

R.gvedic Soma as a metallurgical allegory; soma, electrum is deified

ABSTRACT

Gods in the Rigveda are an allegorical personification of the purification processes (of Soma), just as Soma is an a_pri deity, together with other materials and apparatus (ladles and vessels) employed in the yajn~a, accompanied by r.cas (or, agnis.t.oma).

If Soma is electrum and Indra is burning embers (such as charcoal, indha, used in a furnace), the yajn~a can be interpreted, at the material level, as a process of reduction (or, pavitram, purification), using ks.a_ra, of a metallic ore compound (ma_ks.ika_ or quartz or pyrites) to yield the shining metals: potable (pavama_na, rasa-- raso vajrah, cf. RV 9.048.03, i.e. rasa, vigorous as a thunderbolt) gold and silver (hiran.yam and rayi), after oxidising the baser metallic elements (in the unrefined pyrite ores) such as lead (na_ga or ahi or vr.tra) and copper (s'ulba).

Reducing agents include alkaline as well as combustible materials --vegetable and animal products-- such as: herbs (ks.a_ra), barley--grains and cooked pin.d.a, milk, curds, clarified butter, viands (animal fat), bones (used in cupellation processes, and for making crucibles, during the bronze-age), sheep's hair or wool (reminisced as golden fleece).

For e.g., Soma is described as parvata_ vr.dhah in a verse, that the pyrites are from the mountain slopes: 9.046.01 Begotten by the stones the flowing (Soma-juices) are effused for the banquet of the gods' active horses. [Begotten by the stones: or, growing on the mountain slopes].

The exchange value of gold and silver in Vedic times, is elaborated in metaphorical terms related to wealth and lineage: such as food, cattle, rain; progeny.

The vedi (altar) is the earth and as the agni (fire) raises towards the heaven, the poetic imagination of the r.s.is (priests) expands into realms of cosmological thoughts, unparalleled in recorded history of early human civilizations. Thus, at a cosmic level, the Rigveda raises profound philosophical questions which have been the fountain-head of Indian philosophical traditions.

In such a perspective, the entire Rigveda can be viewed as an allegory, the human quest for achieving material which has exchange value, in transcending the material level to realms of philosophical explorations, and in expanding the semantic and morphological limits of language to attain new insights into the very concept of 'meaning', using language, through metrical, chanted mantras, as a means of understanding the a_tman and the parama_tman, thereby, attaining svarga, or bliss.

All the su_ktas are thus, governed by a framework of four principal metaphors, rendered in scintillating, ecstatic, spiritual poetic resonance : word, prayer, gods, material well-being.

A precis of this framework may be seen from the following selections:

9.063.25 The brilliant purified Soma-juices are let fall amidst all praises.

9.063.27 The purified (juices) are poured forth from heaven and from the firmament upon the summit of the ground. [The summit of the ground: i.e., the raised place, the place of divine sacrifice, or yajn~a].

pṛmana aśt/samā? zāś/#Ndī> ,

ai- ivñāin/kalyā?

pṛmana idv/s!pyroAMtir? adāśt ,

पश्या Aix/saniv .

Adapted from Haug's notes from Sa_yan.a's commentary on Aitareya Bra_hman.a:

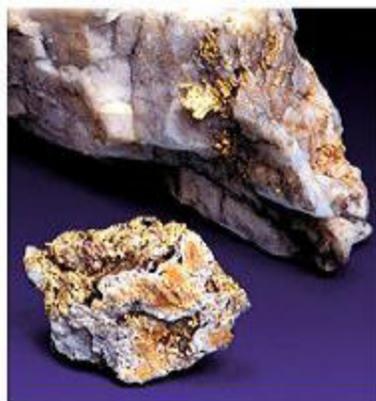
Soma Process. The adhvaryu takes the skin (carma or tvac) and puts on it the filaments or shoots of the Soma (am.s'u). He then takes two boards (adhis.avan.a), puts one on top of the Soma shoots, and beats them with the stones (gra_va_n.a). Then the Soma is put between the two boards, and water is poured on them from the vasati_vari_pot. Soma is then shaken in the hota_cup (camasa), wetted again with vasati_vari_water and put on a stone. Grass is laid on them, and they are beaten so that the juice runs out. The juice is allowed to run into the trough (a_havani_ya), then strained through the cloth (pavitra or das'a_pavitra) which is held by the udgata_. The filtered soma is caught in another trough (pu_tabhr.t). Libations are poured from two kinds of vessels: grahas or saucers, and camasas or cups.

SUMMARY: SNAPSHOTS OF THE ARGUMENT



King Croesus of Lydia ca. 546-510 BC. Electrum Siglos

Electrum is a gold-silver alloy containing 20 to 45 percent silver. It varies from pale yellow to silver white in colour and is usually associated with silver sulfide mineral deposits



Leaf formation on gold from

the Mother Lode, Nevada county, California By courtesy of Demuth Collection; photograph, Mary A. Root

<http://www.britannica.com/seo/g/gold> [h](#)

Gold-in-quartz from Idaho Spring's Humboldt Mine. Specimen is 5.0 inches long.

<http://home.hiwaay.net/~dddorf/gnm/gnm.cgi?quartz>

suḍva&tsān in \ReḍḍSwesU/n dḍa/tm!s i]yNtm!,
zūēKmān dZ R<inoā!t!%dōē ḍwōōAīñna/vNdḥay .

RV 1.117.05 You extricated, Dasras, the sage (Vandana_) cast into a well, like a handsome and splendid ornament designed for embellishment, and (lying) As'vins, like one sleeping on the lap of the earth or like the sun disappearing in darkness.

Rukma is a golden chain or disk. Gold is won from the earth, washed and cleaned and purified (RV. I.117.5). (cf. M.N. Banerjee, "On Metals and Metallurgy in Ancient India, Indian Historical Quarterly, Vol. III, March 1927, no. 1, p. 123).

Agatharcides (2nd century BC) describes how in Egypt gold-bearing ore was found and washed until more or less pure gold dust remained. This dust was put "into earthen pots. They mix with this a lump of lead according to the mass, lumps of salt, a little tin and barley bran. They put on a closely-fitting lid carefully smearing it with mud and heat it in a furnace for five days and nights continuously; then they allow the pots to cool and find no residual impurities in them; the gold they recover in a pure state with little wastage. This processing of gold is carried on round about the most distant boundaries of Egypt." (Healy 1978, 154) "The procedure was tested in 1974 (Notton 1974) with an alloy of copper and silver containing 37.5% of gold. It was found that heating the pots filled with the alloy and salt gave the highest gold recovery rate of 93%. Including tin, lead or charcoal reduced the efficiency to less than 80%. Healy concluded that the account given by Agatharcides 'seems to be an example of the conflation of at least two processes' (154)..Arthas'a _stra mentions salt among the articles necessary for purifying gold: KA 02.14.23 mu_kamu_s.a_pu_tikit.t.ah_karat.ukamukham_na_li_sam.dam.s'o_jon:gani_suvarcika_lavan.am_tad_eva_suvarn.am_ity_apasa_ran.ama_rga_h".(Diodorus--III,14,3-4; loc. cit. Harry Falk, Refining gold in ancient India : ad JUB 3.17,3 in: *Acta Orientalia* 1997: 58, 47-51

Barley husks would burn away and the base metals oxidized and absorbed by the crucible (silver is converted to silver chloride by the salt.) (R.J. Forbes, in: Singer et al., A History of Technology, 1954, pp. 573-587).

Sumerian literary texts (ca. 3rd millennium BC) refer to gold from Aratta (Pettinato 1972: 79). Gudea records receiving gold from the mountain of Hah(h)um (Statue B. col. VI. 33-5; Liverani 1988), taken to lie in that part of modern Turkey near Samsat on the Upper Euphrates, and from Meluhha.

In the third millennium Sumerian texts list copper among the raw materials reaching Uruk from Aratta (Pettinato 1972: 82-3, 128) and all three of the regions Magan, Meluhha and Dilmun are associated with copper, but the latter only as an emporium (Limet 1960: 85ff.; Waetzoldt 1981).

Alchemical tradition is documented in a text dated to the mid-second millennium BC in Mesopotamia; this is

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reminiscent of the Rigvedic agnis.t.oma which lasts for days and nights!

"For 5 shekels of pappardillu stone you mix one-third mina of mountain honey, 10 shekels of TA, one su_tu of milk, 4 shekels of red alkali and one-half sila of wine...You test on glowing charcoal... you pour into a stone bowl of algamis'u-stone (steatite)...lute with dough...you heat it for a full day on a smokeless fire. You take out and..for five days, it is (not?) reliable. You soak it in (liquid)...You boil alum and...in vinegar. You steep (the stone) in lapis lazuli-coloured liquid and place it in the fire...Property of Nebuchadnezzar, king of Babylon." (Text 1, Bab. K. 713; A. Leo Oppenheim, RA, 60, 1966, pp. 29-45).

Cha_ndogya Upanis.ad (5.10.4): es.a somo ra_ja_. tad deva_na_m annam.tam deva_ bhaks.yanti (Soma is king, Soma is food for the gods, Gods eat Soma).

RV 10.85.3-4 [somam manyate papiva_n yat sampim.s.anty os.adhim somam yam brahma_n.o vidurna tasya_s'na_ti kas'cana RV 10.85.3 (AV 14.1.3): he thinks that he has drunk Soma when they grind the herbs together; of the soma which the Bra_hman.as know, none whatsoever partakes] distinguishes between the Soma that the priests know and that which they process.

Soma is a product, it was traded in Vedic times and offered to the gods. RV 3.35.9,10: 'with the tongue of the fire, drink Soma, O Indra'; Soma was a_tma_ yajn~asya, 'the soul of the sacrifice, the Vedic ritual' (RV 9.2.10;6,8).

The S'ri_su_kta is a part of the Khila su_kta with 19 verses.

Soma's s'ri_ is milk; s'ri_ is prosperity; many times in RV, the term abhi-s'ri_ is used to intensify s'ri_.

In RV Khila_ Su_kta, cikli_ta or 'purchased Soma' is designated as the son of S'ri_.

[Usha R. Bhise, 1995, *The Khila-Su_ktas of the R.gveda_ A study*, Bhandarkar Oriental Series No. 27, Poona.]

If soma/haoma is a derived noun from the verb root su-/sau- (hu-/hau-), 'to press or extract (essence from something)', Soma/Haoma cannot be the name of a plant, but only the extract derived from the yajn~a, a process of pressing or liquefaction.

Namuci; the symbolism of removing 'lead' and 'copper' RV 8.14.13 mentions apa_m phena which could represent 'lead'.

Assuming that na-muci is a negative (acc. to Pa_n.ini VI.3.75), the term,

'muca' may refer to an arsenic:

da_rumuca = white arsenic (Skt.lex.)

In the Babylonian Talmud (+2nd century), asemon is a commonly used word referring to bullion (gold, silver or mixed). Leiden X papyrus (ca. +3rd century) says: "no.8. It will be asem, (i.e. electrum, an alloy of gold and silver) which will deceive even the artisans (a tin-copper-gold-silver alloy).

Gypsy. sovnakay, somnakay = gold; Dardic son,surun = gold.

soma man.al = vel.li man.al, sand containing silver ore (OTa.)

y> paṽmaṅiroAxyēy! \ i; 1->/SM- &Arsm! ,

sv/s pḍm! Aṅ ait Svidṅm! maṅtirñha .

9.067.31 He who reads the hymns to Pavama_na, the essence (of the Veda) collected by the r.s.is, enjoys all (his food) purified, sweetened by Ma_taris'van.[Ma_taris'van = Va_yu, because it breathes in the atmosphere, antariks.e s'vasiti; the food is sweetened and purified by the purifying wind and the man eats it].

kaveh = smith (Persian); kovae (Slovenian); kovac (Croatian); kovacsol (Hungarian) = smith.

tvas.t.r., r.bhu are master craftsmen and metallurgists.

aya_sya a_n: girasa. This sage appears to be mentioned in two passages of the R.gveda (x.67.1; 108.8; perhaps x.92.15), and the Anukraman.i_ ascribes to him several hymns of the R.gveda (ix.44.46; x.67; 68).

The name is a meaningful compound (ayas, copper, metal) which links 'soma' and 'metallurgical artifacts' and metal-workers of the Sarasvati-Sindhu civilization.

%do\$ry kiṽtm<kvṽnam! %ṅAṅm! Ai/- mXva? " &a? ,

s naēsvḍh/āyṽta iḅṽain? cMŌai [? dē> sivṽta svait .

5.042.03 Celebrate, (priests), the most prophetic of the prophets; imbue him with the sweet libation, and may the divine Savita_ bestow upon us ample, beneficial and delightful riches. [The most prophetic of the prophets: kavitamam kavi_na_m: kavi = kra_nta dar'i_, a seer or shower of the past, whence may be inferred the application of his knowledge to the future].

g[ana?Tva g[p[t <hvamhekiv <k\vrnam! %p[rii vStmm!

Jy[raj n[äü[am! äü[s!pt/Aa n>? z&wÜ! ^iti->? sld sadhm! .

2.023.01 We invoke the Brahman.aspati, chief leader of the (heavenly) bands; a sage of sage; abounding beyond measure in (every kind of) food; best lord of prayer; hearing our invocations, come with your protections, and sit down in the chamber of sacrifice. [Brahman.aspati = brahman.o annasya parivr.d.hasya karman.o va_ pa_layita_, the protector or cherisher of food, or of any great or solemn acts of devotion; he has other attributes in the text, as, gan.a_na_m gan.apatih, chief of the gan.as (inferior deities); jyes.t.hara_jam brahman.a_m, the best lord of mantras, or prayers: pras'asyam sva_minam mantra_n.a_m].

Nature of the divinities

'tisra eva devata_ itinairukta_h; agnih pr.thivi_stha_nah; va_yuvendro va_ntariks.astha_nah; su_ryo dyustha_nah

"There are three deities only", say the etymologists: (1) Agni, whose sphere is earth; (2) Va_yu or Indra, whose sphere is atmosphere; (3) the sun, whose sphere is heaven.

"Of these, each receives many appellations on account of his supereminence, or the diversity of his function, just as a priest, although he is one, is called the sacrificer (hotr.), the director of the sacrifice (adhvaryu), the possessor of the sacred lore (brahma)), and the chanter (udga_tr.)... As to the view that their panegyrics are like those of sentient beings, (we reply) that inanimate objects, beginning from dice and ending with herbs, are likewise praised.' (Niruktam 7.5, 6,7)

Soma is a drink not for the mortals but for Indra: somam indra_ya pa_tave (RV 8.69.10); indur indra_ya pavatta iti deva_so abruvan, 'Gods themselves

were witness when Indu purified himself for Indra'.

%t Sya varh! mxbrn! mi] karprh! mdesamSyaEzj ae:vNyit ,
yud'xlcaemn/Aa ivvasvae=wa/izr>/ait? varh! AZVykvd! .

1.119.09 That honey-seeking bee also murmured your praise; the son of us'ij invokes you to the exhilaratin of Soma; you conciliated the mind of Dadhyan~c, so that, provided with the head of a horse, he taught you (the mystic science).

Note the pun on the word, ma_ks.ika_ meaning both 'bee' and 'pyrites or quartz'. ma_ks.ika_ are pyrites; hema ma_ks.ika_ and ta_ra ma_ks.ika_ denote gold and silver pyrites. *Rasaratna Samuccya* 77, 81, 89-90: ma_ks.ikam is born of mountains yielding gold....

The rasa of the Soma is emphasized (RV. 8,3,20; 9,67,8; 15; 9,76,1 describes the rasa as kr.tvya or efficacious, as daks.a or ability. Somya rasa (RV. 9,67,8) is the 'sap, which constitutes the essence, best, beneficial element of Soma'. The colour of the rasa is hari (yellow, tawny)(RV. 9,19,3; 9,25,1; 9,103,4; 9,78,2; 10,96,6 and 7. RV. 8,29,1 refers to Soma as babhru (reddish-brown) and a youth who is applying a golden ointment (an~ji... hiran.yayam) to himself. RV. 9,107,4 refers to Soma as utsah hiran.yayah: a spring of gold [Geldner, Rig-Veda ubers, K.F. Geldner, Der Rig-Veda ubersetzt, Cambridge, Mass., 1951, III, p. 110).

S'ulba = copper (Kaut.ilya's Arthas'a_stra).

Melukka = copper (Pali.lex.)

Aãte/y! Aãte sm! Aãte³ tãrhiNt/mxba/y! Aãte,

isNxa%CDas eptyNtm!%] [khr{ypava> pz m! Aãsug&[te.

9.086.43 (The priests) smear and grease and anoint (the Soma with milk); (the gods) taste the invigorating (juice); they smear it over with sweet (milk). Purifying it with gold, they plunge it into those (waters) the sprinkler, the beholder, falling into the seething torrent.

Thus in this r.ca, the gold which is purified refers to the juice of Soma which is golden.

Kavi, Ka_we, the divine 'smiths' and Kavya Us'anas

kavi, N. of several gods ,(esp.) of Agni RV. ii , 23 , 1 ; x , 5 , 4 , 3 ; iii , 5 , 1 ; i , 31 , 2 ; 76 , 5 ; of Varun2a, Indra, the As3vins, Maruts, A1dityas ; of the Soma ; of the Soma priest and other sacrificers (Skt.lex.)

kavaca = armour , cuirass , a coat of mail S3Br. xii , 2 , 2 , 7 Ka1tyS3r. xiii , 3 , 10 MBh. R.; any amulet , charm W. ; a mystical syllable (Skt.) kapiloha = brass (Skt.) vr.s.a_kapi = the sun MBh. ; fire Hariv. ; N. of S3iva MBh.Katha1s. ; of Indra BhP. ; of Vishn2u MBh. ; of one of the 11 Rudras ib. ; of the hymn attributed to Vr2isha1-kapi AitBr. ; %{-zastra} n. N. of wk. (Skt.)

kavi-ttal = to cover, as an arch; kavacam = armour, coat of mail; lute, clay composition with which chemists close vessels; cen:ka_vi = saffron ochre (Ta.lex.)

kaveh = smith (Persian); kovae (Slovenian); kovac (Croatian); kovacsol (Hungarian) = smith.

Brahman.aspati, the kavi and Tvas.t.r. are associates in a process describing Tvas.t.r carrying a jar full of Soma or bowls from which the gods drink Soma:

Tvòà? mayà vòcòp sàm! ApòStmàibæt! paÇa? de pànaïn/z & t tma ,
izz l!tenò! prž usvayš <ya? v& adœtz aëü[š!pit>? .

10.053.09 Tvas.t.a_ knows the arts of fabricating (drinking vessels), the most skilful of artificers bearing the sacred drinking cups out of which the gods drink-- verily he sharpens his axe of good metal, wherewith the white-complexioned (swift) Brahman.aspati cuts them.

Smiths were central to the process of creation of wealth in early societies.

%dœry kîvtm<kvînam! %ñÄEm! Ai- mXva? " &a? ,
s naëvsh/àytà ihtain? cMÔai[? dœ> sivta suait .

5.042.03 Celebrate, (priests), the most prophetic of the prophets; imbue him with the sweet libation, and may the divine Savita_ bestow upon us ample, beneficial and delightful riches. [The most prophetic of the prophets: kavitamam kavi_na_m: kavi = kra_nta dar'i_, a seer or shower of the past, whence may be inferred the application of his knowledge to the future].

Aryaman of Vedic times is a personification of an early society; he is the guardian of the saptahotr. who are also called kavi; Aryaman is the divinity of the weddings and of the paths of the Fathers, of the gods, of the sun. He is called atu_rtapantham in RV 10.64.5:

d]Sy vaidtēj Nmīn ī tēraj āha imṣavé[a ivāsis ,

Atuṣṣwa> pūrwaēAyaṃ sYhāṣa/iv; tēpeṣij Nmīsu.

10.064.05 At the birth of Daks.a, at his sacred rite, you, Aditi, worshipped the royal Mitra and Varun.a at the sacred rite. Aryaman, whose course is not hurried, the giver of delight to many, having seven ministering (rays), (proceeds) in his multiform births. [Daks.a = the sun; Aryaman = the sun; Aditi = earth (Nirukta 11.23); having seven ministering rays: saptahota_ = hymned by the seven r.s.is, Bharadva_ja etc.; or seven seasons, i.e., the six seasons, and the intercalary month; his multiform births: i.e., his daily risings and settings].

Bailey (Harold W. Bailey, 1958, Iranian arya- and daha-, in: *Transactions of the Philological Society*, 1958: 71-115) notes that the term arya-man is a compound of arya - 'wealth' and the root man- 'to think', connoting 'to take thought for, care, act as a warden'. He summarizes that arya is 'true, Aryan wealth', and the name Aryaman as 'the being in charge of riches and hospitality', 'in charge of the treasury'. (Harold W. Bailey, 1986, 'Arya', *Encyclopaedia Iranica* 2.7: 681-83).

The r.ca RV 1.105.6 refers to the path of the mighty Aryaman; in RV 5.54.8 Maruts are compared to aryaman.ah, 'suitors', who approach laden with ornaments:

kdoē? \ tSy? x[kdoē[Sy/c] t m! ,

kdoēAyaṃ[aemh̄s! pwait? 3 am̄ EṚ (aeivAm! mēAsy raṣI .

1.105.06 Where, deities, is your observance of the truth, where the (benignant) regard of Varun.a, where is the path of the mighty Aryaman, (so that) we may overcome the malevolent? Heaven and earth, be conscious of this (my affliction). [Varun.a and Aryaman: Varun.a is the obstructor of evil, which is undesired (anis.t.aniva_raka); Aryaman, is the restrainer of enemies (arin.a_m niyanta_)].

Vedic Aryaman is a patron of matrimony or hospitality and a suitor laying the path with riches. Just as Br.haspati is associated with Kav-hood, Aryaman is associated with the path of the effulgent, Su_rya: asau va_ a_dityo' ryama_ (a chant recommended by TS after TS II.3.14; MS 4.12.4). In RV 5.3.2, Agni becomes Aryaman; he functions as Hotr. during delivery in AV1.11.1. Aryaman connotes a social unit of seven priests or kavis engaged in creation of wealth; in this community activity, Aryaman defines the path.

Tvm! Ayaṃ - vis/yt! kṛnānam? Svaxavṇ! gūm! ib - i; R,

Añt? imṣ<six? t n gae roydodMp? t/smhsa kṛ ae ? .

5.003.02 You are Aryaman in relation to maidens; you bear, enjoy of sacrificial food, a mysterious name; they anoint you, like a welcome friend, with milk and butter, when you make husband and wife of one mind. [You are Aryaman in relation to maidens: tvam aryama_ yat kani_na_m: as regulator of the ceremony the nuptial fire may be regarded as Aryaman; a mysterious name: that of Vais'va_nara, the friend of all, vis'va, men, nara;

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with milk and butter: an-janti mitram sudhitam na gobhih: gobbihih: lit., with cows, used by metonymy for the products of the cow].

A_pastamba (ii.9.23,3-5) cites a Pura_n.a in relation to the sages and the path of Aryaman (Buhler's 2nd edn., Bombay, 1892): "Now they quote (the following) two verses from a Pura_n.a: Those eighty thousand sages who desired offspring passed to the south by Aryaman's road and obtained burial-grounds. Those eighty thousand sages who desired no offspring passed by Aryaman's road to the north and obtained immortality".

"In mythic history, Thraitauna is the hero who defeated the Dahian Serpent, Azi daha_ka, who had usurped the throne. Before that feat, Thraitauna had been hidden in the 'mountains' by his mother. The wise 'smith' kawe, had ultimately defied the serpentine ruler, and his apron became the banner of the Iranian troops of which Thraitauna became the leader. This is the dirafsh-i- ka_viya_n of the Sha_hna_me, the banner of the Iranian kawi-s. Fastened to a pole or lance, this apron (or leather bag, or hat) was made of bull hide, Phl. ga_w drafts. [The classical study is Arthur Christensen, 1925, The smith Kaveh and the ancient Persian Imperial banner, Journal of the Cama Oriental Institute 5: 22-39 (tr. J.M. Unvala from the Danish original (1919)) (loc.cit. G.L. Windfuhr, 1999, A note on Aryaman's social and cosmic setting, in: Johannes Bronkhorst and Madhav M. Deshpande, eds., *Aryan and Non-Aryan in South Asia*, Harvard Oriental Series, Opera Minora Vol. 3, Cambridge). "The hidden connection between Aryaman and Thraitauna becomes apparent when this Indian and Iranian constellation is identified by its western name: the now forgotten Flag, or Banner. The latter is described as follows: 'The Flag is a constellation of the heavens, one part in Leo and one part in Virgo. Has many stars. On the iron (the arrowhead of the staff) in front one, on the flag two, on every fold of the flag one'. In fact, there is a tradition of assigning a flag to this constellation in India as well. In the Maha_bha_rata (4.66.13), Prince Uttara, the son of King Vira_t.a, has a lion on his banner. The constellation of Aryaman is thus located at another crucial point along the path of the sun, between Virgo and Leo...That is, Aryaman's banner is located at the transition from the age of Gemini to the age of Taurus. The age of Gemini is the first age, the Golden Age, ruled by the Twins, in Iran by Yima, the Twin...At the end of that age, Aryaman and his banner reappear, in the guise of the banner of the 'smith' Ka_we, leading in the new age of Aries, which will be the age of the arya (Iranian) Kawi-kings. (According to Paulus Alexandrinus, Persia belongs to Aries)...In Indian terms, the defeat of the Dahian serpent corresponds to Indra's defeating the serpent Vr.tra, and the freeing of the cows...the celestial Vr.tra (and thus Azi Daha_ka) is the constellation Hydra. During the age of Taurus between 4000-2000 BC, it stretched along the celestial equator, and threatened or 'ruled' the age of the Bull. It appears that the mythic monster's 'three heads' reflect the stretch of more than 3X30 degrees of the equator in the night sky.". (G.L.Windfuhr, opcit., pp. 324-325).

