*, *loh*, *loha*); cf. Mar. *lokha_d.* ‘iron’

kan.d. ‘furnace’ (Santali)

ghat.a jar, ewer (MBh.R.Sus'r.) **kod.a** (Ka.) **gargara** (MBh.) **gargari_** churn, butter-vat, a kind of water-jar (Skt.) **karaka** water-pot (MBh.R.) **bhr.n:ga_ra** water-pot, pitcher (Skt.) **gha_ghari** waterpot (S.); **gad.d.uka** small earthen pot (Skt.); **gar.uwa_** (N.); **khan.d.a** a liquor pot (Pkt.); **kalas'a** pot, water-jar (RV.) **gagra**, **ghagra**, **ghar.a** (Santali); **han.d.ha** a large earthenware jar (Santali); **ha~_d.a_** (H.); **hat.hua** (Santali); **ha~_r.ia_** cooking pot (Kharia)

Nahali *man:gar* ‘crocodile’; Kurku ‘alligator’; Santali ‘alligator, *crocodiles palustris*’ with nasalization owing to the initial nasal from Hi. *magar*

Nahali *ma_v*, *ma_w*, *ma_* ‘horse’ (dual *ma_v-ihlt.el*, plur. *ma_v-t.a*); Tel. *ma_vu* ‘horse’; Gondi *mau*, *ma_v* ‘sambar’; Note *ma* ‘horse’ in Tai, Ahom, Kha_mti, Laos, Sha_n; cf. Lahu (Shan states) *muan*, *maw* ‘horse’

Nahali *men:ge*, *me_n:ge* ‘tooth, jaw’

Nahali *mend.ha* ‘sheep’; Kurku *mend.ha* id. From Hi. *me~d.ha_* ‘ram’

Nahali *mochor* ‘pestle’; Mar. *musal.*; Skt. *mus'ala*, *mus.ala*

Nahali *mokhne* ‘elbow (knee?)’; Kurku Mundari Ho *muka*; Santali *moka* ‘cubit’; Mundari *moka* ‘a measure’; Ho *mukui* ‘knee’; Kurukh *mu_ka*, *mu~_ka_*, Kolami *movka* ‘elbow’, Malto *muki* ‘cubit’, *muke* ‘knee’, which are borrowings from Munda or, like the Munda words, loan-words from an older linguistic family.

Nahali *mond.a* ‘heel’

Nahali *mo_t.h*, *mo_t.ho* ‘three’. With devoicing from Tel. *mu_d.u* or Gondi *mud.u*?

Nahali *mundi* ‘ring’; Kurku *mundi*, from Mar. *mudi_*. An earlier borrowing (from Pkt. *mudda_?*) in Santali *mundam*, Mundari *mudam*, *mundam*, Ho *mundam*

Nahali *na_lku*, *na_lo* ‘four’; Kann. *na_lku*, *na_luku* or rather Tel. *na_lugu* (with devoicing of g)? cf. Naiki *na_luk*, *na_lu*.

Nahali *nan:gar* ‘plough’; Kurku *nan:gar*; cf. Mar. *na~gar*.

Nahali *o_han* ‘mortar’; perhaps an individual borrowing direct from Pkt. *ohala*? Skt. *ulu_khala*. Ku. has *okhli*, from Hi. *u_khli_*; Mar. *ukhl.i_*; cf. Santali *ukhur*. (Desi *ukhul*), Kharia *ukhr.i*

Nahali *oro* 'millet'; Kurku *oro* 'grain, seed'. From Mar. *varo* 'kind of grass, grain' [Not related to Santali *hor.o*, Mu. *hur.u*, Kharia *horu* 'paddy, unhusked rice', Sora *saro_* 'rice, Mon *sro~*, Khmer *sruv*.]

Nahali *o_t.ho* 'chin'. Apparently a direct borrowing from Mar. *ot.h* (cf. Hi. *o~t.h*). Kurku *ota*, id. Suggests an Indo-Aryan origina **ot.ha_*.

Nahali *ot.t.i* 'to burn (v.t.)'

Nahali *pago* 'tail'

Nahali *pakot.o* 'bone'. Apparently borrowed directly from Kolami *pakkat.e* 'rib'; Tel. *pakka*, 'side' from Indo-Aryan

Nahali *pala* 'leaf'. Mar. *pa_la_* 'leaves, tufts of leaves, foliage', Singhalese *pala_* 'greens, vegetables', Panj. *Pallhi_* 'green leaves of grass'; Skt. *pallava* 'sprout, bud'. But Santali *palha* 'leaf, get leaves', Mundari *palhao* 'sprouting of new leaves after the branch of a tree has been cut' belong to an Austro-Asiatic word-family. Kurku has *ara pala*, a combination of *ara* (santali *ar.ak* 'vegetables') and *pala* (Santali *palha*). So Mar. *pa_la_*, *pa_le_* 'leaves, foliage', *ole~ pa_le~* 'green food (grass leaves for cattle)', (*bha_ji_*)*pa_la_* 'vegetables', are possibly borrowings from Kurku. Cf. also Hi. *a_la_ pa_la_* 'leaves of different trees'. Consequently the Nahali word is most likely a reborrowing from Mar., but it may represent the old Munda word which occurs in Kurku *ara pala*.