Ka_vya Us'anas and Kayanides

"The most exhaustive study ... by Arthur Christensen in his book on the Kayanian dynasty of Iran (Christensen, A., 1932, *Les Kayanides*. Det Kgl. Danske Videnskabernes Selskab, Hist.-Filos. Meddelelser XIX.2. Copenhagen). In it he argued that the rulers who are styled Kauui in the Avesta (Kauui Kauua_ta, etc.) were most probably historical figures...the list of Kauuis also contains at least one figure that is also found in Indian tradition, as shown by Lommel and Dumezil, namely Kauuui Usan/Usad.an, who both by name and by the legends associated with him corresponds to Ka_vya Us'anas of Indian tradition. There is therefore every reason to conclude that the list of Kauuis also contains only mythological figures (Kellens, J., 1979, *L'Avesta Comme source historique: La liste des Kayanides*. In *Studies in the Sources on the History of Pre-Islamic Central Asia*, ed. by J. Harmatta, 41-53. Budapest, Akademiai Kiado). As for the title kauui itself, although in the later Zoroastrian tradition it designates political rulers, there is no evidence in the Avesta that it is used other than as a designation of a special kind of priest. In the Gathas it is closely related to terms such as karapan and usij, both designate special kinds of priests, and its Indian relative kavi has nothing to do with political power, but

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designates the priest. The kauuis listed in the yashts are also not described as rulers, for which Avestan has a series of very specific terms consisting of a word for territory plus paiti 'lord'. When kauui is not used as a title it is commonly found in lists of opponents of the Zoroastrian religion, a notion inherited from the Gathas, where the kauuis are portrayed as opponents of Zarathustra, with the exception of Kauui Vis.ta_spa, who supported him. Nevertheless, the Gathic Kauui Vis.ta_spa is commonly portrayed in Western scholarly literature as the royal patron of Zarathustra, primarily no doubt, through the influence of the later Zoroastrian tradition, (in which Vis.ta_spa is a king, who, together with his minister, Ja_ma_sp, goes to battle against Arza_sp in the defense of the new faith), but partly also through the interpretation of some Avestan passages. Thus, in Yt 5.68, Ja_ma_spa is said to have sacrificed to Ana_hita_ as he confronted an army of liars and dae_ua worshippers, and in passages of Yt. 19 Kauui Vis.ta_spa is said to have fought for the good religion." (P. Oktor Skjaervo, 1995, *The Avesta as source for the early history of the Iranians*, in: George Erdosy, ed., *The Indo-Aryans of Ancient South Asia*, Berlin, Walter de Gruyter and Co.)

In S'S'S 3.16.3,10 the fire is addressed as kavyava_hana. TBr 1.6.9.6: agnim kavyava_hanam yajati ya eva pitr._n.a_m agnih tam eva yad yajati. It is distinguished from the fire of the demons (TS 2.5.8.6: trayo va_ agnayo havayava_hano deva_na_m, kavyava_hanah pitr.n.a_m saharaks.a_ asura_n.a_m). The Kavi, the smiths, are fire-workers.

Tvm! #NÔ/nyarAya‡ Avæññ! itóa/vatSy sÿju ævihðan! ,
y<tëkaVy %Z na? miNdn<dadœ&h [ñ! payj t t] /v_î m! .

1.121.12 Indra, friend of man, mount the horses whom you cherish, who are fleet as the wind, are easily yoked, and who bear (theri burden) well; you have sharpened the foe-destroying thunderbolt, the slayer of Vr.tra, which inspiring (weapon) Us'anas, the son of Kavi, gave you. [Which inspiring weapon: The weapon was the gift of R.bhu;and is also attributed to Us'anas].

Br.haspati is a form of Agni and both are Kavis: RV 2.23.1: kavim kavi_na_m upamas'ravastamam jyes.t.hara_jam brahman.a_m brahman.aspate... Maruts are called kavi in RV 1.87.5 and also as r.kvan, elsewhere. "...even the recent research has not disputed that Kavi is the cognate of kava, outlawed in Iran, and of Ka_vaya, 'the follower of Kavi.' The polemical allusions in ga_tha_s like Yasna XLIV.20 demonstrate clearly his relationship with the Devas, and further with the Karapans and Us'ij. Yasna XLIV.20: cithena_ mazda_ huxs.athra_ dae_va_ a_nhare at.i_t. peresa_yo_i pis.yeinti_ ae_ibyo kam ya_is. gam karapa_ usixs. ca_ ae_s.ema_i da_ta_ya_ca_ kava_ anmee_ni_ uru_do_yata. The passage shows the cultural-historical surroundings of the heretical Kavis and Karapans who belong, like the Devas, to the enemies of Zarathus.tra and can be as little separated from the Brahmanical belief as the Dae_vas whom they serve...Usixs. is also mentioned in the ga_tha_ and this very name appears, even though it is not particularly stressed, as the designation of ancient priests precisely in the older texts of the Vedic literature. [n.74: This word (at times in the singular and at others in the plural) is the name of a priestly gotra and of its mythical progenitor who presses the Soma and enjoys the friendship of Indra. He is at par with Kutsa, An:giras and Gautama. TS 6.3.6.1: r.tvijo vai vahnaya us'ijah]. It is certainly no accident that the famous Kai Ka_o_s of the Iranian saga exhibits a similarity in name with Kavi Us'ana of India who appears as the teacher of the Asuras in the later literature. To the passages cited by Spiegel we may add the statement of the Bra_hman.as: us'ana_ vai ka_vyo sura_n.a_m purohita_a_si_t, that is to say, directly in the period which follows the R.V we encounter the name Us'anas on the side of the Asuras, a name which is celebrated in Iran." [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, II, pp. 267-268].

Soma is called Kavi; he has attributes like kavi_yat, kavikratu, kratuvid, vipra, vis'vavid connoting a similar idea. RV 9.6.8: a_tma yajn~asya ranhya_ sus.va_n.ah pavate sutah pratnam ni pa_ti ka_vyam; RV 9.87.3: r.s.ir viprah puraeta_ jana_na_m r.bhur dhi_ra us'ana_ ka_vyena sa cid viveda nihitam yad a_sa_m api_cyam guhyam na_me gona_m, 'A father of the gods, their strong begetter...a R.s.i, a wise one, a leader of men, a steadfast R.bhu, an Us'anas in wisdom, he found what was hidden of that, the concealed secret name of the cows'...RV 9.96.18: r.simana_ ya r.sikr.t svars.a_h sahasran.i_thah padavi_h kavi_na_m, 'He who has the mind of the R.sis, creates the R.s.is, recovers the light, knows thousand wise men and is the forerunner among the Kavis...RV 9.85.9 adhi

dya_m astha_d vr.s.abho vicaks.an.ah aru_rucad vi divo rocana_ kavih ra_ ja_ pavitram aty eti roruvat divah pi_yu_s.am duhate nr.caks.asah, 'The all-knowing bull ascended to heaven. The Kavi caused the spaces of heaven to shine. The king passes through the Pavitra with a roar. They milk the juice of heaven which beholds the mankind.' [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, vol. I, p. 246, p. 224]

kavya 2 Nom. P. %{kavyati} , to be wise Pa1n2. 7-4 , 39.

kavya 1 mfn. (= %{kavi} Ka1s3. on Pa1n2. 5-4 , 30) wise RV. x , 15 , 9 (at VS. xxii , 2 read %{kavyA4H}) ; a sacrificer , sacrificial priest RV. ix , 91 , 2 ; N. of a class of deities associated with An3giras and R2ikvan [Gmn. ; a class of manes] RV. x , 14 , 3 AV. ; N. of one of the seven sages of the fourth Manv-antara Hariv. ; (%{am}) n. (generally in connection with %{havya} see %{havya-kavya}) ` " what must be offered to the wise " , an oblation of food to deceased ancestors MBh. Mn. (Skt.lex.)

The following r.cas elaborate on the semantics of 'kavya':

ye ta i t a r o d e c a j b m a n a h a c a i v d / S t a m t o a s a e A k p o

A a t e y a i h s i v d c e r o a v a r o s t y e k v y e i p t e r o e m b i n ? .

10.015.09 Come, Agni, to our presence with the Pitr.s, who are possessed of knowledge, who having attained a seat among the gods, thirst (for the Soma), skilled in sacrifices, reciters of praises with hymns, truth-speaking, seers, frequenters of sacrifices.

v i t i j n s y i d v y s y ? k v y e o a i x ? s u a n a e n ? / y e r o e n e > ?

a y a e n e r o a m a e m t y r r o m a m b a n a e = i v i - r o e

g a e r o a i n > .

9.091.02 The Soma juice effused by pious mortals (comes) down (to the sacrifice) for the food of the celestial people; which immortal (beverage) is purified by mortal (priests) with the filter, the curds and milk and the waters.

m a t i i k v y e o n a e a i r a e r o e s p i t r o a k v i - r o e

v a v a n > ,

y a t z ! c ? d e a v a v a r o e c ? d e a n ! S v a h a m y s v k y a m y e m d i n t .

10.014.03 Ma_talin prospers with the Kavyas; Yama with the An:girasas; Br.haspati with the R.kvans; they whom the gods augment, and they who augment the gods, these rejoice in Sva_ha_ , those in the Svadha_ . [Ma_talin: Ma_tali_ is the name of the charioteer of Indra; so Ma_talin (having Ma_tali_) is a name of Indra].

yaeAīṭṭ> ³ Vyvāhṅ> ipṭṅ! y] ḍoà tax&>? ,

ḍoà&? hVyain? vācit dēyṭ! c ipṭ&y/Aa .

10.016.11 Let Agni the bearer of the Kavya worship the Pitr.s, who are magnified by truth, let him declare which are the offerings to the gods, which to the Pitr.s. [kavyava_hana = one who carries offerings of the sacrifice to the manes (Skt.lex.)]

gḷ anaḅTva gḷ pīt <hvamhekiv<kvḷṅam! %pṅii ṽStmm!

Jyōraj ṅ! äüḷ am! äüḷ [s!pt/Aa ṅ? z&ṽ! ^ṭi->? sld

sadhṅ! .

2.023.01 We invoke the Brahman.aspati, chief leader of the (heavenly) bands; a sage of sages; abounding beyond measure in (every kind of) food; best lord of prayer; hearing our invocations, come with your protections, and sit down in the chamber of sacrifice. [Brahman.aspati = brahman.o annasya parivr.d.hasya karman.o va_pa_layita_, the protector or cherisher of food, or of any great or solemn acts of devotion; he has other attributes in the text, as, gan.a_na_m gan.apatih, chief of the gan.as (inferior deities); jyes.t.hara_jam brahman.a_m, the best lord of mantras, or prayers: pras'asyam sva_minam mantra_n.a_m].

ĒraXyaeAidit <ōryntae=cāsaiv j gāpé? [Im! ,

mūaivVykop&ṽlm! pTyman> pṭu! kivroAzyḷ!

cayṅman> .

7.018.08 The evil-disposed and stupid (enemies of Suda_sa), crossing the humble Parus.n.i river, have broken down its banks; but he by his greatness pervades the earth, and Kavi, the son of Ca_yamana, like a falling victim, sleeps (in death). [Sleeps in death: killed Suda_sa]. Kavi = a keeper of herd (Skt.lex.)

S'ukra-Us'anas, Ka_vya Us'anas and Cyavana -- Bha_rgava, a_n: girasa tradition in Indian Civilization

Us'anas-S'ukra (Va_yu P. 97.140) and Cyavana [MBh 13.51,2685; also, his descendant R.ci_ka -- (Va_yu P. 9193; Pad. P. 6.268,13) ; his grandson Ra_ma_Ja_madagnya--(MBh 7.70,2435)] are Bha_rgava or Bhr.gu.

The Pura_n.a tradition (Va_yu P. 1.33; cf. Pad.P. 5.1.29) remembers (smr.ta) S'ukra-Us'anas as Ka_vya. Us'anas-S'ukra was a Bha_rgava r.s.i whose daughter Devaya_ni_ was one of the two wives of Yaya_ti (son of Nahus.a). S'ukra was the name of the planet Venus. S'ukra's wife was named Go. (Hence, the connotation kavya, the products of the cow; cf.pan~ca-kavya, five products from the cow, used as oblations for the manes and in the yajn~a, as fat, to enhance the intensity of the fire).

Br.haspati (son of An:giras; his wife was Ta_ra_; his son was Budha; here, Br.haspati means a planet) was the a_ca_rya of the daitya in their conflict with the asuras, the da_nava. The priest of the da_nava or asura was the Bha_rgava Us'anas-S'ukra (MBh 1.76,3185 f; 7.63,2295; 12.29,990; Matsya P. 25,6 f; 249,4 f). "Both these r.s.is are assigned a chronological position in that the war is placed in Yaya_ti's reign and Yaya_ti married S'ukra's daughter Devaya_ni_. Br.haspati is introduced in the fable about Nahus.a, MBh 5.10.360 f; 14,480. It seems to me from some consideration of the deva_sura wars, that

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the stories of the conflicts between the devas and asuras are based, partly, on religious struggles in the earliest times...Among the Bha_rgavas Bhr.gu and Kavi are purely mythical, but as regards Us'anas-S'ukra, who is called their son, it must be noted that Us'anas and S'ukra were names of the planet Venus also, and the two must be distinguished. The r.s.i always appears as the great priest of the Daityas and Da_navas and as the antagonist of the second Br.haspati with the same chronological position. But he and the planet were confused and identified (MBh 1,66,2606-7), and so the latter is styled in astronomical accounts Bha_rgava, the 'sacrificing priest of the asuras' and 'divine' (Va_yu P. 53,80,106; Bd. 2,24,89,131; Lg 1,61,17 (all deva); Matsya P. 128, 47, 63 (Daitya). Further, since the first and second Br.haspatis were confused, the antagonism led to this r.s.i's being foisted as Br.haspati's adversary into the story of Ta_ra_ in late Pura_n.as. (Vis. 4,6,8,10; Bha_g P. 9,14,6)...The best Maha_bha_rata account (MBh 1,66,2605-13) says Bhr.gu had two sons S'ukra-Kavi-Graha who was guru of the Daityas and gods (sura), and Cyavana; Cyavana married Manu's daughter A_rus_i_ and had a son Aurva; Aurva's son was R.ci_ka, who had a hundred sons, the eldest of whom was Jamadagni; and Jamadagni had four sons of whom Ra_ma was the youngest...The foregoing versions give the earliest Bhr.gus as Us'anas-S'ukra and Cyavana, as brothers. Both are often spoken of as Bha_rgavas. The former is sometimes called Kavi, sometimes made distinct from Kavi, and more often made Kavi's son, often Ka_vya and sometimes best of the Kavis, so that the tradition places Kavi above him. Moreover it will be seen that he is placed later than Cyavana by tradition, because Cyavana is connected with Manu's son S'arya_ti and S'ukra with Yaya_ti, who was later. Hence the two most ancient Bha_rgavas were Cyavana, who is called Cyava_na in Vedic literature, and Us'anas-S'ukra. Cyavana, it is often said, married Sukanya_, daughter of Kanu's son, king S'arya_ti, and sacrificed for him. He is also connected with Manu's other son Pr.s.adhra. His position is therefore clearly fixed, though late, and especially brahmanic, tales wrongly introduce him as existing at other periods; and he is made the subject of fable even in the Rigveda (As that the As'vins restored him to youth. Vedic Index 1,264; MBh 3,123; Bha_g P. 9,3,2-17.; The fable shows he was far more ancient than the hymns). Us'anas-S'ukra, for he had both names, is generally connected with the Daityas, Da_navas and asuras, who meant originally tribes hostile to the Aryans, being called their guru, a_ca_rya, upa_dhya_ya, purohita, and ya_jaka. His intimate connection with them is often alluded to. In later notices his position was improved and he became guru or a_ca_rya of the gods (devas) as well as of the Daityas, and then more positively of the gods and asuras -- an impossible status. So he is called divine, but never, as far as I know, unequivocally teacher or priest of the gods alone...hence in the passages where he is called priest of the suras, 'gods', also, the word sura has probably superseded asura sometimes. Why the change took place is not clear, but improvement may have been felt to be required after that metamorphosis and after the Bha_rgavas became famous brahmans; and it is worthy of note that fables say S'iva took Kavi as his son, and Uma_prevented S'iva from slaying Us'anas, whence Us'anas became her son. (MBh 12, 291,10693; Bd. P. 3,10,17-18; Va_yu P 72, 15-16; Br. 34, 90-1; Lg 2,13,6). His original position comes out clearly from stories of the war between the devas (gods) and asuras. (S'ukra among the asuras, Br.haspati among the devas, MBh 15, 28, 753). He was on the asuras' side and restored the slain asuras to life by means of a potent spell called mr.ta-san-ji_vani_ (Br 95,26,30), which he had obtained from S'iva (Lg 1,35,16-17,25; Pad P 6,146,3) and which the devas did not know (Br 95,26). The devas' priest Br.haspati could not restore the slain devas to life, until (according to one version) his son Kaca succeeded by stratagem in learning the spell from S'ukra. Then the devas got it and vanquished S'ukra and the asuras. (Ag 240,1; MBh 1,76; Matsya P 25). The genealogy says S'ukra's wife was the pitr.-kanya_Go, and they had four sons, Tvas.t.r., Varu_trin, S'an.d.a (or San.d.a) and Marka. Tvas.t.r. introduces, and passes off into, mythology, with his alleged two sons, Tris'iras-Vis'varu_pa and Vis'vakarman. Varu_trin had three sons (named), who were priests of the Daityas, hostile to Indra, and so perished. (The Va_yu reading is: brahmis.t.ha_sura-ya_jaka_h may have to be read as: brahmis.t.ha_sura ya_jaka_h; cf. Vis. 1,17,48 where Bha_rgavas were purohitas to the Daitya king Hiran.yakas'ipu). S'an.d.a and Marka were priests of the asuras according to Vedic literature (both are called asura-raks.as, S'atapatha Bra_hman.a 4.2.1,4-6), and are mentioned in the Pura_n.a in connection with a great war between the devas and the Daityas and Da_navas. (S'an.d.a in Pad P 5,19,272). It is said that at the devas' entreaty they abandoned the Daityas and Da_navas and helped the devas, who then were victorious; and it appears to be said that S'ukra then cursed them. (Va_yu P 97,72,86; 98, 63-7). S'ukra had a daughter Devaya_ni_ by (the genealogy says) Jayanti_ (Va_yu P 97, 149-54); and she married Yaya_ti. Tradition then leaves Us'anas-S'ukra's lineage in this position, that it sank as the Daityas fell and disappeared in one way or another, and certainly no brahman family (as far as I am aware) claimed descent from him, unless possibly the Ma_rkan.d.eyas were descended from Marka. It must be noticed that Cyavana's family and Us'anas-S'ukra's family appear to have occupied different regions. Cyavana is always connected with the west of India, the country around the Gulf of Cambay, in or near S'arya_ti's territory A_narta (Gujarat) as shown by the story of his marrying Sukanya_, and by the statement that he performed austerities near the Vaidu_rya Mts (the west portion of the Satpura range) and the River Narmada_. (MBh 3,122,10316 with 121, 10310-13; 124, 10374-7; Pad P 14, 12-26, 46-53; 16,3, connecting him with the River Payos.n.i. (Tapti). Us'anas-S'ukra is connected rather with the central region of N. India, for Yaya_ti king of Pratis.t.ha_na (Allahabad) met his daughter Devaya_ni_ near his own territory and married her; and Kapa_lamocana on the Sarasvati_ is called his ti_rtha. (MBh 9,40,2249-51, 2262). Cyavana's descendants remained connected with west India (MBh 3,118,10223 and context. Brahmanical fables about Cyavana, MBh 13, 50 to 56), and when the Haihayas dominated that region and the S'a_ryata kingdom perished, they became associated with the Haihayas. It is they who produced the great Bha_rgava family...Two sons are given to Cyavana and Sukanya_, Apnava_na and Dadhi_ca. Apnava_na is mentioned in the Rigveda, and his name is

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corrupted in the Pura_n.a to A_pnuva_na, A_prava_na, Atmava_na and A_tmavant. The Matsya account wrongly makes Cyavana and Apnava_na brothers, because Apnava_na's wife Ruci has the patronymic Na_hus.i_, which means no doubt that she was daughter of the Aila king Nahus.a, so that he would have been a younger contemporary of Nahus.a and therefore, a descendant rather than brother of Cyavana. Dadhi_ca is hopelessly enveloped in fable. (MBh 9, 52, 2929-60; 12, 344, 13211-12). A son Sa_rasvata is assigned to him, of whom a fable is narrated. (MBh 9, 52, 2931-49, 2960-77). Another account gives another son, Pramati, to Cyavana, but the connection has been greatly contracted... (MBh 13,4,207 called Urva's son R.ci_ka 'son of Cyavana'). The genealogy says Apnava_na's son was Urva, but it has contracted the pedigree, because...Urva was later and therefore was a descendant...After Kr.tavi_rya's (of the Haihayas) death the princes of his family demanded the wealth back, but the Bha_rgavas refused to give it up. They used violence to the Bha_rgavas and the Bha_rgavas fled to other countries for safety. One of the Bha_rgava wives gave birth to a son then who was called Aurva...R.ci_ka Aurva became skilled in archery. He sought in marriage Satyavati_ daughter of Ga_dhi or Ga_thin, king of Kanya_kubja...The genealogy says R.ci_ka had many sons, of whom Jamadagni was the eldest. None of the others are names, but perhaps Aji_garta was one, for his son S'unah's'epa was a Bha_rgava and was adopted by Vis'va_mitra. Jamadagni was trained to archery and arms, and allied himself with the royal house of Ayodhya_, for he married Ren.u.ka_ daughter of Ren.u, a junior ra_ja_ of that line; but he was a peaceful r.s.i and left martial exploits alone. Jamadagni had four or five sons, of whom Ra_ma was the youngest and greatest. Ra_ma is always described as a great warrior, skilled in all weapons, especially in archery. Though a brahman, he is generally spoken of as virtually a ks.atriya, combining the two characters, brahma-ks.atra. The battle axe is mentioned as his special weapon, whence he is sometimes called Paras'u-Ra_ma in later writings, to distinguish him from Ra_ma of Ayodhya_, who is then called Ra_macandra. (Pad P 4,17,14,65). These Aurvas lived in Madhyades'a where they had fled and married, and the Haihaya king Arjuna Ka_rtavi_rya is said in his conquests there to have molested Jamadagni. There was hostility and Arjuna's sons killed Jamadagni. Ra_ma in revenge killed Arjuna and also, it is said, many Haihayas. The Haihayas pursued their devastating raids through N. India, until Sagara annihilated their power..It is fabled that Ra_ma, after exterminating the ks.atriyas, sacrificed at Ra_ma-ti_rtha with Kas'yapa as his upa_dhya_ya and gave him the earth (or a golden altar) as his fee: whereupon Kas'yapa banished him to the southern ocean, and the ocean made the S'u_rpa_raka country (near Bombay) for Ra_ma, and Ra_ma dwelt there...The next Bha_rgava r.s.i mentioned is the Aurva who succored Sagara of Ayodhya_ and whose name was Agni...About the same time lived king Vi_tahavya whom a Bhr.gu r.s.i saved from Pratardana of Ka_s'i by impliedly asserting that he was a brahman, and who consequently became a brahman. His descendants are set out for fifteen generations. His son was Gr.tsamada, whose eleventh descendant was Pramati, whose son was Ruru, whose son was S'unaka, from whom came the S'aunakas. (cf. Gr.tsamada a R.gvedic r.s.i in: introduction to Rigveda ii, Anukraman.i.; RV 9.86) " (Pargiter, F.E., 1922, *Ancient Indian Historical Tradition*, repr. Delhi, Motilal Banarsidass, pp.187-188; pp. 193-197).

Us'ija is an a_n:girasa r.s.i (RV 1.158.1,4; Aus'ija: RV 1.18.1 and 10.99.11). R.jis'van's ancestor was Vidathin Bharadva_ja descended from Us'ija (also called Aus'i_nari_). Aus'ija Di_rghas'ravas is named with Kaks.i_vant in RV 1.112.11. Di_rghatamas assumed the name Gautama or Gotama. The r.s.is began in Vais'a_li_ and moved westwards; Di_rghatamas moved to Girivraja or Magadha and later consecrated king Bharata. Vidathin Bharadva_ja's descendants remained connected with the Paurava dynasty (e.g. Ajami_d.ha, Abhya_vartin Ca_yama_na and Divoda_sa king of N. Pan~ca_la). The RV r.cas 1.116 to 126 are attributed to Kaks.i_vant Dairghatamasa Aus'ija. Kan.vas (an offshoot from the Paurava line) came after Ajami_d.ha. (cf. Pargiter,opcit., pp. 225-228). A Kan.va named Vatsa, the author of RV 8.6.39 lives at the S'aryan.a_vat (a lake near Harya_n.a); he is also the author of RV 9.113.1-2 who wishes for Soma from A_rji_ka (Vipa_s'a or Beas River), linked with the Pu_rus and perhaps close to S'aryan.a_vat. In RV 8.7. 18,19,32, a Kan.va asks: "The Maruts have come down at Sus.oma, Saryan.a_vat, A_rji_ka and Pasty_a_vat. When will they approach here the singer who invokes them?"