Nahali *pend.ri* 'shin of leg'. Kurku *pendri*, *pindri*, *pandari* 'calf of the leg, leg below the knee'. Cf. Hi. *pin.d.ra_*, *pin.d.ri_*, *pe~d.uri_* 'the shin, calf of the leg'

Nahali *pet.e* 'to sit' *pet.e-wa* 'will sit. Perhaps a 'proto-Indian' root, cf. Skt. *pi_t.ha* 'chair, seat, bench' (which was an early date borrowed into Munda, cf. Kurku *pitom*), unless the primary meaning was 'platform'. Cf. Skt. *pin.d.ika* 'bench for lying on', Oriya *pin.d.a_*, Santali *pin.d.a* 'a raised veranda', *pin.d.ha* 'ridge, raised border between rice-fields'

Nahali *poyye* 'bird' Digaru Mishmi *mpia_*, Taraon *piya*, Kanauri *pya_*

Nahali *sadi* 'hundred', Kurku *sadi*. Cf. Pers. Hi. *sad* 'hundred', *sadi_* 'century, centenary'

Nahali *cokob* 'leaf'; Kurku *s'akom*, *sakom*, Santali Mundari Ho Korwa *sakam*, id.

Nahali *sato* 'seven'; cf. Hi. *sa_t*

Nahali *sona* 'gold'; Kurku *sona*, Hi. *sona_*

Nahali *tand.ur* 'rice, paddy'; cf. Mar. *ta~dul*. The absence of a final word -o suggests that it is still a foreign word in Nahali.

Nahali *t.arsya* 'kind of animal called in Mar. *tar.as*'. Kurku *tarsa* 'hyena', Mar. *taras*, id. (Skt. *taraks.u*).

Nahali *t.embriya* 'tiger'. Kurku *temriya* 'cheetah'. Tel. *tempari* 'a brave, bold, daring man'; Tamil *tempu* 'physical strength'

Nahali *t.hekri* 'forehead'. Kurku *tikri*, id. Mar. *t.ika_*, *t.ikla_*, *t.ikli_* 'mark on the forehead', Santali *t.ika*, *t.ikla*, *t.ikli*, Hi. *t.ikli_*

Nahali *ult.a* ‘to fall’; Kurku *ult.a* ‘upside down, to overtuen’; cf. Hi. *ulat.na_* ‘to be topsy-turvy, capsize’

Nahali *unt.u* ‘camel’; Kurku *u_t, u_t.o, u_nt.o*; Kherwari *u~_t*; Hi. *u~_t*.

(Source: FBJ Kuiper, 1962, *Nahali, a comparative study*, Amsterdam, NV Noord-Hollandsche Uitgevers Maatschappij; Sudhibhushan Bhattacharya, 1957, Field-notes on Nahali, *Ind. Ling.* 17, pp. 245-258).

Southern Bushman kara ‘horns’ (dual)

Southern Bushman kara, kadi, k’ariba, kai ‘scorpion’

⁷ Substantive: **swadhiti** (RV.AV.) **sathiya_** (H.) knife, dagger; *sathia_*, *sathaka* = knife (Pkt.Ka.)

catti spear, trident, dart (Ta.) *sathra_* (P.) weapon; *s’astra* = a weapon (G.); *sastar* = sword (P.) *svastiyatra* = a surgical instrument o a particular form (Skt.) **svadhi-hetika** = axe-armed, a soldier armed with axe; *svadha_* = an axe, knife (TS.) sword (RV. 2.39.7) axe to cut wood (RV. 3.8.11) [The early forms of *svastika_* could be, ‘**svati-**’, rebus: **svadhi**, ‘axe’].

⁸ **mo~r.e~** = five (Santali. lex.)