S'aunaka and Atharvaveda sam.hita_

Ghora A_n:girasa is an appellation in Kaus.i_taki Bra_hman.a 30.6; this is as a contrast to bhis.aja_tharvan.a. (cf. Bloomfield, SBE,XLII, p. xxi). In Cha_ndogya Upanis.ad 3.17.6, Kr.s.n.a Devaki_putra is a disciple of Ghora A_n:girasa. Guhera = a smith; a guardian (Skt.lex.) R.bhu is a smith, a builder of carriages and vehicles. KBr XXX.6 mentions Br.haspati as the Brahman of the Sadyahkri_ sacrifice for the A_dityas (as the hosts of the sacrifice); that is sadyahkri_ (S'Br 3.5.1.17), Aya_sya as the Udga_tr., and Ghora as the Adhvaryu -- all are A_n:girasas.

ka~_guru, ka~_gar portable brazier (K.); kan:gar portable large brazier (K.); ka~_gri_ small portable brazier (H.)(CDIAL 3006). a~_ga_ri_ small hearth with embers in it (G.); an:ga_rika_, anga_rita_ portable fireplace (Skt.)(CDIAL 131). . agnis.t.ha_ that corner of the sacrificial post which is nearest the fire (TS. v.i.3.4); agnis.t.hika_ fire-pan; agnis.t.ha fire-pan;

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agni-s'akat.i_ a vehicle carrying fire (A_pS'r.); agnis.t.ha placed near fire (S'Br. iii.7.2.4); in the As'vamedha sacrifice the eleventh yu_pa which is nearest the fire and to which the horse is tied; agny-aga_ra the place for keeping the sacred fire; agny-a_dhe_ya placing the fire on the sacrificial fireplace (AV. xi.7.8) (Vedic.lex.)an:ga_ra glowing charcoal (RV.); an:ga_raka (Skt.); in:ga_la (Skt.); an:ga_ra charcoal (Pali); am.ga_ra, am.ga_raya, am.ga_la, am.ga_laya (Pkt.); angar charcoal; vana_r, yangar (Gypsy); an.a_ fire (Ash.); an.a (Kt.); an.a_ (Gmb.); anege (Pr.); an:gar (Dm.); na_r (Tir.Chilis Gau.K.Psht.); an:ga_r (Pas'); a~_r (Shum.Pas'); an:ga_r (Gaw.Kal.Kho.Bshk.); an.a_ (Tor.); aga_r (Mai.); an:go_r (Phal.); aga_r, haga_r (Sh.); an.aru charcoal (S.); an:ga_r (L.); an:gya_r, an:gya_ra_ (P.); a~gea_r (EP.); an:ga_ro~, pl. an:ga_ra~ (WPah.); an.a_r, d.an.a_r (Ku.); an.a_r (N.); a_n:ga_r, en:ga_r (A.); a_n:ga_r, a_n.ra_ (B.); an:ga_ra (Or.); a~garwa_h man who cuts sugar-cane into lengths for the mill = pakwa_h (Bi.); am.ga_ra (OMth.); a~gor (Mth.); a~ga_r, a~ga_ra_ (H.); a~ga_r, a~ga_ro (G.); a~ga_r (M.); an:gura (Si.); a_r, a~_i_ fire (Wg.); an.ari_k charcoal (Wg.); in:gha_l.a glowing embers (Pali); im.ga_ra, im.ga_la, im.ga_laya (Pkt.); yen:gur charcoal (K.)(CDIAL 125).an:ki sun (Tirukka_l.at. Pu. 30,14); fire; agni (Kantapu. Pa_yira. 53); an:kicama_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.); awge to expose to the heat of the sun or fire; awgre to bask in the sun, warm oneself to a fire (Malt.)(DEDR 18).

Out of the rekindled coals comes Br.haspati, the pre-eminent Kavi; An:giras' come out of the coals.(ABr 3.34; Bibliotheca Indical ed., II, p. 156). In RV 1.83.4, An:giras' are called iddha_gnyah. An:giras' treat Br.haspati as one of them.

Hiran.yastu_pa, Savyha, Kutsa, Va_madeva,Kan.va,Pajra, Maudgalya are an:girasa. Anukraman.ika_has about 45 names belonging to the an:girasa gotra. Vinaya Pit.aka (vol. I, p. 245) includes an:giraso along with Vessa_mitto, Yamataggi, Bha_radvajo. Buddha (as Gautama) is an an:girasa (ibid., vol. I, p.25;cf. *Journal of the Pali Text Society*, 1888, pp. 1-2; in RV 1.78.3 a Gotama invokes an:girasvat). "...the ritual of the agniciti has borrowed much from the custom of the An:giras. The spade with which the soil necessary for the ukha_ is dug is taken an:girasvat; the clay is dug an:girasvat and carried in the same way (TS 4.1.2-3)...The An:giras' are known already to the RV as Sa_ma singers. According to RV 10.108.8, they belong to the r.s.ayah somas'ita_h...They took part in breaking open the rock or cowshed and were Indra's assistants 1.51.3; 62.3; 71.2; 132.4; 2.11.20; 20.5; 4.2.15; 16.8; 51.4; 5.45.8; 6.17.6; 18.5...Like the An:giras' of the past, their descendants also sing. In TMBr 14.3.32, Aya_sya deprives the A_dityas of their foot by eating it and saves himself with Sa_mans...According to the Anukraman.i_ also Aya_sya is considered the author of RV 9.44-46 and 10.67-68. The last two hymns are dedicated to Br.haspati and at the same time praise An:giras' who assist Br.haspati. Aya_sya is mentioned in the RV itself: 1.62.7 (?); 10.67.1; 108.8 (where he is mentioned with the An:giras' and the Navagvas); he is one of the mythical progenitors of the An:giras clan..." (Hillebrandt, opcit., I, pp. 108-115).

Tvas.t.r. unifies with An:giras in RV 10.70.9; 1.186.6. An:giras' participate in the liberation of the cows from Vala's cave: RV 2.11.20; 15.8; as navagvas in RV 1.62.4

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aya_sya agile , dexterous , valiant RV. ; m. N. of an An3giras (composer of the hymns RV. ix , 44-66 and x , 67 and 68) RV. x , 67 , 1 and 108 , 8 S3Br. xiv. cf. ayas = copper, metal (RV).

Nirukta 11.19-20: An:girasas and our manes of ninefold gaits (navagatayo). Atharva_n.as and Bhr.gus, the soma-pressers: may we be in the goodwill of those holy ones, in the blessed favour of their minds. An:girasas and our manes of nine gaits, i.e. whose ways of going lead in nine directions. Atharva_n.as and Bhr.gus, the soma-pressers, i.e. who prepare the soma-juice. May we be in the goodwill, in the blessed will of the holy ones, in the auspicious, excellent, generous, or blessed favour of their minds. 'This refers to a group of atmospheric deities', say the etymologists. 'They are manes,' says the tradition. Moreover, seers are praised. Their splendour is dazzling like that of the sun, their greatness is unfathomed like that of the ocean, their speed is like that of the wind. Your hymn, O Vasis.t.has, cannot be imitated by any other. This is the (panegyric).

Atharvaveda hymns occur as atharva_n.a and an:girasas as well as atharva_n:girasa (Va_yu P 90,12; Bd. 3,65,12; Hv 25,1323). Atharva_n:girasa r.s.is began in the kingdom of Vais'a_li (North Bihar), among the Ma_nvas (not Aila). Bha_rgava Us'anas, the teacher of the non-Ailas (Daityas or Da_navas) is called Atharvan.a_m nidhi (Bd. 3,30,51-4 with MBh 1,76,3188-90 and Matsya P 25, 9-11).

"Atharvaveda. Sumantu divided it into two and taught it to Kabandha. Kabandha divided it into two again and gave one part to Pathya and the other to Devadars'a (or Vedaspars'a). The latter made four versions and taught them to his four disciples. Moda, Brahmabala, Pippala_da and S'aulka_yani. The Pathyas had three divisions, those of Ja_jali, Kumuda_di and a 'S'aunaka'. 'S'aunaka' made two sam.hita_s, and gave one to Babhru and the other to Saindhava_yana. Saindhava gave that to Mun-jakes'a and it was again made into two. The best vikalpanas of the sam.hita_s are the Naks.atrakalpa, Vaita_na, Sam.hita_vidhi, An:giras's kalpa and S'a_ntikalpa. (Va_yu P 61, 49-55; Bd. 2,35, 55-62; Vis. P 3,6,9-15; Ag 150,30; Bha_g 12,7,1-4)." (Pargiter, opcit., p. 325).

Namuci; the symbolism of removing 'lead' and 'copper' to yield gold, silver (soma, electrum!)

The eka_ha (or one-day Soma yajn~as) constitute the principal rituals of Ra_jasu_ya. When a king performs this sacrifice, he is the yajama_na of the yajn~a.

"Abhis.ecani_yah...the unction will be administered to the king while standing upon a tiger skin...When treading upon the tiger skin the sacrificer kicks away two pieces of metal. With the right foot he kicks a piece of lead towards a eunuch (kli_ba, TB,pan.d.aga, MS)...removed (by offering) are the biters (dandas'u_ka)'. With the left foot he kicks a piece of copper towards a barber (kes'ava_pa) saying 'cast away is Namuci's head'. The eunuch and the barber throw the pieces outside the vedi (A_p.)...The adhvaryu places under the sacrificer who is standing on the tiger skin a silver plaque weighing a hundred ma_nas, with the formula: 'thou art ambrosia; from death protect me'. On the head of the sacrificer he places a golden plaque also weighing a hundred ma_nas (or kr.s.n.alas) with the formula, 'from the thunderbolt protect me'. This gold plaque is pierced with nine or with a hundred holes...

"...in the RV, we are told that the sura_ was extracted from Namuci by the As'vins to cure Indra, disintegrated by his indulgence in Soma. In another version of the Namuci myth Indra slays or twists off the head of Namuci who had insinuated himself into Indra's intimacy and forced Indra to enter into a covenant with him, with a weapon made of foam (apa_m phena); now foam is considered identical with lead...so much seems sure that Namuci in the sura_ cycle, as the restrainer who must be slain to release the invigorating fluids, plays the same part as Vr.tra in the Soma cycle...(J.C. Heesterman, 1957, *The ancient Indian royal*

consecration: the ra_jasu_ya described according to the Yajus texts and annotated Sgravenhage, Mouton & Co., pp. 106-110).

RV 1.116.7 notes that As'vins created Sura_.

yá<nra Stútepi?yay? k]lviteArdtñ! pñxm! ,

karārac! D) adōāñsy/v&[>? z t <M- a † AīśĀt<śrāya> .

1.116.07 You gave, leaders (of sacrifice), to Kaks.i_vat, of the race of Pajra, various knowledge; you filled from the hoof of your vigorous steed, as if from a cask, a hundred jars of wine. [Pajras = An:giras; Kaks.i_vat was a descendant of this family].

Note Bartholomae's citation from Ni_rangista_n which mentions a Madha out of horse's milk; in the R.ca 1.116.07 the allusion is to a 'rasa' filled from the hoof of As'vins' horse.

VS 21.60 refers to soma prepared with sura_ : sura_soma_h; MS 3.11.7 (150.17): yas te rasah sam.bhr.ta_os.adhi_s.u somasya s'us.amah sura_ya_m sutasya sura_soma_h, i.e. the Sura_-Soma_, the Soma called Sura_ (which is not the real Soma). AV 14.1.35: yac ca varco aks.es.u sura_ya_m ca yad a_hitam yad gos.v as'vina_varcas tenema_m varcasa_vatam, 'whatever splendour is in the dice, whatever is placed in Sura_, whatever splendour, O As'vins, is in cows, with that help this woman.'

"This indiscriminate association of the As'vins at times with Sura_ and at others with Madhu makes it likely that both the drinks are of similar nature and that probably Sura_ also consisted partly of honey...At the end of Vendita_d 14, hura_ and madu are mentioned as the alms for a pious man. Bartholomae cites from the Ni_rangista_n the words: dahmo_huram xvaraiti; mado_ aspyapayanho, 'the faithful enjoys the hura_; a Madha out of horse's milk.'" (Note298, p. 469: In the verses used in the Sautra_man.i_ mention is made of sa_ragham madhu also. But since only Sura_ is employed there, it must have contained the honey of the bee. See VS XIX.95 (MS III.11.9)" [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, vol. II, p.469].

'Honey of the bee' ! Sa_ragham madhu; Ma_ks.ika_, the pyrites! It is likely that sura_ also refers to some type of mineral ore or, a 'ks.a_ra' as a reducing agent during smelting to oxidize the baser metals in quartz or pyrites. Perhaps, it was a process of cementation.

Cementation to assay silver:

<http://members.xoom.com/mspong/metallurgy.html> "The cupel must be heated red-hot for half an hour before any metal is put upon them, by which all moisture is expelled. When the cupel is almost white by heat the lead is put into it, and the fire increased till the lead becomes redhot, smoking, and agitated by a motion of all its parts, called its circulation. Then the silver is to be put on the cupel, and the fire continued till the silver has entered the lead; and when the mass circulates well, the heat must be diminished by closing more or less the door of the assay furnace. The heat should be so regulated, that the metal on its surface may appear convex and ardent, while the cupel is

less red; that the smoke shall rise to the roof of the muffle; that undulations shall be made in all directions; and that the middle of the metal shall appear smooth, with a small circle of litharge, which is continually imbibed by the cupel. By this treatment the lead and alloy will be entirely absorbed by the cupel, and the silver become bright and shining, when it is said to lighten; after which, if the operation has been well performed, the silver will be covered with rainbow colors, which quickly undulate and cross each other, and then the button becomes fixed and solid. The diminution of weight shows the quantity of alloy. As all lead contains a small portion of silver, an equal weight with that used in the assay is tested off, and the product deducted from the assay-weight. This portion is called the witness. - Richardson's *Metallic Arts*."

<http://www.library.upenn.edu/etext/smith/ercker/index.html#TOC> See also Ercker's Treatise on mineralogy and metallurgy (1598) [A self-stoking furnace for cementation] [Furnaces for reducing calcined copper matte and alloying with lead for direct casting of liquation cakes] [Crucibles and molds for parting gold with antimony] [Furnaces for the fusion assay of copper ores] [Furnace for melting copper and lead, and casting liquation cakes] [Furnaces for roasting and quenching gold ores] [Multiple muffle furnace for refining silver on tests]

"Historical Development

"Perhaps as early as 4000 BC, metalworkers in the Middle East discovered that certain copper ores could be heated to produce a metal that was harder than copper, had a lower melting temperature, and was easier to cast. The ores contained tin and the alloy produced was bronze. The Bronze Age was born.

"By 3000 BC copper-arsenic, copper-gold, and lead-tin alloys were also in use. Brass, made from copper and zinc ores, appeared between 2000 and 1000 BC, but was not important until the Romans began to use it to make coins in about 200 BC. Great progress in metallurgy occurred under the Roman Empire. Medieval alchemists, attempting without success to transform other metals into gold, found many new alloys." *Compton's Encyclopaedia Online*

RV 8.14.13 mentions apa_m phena; this is described as a weapon which Indra hurls at Namuci. The Bra_hman.a tradition has a legend: Indra drinks sura_ at Namuci's residence and falls ill. Indra is then cured by Sarasvati_. The Sautra_man.i_ is performed for a person from whose nose, ears etc. Soma flows out. 'Soma flows out, the so-called somapu_ ta, further for a brahmin who desires success, for an exiled king, for a ks.atriya and so on, and is performed in a typical fashion...Further we find Namuci's name in a formula; during the consecration ceremony of the king, uttering this formula, kicks with his foot a piece of lead that has been kept on the tiger skin. (nirastam namuceh s'irah: TS 1.8.14; TBr 1.7.8.2; S'Br 5.4.1.9; MS 4.4.4 (54.5)...The comm. on TS says: lohita_yasam ta_mram pu_rvam phenena pa_titam yan namuceh s'iras tad idam ta_mraru_pam san nirastam parityaktam)...In the Va_japeya and here in the Sautra_man.i_ the Parisrut is bought against lead from a long-haired man...Indra makes a compact with

Namuci...It is the well known compact (MS 4.3.4 (43.7)(cf. MBh 9.43.34) not to injure Namuci either with a dry object or with a wet one, either in daylight or at night...Indra breaks the oath and kills this opponent apa_m phenena...I would think that the apa_m phena should be understood in the sense of some solid material and that it denotes some substance like, e.g. lead, because this very metal serves, as we saw, as the purchasing price in the sura_ ceremonies. In the context of removing the old fire, Kaus'ika Su_tra LXXI.15 states that one should place si_sa_ni in the hands of the eldest son, and the commentary explains this word as si_sam nadi_phenam lohamr.ttika_. Kaus'ika Su_tra VIII.18 lists si_sa, nadi_si_sa (comm. nadi_phenapin.d.a), ayorajas, kr.kala_sas'irah among the things called 'lead', but not among the immediately following rasas (like dadhi and ghr.ta). " [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, vol. II, pp. 148-149].

The r.ca 5.30.9 refers to the two women, who are made into Namuci's weapons:

īōyāh dāś Aayāin cṛeikm!ma? krŪ! Ab/ a Aśy/sa>? ,
 AAtroy! Aōydo% eAśy/xaeAwap/āōyāyēdSyn! #NŌ>? .

5.030.09 The slave (Namuci) made women his weapons what will his female hosts do unto me? The two his best beloved, (Indra) confined in the inner apartments, and then went forth to combat against the Dasyus. [What will his female hosts do unto me? Indra is supposed to say this; the two his best beloved: decapitation of Namuci by Indra is related in the gada_ section of the S'alya parva of the Maha_bha_rata; Namuci through fear of Indra, took refuge in the solar rays; Indra promised that he would not harm him if he came forth, but broke his promise, and, on Namuci's issuing forth, cut off his head; by this he incurred the guilt of brahmanicide, for, Namuci was a brahman, but Indra was taught expiation of his sin by Brahma_].

["That the name contains a negative is assumed by Pa_n.ini (VI.3.75)...According to Halevy, Consider. crit., p.38, Namuci = Namik = Namitch, the form which the Turkish immigrants gave to Nami (= Ranha_)."] (Hillebrandt, opcit., note 318, p. 359)].

Namuci possesses Soma (VS XX.59). Da_sa or Dasyu Namuci is mentioned in RV 6.20.6 and RV 5.30.3. Namuci is an asura in RV 10.131.4. ["The meaning of 'demons' is generally on the increase in the tenth book, hence, it is closer to the period of the Bra_hman.as. The hymns which refer to the Asuras in hostile sense provide thus a criterions to say that they belong to the Bra_hman.a-stratum, or, to put it more cautiously, to the groups whose notions were continued in the Bra_hman.as" Hillebrandt, opcit., note 83, p. 424, vol.II].

Arsenic was alloyed with copper to create hardened metal tools and weapons; an alloy which represents an early 'bronze'.

da_rumuca = white arsenic (Skt.lex.) Therefore, na-muci may be a negative formed to pinpoint a mineral substance, i.e. 'non-arsenic'; the reference of Namuci may be to 'white lead' in this semantic derivation, consistent with the association of Namuci with 'lead, plumbum' in the R.gvedic and later mythology. [cf.namak = salt (Pahlavi.Hindi); sindhu-lavan.a = rock salt (Skt.)]

nat.a, ku-nat.a, kulat.a_pati = red arsenic (Skt.) [A homonym might have been used in the Inscriptions of the civilization showing dancing persons].

a_la, nat.aman.d.ana, kanakarasa, harita_la, karbu_ra = yellow arsenic, orpiment

Soma, electrum

(Skt.lex.)

godanta = a cow's tooth; a white mineral substance (apparently an earthy salt); yellow orpiment (Skt.lex.)

ka_ruja = a young elephant; an ant-hill; froth, foam; red orpiment; anything produced by an artist or mechanic (Skt.lex.)

s'ila_, manahs'ila_, kanat.i_, kunat.i_, kat.ambhara, **na_gama_tr.** = red arsenic (Skt.) [The use of the compound na_gama_tr. is significant in the context of a r.ca referring to two women; the r.ca 5.30.9 refers to the two women, who are made into Namuci's weapons].

kumbhaka_ra = red arsenic (Skt.lex.)

a_varta, pyrites, marcasite, a mineral substance (Skt.lex.)

kut.ilam, lead ore, white lead; minnar-r-ar..ukku, van:kani_r-u, lead ore; ci_cam, ka_ri_yam, i_yaman.al, atan:kam, cira_viruttam, ci_ravat.t.am, yamune_t.t.akam, lead, plumbum; ket.uppinai, kot.ippin.ai, ko_l.avan:kam, lead ore; caval.ai lead sand (Tamil.lex.)

sira_vr.tta, dha_tus'odhana, dha_tusambhava, vadhraka, lead; vayovan:ga, lead; mr.duka_rs.n.a_yasa 'soft (black) ore', lead; yamune_s.t.aka, lead; s'vetaran~jana, 'white coloured' lead; sindu_raka_ran.a, origin of minion, lead; sindu_rika_, red lead, minium; si_saja, minium, red lead; na_gaja, born, red lead, tin; na_garakta, red lead (Skt. lex.)

sura_ is a snake; also a spirituous liquor (Skt.lex.); na_ga is a snake; also lead (Skt.lex.) [Note: snake pictographs in the Harappan inscriptions].

na_kam black lead; zinc; prepared arsenic; sulphur; na_kacam, tu_riyam, vermilion, lead (Tamil.lex.) takaram tin, white lead; metal sheet coated with tin (Tamil.lex.) ka_kkaiippon- a kind of tinsel, resembling gold lead, used for decoration at weddings and other festivals (Tamil. lex.)

na_ga m. (prob. neither fr. % {na-ga} nor fr. % {nagna}) a snake , (esp.) Coluber Naga S3Br. MBh.&c. ; (f. % {I4} Suparn2.) a Na1ga or serpent-demon (the race of Kadru or Su-rasa1 inhabiting the waters or the city Bhoga-vati1 under the earth ; they are supposed to have a human face with serpent-like lower extremities [see esp. Nag. v , 17 RTL. 233 &c.] ; their kings are S3esha, Va1suki , and Takshaka ib. 323 ; 7 or 8 of the Na1gas are particularly mentioned MBh.

n.(m. L.) tin , lead Bhpr. ; a kind of talc ib.

madhu is a spirituous liquor; also pyrites Bhpr.; madhudha_tu, pyrites (Skt.lex.) [Note the association with the As'vins and use in the Soma purification process]. See also,

ma_ks.ika_ a honey-like mineral substance or pyrites (MBh. Skt.lex.) Compounds: hema-, svarn.a-, suvarn.a-, pi_ta-ma_ks.ika, kam.sa-, ka_msya-, ru_pya-ma_ks.ika; ma_ks.i_ka-dha+tu (Skt.lex.)

ma_nikai (?metath. namik) = spiritous liquor (Tamil.lex.)

The cognate of Ranha_ is Rasa_ (Skt.) It is significant, that this is a synonym of wine or grape, apart from being the name of a mythical stream: f. moisture , humidity RV. ; N. of a river ib. ; a mythical stream supposed to flow round the earth and the atmosphere ib. (Nir. xi , 23) ; the lower world , hell MBh. Pur. (cf. % {-tala}) ; the earth , ground , soil Ka1v. ; the tongue L. ; N. of various plants (Clypea Hernandifolia ; Boswellia Thurifera ; Panicum Italicum ; a vine or grape ; = % {kAkoll}) L.

rajata mfn. (cf. 2. % {Rjra}) whitish , silver-coloured , silvery (% {-ta4M@hi4raNyam} , ` " whitish gold " i.e. silver) RV. TS. VS. ; silver , made of silver Br. A1s3vS3r. ChUp. ; n. (m. g. % {ardharco7di}) silver AV. &c. &c. ; (only L.) gold ; a pearl ornament ; ivory ; blood ; an asterism ; N. of a mountain and of a lake. (Skt.lex.)

iracatam 1. naks2atra ; 2. tusk of an elephant; 3. whiteness; white colour; 4. garland of pearls; 5.white mountain silver mountain; 6. gold (Tamil.lex.)

Semant. (Skt.) phenā, phen.a m. once n. (often written % {pheNa} and prob. connected with % {phaN} ; but see Un2. iii , 3) foam , froth , scum RV. &c. &c. ; moisture of the lips , saliva Mn. iii , 19 ; n. (m. L.) Os Sepiae (white cuttle-fish bone , supposed to be indurated foam of the sea) Car.

muci-ttal to faint, become tired; 2. to be distressed; 3. to grow thin; 4. to perish; to wrench, twist [The semant. 'to grow thin' is a characteristic of tin which is used for coating metal sheets; is it possible that na-muci including a negative has been derived from this lexeme? Or, see mucī = name of a cakravartin (Skt.lex.); is na-muci some one opposed to a king, like an asura? cf. na_mi a name of Vis.n.u; nami = name of one of the 24 Jaina ti_rtha_n:kara]

The significance of the Namuci mythology becomes apparent in the context of words such as apa_m phenā, si_sa, sura_ , Sarasvati_ and the As'vins who heal Indra. RV 5.20.6 uses the term Nami_ Sa_pya (TMBr XXV.10.7 refers to him as a King of Videha) as an opponent of Namuci. As'vins are associated with parisrut and madhu. Thus, if interpreted as a bill of materials for the yajn~a, these are materials used in the removal of lead from the quartz to yield Soma, electrum. Lead is apa_m phenā or panned lead from the river-bed; in metallurgical history, it is noted that lead as well as gold were panned from river-beds in ancient times. Lead has the colour of foam. Saravati_ , the river is also called Hiran.yavartani_ and may represent the panned gold obtained from the river bed. [It is notable that a place called Lohar.gar.h, close to the S'iva_lik ranges, north of Adh Badri, on the banks of the River Somb and Sarasvati_ Nadi_ is even today licenced to gold-panners by the district administration of Yamunanagar Dist.]