Stump, stubble

mud.d.ha_ = shoulder (H.); *mu_d.ha_* lump, hump, shoulder (H.); *mun.d.a_* lump (Or.)(CDIAL 10189).

mo_t.abari = a pack bullock; *mo_t.abariva_n.d.ru* = pl. pack pedlars (Te.lex.)

mor.a_ = wicker stool (B.Or.); *mod.a_* (M.); *mura_* (A.); *mor.ha_* (H.); *mor.ha_*, *mur.a_* (N.)(CDIAL 10352) [Note the stool or platform on which a seated person in yogic posture is shown].

mod.avum = to twist, to turn, to bend (G.lex.)

mut.h = tree (Dm.); **mut.ha** (Gaw.); **mut.h** (Kal.Phal.); *mut.hiya_*, *mut.ha_l*, *mut.hail* bullock with stunted horns (Bi.); *mud.ha_* stubble, stump (OA.); *mura_* (A.); *mun.d.ur* stump (L.); *mun.d.h*, *mud.d.h* = stem; *mun.d.hi_* stump of a plant (L.); *mo_~t.huru* = bare trunk of a tree (K.)(CDIAL 10187). **mundu_** tree-trunk (Orm.); pl. *mundu_ni* stump or bole of tree, maize stubble (Sh.)(CDIAL 10196). **mo_d.u** = a stump; raised or high ground; *mo_t.u* = a stump; a human figure (made of wood) fixed in the path of a boar to entice it (Te.lex.) *mun.d.ha*, *mun.d.hak* = stump of tree, log (Santali.lex.) *mo_t.u* = the stump of a tree, stubbles (Ka.); *mo_t.u*, *mo_d.u* (Te.); *murad.u* (Ta.); stump of a tree; that of the arm or leg (Ma.); *mu_r.ai* = a stump (Ta.); *mu_le* cattle without horns or with horns turned (Ma.)(Ka.lex.)

mut.t.u tool, instrument, sundry things; *mut.ga.rn* Kota economic associate with Badaga or with Kurumba (he gives tool etc.); Kota economic associate with Toda (less formal than *kel. Relationship*)(Ko.); *mut.* Things given by Kotas to Toads, including tools (To.); *mut.t.u* implement, tool, thing, utensils, furniture, things belonging to a house as beams (Ka.); instrument, tool (Te.)(DEDR 4937). *tat.t.tumut.t.u* furniture, goods and chattels, utensils, luggag (Ta.); kitchen utensils, household stuff (Ma.); *tat.t.imut.t.u id.* (Tu.)(DEDR 3041).

mo_d.i = the mor or common business script of the Mara_thi (Ka.); **mo_d.i_**, **mo_d.u** (M.); a running hand (Ka.)(Ka.lex.)

modi_ = a steward; a grain-dealer, a retail grocer; **modi_kha_num** = a granary; the commissariat department; the business of supplying corn and other provisions (G.lex.) **modaliga** = a chief, a headman (**na_ga**, **mukhya**)(Ka.lex.) **mo_di_** = a purveyor, caterer, victualer, grocer (Te.lex.) **mudi** = a shopkeeper, a Hindu caste (Santali.lex.) **mo_d.i** = a turn, a caste, a style, a fashion (of speech, composition, action)(Ka.M.Te.Ma.) **mo_ti** = a corn handler; a petty grocer (Ka.); **mo_di_** (M.H.); **mo_ti_kha_ne** = the commissariat department of an army (Ka.); **mo_di_** (M.H.); a granary (Ka.lex.)



h182A



h18/2B



4306Tablet in bas-relief h182a Pict-107: Drummer and a tiger. h182b Five svastika signs alternating right- and left-handed.

mo~r.eko, **mo~r.eko turuiko** = certain Santal godlets so named (Santali.lex.) [Note the depiction of six (**turui**) persons with twigs on their heads and with pigtails].

mon.d. = the tail of a serpent; **jambr.o mon.d.** = the tail of the rock snake (Santali.lex.) [The glyph is ligatured to the composite animal in lieu of a tail].

mahri, **mudi** = a shopkeeper, a Hindu caste (Santali) **maru hor.o** = a brave man (Mundari.lex)

mahra, **mahara** = a small insect found in water (Mundari) **maru** = adj. Of reptiles, small mammals, and fish (not crabs, for which **ora** is used)(Mundari) **sen:gel marmar** = a species of centipede, scolopendra versicolor; a poisonous centipede, verhy common; the sting is painful like that of a scorpion (Santali.Mundari.Ho.); **kar.kommarmar** = a scorpion (Mundari.lex.)

marmar = marble (Mundari.H.)

mahra, **mahara** = a hindu caste, the goalla or cow-keeping caste (Mundari)

martul, **martol** = a sledge-hammer as used to break rocks or stones (Mundari.Santali); **martul** (fr. French **marteau**)(H.)(Mundari.lex.)

⁹ Alternative: Substantive: *me~rhe~t* 'iron'; *me~rhe~t icena* 'the iron is rusty'; *ispat me~rhe~t* 'steel', *dul me~rhe~t* 'cast iron'; *me~rhe~t khan.da* 'iron implements' (Santali) *med.* (Ho.)(Santali.lex.Bodding) **mer.ed**, **mr.ed**, **mr.d** iron; **enga mer.ed** soft iron; **sand.i mer.ed** hard iron; **ispa_t mer.ed** steel; **dul mer.ed** cast iron; **i mer.ed** rusty iron, also the iron of which weights are cast; **bicamer.ed** iron extracted from stone ore; **balimer.ed** iron extracted from sand ore (Mu.lex.)

mer.hao = to entwine itself, wind round, wrap around, roll up (Santali.lex.) [Note the endless knot motif].

¹⁰ **Upside down, birth**

put.t.ha = upside down, having the face downward (P.lex.)

put.t.u = birth, origin; progeny (Ka.)

Depicting **kamar sa_la_** (blacksmith's workshop) or, 'saloi kamar' = a kind of blacksmith (perhaps, knife grinder) [**sala** = afterbirth, kamar]

[Note the glyph of a woman with spread thighs and something (placenta? menses? dead foetus?) emanating from the womb].

sa_l afterbirth (N.); cause of pain (G.); dead foetus in womb (M.); hal = afterbirth (K.); s'alya = anything lodged in the body and causing pain (applied to dead foetus)(Sus'r.); salla = thorn in body (Pkt.)(CDIAL 12332).

Some glyphs on Text 4304, rebus:

Alternative 1: **kut.ta_r**, **kut.a_r** = corn without grains (Go.); kut.ta_ = chaff (Kur.)(DEDR 1665). kuta = jowari stubble (Go.); gut.t.u = stubble of paddy (Pe.)(DEDR 1676). *khut.ta, *khun.ta (CDIAL 3893, 3746). gundli = a cultivated millet, panicum miliare (Santali.lex.) Rebus: **kut.ha_ru** = armourer, writer (Skt.)

Alternative 2: **ko_li** a stubble of jo_l.a (Ka.); **ko_le** = a stub or stump of corn (Te.)(DEDR 2242). kol, kolhe = an aboriginal tribe of iron smelters speaking a language akin to that of the Santals (Santali.lex.) **kol** 'metal' (Ta.)

Pictorial motif on side b of tablet h180: a woman with legs spread out, accent on pubes: **kut.hi**; rebus: **kut.hi** = a furnace for smelting iron ore].

¹¹ **buru** = a mountain; buru kunami = full moon; maran: buru = Paresnath, the highest mountain in the Santal country; **buru d.and.om** = a spur or shoulder of a mountain (Santali.lex.)

buruan; **bur.uan** = brimless, toothless, without edge (Santali.lex.)

kambru buru, **kamru buru**, **kambru bon:ga**, **kamru bon:ga** = one of the lesser deities revered by Santals, the godlet of medicine (Santali.lex.) buru = a spirit, an objet of worship; maran: buru = the chief of the burus, or bon:gas; maran: buru or mount Paresnath is often confounded with the Maran: buru of the Santal traditions and worship; buru = a religious festival and fair of the semi-hinduised bhui~yas; gan.d.e buru is held in December in village named Gan.d.e in Hazaribagh district; lalgar.h buru is held at Lalgah in Santal Parganas (Santali.lex.)

¹² Alternative 2. Ring-stones around a pillar with coping stones in a building-structure as at



Dholavira?

kunda = a pillar of bricks etc. (Ka.Te.Tu.)(Ka.lex.) [Note the tablets in bas-relief showing a stack of ring-stones around a pillar].

kunda = a post or pillar (Te.lex.) khun.t.i = pillar (Santali.lex.) kundi, kundiyamu = a sort of rim of stone placed upon a mortar to prevent spilling of rice (Te.lex.) **kundau dhiri** = a hewn stone; kundau murhut = a graven image (Santali.lex.) kundanamu = setting precious stones with fine gold (Te.lex.)

kundau turner's lathe.

bela_ [Dh. Des. beli_ = Skt. stambha a pillar, a support; cf. Arabic va_li_ a guardian] a giver of happiness; a destroyer of distress; a helper; a patron; a friend (G.lex.)

Dh. Des. **beli_** = Skt. stambha a pillar, a support; cf. Arabic va_li_ a guardian] a helper; a patron; a friend (G.lex.)

beldar = a semi-hinduized caste of earth-diggers, a navy (Santali.lex.) **belda_r** = a stone digger; a quarry-worker; a sapper, a miner; a labourer; a porter (G.lex.); bel = level; bel ot = level ground (Santali.lex.)

bali = iron ore, iron stone sand; the Kol iron smelters wash the ore from the sand in the river bed (Santali.lex.)

bali_varda = a bull (Skt.lex.) **bel** [Hem. Des. **ba-i-li_** fr. Skt. bali_vard] a bull; a bullock; an ox (G.lex.)