Ap/àac? #NÔ/ivñāAimÇāñ! ApapaçaeAi - - tēndSv ,
 Apadl'caēAp? z bixrac? %raEywa/tv/z mR! mdtā .
 kiv.doeA¼ yvñNtaēyv'kicdoçwa/dāNTy! Ahpū; ivyū? ,
 #ñbEa<k { ih/- ajē hain/yebihRāēnmaē& An j Ūmū .
 niñ Swyūroā tūwa yačm! AiSt/naē i vaēivivdes& tgnēu,
 gVyNt/#NÔ? sŌyay/ivāa? AñayNtaēv& [<vaj' yNt> .
 yū<svamñ! Aiñna/nmīcav! Aasēscā? ,
 iviōpañā zū s! pti/#NÔAkmBv! Aavtm! .
 pŪm! #v ipčrañ! Aiñnaē NŌax/wū/kaVyEodēñāf -> ,
 yt! svamAly! Aipb>/z cll ->/srSvtI Tva m" vŪ! Ai- : [kœ
 #NÔ>? sŌama/SvvaAvāē -> sm&lkāe- vtuvñvāda> ,
 bax'ta/ŌeaeA - y<k { aēusūlyBy/pty> Syam .
 tSy? vy<mtāEyi} ySyaip? - ŌesaññsēSyam ,
 s sŌama/Svva#NŌaēAAsmeAarāc! icdoēe? snūroyvāe u.

10.131.01 Victorious Indra, drive off all our foes, those who dwell in the east, and those who dwell in the west, (drive) off, O hero, those who dwell in the north, and those who dwell in the south, that we may rejoice in your exceeding felicity.

10.131.02 As the growers of barley often cut the barley, separating it in due order, so do you, (O Indra), bestow here and there nourishment upon those who have not neglected the performance of the sacrifice. [Barley: i.e., grain; cf. Yajus. 10.32; anupu_rvam viyu_ya: a metaphor that god should pick out his diligent worshippers one after the other, and bestow blessing on them in due order].

10.131.03 The cart has not arrived in due season, nor does he acquire fame in battles, (let us), the sages, desiring cattle, desiring horses, desiring food, (solicit) Indra, the showerer, for his friendship.

10.131.04 You, O As'vins, lords of light, having drunk the grateful (libation), jointly preserved Indra in battle against the Asura Namuci. [Yajus. 10.33].

10.131.05 Both the As'vins defended (you), Indra, like two fathers (defending) a son with glorious exploits; when (triumphing) through the deeds of valour, you drank the grateful

libation, Sarasvati_ approached you, O Maghavat. [Yajus. 10.34].

Alternative trans. of r.cas 10.31.4 and 5 (Hillebrandt, opcit. p. 321): When you, O lords of light, had drunk (the draught) prepared with Sura_ at Asura Namuci, you helped Indra with your deeds. As parents help the son, so did you, O As'vins, both help Indra with your wisdom and marvellous powers. When you drank skilfully (the draught) prepared with Sura_, O bountiful one, Sarasvati_ healed you.

10.131.06 May Indra, the protector, the possessor of great wealth, the all-knowing, be favourable (to us) with his protections; may he confound our enemies, may he make us free from fear, may we be the parents of excellent male offspring.

10.131.07 May we be ever in (the enjoyment of) the favour of that adorable divinity (retained) in his favourable thoughts, and may the protecting and opulent Indra drive away far off us those who hate us.

Apam!) eñ/nm̄ce/iz r? #M̄oadoAv̄tR> ,

ivñña/ydoAj̄ y/Sp&?!

8.014.13 You have struck off, Indra, the head of Namuci with the foam of the waters, when you had subdued all your enemies. [Namuci: legend from s'alya parvan, Maha_bha_rata: Indra after defeating the asuras was captured by Namuci. Namuci however, liberated him on the condition that he would not kill him with any weapon, dry or wet, nor by day or night. In evasion of his oath, Indra at twilight, or in a fog, decapitated Namuci with the foam of water; cf. Taittiri_ya Sam.hita_ 1.8.7].

iv ; Un&aj̄ ñua/dann̄! #Nv̄! Ahñ! gva? m" vn! s& tckañ> ,

AÇa? daSSy/nm̄ce/iz raeydoAv̄tRaññvegañm! #ÇDn! .

yju ñh mam! Akwa/Aadoe#N̄o/iz raedaSSy/nm̄ceonwayn!

AZmañ<ict! Sv̄y; vtñann̄! à ci³ ye/rad̄sI meñ (>?!

5.030.07 Maghavan, who are glorified by us, assailing with the thunderbolt the antagonist (of the gods), you have slain those who were ever hostile (to you) from your birth; desiring to do good to Manu, you have bruised the head of the slave Namuci. [Desiring to do good to Manu: manave ga_tum icchan:

ga_tum = sukham; identifying Manu with the r.s.i of the su_kta, Namucina apa_hr.tagodhana_ya mahyam, to me whose wealth of cattle has been carried off by Namuci, an asura].

5.030.08 Verily you have made me, Indra, your associate when grinding the head of the slave Namuci like a sounding and rolling cloud; and the heaven and earth (have been caused) by the Maruts (to revolve like a wheel). [Like a sounding and rolling cloud: as'ma_nam cit svaryam vartama_nam: the first two are rendered megham iva, like a cloud].

à Zyāen mīdr̥m! Až̥m! ASm̥iz̥raēdaš̥Sy/nm̥t̥eom̥way̥n! ,

āavn̥! nml? saPy̥s̥Ntm̥! p̥g! rayā sm! #/a s̥SviSt̥ .

6.020.06 And the hawk bore to Indra the exhilarating Soma, when, bruising the head of the oppressor Namuci, and protecting the slumbering Nami, the son of Sapyā, he provided, for the well-being (of the sage), riches and food.

Alloy of gold and silver

In the Babylonian Talmud (+2nd century), asemon is a commonly used word referring to bullion (gold, silver or mixed). Leiden X papyrus (ca. +3rd century) says: "no.8. It will be asem, (i.e. electrum, an alloy of gold and silver) which will deceive even the artisans (a tin-copper-gold-silver alloy); no.12. Falsification of gold (a zinc-copper-lead-gold alloy)..." (Needham, Joseph, 1971, *Science and Civilization in China*, Vol. 5, Part II, pp. 18-21). Asem denoted the natural alloy of silver and gold; it also meant any bright metal made with copper, tin, lead, zinc, arsenic and mercury. Twelve or thirteen different alloys were called asem. (ibid., p. 45). "The existence of this alloy (assem) may have been the original cause for the suggestion of transmutation since by adding silver to it, one would get a metal nearly identical with the crude silver from the mine; and by adding gold, something indistinguishable from gold. [The paucity of the Egyptian language may perhaps have been responsible for a confusion. Gold was the 'yellow metal', and the alloy produced was also a 'yellow metal'.]" (Hopkins, A.J., 1967, *Alchemy*, pp. 103-4).

Gypsy. sovnakay, somnakay = gold; Dardic son,surun = gold.

s'ulva = copper (Skt.); s'ulba su_tras are relatable to the Rules to process copper and other metals (often explained as the geometry of fire-altars). Arthas'a_stra that the a_kara-adhyaks.a (director of mines) should be versed in the sciences of s'ulba, dha_tu,rasa-pa_ka (sciences of copper/minerals, metalsand technology of smelting of ore). cf. S'atapatha Bra_hman.a (10.6.2.5-7): 'Well,when they perform with the hearth-spit (spit-bath -- s'ulvabhr.ta), that is his purificatory bath'.

soma man.al = vel.l.i man.al, sand containing silver ore (OTa.) ma_raka ve_tai = killing of metals (Ta.) vedhana (Skt.) ve_tai, ve_ta iyal = alchemy, rasa va_da; taricana ve_ti = a root capable of achieving transmutation (Ta.) vedi = fire altar (Skt.)

kaks.i_va_n dairghatamasa (aus'ija) or the bee taught As'vini_kuma_ra the mystic science

Soma, electrum

ma_ks.ika_ (copper pyrites), vimala (a pyrite), s'ila (rocks), capala (?sulphur-mineral), rasaka (calamine), sas'yaka (blue vitriol), darada (cinnabar) and sroton-jana (stibnite) -- these are the eight maha_-rasas. (*Rasa_rn.ava* 7.2-3).

%t Sya van! mx! mi] karpn! mdesamSyaEzj ae: vNyit ,

yu<d>xlcaemn/Aa iv!vasvae=wa/izr>/ait? van! AZVy?kvd! .

1.119.09 That honey-seeking bee also murmured your praise; the son of us'ij invokes you to the exhilaration of Soma; you conciliated the mind of Dadhyan~c, so that, provided with the head of a horse, he taught you (the mystic science).

uta sya_ va_m madhuman ma_ks.ika_rapan madey somasyausijo huvanyati

RV 1.119.9 To you, O As'vins, that 'fly' betrayed the Soma. [Note the pun on the word, ma_ks.ika_ meaning both 'bee' and 'pyrites or quartz'].

RV 1.80.16: Atharvan, Manus.pitr. and Dadhyan~c spread the dhi_. In RV 1.84.14 the head of Dadhyan~c is referred to: icchann as'vasya yac chirah parvates.v a_pas'ritamtad vidac charyan.a_vati, 'he looked for the head of the horse which was hidden in the mountains and found it in s'aryan.a_vat (lake).' TMBr. 12.8.6 calls Dadhyan~c an A_n:gi_rasa. The thunderbolt is fashioned from the bones of Dadhi_ci. (cf. MBh. 3.100: the hermitage of the R.s.i Dadhi_ca is located on the banks of the Sarasvati_).

ma_ks.ika_ are pyrites; hema ma_ks.ika_ and ta_ra ma_ks.ika_ denote gold and silver pyrites. *Rasaratna Samuccaya* 77,81, 89-90: ma_ks.ikam is born of mountains yielding gold...and is produced in the bed of the river Tapi and in the lands of the Kira_tas, the Chinese and the Yavanas... Ma_ks.ika_ repeatedly steeped in honey, oil of the seeds of *ricinus communis*, urine of the cow, clarified butter and the extract of the bulbous root of *musa sapientum* and gently roasted in a crucible, yields an essence of copper. (cf. *Rasa_rn.ava* 7.12-13 and Na_ga_rjuna's *Rasaratna_kara* 25-30 containing the same formula). The reference to cow's urine may explain ma_nus.i_r a_pah (piss on it) in RV 9.63.7, 'putting into movement the human waters'.

We will trace the intimations of working with electrum, while elaborating the processing of Soma in the R.gveda.

Bha_ratam Janam

R.gveda (r.ca by R.s.i Savya A_n:gi_rasa) refers to a battle involving 20 kings, involving A_yu, an ancestor of the Bharata; both the battles -- this battle and the battle of 10 kings involve Yadu-Turvas'a and Anu-Druhya occur in Northwest India and the region is clearly the Punjab, stretching from the River Parus.n.i to the River Yamuna_, from the Ocean to Kuruks.etra, a region described as the centre of the world or the best region of the earth: vara a_pr.thivya_h (RV 3.53.11). Ma_nus.a is a place (perhaps, a lake) in west of Kuruks.etra, where the Dasara_jn~a battle was fought (R.V 7.18.9; RV Khila 5.14.1; Jaimini_ya Bra_hman.a; cf. Avestan Manus.a). There is a lake named Manas in Taluk Manas, in Haryana, close to the River Sarasvati_. Similarly, S'a.ryan.a_vat is a pond in Western Kuruks.etra (JB)

"The association of the Bharadva_jas with the Pu_rus, with Divoda_sa, Sr.n~jaya and Br.bu leads us to the assumption that the Pu_rus or a part of them were settled not far away from the kingdom of Divoda_sa...in RV 7.8.4, a Vasis.t.ha proclaims the victory of the Bharatas over a Pu_ru. Hence, the Pu_rus must have extended their territories up to the Yamuna_ and Parus.n.i_, and seem to have spoken a different dialect than that of the Bharatas. In RV 7.18.13 they are called mr.dhrava_c, which means 'speaking a Barbarian language'...The events described in books 3 and 7 which take place mostly farther in the east on the Parus.n.i_, Yamuna_, Vipa_s and S'utudri_

Soma, electrum

make it improbable that the Sarasvati_ mentioned in RV 7.95,96 on the banks of which the Pu_rus dwelt, can still be identical with Arachotos. However exuberant the description might appear, there is no other possibility but to locate them on the small river in the Madhyades'a, which was considered sacred in later periods."

[Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp. 351-352].

%p/àæ? kiz kaz! cæykvñ! Añ?raÿeà mĀta sðas>? ,

raj a? v&çj ? ðent! àag! Apag! %dg! Awa? yj atævr/Aa p&Wya> .

y #ñerads! %/eAhm! #NŌm! Atāvm! ,

ivñaimçSy r] it/äüdm! -ar?ġj nñm! .

3.053.11 Approach, Kus'ikas, the steed of Suda_s; animate (him), and let him loose to (win) riches (for the raja); for the king (of the gods) has slain Vr.tra in the East, in the West, in the North, therefore let (Suda_s) worship him in the best (regions) of the earth.

3.053.12 I have made Indra glorified by these two, heaven and earth, and this prayer of Vis'va_mitra protects the race of Bharata. [Made Indra glorified: indram atus.t.avam-- the verb is the third preterite of the casual, I have caused to be praised; it may mean: I praise Indra, abiding between heaven and earth, i.e. in the firmament].

A reasonable hypothesis is to interpret the description of the battles as a prelude to the battle described later in the Great Epic, the Maha_bha_rata.

1.053.09 You, renowned Indra, overthrown by your not-to-be-overtaken chariot-wheel, the twenty kings of men, who had come against Sus'ravas unaided, and their sixty thousand and ninety-nine followers. [Perhaps, a reference to A_yus, son of Puru_rava_s].

1.053.10 You, Indra, have preserved Sus'ravas by your succour, Turvaya_n.a by your assistance; you have made Kutsa, Atithigva, and A_tu subject to the mighty though youthful Sus'ravas.

The crossing of the ocean and rivers is also mentioned in two identical r.cas (RV 6.20.12 and RV 1.174.9), a vivid recollection of the maritime and riverine paths traversed by the people:

Tv<xinfræNŌ/xinñtiroæ [æcæp> sra n övntl> ,

à yt! smŌm! Ait? zt/pi; Rpar'ya? tūR ſyĒ?SviSt .

Two interpretations, based on Sa_yan.a:

6.020.12 You, Indra, who make (your enemies) tremble, have caused the waters, detained by Dhuni, to flow like rushing rivers; so, hero, when, having crossed the ocean, you have reached the shore, you have brought over in safety Turvas'a and Yadu. [samudram atiparaps.i = samudram atikramya pratirn.o bhavasi = when you are crossed, having traversed the ocean, you have brought across Turvas'a and Yadu, both standing on the future shore, samudrapa_re tis.t.hantau apa_rayah].

1.174.09 You, Indra, are the terrifier (of your foes); you have made the trembling waters overspread (the earth) like flowing rivers; but, hero, when you fill the ocean you have protected in their well-being Turvas'a and Yadu. [Like flowing rivers: si_ra_h na sravanti_h: si_ra_ may be a certain river; or river, in general; you have protected: pa_raya_ turvas'am yadam svasti: pa_raya = apa_layah, you have protected; svasti = avina_s'am, without loss or detriment; pa_raya = bear across, convey over in safety].

The association of Pu_s.an and Sarasvati_ can be explained: both divinities are connected with paths: one is concerned with the paths from the Heavens and the other is a riverine path linking to maritime regions; thus both Pu_s.an and Sarasvati_ are purveyors of 'paths' for the civilization. Pu_s.an is a_ghr.in.i, 'glowing'; he is gopa_, the herdsman (RV10.17.3;139.1). Pu_s.an's golden ships move across the oceans, move in the air as he goes as an envoy of Su_rya. (RV 6.58.3: ya_s te pu_s.an na_vo anta_h samudre hiran.yayi_r antariks.e caranti ta_bhir ya_si du_tya_m su_ryasya ka_mena kr.ta s'rava icchama_nah). Pu_s.an is offered the karambha, a gruel made from barley (grown on the banks of the River Sarasvati_): ya enam a_dides'ati karambha_d iti pu_s.an.am na tena deva a_dise (RV 6.56.1; cf. RV 3.52.7). A male goat is also offered to Pu_s.an (RV 1.162.3-4); he protects the cows and horses and knows all the paths: pathas pati (RV 6.53.1; he grants pathya_ svasti: RV 10.59.7; 17.5). He had a beard (RV 10.26.7) and braided hair (RV 6.55.2); a goad (as.t.ra_, lance: RV 6.53.9) was placed in his hand; RV 1.42.6 adorns him with a golden axe (hiran.yava_s'i) and a dagger (a_ra_: RV 6.53.5 pari_tr.ndhi pan.i_na_m a_ra_ya hr.daya_; Amarakos'a notes (2.10.35) explains a_ra_: carma khan.d.ana_rthah s'astrabhedah) to pierce the heart of the enemies. "The worshippers of Pu_s.an lived in the vicinity of the Sarasvati_. Book VI takes us to the banks of the western Sarasvati_ and book VII, on the other hand, to the area of Kuruks.etra, to the holy Sarasvati_ of the middle country. There at the Arghandab in Arachosia, Vadhryas'va's son Divoda_sa fought against the Pan.is, Pa_ra_vatas and Br.saya, and the river of the country 'who consumed the Pan.is' (RV 6.61) stood by his side as a guardian deity. In the same book which thinks of the Pan.is with special hatred we see Pu_s.an 'who pierces the Pan.is' at the centre of the cult, and he is mentioned once in the Sarasvati_ hymn also (RV 6.61.6). Pu_s.an and Sarasvati_ occur side by side elsewhere too; RV 6.49.7 Sarasvati_; 8 Pu_s.an; RV 17.3-6 Pu_s.an; 7-9 Sarasvati_; 65.1 (Va_yuh) Pu_s.a_ Sarasvati_. Their association has been continued especially in liturgical texts. (TS 1.2.2; 6.1.2.2: sarsvatyai pu_s.n.e gnaye sva_ha_; TBr 2.5.3.3 pu_s.a_ no gobhir avasa_ sarasvati_). [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp. 209-211]. Sarasvati_ is associated with the ancestors and hence is extolled in the Yamasam.hita_ (RV 10.17.7: sarasvati_m devyanto havante sarasvati_m adhware ta_yama_ne sarasvati_m sukr.to ahvayanta sarasvati_da_s'us.e va_ryam da_t). In R.ca RV 10.17.8 the Manes, approaching the yajn~a in the south, invoke Sarasvati_ (sarasvati_m ya_m pitaro havante daks.in.a_ yajn~a_m abhinaks.ama_n.a_h). AV 7.68.2 is emphatic in associating Sarasvati_ with the pitr.s: (AV 14.2.20: adha_sarasvatyai na_ri pitr.bhyas' ca namas kuru).

The bearded man, Shu-ilishu and man of Meluhha: traders from Melukkha

We have the cylinder seal of a Sargonic official who served as translator for the Melukkha merchants who came to Agade from the Sarasvati-Sindhu Valley, perhaps bringing with them the tin of Melukkha, a commodity mentioned in one of the statue inscriptions of Gudea, ruler of Lagash. "That the language of Melukkha was unintelligible to an Akkadian or Sumerian speaker is clearly shown by the fact that, on his cylinder seal, the Akkadian functionary Shu-ilishu is identified as a "Melukkhan translator"...the word "Melukkha" appears occasionally as a personal name in cuneiform texts of the Old Akkadian and Ur III periods. "(Potts, D., 1995, *Distant Shores: Ancient Near Eastern Trade*, in: Jack M. Sasson (ed.), *Civilizations of the Ancient Near East*, Vol. I, pp. 1451-1463).



Akkadian seal (after Powell, p. 390: *The Bronze Age Civilization of Central Asia*, New York, 1980). The translator of the Meluhhan (Sindhu Sarasvati) language (EME.BAL.ME.LUH.HA.KI) is received by a person of high rank and sitting by his lap. Another Meluhhan sitting by three jars makes a greeting gesture. Two persons enter:

one carries an animal, the other a purse. British Museum tablet #79987 enumerates a 'man of Meluhha' named (...)ibra in a list of foes of Naram-Sin, King of Akkad, ca. 2250 BC.



Cylinder seal impression; Legend: Shu-ilishu, Meluhha interpreter. Louvre AO 22310 (De Clercq Coll.); greenstone; De Clercq and Menant, 1888, No. 83. Collon, 1987, Fig. 637.

Goat and sheep-rearing flourished in the mountains of Afghanistan, notes Hillebrandt. The reference to 'goats' in the context of Pu_s.an should not automatically link Sarasvati_ with Arachosia, Afghanistan. Faunal remains of goats and sheep have been found in the region close to Parus.n.i_, in NW India, Rajasthan. It may not be necessary to postulate two Sarasvati_s to explain the contextual references in Book VI and Book VII. The rationale for identifying Haraqvaiti (arachotos) as the earlier, western Sarasvati_, is based on flimsy grounds of rearing of sheep in Afghanistan. It would appear that sheep were reared in NW India, Rajasthan as well. Close to Parus.n.i_, in the Markanda valley, a lot of faunal remains, dated as early as to the Pleistocene period, have been recovered from the Upper Siwaliks in general and the neighbouring areas in particular. Mention has been made of frequent occurrence, about 2.48 million years ago, of *stegodon insignis ganesa*, *archidiskodon planifrons*, *elephas hysudricus*, *equus hysudricus*, *equus sivalensis*, *rhinoceros sivalensis*, *R. palaeoindicus*, *Sus spp.*, *camelus sivalensis*, *cervus spp.*, *colossochelys atlas*, *geoclemys sivalensis*, *crocodylus spp.* and a host of other new forms (Badam, G.L., *Pleistocene Fauna of India*, Pune, Deccan College; SN Rajaguru and GL Badam, Late Quaternary Geomorphology of the Markanda Valley, Himachal Pradesh, in: BP Radhakrishna and SS Merh, eds., *Vedic Sarasvati*, 1999, Bangalore, Geological Society of India, p.149). An alternative view is that the word Haraqvaiti or harahvaiti itself travelled from India to Afghanistan, with the linguistic change of s'a, sa and s.a to ha, 'as we proceed from the traditional region of Madhya Des'a towards the west. To take only a couple of instances even now Sa_dhu is pronounced Hau, S'ivaji as Hibji, Sukhdeva as Hukhdeva, Das'a as Daha and Sa_huka_ra to Hauka_ra in dialects of Marwar...The same process operated in the evolution of S'aryana_a_ in the R.gveda later to Harya_n.a...The consistent operation of this linguistic process of the replacement of sibilants by 'ha' thus justifies the conclusion that the name Sarasvati_ also logically underwent the same process in the westward journey and became Haraqvaiti or Harahvaiti in Arachosia.' (OP Bharadvaj, *Studies in Historical Geography of Ancient India* Delhi, 1986, pp. 176-191; cf. *Vedic Index*, II, 364). The place name spelt as

Taus.a_yan.a by Pa_n.ini change to Tohana at some later stage.(VS Agarwal, 1974,*India as known to Pa_n.ini*, 2nd edn., Varanasi, p.74).So, too the changes from asura to ahura (Isaac Taylor, 1980,*The Origin of Aryans*, Repr. Delhi, pp. 184-186) and Sindhu to old Persian Hindu (VS Agarwal,*Bharata ki maulika ekata_* (Hindi), Allahabad, p. 30f.; Tola Fernando and Dragonetti Carmen, 1986, *India and Greece before Alexander* *ABORI*, vol. LXVII,pts. i-iv,pp.159-194). The strongest evidence for themigration westwards is the nameof the Croatians who are a people mentioned in the Behistun inscription as Hravait, a derivative from Sarasvat--Haraqvait--Harahvait-kravat-croat region. Croats are Sarasvats!

r.s.ibhiih sambhr.to rasah (RV 9.67.31): 'liquefied (Soma) or essence of (Veda)'

collected by the sages: [see use of -bhr.ta in: s'ulvabhr.ta, that is his purificatory spit-bath'; bhr.ta in sam.bhr.ta = one whose body is well-nourished or fed (TBr.); the usage in metallurgy is in reference to the accumulation of requisite materials]

y> paṽmañiroAxyey! \ i; 1->/sM- &Arsm! ,

sv/s pṽm! Aṽ ait Svidṅm! matirñha .

9.067.31 He who reads the hymns to Pavama_na, the essence (of the Veda) collected by the r.s.is, enjoys all (his food) purified, sweetened by Ma_taris'van.[Ma_taris'van = Va_yu, because it breathes in the atmosphere, antariks.e s'vasiti; the food is sweetened and purified by the purifying wind and the man eats it].

There is a reference to 'pan~ca jana' or 'pan~ca kr.s.t.i' (lit. five furrows) in the R.gveda. This indicates that agricultural practices of the 'five peoples' differentiated the five groups: Anu, Druhyu, Puru (and successors, Bharata), Yadu (Yaks.u),Turvas'a. [In Avestan tradition, the seven groups recognized are called: karevars, a reference again, to the 'working classes', smiths.]Note: The Old Tamil tradition divides the peoples into five artisan classes: otl kammALan2 kammALan2 smith, mechanic, artisan, of five castes.Also, kaNNALan2 kaNNALan2 means a smith, an artisan.

7.095.01 This Sarasvati_, firm as a city made of metal, flows rapidly with all sustaining water, sweeping away in its might all other waters, as a charioteer (clears the road). [Firm as a city: dharun.am a_yasi pu_h =ayasa nirmita puri_va; dharun.am = dharun.a, dha_rayitri_, supporter; here, Sindhu is interpreted as 'stream', a simple meaning]. The reference to a_yasi_ pu_h, cities of metal is significant, in the context of the archaeological finds from over two thousand sites, along the rivers Sarasvati_ and Sindhu.

Bhalanadana is the first king among Vais'a_laka kings (Va_yu P. 86.17,22); bhala_na are mentioned in the RV; Brahma_n.d.a P. refers to them as vais'yas (ii.32, 120-2) and thus, Vais'a_li (Bihar) may represent the sotheastern-most point of the R.gvedic people.

The north-western boundaries are indicated by the sequence of rivers mentioned in RV 10.75: tr.tsama_, susartu, rasa_ (a tributary of Sarasvati_ in the Himalayas?), s'vetya_, kubha_, gomati_, mehatnu, krumu. The limits seem to stretch from the Himalayas to the northern areas of the modern Sind. [Gairiks.ita-- RV 5.27 was a descendant in the Pu_ru lineage; the name is indicative of a link with a mountainous region, perhaps the Himalayas]. cf. RV 1.112.12; 5.43.9; 10.75.6 Zimmer, AL, 15-16; Macdonell and Keith, *Vedic Index*, II.209. Rasa_ may be a river on the Punjab side of the Hindu Kush. S'Br 12.6.1.41 notes that only Vasis.t.has, the priests of the Tr.tsu-Bharatas had the right to assume the duties of the Brahman; the linking of Tr.tsu and Bharata indicates the possible location of the River Tr.tsama_. Maruts march forth from the west towards the east, beyond Rasa_, Kubha_, Krumu, Sarayu_ (RV 5.53.9); Maruts are located close to the desert, close to the River

Sarasvati_ [cf. the Marusthali_ = the Great Indian Desert].

The major clans of sages and their possible locations are surmised:

			Last chiefs mentioned
Book 2	Gr.tsama_da	W/NW, Punjab	Divoda_sa
Book 3	Vis'va_mitra	Punjab, Sarasvati_ (later Kuruks.etra)	Suda_s
Book 4	Va_madeva	W/NW, Punjab	Trasadasyu, Divoda_sa
Book 5	Atri	W/NW, Punjab to Yamuna_	Tr.ks.i
Book 6	Bharadva_ja	W/NW, Punjab, Sarasvati_ to Gan:ga_	Tr.ks.i
Book 7	Vasis.t.ha	Sarasvati_, (Sindhu/Punjab to Yamuna_)	Suda_s
Book 8	Kan.va, A_n:girasa	W/NW, Sindhu/Suva_stu, Punjab	Tr.ks.i

[Source: Michael Witzel, 1995, R.gvedic history: poets, chieftains and polities, in: George Erdosy, ed., *The Indo-Aryans of Ancient South Asia*, Berlin, Walter de Gruyter &Co., p. 318]

The following text may be interpreted in reference to the movement of the people away from the River Sarasvati_ as the river started desiccating, a movement from west/northwest to east -- towards the Gan:ga_-Yamuna doab:BS'S 18.44: 397.9, pra_m: a_yuh pravavra_ja tasyaite kuru-pan~ca_la_h ka_s'i_ videha_ ity etad a_yavam pratyam ama_vasus tasyaite ga_ndha_rayas pars'avo rat.t.a_ ity etad a_ma_vasyam, 'Ayu went eastwards. His (people) are the Kuru-Pa_n~ca_la and the Ka_s'i-Videha. This is the a_yava (migration). (His other people) stayed at home in the West. His people are the Ga_ndha_ri_, Pars'u and Arat.t.a. This is the ama_vasva (group).' Similarly, some references in R.gveda can also be interpreted as the movement of people from Gan:ga_ to the northern reaches of the River Sarasvati_ which continued to receive the monsoon waters from the Siwalik ranges: 'Indra...carry Yadu and Turvas'a across' (RV 6.45.1), 'they have crossed the rivers' (RV 4.30.17), 'have gone through narrow passages' (RV 6.47.20-21).

In an article titled, "The Vedic corpus provides no evidence for the so-called Aryan invasion of India", Dr. Koenraad Elst notes Prof. Witzel's interpretation of a passage in Baudha_yana S'rautasu_tra (<http://sarasvati.simplenet.com/aryan/koenraad3.html>) as follows:

The reference here is to Urvashi's two children: A_yu and Ama_vasu and their wanderings. There is no implication, whatsoever, that the reference is to movements of people from INTO the Uttarakuru or Kuruks.etra or Brahmades'a areas.

7.033.06 The Bharatas, inferior (to their foes), were shorn (of their possessions), like the staves for driving cattle, (stripped of their leaves and branches); but Vasis.t.ha became their family priest, and the people of the Tr.tsus prospered. [People of the Tr.tsus: Tr.tsus are the same as the Bharatas. Sam.varan.a, the son of R.ks.a, the fourth in descent from Bharata, the son of Dus.yanta, was driven from his kingdom by the Pa_n~ca_las, and obliged to take refuge with his tribe among the thickets on the Sindhu until Vasis.t.ha came to them and consented to be the ra_ja_'s purohit, when they recovered their territory. Suda_s was an Aila king of North Pa_n~ca_la (hence,

Ila_vr.ta vars.a); the tradition indicates that the Ailas came from the sacred mid-Himalayan region (Uttarakuru) into the Va_hlika_ country in the Punjab. Puru_ravas was succeeded by A_yu at Pratis.t.ha_na (Allahabad) and another son Ama_vasu founded a kingdom with capital at Ka_nyakubja (Kannauj). A_yu was succeeded by Nahus.a, whose son was Yaya_ti. Yaya_ti had five sons: Yadu, Turvasu, Druhyu, Anu and Puru.].

8.010.05 Whether, As'vins, you abide today in the west, whether opulent in food, you abide in the east, whether you sojourn with Druhyu, Anu, Turvas'u or Yadu, I invoke you, therefore, come to me.

Anu live on the Parus.n.i_ (i.e., Ira_vati_ or River Ravi):8.074.15 Verily I address you, O great river Parus.n.i, O waters, there is no mortal who gives horses more liberally than this most mighty (monarch). [The R.s.i is Gopavana A_treya]. The Epics refer to Druhyu in Gandha_ra; Turvas'a are close to the Pa_n~ca_las (S'Br. 13.5.4.16); Yadu, on the banks of the Yamuna (chief Bheda) are identified with Yaks.u (cf. Schmidt, 1980)].

7.018.14 The warriors of the Anus and Druhyus, intending (to carry off the) cattle, (hostile) to the pious (Suda_sa) perished to the number of sixty-six thousand six hundred and sixty; such are all the glorious acts of Indra. [Sixty-thousand: s.as.t.ih s'ata s'at. sahasra s.as.t.ir adhi s'at. = sixty hundreds, six thousands, sixty, with six more; s'ata_ni = thousands, sahasra_ni_tyartham].

7.018.19 The dwellers on the Yamuna and the Tr.tsus glorified Indra when he killed Bheda in battle; the Ajas, the S'igrus, the Yaks.as, offered him as a sacrifice the heads of the horses (killed in the combat).

The battle of ten kings --the dasara_jn~a battle -- is elaborated in the following r.cas; the key event is the crossing of the River Parus.n.i (River Ravi), the banks of which were broken through by the the opposing Turvas'a, Yaks.u (Yadu), Bhr.gu and Druhyu, Paktha, Bhala_na, Alina, Vis.a_n.in, S'iva (S'ibi); Bharata, led by Suda_sa, settle along the River Sarasvati_ and claim the region around Kuruks.etra:

7.018.05 The adorable Indra made the well-known deep waters (of the Parus.n.i) fordable for Suda_sa, and converted the vehement awakening imprecation of the sacrificer into the calumnation of the rivers. [Converted the vehement: sardhantam s'imyum uchahasya s'a_pam sindhu_na_m akr.n.od as'asti_h = utsahma_na_m bodhma_na_m stotuh s'a_pam abhis'asti_h sindhu_na_m akarot, he made the exerting awakening curse of the praiser the imprecations of the rivers; vis'varu_podbhavam a_tmano abhis'a_pam, the imprecation on his (Indra) has its birth in vis'varu_pa].

7.018.06 Turvas'a, who was presiding (at solemn rites), diligent in sacrifice, (went to Suda_sa) for wealth; but like fishes restricted (to the element of water), the Bhrigus and Druhyus quickly assailed them; of these two everywhere going the friend (of Suda_sa, Indra) rescued his friend. [The legend: Indra saves one of the two, Suda_sa (and perhaps slays the other), turvas'am avadhi_t; matsyaso nis'itah, fishes limited to water; the people of the country Matsya were attacked by Turvas'a, tena matsyajananapada ba_dhitah; s'rus.t.im cakruh (applied to the Bhrigus) = as'upra_ptim cakruh; sukham turvas'asys cakruh-- making the Bhrigus and Druhyus the allies of Turvas'a].

7.018.07 Those who dress the oblation, those who pronounce auspicious words, those who abstain from penance, those who bear horns (in their hands), those who bestow happiness (on the world by sacrifice), glorify that Indra, who recovered the cattle of the Arya from the plunderers, who slew the enemies in battle. [Those who dress:

Denominations of the persons assisting at religious rites are: 1. paktha_sah, havis.am pa_cakah, cooks of the butter offered in oblation; 2. bhala_nasah, bhadra va_cinah, speakers of that which is lucky; 3. alina_sah, tapobhir apravr.ddhah, not eminent by austerities; 4. vis.a_n.inah, having black horns in their hands for the purpose of scratching kan.d.uyana_rtham, the same as di_ks.itah, having undergone the preliminary purification called di_ks.a; 5. s'iva_sah, ya_ga_dina_sarvasya lokasya s'ivakarah, the makers happy of all people by sacrifice and the like].

7.018.08 The evil-disposed and stupid (enemies of Suda_sa), crossing the humble Parus.n.i river, have broken down its banks; but he by his greatness pervades the earth, and Kavi, the son of Ca_yamana, like a falling victim, sleeps (in death). [Sleeps in death: killed Suda_sa].

7.018.09 The waters followed their regular course to the Parus.n.i, nor (wandered) beyond it; the quick courser (of the king) came to the accessible places, and Indra made the idly-talking enemies, with their numerous progeny, subject among men (to Suda_sa). [Indra is said to have repaired the banks of the river so that the waters -- iyur artham na nyartham-- went to their object, that is, their former bed, not below or beyond it; the enemies Amitra_n are called vadriva_cah or jalpaka_n].

7.018.10 They who ride on particoloured cattle, (the Maruts), despatched by Pr.s.n.i and recalling the engagement made by them with their friend (Indra), came like cattle from the pasturage, when left without a herdsman; the exulting Niyut steeds brought them quickly (against the foe).

The r.s.i Nabha_ka Ka_n.va lived at the confluence of the seven rivers:

tm! ^/; usmna igrā ipitā a<c/mNmī-> ,
na/aKSy/āzīSti-roy> isNxbam! %paḍyesṶSvṣa/s
mKymāen - Ntam! ANykesme.

8.041.02 (I praise) with a like praise, with the praises of (my) progenitors, with the eulogies of Nabha_ka, that Varun.a who rises up in the vicinity of the rivers, and in the midst (of them) has seven sisters; may all our adversaries perish. [sindhu_na_m upoday saptasvasa_sa madhyamah: cf. Ya_ska 10.5].

Medha_titi Ka_n.va refers to 'five peoples', pan~ca jana_:

#ḥ itō> praḥt? #ḥ pĀ/j naAit? ,
xēa? #Nōavčakz t! .

8.032.22 Indra, who has beheld our praises, proceed in three directions from a distance, pass beyond the five orders of beings. [Three directions: i.e., coming to us from in front, from behind and from the side].

Dadhikra_ spreads his force over the 'five furrows, or five (working) classes', pan~ca kr.s.t.i_:

Aa dīxṛaḥ z vṣa/pā? kōl> sūr#v/Jyāt? apṣ! t?tan ,

shōṣa z tṣa vaḍy! AvaRṣ - /mXva/sm! #na vcaḥs .

4.038.10 Dadhikra_ has spread abroad the five classes of beings by his strength, as the sun (diffuses) the waters by his radiance; may he, the giver of hundreds and thousands, associate these praises with agreeable (rewards).

Sr.n~jaya was the king of the North Pa_n~ca_la; RV 4.15.4 notes that a Sr.n~jaya Daivava_ta is a fire-altar kindler:

Ay<y> sāyepredEvat esimXytè,

* māAimÇDM - ḥ> .

4.015.04 Radiant as this Agni, the subduer of foes, who is kindled on the (altar) of the cast as (he was kindled) for Sr.n~jaya, the son of Devava_ta. [Sr.n~jayas are a people in the west of India: Vis.n.upura_n.a].

1.081.03 When battles arise, wealth devolves on the victor; yoke your horses, humblers of the pride (of the foe), that you may destroy one and enrich another; place us, Indra, in affluence. [Gotama, the son of Ra_hu_gan.a, was the purohita of the kuru and sr.n~jaya princes, and, in an engagement with other kings, propitiated Indra by this hymn, who, in consequence, gave the victory to the former. kam (whom) is explained by kan~cit (anyone, someone), i.e., Indra gives the victory to whomsoever he is pleased with].

RV 6.61.1-3 refer to the action on the banks of the River Sarasvati_:

iyham adada_t rabhasam r.n.acyutam divoda_sam vadhyas'va_ya da_s'us.e ya_s'as'vantam
a_cakha_da_vasam pan.im ta_te da_tra_n.i tavis.a_sarasvati_

iyham s'us.mebhir bisakha_iva_rujat sa_nu giri_n.a_m tavis.ebhir u_rmibhih pa_ra_vataghi_m avase
suvr.ktibhih sarasvati_m a_viva_sema dhi_tibhih

sarasvati devanido ni barhaya praja_m vis'vasya br.sayasya ma_yinah uta ks.itibhyo vani_r avindo vis.am
ebhyo asravo va_jini_vati

To the pious Vadhyas'va she gave the impetuous Divoda_sa, who redeems all debts. These mighty gifts come from you, O Sarasvati_, who consumed the obstinate, intractable Pan.i.

Like one digging for roots, she violently broke through the ridge of the mountains with her mighty waves. With hymns and thoughts, let us invite the help of Sarasvati_, who slew the Pa_ra_vatas.

Sarasvati_, cast you down the enemies of the gods, the progeny of every sly Br.saya. O you rich in

Soma, electrum

horses, you gave the streams back to our abodes and made poison flow towards them.

Translation based on Sa_yan.a:

6.061.01 She gave to the donor of the oblations, Vadhyas'va, a son Divoda_sa endowed with speed, and acquitting the debt (due to gods and progenitors), she who destroyed the churlis niggard, (thinking) only of himself, such are your bounties, Sarasvati_. (Divoda_sa: Vis.n.u Pura_n.a makes the father of Divoda_sa, Bahvas'va but this is a representation of the nameBandhyas'va; the churlish niggard: Pan.i is the obvious reference].

6.061.02 With impetuous and mighty waves she breaks down the precipices of the mountains, like a digger for the lotus fibres; we adore for our protection, the praises and with sacred rites, Sarasvati_ the underminer of both her banks. [With impetuous and mighty waters: the firs r.ca addresses Sarasvati_ as a goddess; in this r.ca, she is praised as a river; in this entire su_kta, this alternative attribution is apparent; like a digger for the lotus-fibres: bisa-kha_iva bisam khanati, who digs the bisa, the long fibres of the stem of the lotus, in delving for which he breaks down the banks of the pond].

6.061.03 Destroy, Sarasvati_, the revilers of the gods, the offspring of the universal deluder, Br.saya; giver of sustenance, you have acquired for men the lands (seized by the asuras), and have showered water upon them. [Br.saya: Br.saya is a name of Tvas.t.a_, whose son was Vr.tra; Sa_yan.a, provides a legend in his introduction to the Black Taittiri_a Yajus., to illustrate the importance of correctly accentuating the words of the Veda: Indra, had killed a son of Tvas.t.a_, named Vis'varu_pa, in consequence of which there was enmity between them. Upon the occasion of a Soma sacrifice celebrated by Tvas.t.a_, he omitted to include Indra in his invitation to the gods. Indra, however, came an uninvited guest, and by force took a part of the Soma libation. With the remainder Tvas.t.a_ performed a sacrifice for the birth of an individual who should avenge his quarrel and destroy his adversary, directing the priest to pray, now let a man be born and prosper, the killer of Indra. In uttering the mantra, however, the officiating priest made a mistake in the accentuation of the term indragha_taka, slayer of Indra, in which sense as a tatpurus.a compound, the acute accent should have been placed upon the last syllable. Instead of this, the reciter of the mantra placed the accent upon the first syllable, whereby the compound became a bahuvri_hi epithet, signifying one of whom Indra is the slayer. Consequently, when by virtue of the rite, Vr.tra was produced, he was fore-doomed by the wrong accentuation to be put to death by Indra instead of becoming the destroyer. You have acquired for men: ks.itibhyo avani_ravindo vis.am abhyo asravah = you have shed poison upon them, or destroyed them].

The references are to the banks of the River Sarasvati_, to Divoda_sa, son of Vadhyas'va, Pan.i, Para_vata and Br.saya. Br.saya is referred to in RV 1.93.4, agni_s.oma_ceti tad vi_ryam va_m yad amus.n.i_tam avasam pan.im ga_hava_tiratam br.sayasya s'eso, 'O Agni-Soma, your prowess manifested itself as you robbed the intractable Pan.i of his cattle; you overpowered the progeny of Br.saya'. The indication is that Br.saya is a Pan.i.

Sa_yan.a: RV 1.093.04 Agni and Soma, that prowess of yours, by which you have carried off the cows that were the food of Pan.i, is (well) known to us; you have slain the offspring of Br.sya and you have obtained the luminary (the sun), for the benefit of the many. [Br.sayasya s'es.a = Br.saya's a_patya, offspring (Nirukta, 3.2); Br.saya = Tvas.t.a_, an asura. The offspring of Tvas.t.a_ is Vr.tra. The agency of Agni and Soma in his death is explained by identifying them with the two vital airs, pra_n.a and apa_na, the separation of which from Vr.tra was the possible cause of his death (Taittiri_ya Sam.hita_ 2.5.2.4). By the destruction of Vr.tra, the enveloping cloud or gathered darkness, the sun was enabled to appear in the sky].

Soma, electrum

If Br.saya was a Pan.i, the following r.ca explains how the wandering merchants move to far off lands, crossing the Rasa_, the north-western portions of the River Sarasvati_, into the Gandha_ra region.

10.108.01 (The Pan.is). With what intention has Sarama_ come to this place? Verily the way is long and difficult to be traversed by the persevering. What is the motive of your coming to us? What sort of wandering was yours? How have you crossed the waters of the Rasa_? [Legend: The cows of Br.haspati had been stolen by the Pan.is, the followers of the Asura Vala. At Br.haspati's instance, Indra sent Sarama_ in search of the cattle. She having crossed a large river arrived at Vala's stronghold and discovered the cattle. The Pan.is trying to make friends with her, the dialogue contained in this su_kta then ensued. rasa_: the river of the firmament].

RIGVEDA: REFERENCES TO METALSMITHY

Asuras: Varun.a, Mithra, Vr.tra, Vala and Vis'varu_pa

We have noted that an asura Namuci connoted 'white lead'. We will explore other intimations related to 'metallurgy' in the delineation of 'asura' in the R.gveda, in particular and the Vedic texts, in general.

Varun.a praha_sa: release from the fetters of Varun.a

TBr I.7.2.6 declares: 'When the law is violated Varun.a seizes'. (He is dharmapati and satyadharman: (TS I.8.10.1; TBr I.7.10.3). A_pS'S XIII.19.1-14 describes the process of the sacrificial bath: "1.He lets the rites of the concluding bath take place. 2.He prepares the bundle of Veda, encloses the fires (with grass) and begins the rite with the washing of his hands. Arrangement of the vessels according to the need...[Note the use of the term, Veda, connoting grass; this could as well indicate the etymology of the word Veda for the yajn~a; a platform strewn with Veda, grass]...4. He prepares the a_jyas that have been taken four times and also the Varun.a-Purod.a_s'a and deposits them (silently) on the northern am.s'a...7.With the verse (RV 1.24.14) 'we deprecate your anger, O Varun.a, with obeisances, with sacrifices and with the offerings of the havis...', the sacrificer throws the black skin away into the pit. [Note the association of the black skin with Varun.a]...The Su_tra continues further in XIII.2.5: "With the formula 'from the darkness we look upward to the higher light,' they worship the sun; with 'Varun.a's fetter is warded off' they push back the water on the bank (with their feet). (cf. A_pS'S VIII.8.18)...

TBr III.9.3.15 describes the physical characteristics of Varun.a: varun.o vai jumbakah antata eva varun.a avayajate khalater viklidhasya s'uklasya pin:ga_ks.asya mu_rdhan~ juhota etad vai varun.asya ru_pam ru_pen.aiva varun.am avayajate (cf. S'Br XIII.3.6.5; TA_r I.2.3). Varun.a is a bald-headed, leprous, yellow-eyed man. (vikli_dha = leprous or dantura, 'with oversized teeth; S'S'S also adds the attributes: khan.d.a, cripple and ban.d.a, impotent). He is also hiran.yas'r.n:ga, i.e., gold-horned (TA_r X.1.47: hiran.yas'r.n:gam varun.am prapadye ti_rtham me dehi_ ya_citah).

Like Soma, Varun.a is purchased (S'S'S) for sahasren.a gava_m, thousand bulls/cows.

TS VI.1.11.1 notes: va_run.o vai kri_tah soma upanaddha; and TS VI.1.11.5,6 adds: varun.o va_es.a yajama_nam abhyati yat kri_tah soma upanaddhah. S'Br. III.3.4.25 cites a customs invoked in the Su_tras: sa yad a_ha varun.asya skambhasarjani_ stha iti varun.yo hy es.a etarhi_ bhavati yat somah kri_tah.(cf. MS III.7.8). The recurring theme is: kri_tah somah, the 'purchased Soma'.

The invoking of Varun.a is related to the release of the fetters of Varun.a: MS I.10.10 (150.10): yad

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varun.apragha_sair yajeta sarvya_mhaso ves.t.yai. (cf. S'Br. II.5.2.4: varun.apa_s'a_t pramun~catis_asya_nami_va_akilbis.a_h praja_h praja_yante tasma_d va_es.a etais' caturthe ma_si yajate; A_pS'S VIII.7.26 states: 'they step on the edge of the water with the formula, 'Varun.a's fetter is trampled'.)

A_pS'S specifies the rites after the conclusion (X.20.12-27) of the buying of the Soma.

Tying Varun.a's fetter

A_pS'S X.27.9 " 'You are Aditi's seat,' with this mantra the Adhvaryu spreads inside the cart a black skin with its neck to the east and the hair upwards and deposits the King (Soma) upon it with the words, 'be seated on Aditi's seat', wraps him in a cloth while saying, '[Varun.a] has spread the atmosphere in the trees' and ties a black skin in the front [at the door] with its neck upwards and the inner side to the outside, reciting thereby the verse addressed to the sun, 'they lead Ja_tavedas upwards'.

X.28.1: 'Now he touches the ends of the yoke as is done in the sacrifice to the new and full moon, lifts the cart up with the mantra, 'you belong to Varun.a,' props it with the words, 'may Varun.a prop you', fixes the yoke-pin with 'you are the prop of Varun.a', drives the draught animals towards [the cart] with the words, 'advance, you red ones who bear the yoke', puts the strap around saying 'you belong to Varun.a' and ties the halter (abhidha_ni_) with 'Varun.a's fetter is tied'.

2."Similarly he harnesses the ox on the north side.

3."Holding two green branches, the Subrahman.ya crawls between the poles: these are Pala_s'a or S'ami_ branches.

4."Now the Adhvaryu holds the cart and gives the order: 'for Kind Soma who has been bought and who is being carried forward recite, O Subrahman.ya, invoke the Subrahman.ya_."

The procession moves towards the vedi, while the Adhvaryus carry a chair made in a specific form (royal throne?) out of Udumbara wood.

A_pS'S X.29.9: "[After the arrival] he stops the cart in front of the Pra_gvam.s'a, the pole being towards the east or north, lifts [the cart] up in the same way as before, props it up, pulls out the yoke-pin with 'you are the prop of Varun.a', unties the strap with 'Varun.a's fetter is untied', removes the halter with 'Varun.a's fetter is removed'.

A_pS'S X.30.15: "he removes the cloth with the words, 'you belong to Varun.a, holds the King with the mantra, 'you are Varun.a who protects the ordinances,' takes him down while reciting the verse: 'Come down with uncurtailed wings to the subjects, longingly to the longing ones, amiably to the amiable, O king Soma' etc., and moves forward saying 'go along the wide atmosphere'.

X.31.1: "Carrying the throne, the Pratiprastha_tr. goes in front.

2. "With the verse 'your abodes' (RV 1.91.4) he enters the Pra_gvam.s'a through the eastern door, takes the throne behind the A_havani_ya towards the south while reciting 'you are the true seat of Varun.a', and installs it to the south of the A_havani_ya.

3. "He spreads a black skin on the throne just as it was spread earlier in the cart, and deposits the King upon it.

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- 4. "You are Varun.a who protects the ordinances'--thus he greets the king.
- 5: "You belong to Varun.a.' With this mantra (addressed to the cloth) he wraps him in the cloth.
- 6. "Salute thus the mighty Varun.a, the wise guardian of amr.ta. May he grant thre-fold protection. O Heaven and Earth, protect me in your lap (TBr. II.5.8.4). He should approach the King always with this verse.
- 7." 'Do not walk between Agni and the King!. Thus he directs."

When Soma is brought to the VEDI (after the pran.ayana, A_pS'S XI.17.10), a black skin is spread inside the southern cart in the same way as it is spread upon the throne and earlier in the cart, and the Soma is deposited upon this skin.

The role of the divinity, Varun.a emerges from these practices: Varun.a is the black skin and cloth in which Soma is wrapped, i.e. upanaddhasya somasya varun.o devata_.

TS 5.5.4; TBr 1.1.3.8; 2.1.4 narrate a legend. Agni stealthily moves upto the waters, the wives of Varun.a, to unite with them. His seed flowed forth and became gold.

A comparable procedure of wrapping-up is indicated in the rite of piling up Agni. The soil required for the ukha_ is wrapped up in a lotus leaf and black skin and the bundle is tied up with a string. (A_pS'S 16.3.4,7; S'Br 6.4.3.8). TS 5.1.5.3 notes: varun.o va_ agnir upanaddhah. Agni will be later kindled in the ukha_ through self-ignition. Soma and Agni are within Varun.a's fetters.

RV 10.124.5: nirma_ya_ u tye asura_ abhu_van tvam ca ma_ varun.a ka_maya_se r.tena ra_jann anr.tam vivin~can mama ra_s.t.rasya_dhipatyam e_hi

'The Asuras have become powerless, and you, O Varun.a, may favour me. Discerning between the right and wrong, O king, come for the overlordship of my kingdom.' Following this desire of Indra to win over Varun.a, the next verse tries to invite Soma. The reference to the Asuras may be to the pitr. asura or Father Asura. Varun.a is the son of Asura in RV 5.85.5; Agni is garbha a_surah (RV 3.29.11). Note that in the Avestan tradition, Mazda is the father of fire; puthro_ ahurahe mazda.

The 'wrapped-up Soma' in the black-skin/cloth and placed on the VEDI, is Varun.a. Varun.a has 'fettered' Soma and the release of the fetters, releases Soma, the waters.

Maitra_varun.au

#NŌaivé[a/ydo#hain? c? wóivñā? j aťain/- uñSy mJmna? ,
] mē imÇaevé[ÊvSyit? méiÑrō&C > zum! AMy \$y te.

7.082.05 Indra and Varun.a, inasmuch as you have created by your might all these beings of the world, therefore Mitra worships Varun.a for prosperity, while the other, the fierce Indra, associated with the Maruts, acquires glory. [Therefore Mitra worships Varun.a: ks.emen.a mitro varun.am duvasyati marudbhir ugrah s'ubham anya i_yate: the last clause: along with the Maruts the powerful Indra sends down rain].

The meaning of the term, 'mitra', as 'friend' may be a later development. (Eggers, 1894, *Der*

arische Gott Mitra, Dorpat). Some attempt a derivation, *metlo = gmathi_, place of assembly or market; or, originally, coming together, appointment. (See note. 189, I, p. 303, Hillebrandt, opcit.)

"For Mitra a vessel is carved out of an As'vattha branch which grew towards the east or north and which fell off by itself. The vessel is placed upon the one meant for Br.haspati. Large undamaged grains of rice are chosen for the portion of caru meant for Mitra; small cast-off grains for Br.haspati. Fresh butter is produced in the following manner: one drives round and round on a war-chariot with a leather pouch filled with milk and thus lets the butter form by itself. [note 195, p. 304: This is a primitive method of extracting butter. Significant here is the 'self-originating' of the butter, 'self-breaking' of the twig; this obviously symbolizes Mitra svayambhu_]. This butter is thrown into the upper vessel, and also the lare grains which will then be cooked there...injunctions given by TS I.8.9.2 for this sacrifice: 'in the milk of a white cow with white calf (for Br.haspati), in the butter that curdled and formed into butter by itself (for Mitra); in a vessl with four corners made of As'vattha wood from a branch that has fallen off by itself. He should sort the husked and unhusked grains (karn.a and akarn.a, i.e., khand.ita and akhand.ita). The husked ones in milk are for Br.haspati, the unhusked in butter are for Mitra. The vedi is self-made (svayamkr.ta_, i.e., not artificially constructed), the barhis consists of grass that is self-cut (svayamdina), the fire wood is from branches that have fallen to the ground by themselves (svayamkr.ta), the above-mentioned cow with white calf is the daks.in.a_" (cf. TS V.6.11: maitra_ba_rhaspatya_dhu_mralala_ma_s tu_para_h). [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, II, p34].

The dual form is a contrast between Mitra and Varun.a, though complementary to each other, like the contrast between white and black, day and night. Varun.a is an asura; Varun.a and Mitra are called asura_ (RV 1.151.4; 7.36.2; 7.65.2; deva_na_m asura_ in RV 8.25.4); they are called asurya_ (RV 5.66.2; 7.65.1; 66.2; 8.25.3). The two asuras find a parallel in the Avestan Ahura-Mithra. Mithra is mentioned with Auramazda_ and Anahata in old-Persian cuneiform inscriptions. (Spiegel, *Die altpersischen Keilinschriften*, 2nd ed., p. 68). In Armenia, there was a shrine dedicated to him. (Gelzer, 'Zur armenischen Gotterlehre', *Sitzungsberichte der Ko_nigl. Sächsichen Gesellschaft der Wissenschaften* -- SBKSGW, XLVIII, 1896, p. 103).

The two divinities, Varun.a and Mitra are offered ghr.ta_huti, ghr.ta_nna, sarpira_suti. They also receive payasya_ (S'Br II.4.4.10 ff.; KS'S VIII.9.27; A_pS'S XI.5.12). S'Br IV.1.4.9 notes: tad yad eva_tara payah tan mitrasya soma eva varun.asya, whatever milk ther is belongs to Mitra, but the Soma to Varun.a. According to the Avestan tradition (Yasht X.86), Mithra is the protector of the cow, 'the cow driven astray invokes him for help, longing for its pastures'.

Vr.tra

In Vr.tra, Darmesteter notes the concordance between Avestan verethra and Vedic Vr.tra, the latter an ancient name of the cloud which encloses the light or the cows and defines Vr.tra as 'the enveloper who shuts them (thelight and the waters) up in his cloud-cavern' *Ormazd et Ahriman*, pp.97, 367). In RV 3.33.6, he is called the paridhi, the enclosure of the rivers. Vr.tra has a mysterious hiding-place (nin.ya) from which the waters are delivered by Indra, after splitting the bosom of the mountains (parvata). [Note the reference to mountains or forts or fortified dwellings and caves, an apparent reference to the mountains from which the Soma ore is collected]. Referring to RV 1.32.2,11, Hopkins notes: "for the oft-mentioned act of cleaving the cave, where the dragon Vala or Vr.tra (the restrainer or enveloper) had coralled the kine (i.e. without metaphor, for the act of freeing the clouds and letting loose the rain)" (*The Religions of India*, p. 20,n.3)

Vr.tra hides the cows and rays of the morning in his stable. Sarama_ discovers the dark stables of Vr.tra and the Pan.is. (Max Mueller, *Chips from a German Workshop*, 2nd. ed., IV, pp. 249 and

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incorporation of ayas, metal or copper in the attribute of the name].

Gods help Indra in overcoming Vala to release the cows (go) and open the stable (RV 1.11.5). Cows are interpreted as 'rain-clouds' shut in the rock by Vr.tra. A basis for the metaphor can be that the 'go' represents 'wealth' represented by Soma, electrum. The setting-free of the cows represents the return of the light, the red cows of the Us.as. (Note: *ausom-, gold). Sa_yan.a explains Vala as a cloud, as an Asura connected with parvata (RV 10.68.5,9); Ya_ska 6.2 and Mahi_dhara 20.68 also equate Vala with megha.

Vis'varu_pa

S'Br 1.6.3.1 ff. has a legend (cf. Hillebrandt, opcit., II, p.240ff.):

"Tvas.t.r. had a son with three heads and six eyes. This one had three mouths. Because he was shaped thus his name was 'All-shaped' (vis'varu_pa). One mouth served for drinking the Soma, one for drinking the Sura_ and the third for other kinds of food. Indra hated him and cut off his heads. From the one with which he drank the Soma a hazel-cock sprang forth; that is why it is reddish brown, for King Soma is reddish brown. From that with which he drank the Sura_, a sparrow emerged. Hence it speaks like a besotted person because one who has drunk the Sura_ speaks like a besotted one. From that which served him for other kinds of food a partridge arose. Hence it is entirely variegated in colour. Tvas.t.r. was furious. 'Has he then really killed my son?' He brought the Soma without Indra. Just as this Soma was pressed (without Indra) so it remained without Indra." The legend goes on to state that Indra seized the Soma by force and vomitted it as a punishment for this (RV 5.5.4.2). Tvas.t.r. denotes his son in three passages of the R.gveda: RV 10.8.8 (tris'i_rs.an saptaras'mi -- seven-tongued), 10.76.3 and 2.11.19. Nara_s'am.sa is also called tris'i_rs.an and s.ad.aks.a in MS 4.13.8: devo nara_s'am.sas tris'i_rs.a_ s.ad.aks.ah s'atam id enam s'itipr.s.t.ha_ a_dadhati. TS 2.5.1.1 ff. notes that Vis'varu_pa is the Purohita of the gods: vis'varu_po vai tva_s.t.rah purohito deva_na_m a_sit svasriyo sura_n.a_m. By killing Vis'varu_pa, Indra becomes guilty of brahmin-slaughter.

[Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, II, pp. 2-47].

taks.a, tvas.t.r., r.bhu

Tvas.t.r. is the master craftsman of the gods. The tr.ca RV 7.34.20-22 is dedicated to him. He is mentioned in RV 8.26.21,22; 102.8 and RV 9.5.8; 81.4. The word is derived from tvaks. = taks. using the play on words tvas.t.a_ tataksa. [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, II, pp. 233 ff.]. Vis'varu_pa is the son of Tvas.t.r. Tvas.t.r. causes Br.haspati to be born from all beings, from every seed. (cf. Hillebrandt, II, p.238).

Αἰὶὸ (ἄεϋxRēcaétoAasuj ūanam! ^XvR Svyz a %pSwē,

%/eTvòbob_yttoj aymanat!àtlçl iskm!àit?j aeyēe.

1.095.05 Appearing amongst them (the waters), the bright-shining (Agni) increases, rising above the flanks of the waving waters, spreading his own renown; both (heaven and earth) are alarmed, as the radiant Agni is born, and, approaching the lion, they pay him honour. [above the flanks of the waving waters: jihma_na_m apa_m upasthe, above, on the side, or tip, of the crooked waters; reference to Agni as the lightning; approaching the lion: sim.ha applied to Agni, implying sahanas'i_lam, abhibha_vana

s'i_lam, ability to suffer or be overcome]. [Alt. Hillebrandt (II, p.238): Visible, the lovely one grows in these (waters), rising up with full splendour in the lap of the recumbent ones. Both (heaven and earth) were frightened of (the son of) Tvas.t.r when he was born; turning to him, they fondled the lion...It is obvious that Agni 'who rises up in the lap of the recumbent ones' and who grows in the waters is none else than the Yuva_ kavir gos.u, apsu drapso va_vr.dha_nah, 'the one eye which the rivers cause to grow', i.e. the young waxing moon and that he is a mythological parallel to Apa_m napa_t. In two more passages Tvas.t.r is said to be the father of Agni. (RV 10.46.9; 2.7).

Tvòā? mayā vā Ap sām! Ap Stmātibāē! paÇā? de pānaṁ/z & t tma

,

iz z l't enbm! p r z s va y s < ya? v & ad o t z a e ä ü [š! pit >? .

10.053.09 Tvas.t.a_ knows the arts of fabricating (drinking vessels), the most skilful of artificers bearing the sacred drinking cups out of which the gods drink-- verily he sharpens his axe of good metal, wherewith the white-complexioned brahman.aspati cuts them.

[Alt. Hillebrandt (p. 234): Tvas.t.r knew the magic when he, most skilful of the skilful, brought the salutary bowls from which the gods drink. Now he sharpens the axle of metal with which the swift Brahman.aspati will carve.] Maybe this bowl is connected with the bowl made fourfold by the R.bhus, a bowl which is the object of battle between the R.bhus and Tvas.t.r, who wishes to kill the former because they find fault with his bowl. (RV 1.20.6; 110.3; 5; 161.4; 5; 4.33.5,6; the vas'a_ brought the Soma in three bowls: AV 10.10.2). RV 10.53.9 notes that the gods drink from Tvas.t.r's several vessels. AV 10.4.3-6 notes that Tvas.t.r carries a bowl full of Soma. The bowls of R.bhus are camasa_ vibhra_ jama_ na_ h (RV 4.33.6).

Tvas.t.r becomes envious of the achievements of the R.bhus and hides among the women. TS 6.5.8.4: deva_ vai tvas.t.a_ ram ajigha_ m. san sa patni_ h pra_ padyata tam na prati pra_ yacchan. (cf. RV 1.22.9; 2.1.5; 31.4; 6.50.13; 7.34.20; 1.64.10; MS 2.5.5. (54.14); 4.14.9 (228.1ff.); S'Br 1.9.2.10-11). Nes.t.r. belongs to the ritual of the Tvas.t.r and is mentioned in RV 1.15.3 in the place of Tvas.t.r. In the association with women, Tvas.t.r. is seen as the genius of fertility who bestows a pious and god-fearing son (VS 29.9 (TS 5.5.1.11); RV 2.3.9); he confers procreative power upon human beings (RV 1.142.10; MS 4.14.9 (228.12). RV 1.188.9 notes: tvas.t.a_ ru_ pa_ n. i prabhuh pasu_ n vis'va_ n sama_ naje, 'Tvas.t.r the mighty has indeed created the forms and all the animals. (cf. RV 3.55.79; 10.110.9; 184.1). He is indeed the master-craftsman of the gods: sukr.t, supa_ n. i, sugabhasti, svapas. (RV 1.85.9; 3.54.12; 6.49.9; 7.34.20). In RV 7.29.3, he carves Indra's vajra, sharpens Br.haspati's axe and himself wields a hatchet. (AV 12.3.3: tvas.t.reva ru_ pam sukr.(VS 29.9; AV 6.92.1) and bestows with his wives, speed upon the chariot (RV 2.31.4). He is identified with va_ c in ABr 2.4.13: va_ g vai tvas.t.a_ va_ g ghi_ dam sarvam ta_ s. t. i_ va.

cKva& ts? \ - vs! t do Ap & Dt / Kvd o A? - Uoy> Sy È taen / Aaj ḡn! ,

ydavaOyc! cmśa | ! c t u? k t an! A ad o t! T v o a / ŋ a S v! A M t r o y! A anj e

1.161.04 So doing R.bhus, you inquired: where, indeed, is he who came to us as a messenger? When Tvas.t.a_ observed the one ladle become four, he was immediately lost amongst the women. [gna_su antarnya_naje; the verb is explained: nyakto abhu_t; the combination of ni and anj is perhaps the converse of vyan~j, to be manifest, i.e. to be concealed, indistinct, or invisible. gna_ = stri_ (mena gna_ iti stri_n.a_m--Nirukta 3.21); str.yam a_tma_nam amanyata = he, Tvas.t.a_, fancied himself; woman, that is, he felt humbled, as feeble as a female].

Ai- va e Ac R o e y a v t a e n n! va S t a e! p i t A t v o a r A r a t > ,

x N y a? s j a e a? i x / [a / n m a e r o e n s p t l A a e x l r a y @ ; e .

5.041.08 I glorify you, leaders (of rites), cherishers (of many), gratifying (with oblation, you) Tvas.t.a_ the lord of foundations, and the goddess of speech, bestower of opulence, and share in the satisfaction (of the other divinities); also the lords of the forest, and the herbs, that I may obtain riches. [Alt. Hillebrandt (p.235): I implore you, O men who grant prosperity, and with rich gifts (I implore) the lord of the house, Tvas.t.r.]

d z e < T v o b e n y l t / g - R ! A t N o a s a e y u t y a e i v - R m ! ,

i t o m a n l k S v y z s j n e u i v r a e m a n n ! p i r ? ; I n y i n t .

1.095.02 The vigilant and youthful Ten beget, through the wind, this embryo Agni, inherent (in all beings), sharp-visaged, universally renowned, shining among men; him they conduct (to every dwelling). [Ten: the ten regions of space, which generate lightning, as an embryo in the clouds, using the winds: agner hi va_yuh ka_ran.am, va_yor agnih, wind is the cause of fire, fire of wind. Tvas.t.uh = wind or its agency: dipta_nmadhyama_d va_yoh sa_kas.a_t, the brilliant central proximity of wind. Ten: the ten fingers which generate Agni through the act of attrition as an embryo in the sticks. vibhr.tram = deposited in all creatures, i.e. inheret]. [Alt. Hillebrandt (p. 235): "(the) ten produced the infant of Tvas.t.r., the indefatigable maidens (produced the one who is) much distributed. They carry him around among men, him whose visage is sharp, who is full of fame and shining". The ten fingers of the householder produce the fire which is distributed in his abodes. Indra seizes the Soma drink in Tvas.t.r's house and the frightened Tvas.t.r flees away: RV 1.80.14; 3.48.4; 4.18.4 Su_rya's daughter cleanses the Parisrut for Indra, who enjoyed Soma in the house of Vis.n.u --the sun god-- also (RV 8.3.8; 12.16; 10.113.2).]

p e y t! t? # N o / s N T y! % K w a g v e c k w a R R i s u y k y n h ! ,

t t j e s y a R i c d o A a k i s / S v e v & a? s n t s u d a s S y / n a m ? i c t ! .

5.033.04 Inasmuch, Indra, as many praises are yours, therefore, combating for the

sake of (shedding) water on fertile (lands), you have effected (the discomfiture of its obstructors); you, who are the showerer (of benefits), have on behalf of the sun, destroyed in his own dwelling the very name of (the asura), Da_sa, in battle. [Hillebrandt (p.236): seeing a parallel to RV 3.48.4, tvas.t.a_ram indro janus.a_bhibhu_ya and RV 1.80.14, tvas.t.a_cid tava manyava indra vevijyate bhiya_, agrees with Ludwig's translation (Uber die Erwa_hnung von Sonnenfinstern.issen..., p.9): 'He with the strength of an ox caused the name of a Da_sa for Su_rya in the course of a battle even in his own house']. Tvas.t.r. gets the name of a Da_sa from Indra.

Tvas.t.r.'s cows are kept in the moon's house? Or is candramas a synonym of indu, i.e. Soma? i.e. Soma, in whose house the cows or 'wealth' is present.

AÇah/gaeoAmNvt/nam/TvòtoAplÇym! ,

#Twa cMÔm'saegle.

1.084.15 The (solar rays) found on this occasion the light of Tvas.t.a_ verily concealed in the mansion of the moving moon. [The text has only 'they found'; A_ditya-ras'mayah, rays of the sun is added. Tvas.t.a_ = the Sun, an A_ditya; also, identified with Indra, to whom the hymn is addressed. 'The rays of the sun are reflected back in the bright watery orb of the moon'; 'the solar radiance, concealed by the night, enters into the moon, and thus dispels darkness by night, as well as by day'. One ray of the sun (that named s'us.umna_ lights up the moon; therefore, moon's light is derived from the sun (Nirukta 2,6)(cf. Vis.n.u Pura_n.a 36)]. [Alt. Hillebrandt (II, p.237): 'in the moon's house indeed one knew the secret name of Tvas.t.r.'s cow'. The Tvas.t.r.'s cows are in the house of the moon and his son Vis'varu_pa guards these cows.]

Tvas.t.r.'s son has , in his custody, the cows and Tvas.t.r. possesses Madhu as well as Soma. Both Madhu and Soma connote celestial ambrosia, amr.ta. In RV 10.49.10 Indra boasts how he has understood better than Tvas.t.r how to deposit the Amr.ta in the cows. go, madhu and soma are cognate terms and denote ambrosia, notes Hillebrandt. (II, p.237).

Ah<tdoA'suxar/ydoA'sun dèz!cñ Tvòaxar/ydoéz't! ,

Spah; gvan! ^xSsuw] [ašv! Aa mxaxoxuñāËyksam! Aaiz rñ! .

10.049.10 I have kept up in them that which no deity, not even Tvas.t.a_, has maintained, bright, desirable, (contained) in the udders of the cows; in the rivers (I uphold) the water up to the (source of the) water, the delightful Soma and the milk and curds. [In them that: them, means the cows and that, means the milk; upto the source of the water: a_ madhoh]. [Alt. Hillebrandt (II,p.410): I preserved in them what no god, not even Tvas.t.r, preserved; the bright and the much-sought-after (milk) of the cows in the udders, in the teats, which is sweeter than honey (?), the tasteful Soma, the A_s'ir]

AaŵŵRayaiñna dxlŁe=ZVyÁizr>/àTy!@ÿytm! ,

s van!mxlā vaēdoā taxn!Tvaðēydod'ōav!Aipkūy<vam! .

1.117.22 You replaced, As'vins, with the head of a horse, (the head of) Dadhyan~c, the son of Atharvan, and, true to his promise, he revealed to you the mystic knowledge which he had learned from Tvas.t.a_, and which was as a ligature of the waist to you. [Tvas.t.a_ = Indra; the knowlege was kaks.yam. va_m = a girdle to you both; strengthening them to perform religious rites]. [Alt. Hillebrandt (p.236): To Atharvan's son Dadhyan~c you have attached, O As'vins, the horse's head. The pious (one) revealed to you Tvas.t.r.'s honey, O wonder-workers, which was hidden even to you.]

At the command of Indra, Trita kills Tvas.t.r.'s son and drives out the cows. (cf. RV 2.11.19):

s ipËya{y!Aay&ain ivŌan!#NŌē t AaŷyaeA/ŷ!Ayŷyt! ,

iÇzI/aRksŷrIzm<j "Mvan!Tvaðŷy?icn!in> sŷ&eiÇŷaega>.

- bldo#NŌ?%idn?]Ntñ!Aaē ae=ŷai-nŷ!sTpŷtrōaNyŷmanm! ,

Tvaðŷy?icdoivñēpSy/gaam!Aac³a[s!Çli[?zI/aRpra?vkōē

.

10.008.08 He, the son of the waters, incited by Indra, skilled in his paternal weapons, fought against (the enemy), and slew the seven-rayed, three-headed (asura); then Trita set free the cows of the son of Tvas.t.a_.

10.008.09 Indra, the protector of the virtuous, crushed the arrogant (foe), attaining vast strenth; shouting, he cut off the three heads of the multiform son of Tvas.t.a_ (the lord) of cattle. [Shouting: s'abdam kurvan; gona_m acakra_n.ah, appropriating the cattle]. [Alt. Hillebrandt (pp.II, 236-237): Well-versed in (the use of) the weapons of his father, Trita A_ptya, urged on by Indra, attacked him. Then Trita slew the three-headed and seven-rayed (enemy) and freed the cows of Tvas.t.r.'s son. Indra struck him down who attributed great strength to himself, the true lord (struck) him who considered himself to be such. He seized the cows of Vis'varu_pa son of Tvas.t.r and tore off his three heads. [Tvas.t.r.'s son is called goarn.as, 'rich in cows' in RV 10.76.3 goarn.asi tva_s.t.re as'vanirn.iji prem adhvares.v adhvara_n as'is'rayuh (as'vanirn.ij = adorned with horses); in RV 3.7.4: mahi tva_s.t.ram u_rjayanti_r ajuryam stabhu_yama_nam vahato vahanti vy angebhir didyuta_nah sadhastha eka_m iva rodasi_a_vives'a, 'the streams, growing mightily, carry forth Tvas.t.r.'s yothful son who is leaning heavily'. Should we add 'madhu' here?]

Va_yu is noted as Tvas.t.r.'s son-in-law:

tv!vayv! \ tSptēTvòboje amatroAÑt ,

Avašy! Aa v&Imhe.

Tvòboje amatr<vým! \$zah<ray \$mhe,

sđavNtaevayú* ċa j naš> .

8.026.21 We solicit your protection, Va_yu, lord of sacrifice wonderful son-in-law of Tvas.t.a_. [Tvas.t.a_: i.e. Brahma_; or, Va_yu, the wind, having taken water from A_ditya, fertilizes it, as rain, and is, therefore, as it were, his son-in-law, identifying Tvas.t.a_ with A_ditya (Yajus. 27.34)].

8.026.22 We, the offerers of Soma, solicit riches from the sovereign, the son-in-law of Tvas.t.a_; (may we become) wealthy. [Alt. Hillebrandt (II, p.237): Offering Soma, we invoke Tvas.t.r.'s son-in-law, the lord of riches, Va_yu. Va_yu and Tvas.t.r are mentioned side by side in RV. 10.65.10; AV 3.20.10; 6.141.1; 9..10; in MS 3.6.9 (73.6), Va_yu is the gopa_, Tvas.t.r. the adhipati and Pu_s.an the pratigrahi_tr.].

In the Rigveda, the lexeme taks.am is used to define composition or fashioning. apu_rvya_purustamanyasmai mahe vi_ra_ya tavase tura_ya; virips'ane vajrin.e s'antama_ni vaca_msya_sa_sthavira_ya taks.am (RV. VI.32.1): a seer has composed unprecedented, comprehensive and gratifying praises for the mighty Indra. agnaye brahma r.bhavastataks.uh (RV. X.80.7):the fashioning of hymns for agni is done by the r.bhus. Avestan tradition, Ahur Mazda_ is conceived as a carpenter who fashions the earth from wood and who fashions bodies and souls: ga_us'-tas'a_ : da_idi mo_i ya_gam ta'so_ apas ca urvaras ca: 'grant me thou -- who has created Mother Earth and the waters and the plants' (Yasna 51.7); hyat na_mazda_, paourvi_m ga_eoasca tas'o_dae_nasca_ : 'since for us, O Mazda, from the beginning Thou didst create Bodies and also Souls' (Yasna 31.11)(The Divine Songs of Zarathushtra, pp. 682-3, pp. 210-1). gaus = ga_v (Skt. gau). The phrase mahigauh in RV refers to the earth. Tas'a is from the root tas' (Skt. taks.) = to create, to fashion; to hew, to cut. The cognate lexemes are: technos (Greco-Roman), tas'yati (Lith.)

The gavam-ayanam is a sattra related to the turning of the earth which is related to the solstice or the apparent shift of sun's motion. Maha_vrata day is the last day but one of the year; it was, as Tilak observed, a link between the dying and the coming year. (Tilak, Arctic Home in the Vedas, p. 122).

gavam-ayanam is a sattra similar to a_ditya_na_m-ayanam and an:gi_rasa_m-ayanam. Aitareya Bra_hman.a (iv,17) notes: "They hold the gava_m-ayanam, that is, the sacrificial session called the 'cows' walk'. The cows are the a_dityas (Gods of the months). By holding the session called 'the cows' walk', they also hold the a_ditya_na_m-ayanam (the walk of the a_dityas)." The origin of the sattra is described as follows (Dr. Haug's trans. Vol. II, p. 207): "The cows being desirous of obtaining hoofs and horns held (once) a sacrificial session. In the tenth month (of their sacrifice) they obtained hoofs and horns. They said, we have obtained fulfillment of that wish, for which we underwent the initiation into the sacrificial rites. Let us rise (the sacrifice being finished). Those that rose are those who have horns. Of those who, however, sat (continued the session), saying 'Let us finish the year', the horns went off on account of their distrust. It is they who are hornless (tu_para_h). They (continuing their sacrificial session) produced vigour (u_rjam). Thence after (having been sacrificing for twelve months and) having secured all the seasons, they rose (again) at the end, for they had produced vigour (to reproduce horns, hoofs when decaying. Thus the cows made themselves beloved by all (the whole world), and are beautified (decorated) by

all."

The sememe taks. refers to the technical skill of fashioning metallic objects. r.bhus do great deeds and have dexterous hands (svapasah suhasta_h) and frame a chariot for the as'wins (RV.1.111.1; X.39.4), fashion the vigorous horses for Indra (RV. 1.20.2; 1.111.1; III.60.2) and divide the single camasa into four (RV. I.161.2). The r.bhus fabricate the ratha (chariot)(RV. 1.111.1; IV.33.8), fashion agni for manu's sacrifice: dya_tva_yamagnim pr.thive_janis.t.a_ma_pastvas.t.a_mr.gavo yam sahubhah, i_d.enyam prathamam ma_taris'va_deva_stataks.urmanave yajatram (RV. X.46.) ye as'vina_ye pirata_ya u_ti_dhenum tataks.urr.bhavo ye as'va_; ye amsatra_ya r.dhagrodasi_ye vibhvo narah svapatya_ni cakruh (RV. IV.34.9): r.bhus fashioned the chariots for as'vins, renovated their parents, restored the cow, fabricated the horses, made armor (am.satra) for the gods, separated earth and heaven and accomplished the acts of good results. Sa_yan.a explains the equivalence of tvaks. and taks. in re: RV. I.100.15: taks.u_tvaks.u_tanu_karan.e (to accomplish by reducing, scraping, cutting) in the context of the skills of carpentry, using tools. Taks.a is a professional like the bhis.ak (physician) and priest (Brahman): taks.a_ris.t.am rutam bhis.agabrahma_sunvantamicchati_ndra_yendo pari srava (RV. IX.112.1) The major wood-work included cutting of the sacrificial stake (yu_pa), fastening of the wooden ring (cas.a_la) on its top and fashioning of the wooden vessels: yu_pa vraska_uta ye yu_pava_ha_s'cas.a_lam ye as'vayu_pa_ya taks.ati; ye ca_rvate pacanam sambharantyuto tes.a_mabhigu_rtirna invatu (RV. I.62.6) Tvas.t.r. carved the vajra, the weapon wielded by Indra to sever the limbs of vr.ttra (RV. 1.32.2; 52.7; 61.6; 121.3; X.48.3; 99.1); it is a_yasam (metallic)(RV. X.48.3) atha tvas.t.a_te maha ugra vajram sahasrabhr.s.t.im vavr.tacchata_s'rim nika_mamaraman.asam yena navantamahi sam pin.agr.ji_s.in (RV. VI.17.10): fierce Indra, Tvas.t.r. constructed for thee, the mighty one, the thousand-edged, the hundred-angled thunderbolt, wherewith thou hast crushed the ambitious audacious loud-shouting ahi = vr.ttra. RV. I.85.9: tvas.t.a_yadvajram sukr.tam hiran.yayam sahasrabhr.s.t.am svapa_avartayat: refers to the shaping of the thunderbolt, vajra, by skilful (svapa_ = s'obhanakarma_); Sa_yan.a explains sukr.tam as samyak nis.pa_ditam or well made; hiran.yayam as suvarnamayam or golden; sahasrabhr.s.t.im as aneka_bhira_dha_ra_bhira_yuktam or 'of numerous edges'. Tvas.t.r. augments the strength of Indra by fashioning a vajra of overpowering vigour: tvas.t.a_citte yujyam va_vr.dhe s'avastataks.a vajramabhibh_tyojasam (RV. I.52.7)

The transition from the lithic age to the bronze age is apparent from the description of adze or va_s'i as either metallic or made of stone and used for shaping wooden vessels: va_s'i_bhira_as'manmayi_bhira (RV. X.101.10) Rigveda refers to smelter of metals (dhma_ta_: RV. V.9.5) and the smith (karma_ra: RV.X.72.2)[Schrader notes that the names of smiths in IE languages are often derived from the old Indo-Germanic names for stone of which the smiths' tools were originally made; e.g. hamarr (OHG); akmo_n (= anvil)(Gk.); as'man (=hammer, anvil, oven)(Skt.)

Tvas.t.r. is shown sharpening his metallic axe while fabricating the camasa bowl used for soma (apparently, the axe is used to fashion the bowl): s'isi_te nu_nam paras'um sva_yasam (RV. X.53.9) The camasa created by Tvas.t.r. is later divided into four parts by his disciples, the r.bhus: uta tyam camasam navam tvas.t.urdevasya nis.kr.tam (RV. I.20.6); akarta caturah punah (RV. IV.33.5-6)[Commenting on RV. I.20.6, Sa_yan.a says that r.bhus are the disciples of Tvas.t.r.: tvas.t.uh s'is.ya_r.bhavah. Elsewhere, Sa_yan.a refers to Tvas.t.r. as the preceptor of the r.bhus: r.bhavah tvas.t.a_yus.madguruh (RV. IV. 33.5)]

The reference to ratha is: ratham suvr.tam (RV. 1.111.1). Sa_yan.a interprets this as well-built or good-wheeled: s'obhanavartanam sucakram va_ The carpenters' tools are: svadhiti which is used to cut and trim the wooden post: ya_nvo nara devayanto nimimyrvanaspate sva_dhitirva_tataks.a (RV. III.8.6) va_s'i_ and paras'u are also creations of divine artificers: tvas.t.r. and r.bhus (RV. I.110.5; X.53.9-10) Vis.n.u prepares the womb and Tvas.t.r. adorns

the forms: vis.nuryonim kalpayatu tvas.t.a_ru_pa_n.i pim.s'atu (RV. X.184.1) svadhiti is used to create a well-made form (tvas.t.reva ru_pam sukr.tam svadhityaina_:AV. XII.3.33) Atharva Veda refers to the use of va_s'i_ by taks.an: yat tva_s'ikvah para_vadi_t taks.a_hastena va_sya_ (AV.X.6.3) RV I.32.5 alludes that Indra strikes Vr.ttra with vajra, as the kulis'a (=axe) fells a tree-trunk: ahanvr.tramk vr.trataram vyamsamindro vajren.a mahata_vadhena; skandha_msi_va kulis'ena_vivr.kn.a_hih s'yata upapr.kpr.thivya_h. A cognate Indian lexeme is: kulha_d.i_ (a metallic blade with a cutting edge and a handle). r.bhu, vibhu, va_ja constitute a trinity; the r.bhus are saudhanvana_h (sons of Sudhanvan). The r.bhus are mortals who attained immortality by dint of their workmanship: marta_sah santo amr.tatvama_nas'uh (RV. I.110.4) Commenting on RV. I. 20.1, Sa_yan.a observes that r.bhus were pious men who through penance obtained deification: manus.yah santastapasa_devatvam pra_ptah. Aitareya Bra_hman.a describes them as men who by austerity (tapas) obtained a right to partake of soma among gods (AB. III.30.2) ya_bhih s'aci_bhis'camasa_m apis'ata yaya_dhiya_ga_marin.i_ta carman.ah; yena hari_manasa_nirataks.ata tena devatvamr.bhavah sama_nas'a (RV. III.60.2): With those faculties by which you have fashioned the drinking bowl; with what intelligence wherewith you have covered the (dead) cow with skin, -- with what will by which you have fabricated two horses (of Indra); with those (means) r.bhus, you have attained divinity. Macdonell derives the term r.bhu from the root rabh, to grasp and explains it as handy or dexterous and identifies it with German elbe and English elf. (opcit., p. 133)

tvas.t.r., soma

Tvas.t.r. is the master of all forms and shaper of all animals (tvas.t.a_ru_pa_n.i hi prabhuh pas'u_nvis'va_ntsama_naje)(RV I.188.9) He is the fashioner of the quick-moving horse: tvas.t.urva_ja_yata a_s'uras'vah (TS. V.I.11.3; KS. XLVI.2) The lexeme also means a fashioner or artificer (A.A.Macdonell, Vedic Mythology, p.117) Indra drinks soma in the house of Tvas.t.r. : tvas.t.ugr.hi apibat somamindra (RV. IV.18.3) Tvas.t.r. is referred to as supa_n.im, beautiful-handed; sugabhastim beautiful armed and r.bhvam shining or glorious (RV. VI.49.9) sukr.tsupa_n.ih svavau r.ta_va_devastva.s.t.a_vase ta_ni no dha_t (RV. III.54.12): May the divine Tvas.t.r., the able artificer, the dexterous handed, the possessor of wealth, the observer of truth,bestow upon us those things (which are necessary) for our preservation. ugrastura_va_lamibhu_tyoja_yatha_vas'am tanvamcakra evah; tvas.t.a_ramindro janus.a_bhibhu_ya_manus.ya_somamapibaccamu_s.u (RV. III.48.4): fierce, rapid in assault, of overpowering strength, he made his form obedient to his will; having overcome Tvas.t.r by his innate (vigour), and carried off the soma, he drank it (or deposited) in the ladles. These and other references lead Macdonell to surmise that Indra's father whom he slays in order to obtain the soma, is Tvas.t.r. (opcit., p. 57) [cf. Chaturvedi, P.S., 1969, Technology in Vedic Literature, Delhi, Books and Books].

Soma cannot be a plant

Soma is a product, it was traded in Vedic times and offered to the gods. RV 3.35.9,10: 'with the tongue of the fire, drink Soma, O Indra'; Soma was a_tma_yajn~asya, 'the soul of the sacrifice, the Vedic ritual' (RV 9.2.10;6,8).

RV 10.85.3-4 [somam manyate papiva_n yat sampim.s.anty os.adhim somam yam brahma_n.o vidurna tasya_s'na_ti kas'cana RV 10.85.3 (AV 14.1.3): he thinks that he has drunk Soma when they grind the herbs together; of the soma which the Bra_hman.as know, none whatsoever partakes] distinguishes between the Soma that the priests know and that which they process.

Niruktam 11.4 explains: 'The hemistich, 'because they grind the herbs together,one thinks that he has drunk the soma', refers to the uselessly-pressed soma, which is not soma at all. Of the soma which the Bra_hman.as know, none whatsoever,i.e. no one who doesnot offer sacrifice, can partake. This is with reference to sacrifice. Now with reference to the deity. The hemistich,'because they grind the herbs together, one thinks that he has

Soma, electrum

drunk the soma', refers to the soma pressed with the Yajus formula, which is not soma at all. Of the soma which the Bra_hman.as know, i.e. the moon, none whatsoever, i.e. no one who is not a god, can partake.'

Soma becomes wealth: RV 9.86.45 *agregora_ja_pyas tavis.yate vima_no ahna_m bhuvanesh.v arpitah harir ghr.tasnuh sudr.s'iko arn.avah jyoti_rathah pavate ra_ya okyah*, 'walking in the forefront, the king of the waters becomes strong; as the one who regulates the days, he is installed in the worlds. Golden, butter-backed, beautiful to look at, billowing, riding on a chariot of light, the friend of the house purifies himself to become the wealth for us.' RV 9.106.9: *a_nah suta_sa indavah puna_na_dha_vata_rayim vr.s.t.i_dya_vo ri_tya_pah svarvidah*, 'O pressed drops, wash forth riches to us, purifying yourself. Let the sky rain, let the waters flow. You find the light.'

If soma/haoma is a derived noun from the verb root *su-/sau-* (*hu-/hau-*), 'to press or extract (essence from something)', Soma/Haoma cannot be the name of a plant, but only the extract derived from the *yajn-a*, a process of pressing or liquefaction.

It is a tough philological task indeed to differentiate between the metaphor or allegory, and the process of 'purifying' terrestrial and celestial Soma in the R.gveda.(RV 10.116.3: *mamattu tva_divya_h soma indra mamattu yah su_yate pa_thives.u*, 'let the celestial Soma intoxicate you, Indra, let that intoxicate you which men press').

Nature and Functions (karma) of 'deities'

The allegorical nature of the Vedic literature becomes apparent when we define the nature and functions of 'deities' extolled through hymns and offered Soma.

Cha_ndogya Upanis.ad (5.10.4): *es.a somo ra_ja_. tad deva_na_m annam.tam deva_bhaks.yanti* (Soma is king, Soma is food for the gods, Gods eat Soma).

'tisra eva devata_itinairukta_h; agnih pr.thivi_stha_nah; va_yuvendro va_ntariks.astha_nah; su_ryodyustha_nah; ta_sa_m ma_habha_gya_dekaikasya_ api bahu_ni na_madheya_ni bhavanti; api va_karma pr.thaktva_t; yatha_hota_dhvaryurbrahmodga_tetyapyekasya satah; api va_pr.thageva syuh; pr.thugdhi stutayo bhavanti...atha_ka_ra cintanam devata_na_m; purus.avidha_h syurityekam; cetana_vadvaddhi stutayo bhavanti; tatha_bhidha_na_ni; atha_pi paurus.avidhikairan:gaih samstu_yante...yatho etacetana_vadvaddhi stutayo bhavanti_tyacetana_nyapyevamstu_yante; yatha_ks.aprabhr.ti_nyos.adhiparyhanta_ni, "There are three deities only", say the etymologists: (1) Agni, whose sphere is earth; (2) Va_yu or Indra, whose sphere is atmosphere; (3) the sun, whose sphere is heaven. Of these, each receives many appellations on account of his supereminence, or the diversity of his function, just as a priest, although he is one, is called the sacrificer (*hotr.*), the director of the sacrifice (*adhvaryu*), the possessor of the sacred lore (*brahma*), and the chanter (*udga_tr.*). Or else they may be distinct, for their panegyrics as well as their appellations are distinct...Now (we shall discuss) the appearance of the gods. Some say that they are anthropomorphic, for their panegyrics as well as their appellations are like those of sentient beings. Moreover they are praised with reference to anthropomorphic limbs...As to the view that their panegyrics are like those of sentient beings, (we reply) that inanimate objects, beginning from dice and ending with herbs, are likewise praised.' (Niruktam 7.5, 6,7)

Soma is a liquid manifestation of the celestial fire (Hertel, *Die Arische Feuer-Lehre*). RV 9.54.2: *ayam su_rya ivopadr.g ayam sara_m.si dha_vati sapta_parvata a_divam*, 'in appearance like the sun, he runs through the lakes, the seven streams and heaven'. RV 9.54.3: *ayam vis'va_ni tis.t.hati puna_no bhuvanopari somo devo na su_ryah*, 'Soma stands, purifying himself, above all the worlds, like the god Su_rya'.

It is a metallurgical allegory; Soma is extracted out of the bronze fortress, a fortification of heaven, by the eagle which tore it quickly from the heaven: RV 8.100.8 *manojava_ayamanah*

a_yasi_m atarat puram divam suparn.o gatva_ya somam vajrin.a abharat; RV 1.93.6: Ma_taris'van fetched one of you (Agni and Soma) from heaven; the eagle twirled the other (Soma) from the cloud-rock. [Note the mountain-dwelling (giris.t.ha_ RV3.48.2; 5.43.4; 9.18.1; 62.4), mountain-grown (parvata_vr.dh RV 9.46.1) Soma, connected with the rock (adri RV 5.85.2; 1.93.6)].

The early traces of conflicts between the asura and the deva and between Vedic Soma and Avestan Haoma, are seen the dialogue between Suplan Sa_rn~jaya and Prati_dars'a Aibha_vata, in the context of accepting sura_ in the Sautra_man.i_ (S'Br 12.8.2.3, 7):

Suplan: yat na di_ks.ate na soma_m.s'ava iva nyupyante tha katham sautra_man.i_ somayajn~o bhavati, 'how can then the Sautra_man.i_ be a Soma sacrifice when one neither consecrates himself with di_ks.a_, nor throws down the Soma shoots?'

Prati_dars'a replies: ete khalu va_ etasya yajn~asya soma_m.s'ava ity a_hur yac chas.pa_n.i takma_ni la_ja_ it pra_tahsavanasyaitad ru_pam yac chas.pa_n.i, 'the Soma shoots at this sacrifice are the young blades of grass, fresh sprouts of corn and parched grain. The form of the morning pressing are the young blades of grass'.

Bartholomae quotes from Avesta -- the *Ni_rangista_n*: dahmo_huram xvaraiti; mado_ aspyapayanho, 'the faithful enjoys the hura_; a Madha out of horse's milk'. (ZDMG, XXXVI, p.459; Geiger, *Ositanische Kultur im Altertum*, p.233; cf. *A_fri_nga_n* 1.4).

People on the banks of the River Sarasvati_: lapidaries and metal-workers

'How is the acceptance of this Sautra_man.i_ to be explained? We know that, apart from Indra, the As'vins and Sarasvati_ are associated with Sautra_man.i_ (VS 19.26). These As'vins, who are regarded as non-Brahmanical because they are the lords of Sura_ and Madhu, point to a non-Brahmanical land; where we should look for it is indicated by the name of the river: Sarasvati_. In the S'Br Soma and Sura_ are repeatedly called the two andhas. As we have stated earlier these andhas_ occur in RV 7.96.2 and that too in association with Sarasvati_. No matter whether this was the eastern or western Sarasvati_, contacts must have taken place on its banks between the Indians who followed Brahmanical customs and those who did not. The Sautra_man.i_ is the ritual expression of these contacts.'...The rivalry between Somapa, and the Sura_pa...there is a faint, yet perceptible difference between the seventh man.d.ala and the rest concerning the Soma cult in so far as the Vasis.t.has (the priests of the Tr.tsu-Bharatas) do not seem to have practised it to the same extent as the other clans. These Vasis.t.has were settled on the Sarasvati_ in Madhyades'a...La_t.ya_yana 5.4.20 states that there are two kinds of Sautra_man.i_, the Kaukili and the Caraka-Sautra_man.i_...In the RV, sura_ does not occur as often as Madhu...close association of the As'vins with these two drinks...S'Br. 12.7.3.6... **somo sy as'vibhya_m pacasva (indicating that Soma was cooked)...**" [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp. 326-327].

SOMA AND MYSTIC FANTASIES

"My critics, following their own methods, have come to see 'puerile fancies' or 'formless confusion of images and mystic fantasies' in the 114 hymns of the ninth book with their different authors, supposed or real. But, in reality, the ancient R.s.is did not indulge in any hieratic game. On the contrary, they absorbed an old popular belief, which was lost later on; they preserved it and enlarged it into a ritual. I still adhere to my interpretation and do not see any reason to change anything basically. It appears that for many scholars of Vedic mythology cloud-castles and cloud-demons are still indispensable constituents of the Vedic landscape, although no passage speaks of cloud-castles; in their view the Pan.is are 'misers' and remain so, although a thorough study of all the passages proves them to be a marauding tribe. Research is guided very much by the statements, or by the silence, of the

Indian commentaries and does not take into account the historical development which took place during the millennium before and the one after Christ and which must have taken place in the natural course of events. This applies also to the interpretations of Indra-Vr.tra and Mitra-Varun.a...It is the ritual literature that takes us nearest to the period when the collection of the hymns was made. No doubt, it does not cover all the rites anticipated in the R.gveda; it cannot answer some of our questions; still it remains the source in which the mythological tradition is preserved, relatively speaking, in its purest form. It is surprising, therefore, that works on mythology, while referring to tradition, look for it first of all in the later commentaries and not in the ritual texts or overlook these completely...There is no denying the fact that the names of the gods are derived from appellatives, but they are merely 'derived'...Even if we knew the correct etymology, it would not be of any profit to mythology; for the etymological meaning is too general to say anything significant about the individuality of a god...Why is Pu_s.an called a_ghr.n.i fifteen times, which is translated as 'shining' or 'glowing'? [Geldner also translates ghr.n.i as 'sunshine, blaze of the sun, the sun']. In the absence of such an evidence, the prerequisite for us to accept this common view that Pu_s.an is the lord of the paths also disappears. " [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp.1-7].

Like Namuci, Vr.tra is an ominous figure who has withheld the 'waters' from the world and is engaged in a series of 'battles' with Indra who is called Veretragna in Avesta; the imageries generated in the r.cas is the success achieved by Indra in finding a path-way for the waters by removing the obstruction or hindrance, which is personified by Vr.tra as well as Vala. Vr.tra as enveloper of the 'waters' is called the paridhi, the enclosure of the rivers (RV3.33.6). [The mythology is very detailed and warrants [a separate monograph](#)].

Suffice it to note that a possible etymology for Vr.tra's opponent, Indra, is: indh. (See Grassmann and Bollensen -- ZDMG, XLI, p.505; Bergaigne (II, p.171). Indra is a personification of the flaming embers which constitute the core of the purification process for obtaining Soma. Indra reigns over other divinities, who also have to be interpreted consistent with this allegory of purification through fire, using a variety of materials.

indh (Skt.) cl. 7. A1. % {inddhe4} , % {indhAM-cakre} or % {Idhe4} , % {indhiSyate} , % {aindhiSTa} , % {indhikum} , to kindle , light , set on fire RV. AV. S3Br. &c. (p. % {i4ndhAna} RV. AV.v , 3 , 1 ; xix , 55 , 3 ; 4 , kindling , lighting ; % {i4dhAna} RV. , kindled , lighted , flaming):Pass. % {idhya4te} , to be lighted ; to blaze , flame RV. SV. MBh. ; [of. Gk. \$, \$; \$, \$
Lat. {oes-tus} , &52441[167 ,3] {oes-tas} ; Old. Germ. {eit} , ` " fire. "]

viruttam, obstruction, hindrance (Ta.lex.)

vr.tra (Skt.) m. (only once in TS.) or n. (mostly in pl.) ` " coverer , investor , restrainer " , an enemy , foe , hostile host RV. TS. ; m. N. of the Vedic personification of an imaginary malignant influence or demon of darkness and drought (supposed to take possession of the clouds ,causing them to obstruct the clearness of the sky and keep back the waters ; Indra is represented as battling with this evil influence in the pent up clouds poetically pictured as mountains or castles which are shattered by his thunderbolt and made to open their receptacles [cf. esp. RV. i , 31] ; as a Da1nava , Vr2itra is a son of Tvasht2r2i , or of Danu q.v. , and is often identified with Ahi , the serpent of the sky , and associated with other evil spirits , such as S3ushn2a , Namuci , Pipru , S3ambara , Uran2a , whose malignant influences are generally exercised in producing darkness or drought) RV. &c. &c. ; a thunder-cloud RV. iv , 10 , 5 (cf. Naigh. i , 10) ; darkness L. ; a wheel L. ; a mountain L. ; N. of a partic. mountain L. ; a stone Ka1tyS3r. Sch. ; N. of Indra(?) L. ; n.

wealth (= % {dhana}) L. (v.l. % {vitta}) ; sound , noise (= % {dhvani}) L.

The gods buy Soma from the Gandharvas

Spiegel notes that zairipa_s.an (Yt 5.38) denotes the Gandarewa (who lives at the lake Vourukas.a) as a god of flight. Zairipa_s.an = zairi + pa_s.an, golden stone. [pa_s.a_n.a = arsenic (Skt.); hari = golden (Skt.)] (Spiegel, *Trad. Lit.*, p. 339). TS 6.1.6.5: tam somam a_hriyama_n.am gandharvo vis'va_vasuh pary amus.n.a_t sa tisro ra_tri_h parimus.ito vasat tasma_t tisro ra_trih kri_tah somo vasati, 'As Soma was brought, Gandharva Vis'va_vasu stole it. It remained stolen for three nights. Therefore Soma remains bought for three nights.'

RV 1.108.6: yad abravam prathamam va_m vr.n.a_no ayam somo asurair no vihavyah, 'As I said when choosing you at first, we must fight the Asuras for this Soma'. According to S'Br. 3.2.1.23 ff., the Asuras cry out during their flight *he'lavo, he'lavo*; this is the same as *he'rayah*, 'oh! the enemies!' See Muir, OST, 2nd ed., II, p. 114; Kuhn, *Beitra_ge z. P. Gr.*, p. 43; Davidson, ZDMG, XXXVII, p. 23; Eggeling, SBE, XXVI, p. 31, n.3) This means that Asuras spoke an Indian dialect. [halla_ = tumult, noise (P.Ku.N.B.Or.H.); halphal = shaking, undulation (CDIAL 14017). helao = to move, drive in (Santali). e_le_lo = a word which occurs often in songs sung by boatmen, e_lappa_t.t.u (Ta.). The mleccas who shout 'helavo, he lavo' were sea-farers using tossing boats. S.C. Roy (The Asuras -- ancient and modern, Journal of the Bihar and Orissa Research Society, 12, 1926, 147) notes a Mun.d.a tradition that India was previously occupied by a metal-using people called Asuras. The asuric or creative capabilities of the people leads to a description of the River Sarasvati_ as a_suri_ in the R.gveda.

Va_lakhilya 4.1 refers to Manu Vivasvat and Trita among the sacrificers whose Soma pleased Indra once (RV 8.52.1: yatha_manau vivasvati somam s'akra_pibah sutam yatha_trite chanda indra jujos.asi a_yau ma_dayase saca_prs.adhre medhye ma_taris'vani). In Homa Yasht, Vivahvat, A_twya and Trita are mentioned as the first Haoma pressers.

Ancestors are associated with Soma: RV 9.96.11 tvaya_hi nah pitarah soma pu_rve karma_n.i cakruh pavama_na dhi_ra_h, 'With you, O Soma, our wise Manes conducted their affairs, O Pavama_na'; RV 10.15.8 ye nah pu_rve pitarah somya_sah anu_hire somapi_tham vasis.t.ha_h, 'our Soma-loving Manes, the most excellent ones, who came for the Soma drink'.

RV 8.64.11: ayam te s'aryan.a_vati sus.oma_ya_m adhi priyah a_rji_ki_ye madintamah, 'This Soma is dear to you at the S'aryan.a_vat, at the Sus.oma_, but it is the sweetest in the A_rji_ki_ya'. "A_rji_ka was in fact the name of a territory or of its inhabitants; this territory was situated between the Indus and the Vitasta_, approximately on latitude 32 degrees N...By placing the A_rji_kas in Kashmir or in its neighbouring regions, we add only one more link to the chain of evidence which shows the importance of this mountain region for the oldest cultural history of the Indian peoples...a Pu_ru found Soma the sweetest in A_rji_ka...The Pu_rus were not popular everywhere. They were called mr.dhrava_c, 'barbarians' in the seventh man.d.ala (18.13)...we may assume that the s'aryan.a_vat is situated in the land of the pan-ca_jana_h, that the Pu_rus were settled in A_rji_ka not far from it..." (Hillebrandt, p. 179-183). There is a 'Somb' nadi_ close to River Sarasvati_ flowing in the Punjab and Haryana; this area may relate to Sus.oma. Or, it may refer to Soha_n/Suwan; A_rjiki_ya may be equated with Taus.i_/Tohi/Tawi. [RV 10.75.5 lists: Gan:ga_, Yamuna_, Sarasvati_, S'atudri_, Parus.n.i_, Asikni_, Marudvr.dha_, Vitasta_, A_rjiki_ya_, Sus.oma_, in that order from east to northwest].

'a_rjiki_ya is called vipa_s', so called because it rises in r.ju_ka, or it flows in a straight line. The Vipa_s' is (so called) from bursting forth, or from loosening fetters, or from being extended. It is called fetterless because the fetters of the moribund Vasis.t.ha were loosened in it. Formerly it was called Urun~jira_. Suso.ma_ is the Sindhu, (so called because) rivers flow towards it. Sindhu is (so called) from flowing.' (Niruktam 9.26).

Ludwig notes that s'aryan.a_vat is the eastern Sarasvati_ (Der R.gveda, III, p. 301); Brunnhofer (*Iran und Turan*, pp. 51, 101: Pers. darya, ocean, river, Zend zrayan.h, Skt. s'arya_) sees s'aryan.a_vat in the western, i.e. the Iranian Sarasvati_. Sa_yan.a explains s'aryan.a_vat consistently as a 'lake' in a country called S'aryan.a_, in the hinterland of Kuruks.etra. (Note: hence, the name Harya_na).

Pu_ru are placed on the River Sarasvati_:

%/eyt! tēmihna zā ANx?sl Aixi] yint? pū>? ,
 sa nabāy! Aivçl mēTsba/cad/raxaēm/ aēām! .

7.096.02 Beautiful Sarasvati_, inasmuch as by your might men obtain both kinds of food, do you, our protectress, regard us; do you, the friend of the Maruts, bestow riches upon those who are affluent (in oblations). [Both kinds of food: ubhe andhasi_ = fires celestial and terrestrial; or if the reference is to food: gra_myam a_ran.yam va_, domestic and wild]. [Poros who encounters Alexander on Hydaspes (Jhelum) is a Pu_ru].

Divoda_sa (a Bharata) is called a Pu_ru:

1.130.07 For Pur, the giver of offerings, for the mighty Divoda_sa, you, Indra, the dancer (with delight in battle), have destroyed ninety cities; dancer (in battle), you have destroyed them with (your thunderbolt), for (the sake of) the giver of offerings. For (the sake of) Atithigva, the fierce (indra) hurled S'ambara from off the mountain bestowing (upon the prince) immense treasure, (acquired) by (his) prowess; all kinds of wealth (acquired) by (his) prowess. [nr.to = voc.of nr.tu, a dancer; ran.e nartanas'i_la, dancing in war; S'ambara is an asura who was engaged in hostilities with Kr.s.n.a, and finally destroyed, together with his six hundred sons, by Pradyumna, the grandson of Kr.s.n.a (cf. *Harivams'a*, Langlois, vol. iii, p. 169). Mah_bha_rata represents S'ambara as an adversary of Indra, in Dron.a-vijaya].

s'ambara, s'abara, chaber, chaver are related to Gabar. Most of the gabar bands found on the Sindhu and other rivers, in Sindh Kohistan, Kirtihar and Baluchistan (Gedrosia), are datable to ca. 3500 BC. Gabar band, means, lit. 'zoroastrian dam'; gabar = zoroastrians or fire-worshippers. A discussion on the semantics of gabar occurs in Balfour, E., 1885, *The Cylopaedia of India: and of Eastern and Southern Asia, commercial, industrial and scientific*, 3 vols., 3rd edn., London, Bernard Quaritch.

'Gabar. Pers. A person not a Mahomedan, in general, but commonly a Zoroastrian, a Parsee or fire-worshipper, an idol-worshipper, an infidel...Gabar means a Magh, which is a fire-worshipper...the Persians call their priests (in the plural) Chaberin (or Khaberin), whilst the singular Chaber or Khaber (occurring in the Talmud), is explained by Hebrew commentators as signifying Parsai or Persians...Chaber or Chaver denoted both a priest and a layman...within the last three centuries there were people called Gabar in the Ka_bul countries...in the days of Babar there was a dialect called Gabari. We are also told that one of the divisions of Kafiristan was named Gabrak...That in former times fire-worship existed to a certain, if limited extent, in Afghanistan, is evidenced by the pyrethrae, or fire-altars, still crowning the crests of hills at Gard-dez, at Bamian, at Seghan...Near Bamian is a cavern, containing enormous quantities of human bones, apparently a common receptacle of the remains of Gabar corpses; and to the present day the Parsees expose their dead on tower summits...' (p.1158).

The L-shaped gabarbands are stone dams built to check and (using the wings of the stone walls) to redirect the flood waters into the gabarbandcatchment area,so that alluvium couldbe built up behind the bands (or dams) creating fertile agricultural fields of upto about two hectares in size. (After Possehl, G.L., 1999, Fig. 3.128).

s'abara, savara, sauvi_ra... Dr. Rhys Davids locates sauvi_ra to the north of Kathiawar and along

the Gulf of Kutch (*Buddhist India*, Map facing p. 320). Ma_rkan.d.eya P. (ch. 57) notes that Sindhu and sauvi_ra are in the northern part of India and close to gandha_ra and Madra. Rapson identified sauvi_ra with Sindh province (*Ancient India*,p. 168). It could be the Sophir or Phir mentioned in the Bible. *Milinda Pan~ho* mentions it in a list of countries where 'ships do congregate'.

Bhagwan Singh (1995, *The Vedic Harappans*, New Delhi, Aditya Prakashan, p. 224) notes that the revata_ used in the context of the Pan.is may relate to the mount Revand mentioned in reference to Vis'ta_spa: 'When Zoroaster brought the religion...Vis'ta_spa put the a_dar- burzenmihir on its cultic place on mount Revand, which is also called pus't-e- vis'taspa_n that is revant of Yt. 19.6...This Revand-- another one lies not far south-- is situated northwest of Nishapur, not from Tos, near the turquoise mines (Herzfeld, Ernst, 1947, *Zoroaster and His World*, Princeton, I, 81-82).' It is notable there is a mountain called Revata in Gujarat.

Bharata are in the northern stretches of the River Sarasvati_:

3.023.04 I place you in an excellent spot of earth on an auspicious day of days; do you, Agni, shine on the frequent (banks) of the Dr.s.advati, A_paya_ and Sarasvati_ rivers. [In an excellent spot of earth: pr.thivya_ il.a_yaspade, in the footmark of the earth in the form of a cow; i.e. on the northern altar; frequented banks: ma_nus.e, relating to man or to Manu; implies, manus.yasam.caran.avis.aye ti_re, on a bank, a place frequented by men; the Dr.s.advati_ and Sarasvati_ rivers are well known (r.s.ayo vai sarasvatya_m satrama_sata *Aitareya Bra_hmana* 2.19)].

A_rjiki_ya may be another name for Vipa_s'a (Beas):

10.075.05 Accept this my praise, Gan:ga_, Yamuna_, Sarasvati_, S'atudri, Parus.n.i, Marudvr.dha with Asikni_, and Vitazsta_; listen, A_rjiki_ya with Sus.oma_. [Gan:ga_...: cf. Roth's Lit. and Hist. of the Veda, pp. 136-140; Parus.n.i is another name for Ira_vati_. Marudvr.dha = increased by the Maruts or storm-gods; A_rjiki_ya = Vipa_s'a; Sus.oma_ = Sindhu; Nirukta 2.26; cf. Muir's Sanskrit Texts, vol. 2, p. 355; a verse is inserted here in some MSS, not noticed by Sa_yan.a: "Those who are drowned at the confluence of the Sita and Asita go to heaven; the resolute people who abandon their lives (thus) enjoy immortality"].

10.075.06 You, Sindhu, in order to reach the swift-moving Gomati_, have united, yourself first with the Tr.s.t.a_ma_; (now be united) with the Susartu, the Rasa_, the S'veti, the Kubha, and the Mehatnu, in conjunction with which streams you do advance. [In conjunction with: saratham = lit. having mounted the same chariot with them].

10.075.07 Straight-flowing, white-coloured, bright-shining (Sindhu) bear along in its might the rapid waters; the inviolable Sindhu, the most efficacious of the efficacious, is speckled like a mare,

Soma, electrum

beautiful as a handsome woman.

10.075.08 The Sindhu is rich in horses, rich in chariots, rich in clothes, rich in gold ornaments, well-made, rich in food, rich in wool, ever fresh, abounding Si_lama_ plants, and the auspicious river wears honey-growing (flowers). [Rich in wool: of which, blankets are made; si_lama_ plants: which furnish cordage for fastening ploughs].

10.075.09 Sindhu has harnessed his easy-going, well-horsed, chariot, with it may he bring (us) food; the might of this inviolable, great, renowned (chariot) at this sacrifice is praised as mighty.

The peoples who live close to the rivers are mentioned in the R.gveda; Vis'va_mitra crosses the Beas and Sutlej rivers --Vipa_s'a and S'utudri_:

3.033.01 Rushing from the flanks of the mountains, eager (to reach the sea) like two mares with loosened reins contending (with each other in speed), like two fair mother cows (hastening) to caress (their calves), the Vipa_s' and S'utudri, flow readily with (united) waters. [S'utudri: legend (also given in Nirukta 2.24): Vis'va_mitra, the family priest of Suda_s, the son of Paijavana, having gained much wealth in his service, was returning with it home, when his road brought him to the confluence of the Vipa_s' and S'utudri; in order to make them fordable, he addressed to them the first verses of this su_kta, to which he replied, and allowed him and his followers to cross].

Suda_sa also crosses the Sindhu River while helping th Bhrata to reach as far as the River Yamuna_:

7.033.03 In the same manner was he, (Suda_sa) enabled by them easily to cross the Sindhu river; in the same manner, through them he easily slew his foe; so in like manner, Vasis.t.has, through your prayers, did Indra defend Suda_sa in the war with the ten kings. [He easily slew his foe: bhedam jagha_na: bheda may also be a proper name; in the war with ten kings: da_s'ara_jn~e = das'abhi_ra_ja_bhiih saha yuddhe].

Soma is a drink not for the mortals but for Indra: somam indra_ya pa_tave (RV 8.69.10); indur indra_ya pavatta iti deva_so abruvan, 'Gods themselves were witness when Indu purified himself for Indra'.

A_pS'S 10.20.12: 'He should buy king Soma from the son of a Kutsa or from any other brahmin. Also from a non-brahmin...

15: 'Soma seller, cleanse the Soma', he says and turns away. (A_gni_dhri_ya takes Adhvaryu's place in KS'S 7.6.16).

17: 'Neither his servant, nor the Adhvaryu, nor a servant of the Adhvaryu should watch this'.

Offerings like Praya_n.i_ya_is.t.i follow.

10.22.2: 'the cow -- one-year old, or two-years-old, or older-- meant as the price for Soma stands from east to west'.

10: 'May Pu_s.an protect you from the path', as the cow moves forward.

23.1: 'During the seventh step he whispers: 'We became friends through the seven steps. I may gain your friendship'.

2: With the words, 'may Br.haspati please you wiht favour', the Adhvaryu puts his hands around the seventh footprint, places a piece of gold on it, and makes an offering on this with the words: 'on the head of the earth (on the sacrificial place etc.) I besprinkle you' . Then he takes away the gold and catches hold of sphya (wooden sword) with the words: 'by the order of the god Savitr.' etc. He draws a circle three times around the footprint from left to right as far as the butter has spread and utters:

Soma, electrum

'The evil spirit is enclosed in a circle, enclosed are the ara_tis.'

3: 'With the horn of a black antelope he traces gently over the circle, digs out the soil as far as the butter has spread, and puts it in a pot with the words: 'wealth is with us'. Then he gives the pot to the sacrificer with the word: 'wealth is with you'.

4: 'Then he gives it to the wife of the sacrificer with the word: 'yours is the wealth'.

6: 'He makes the Soma cow look at the wife, during which he utters: 'look at yourself with the divine Urvas'i_.

9-10: 'At the place where the footprint is dug out he washes his hands, which hold the gold, and pours the water with the mantra: 'Tear up the soil and split the celestial cloud. Give us from the celestial water. Being the lord, open up the tube.' He breaks the (soil of the) footprint into three parts, scatters one part to the north of the Ga_rhapatya, another part to the A_havani_ya into the cold ashes, and gives the third part to the wife who places it in her dwelling.

24.2: '(Adhvaryu, Brahman and the sacrificer) go with a cart which is curtained off all around, covered on the top and from which the front part is removed, towards the east to Soma. During which they utter the mantra: 'we walked on this path which leads to happiness' etc. (RV 6.51.16).

3: 'If the place is on a mountain, then they carry Soma on the head after purchasing it. (Thus they do not need a cart).

5: 'The sacrificer says to king Soma: 'May your young shoot unite with the young shoot' etc.

7: 'The Adhvaryu places upon the skin a linen garment, folded twice or thrice, with its seam directed towards the east, or upward, or towards the north.

8: 'On this he holds the am.s'us with his fingers -- with the gold in the fingers and without bending the thumb and the little finger -- and measures with the Aticchandas verse: 'I praise the god Savitr., the wise' etc. [Note: The measurement is apparently a linear measurement of the length and thickness of the electrum streaks in Soma, the ore block].

9: 'In the same way he measures, each time with the (next) finger, leaving (the previous one).

10: 'In all (measurements) he uses the thumb.'

This is followed by different rules about measuring Soma...This done, he steps forward to buy Soma.

25.1: 'God Su_rya, we want to buy Soma. We proclaim him to you; you (proclaim) him to all gods. Prepare the sacrifices, prepare the remunerations for the sacrifice according to the season and deity'. With this he worships the sun, gives king Soma (which is tied) to the Soma seller and bargains.

2: 'Soma seller, will you sell king Soma?'

3: 'The latter replies: 'I will sell it'.

4: After having said: 'from you I buy Soma, juicy and rich in milk', he tells him: 'I want to buy it from you for one-sixteenth (of the cow).' [MS 3.84.13: somam te kri_n.a_ni maha_ntam bahvarham bahu

Soma, electrum

s'obhama_nam kalaya_ te kri_n.a_ni... Baudha_yana notes the question: is the Soma from the mountain Mu_javat).

5: 'The Soma seller replies at each bargain till the end: 'King Soma is worth more than that'.

6: At the second time he says: 'I want to buy it from you for a kus.t.ha_'; at the third time: 'I want to buy it from you for the hoof (1/8)'; and at the fourth time: 'I want to buy it from you for the foot (1/4)'. (KS'S 7.8.10 steps up the bargain as: s'apha, pada, ardha, go).

7: 'This is repeated thrice.

8: 'Or each of these thrice.

9: 'At the end he says: 'I want to buy it from you for the cow'.

11: 'Having whispered: 'I buy your lustre with lustre' etc., he buys for gold.

12: 'Having whispered: 'you are a body of heat' etc., he buys for a goat. '(He buys) one for each of the rest. (i.e. young cow, bull, a pair of calves and garment).

26.10: 'With the words: 'let the gold be with us', he takes away the gold from the Soma seller.

11: 'He gives a bundle of white wool to the sacrificer with the word: 'let the light be among us'. This he makes into the na_bhi_ of the woollen strainer at his own time.

12: 'The white woollen strainer is woven at home with the threads from the wool of a white sheep.

14: 'He moistens a bundle of black wool with water, twists it with words: 'here I twist the necks of the biting snakes', and throws it at the Soma seller, saying: 'may darkness dwell in the Soma seller'.

15: 'O sva_na! bhra_ja! (?) An:gha_ri! bambha_ri! hasta! suhasta! kr.s'a_nu! These are the prices for you. Guard them. May you not be cheated'. With this he points to the prices and takes away the king Soma from the Soma seller with the mantra: 'You are created from your own self. You exist through your own self. You are created for this task. I take you according to merit. You protect me according to merit.' [Kr.s'a_nu, the archer, shoots the Soma bird: RV 4.27.3; 9.77.2; ABr. 3.26].

16: 'Should the Soma seller give trouble, then he should snatch Soma from him.

27.1: 'The sacrificer uncovers (the shoulder and head) with the verse: 'feathred birds' etc. (RV 10.73.11).

2: 'He gives the staff used during the consecration of Soma to the Maitra_varun.a.

3: 'The sacrificer takes Soma with the mantra: 'Mitra, come to us'; he places it on his right thigh, saying: 'enter Indra's thigh', and presses it down constantly with the hands.

6: 'Should the Soma seller object, then one should strike him with a spotted leather strap and drive him away.

7: 'Some hold that he should be beaten with a log of wood.

8: 'Some hold that beating must take place.'

Thus ends the buying of Soma.

[Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, p160-165].

"If Soma was really a precious possession, as the singers praise it, then it was hardly likely that it was a *publici juris*, and its habitats must have had their rightful or pretended owner who guarded his property. No matter whether the owner was an Aryan or not, whether it was a mountain chief who ruled over the peaks and valleys where the Soma grew particularly well, or it was a tribe, traders must have, in any case, taken off from there in order to offer the precious produce of their homeland to their neighbours for sale. However, this would not suffice to answer the question why then this trade, with all its details, found a place in the ritual of the Adhvaryu. Its inclusion there has a deeper symbolic meaning." [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, p16].

"Although a popular way of looking at the Vedic literature perhaps regards the R.gveda in its entirety as a 'religious' document intended to constitute the 'prayer-book' for intricate and highly developed sacrifices offered to the gods, and the Atharvaveda as a collection of purely magical texts for the use of those who devoted themselves to witchcraft and exorcism, it is, as a matter of fact, not possible to make such definite distinctions between the two bodies of literature. The Atharvaveda contains elements of a religious or mystical nature which are not adequately characterized by the term 'magic' alone, and to the R.gveda belong many texts in which the purely religious element recedes into the background...In performing rites and offering sacrifices to the gods texts could be used and words pronounced which show the belief in man's mastery over powers and natural forces without divine intervention." (J.Gonda, 1951, *The R.gvidha_na*, Utrecht, NVA Oosthoek's Uitgevers Mij.)

A twice-born man must mutter the ga_yatri_-stanzas relating to the clarifying Soma, viz. (that beginning with) 'With the sweetest' (and so on), i.e. RV 9.1. He must mutter the pre-eminent means of purification, (viz. these) stanzas connected with the clarifying Soma, (being) well-prepared and having quickly plunged into water; (then) he gets rid of all sin. (*R.gvidha_na* III.1-2; attributed to S'aunaka of *Br.haddevata* which is an enumeration of deities to which each su_kta of the R.gveda is addressed and an explanation of the myths and legends connected with the origin of the Su_ktas).

The Avestan parallels

"In the R.gveda there is little to suggest a familiarity with Zarathushtra's reformation and with his teachings. I am of the view that the period of the R.V preceded that of Zarathushtra and that the holders of the priestly office offered their services in regions lying far into the West and that the allusion in the RV to the generous Parthian prince who rewarded the sacrificial service should not be underestimated...precisely in India the Asuras evolved into demons in the later period...The Asuras install the three sacrificial fires A_havani_ya, Ga_rhapatya and Anva_ha_ryapacana in a different sequence than the gods do and thus are deprived of their luck (TBr 1.1.4.4). When a custom has to be rejected as unsuitable it is called an Asura custom. (S'S'S 15.15.11; Gobhila S'ra_ddha Kalpa 3.7)...When did the separation or the hostile contact take place? We can rule out the period prior to the R.V since like the Avesta the R.V combines the word asura mostly with the concept of divineness and sees in r.ta-as.a the expression of highest holiness. We can draw the line only where asura seems to be transformed

regularly into a demon, that is between the bulk of the R.gvedic hymns on the one side and that of the Bra_hman.as on the other...The Veda and Avesta cannot be connected directly with one another; many links are missing between the two. The events which took place between the period of the RV and that of the Bra_hman.as are lost for us in obscurity...Already the cry, he lavo, attributed to the Asuras in one passage of the S'Br (S'Br 3.2.1.23), demonstrates that under the word asuras we should understand purely Indian enemies, in this case, definitely eastern enemies just as enemies from Mazendran (ma_zainya) are included among the Dae_vas...TS 6.4.10.1: br.haspatir deva_na_m purohita a_si_c chan.d.a_marka_v asura_n.a_m...(MS 4.6.3 (81.1; S'Br 4.2.1.6) In the course of the Agnis.t.oma both receive two Grahas, the S'ukragraha and the Manthingraha, who are late additions to this sacrifice...marka is the same as Avestan mahrka and denotes 'death' and this is in accord with the belief connected with the Manthingraha that it causes disease and should not be brought close to one who was bound by an oath of allegiance. Such clear etymology does not obtain for s'an.d.a but it recalls the name of the S'an.d.ikas to be found among Indra's enemies, and especially their 'vr.s.abha'...' (Hillebrandt, opcit., II, pp. 265-270).

The yasna, 'sacrifice, worship', is the chief liturgical work of the sacred canon (Avesta). It consists principally of ascriptions of praise and prayer, and in it are inserted the Ga_tha_s, or 'hymns', verses from the sermons of Zoroaster, which are the oldest and most sacred part of the Avesta. The Yasna (Skt. yajn~a) comprises 72 chapters, called Ha_, Ha_iti. These are the texts recited by the priests at the ritual ceremony of the Yasna (Izashne)...Avesta is rather a Prayer-Book than a Bible.The Vendida_d, Vispered, and Yasna were gathered together by the priests for liturgical purposes...The deity Haoma, the divinity of the plant which produced the intoxicating Soma drink, again finds place in the religious rites...Almost any Sanskrit word may be changed at once into its Avestan equivalent, or vice versa, merely by applying certain phonetic laws...The Av. possesses like facility with the Sanskrit in forming words by means of prefixes, and by adding suffixes of primary a"nd secondary derivation. The same classes of compounds may be recognized in both tongues. The rules of external sandhi, or joining together of words in a sentence, so universal in Skt., are almost wanting in Avesta. The Avesta separates each word by a dot...Almost all the metrical parts of the younger Avesta are in eight-syllable lines. The syntax, however, differs from the Sanskrit in certain points, and shows some marked individualities, especially in the latter portion. (A.V.Williams Jackson, 1892, *An Avesta Grammar*, Stuttgart, W.Kohlhammer, xvii-xxxii).

"The close affinity in phonology, morphology, syntax and vocabulary etc. has contributed sufficient data for reconstruction of Indo-Iranian mythology. Use of asura (Av. ahura, OP a(h)ura and Skt. asura-) in the sense of 'demon' in late Vedic instead of 'god' as in Av. and OP, and use of daiva (Av. dae_va, OP daiva and Skt. deva-) for 'demon' in Av and OP instead of 'god' as in Skt. and other IE languages shows that at one stage the Indo-Iranian speaking people might have quarrelled with each other as a result of which two sub-groups came out: Iranians and Indo-Aryans." (Satya Swarup Misra, 1979, *The Avestan: a historical and comparative grammar*, Varanasi, Chaukhambha Orientalia, p.5)

"The antithesis between the Devas and Asuras was unknown to the RV except in a few cases and was perfected in the Bra_hman.as for the first time. This antithesis divides the two periods almost in the same way as the demonization of the Devas separates the Avesta from the RV. There are evidences for the fundamental differences like the absence of any definite trace of the belief in the transmigration of souls, the ancient custom of the burning of widows which is, however, unknown to the RV, the total absence of the cult of snakes -- the word sarpa occurs only once in the RV --, the ignorance about the di_ks.a_, the abundant use of the concept of r.ta, which is closely connected with the Avesta and which is later replaced more and more by dharma, not to speak of other phenomena like the Trimu_rti and the linguistic evidences. We notice a considerable amount of differences even between the RV and the Bra_hman.as, a fact which makes us doubt that the origin of the two is directly

connected. I count among these differences the fact that the RV refers to many ritual customs, a real connection to which can be found in the verses only with difficulty or not at all, while on the other hand the Bra_hman.as do not give information about the purpose and the position of many hymns in the ritual. It appears as if two different streams of tradition were flowing simultaneously side by side and came close to one another only at a later period...The RV is not the 'Urmythologie', nor the beginning of Indian mythology, but only a chapter in the course of the mythological evolution, preserved by tradition only to that extent as it was compatible with the interests of individual families and schools...that contacts with other dialects are traceable in Vedic Sanskrit disprove the notion that there was a uniformity in beliefs, customs and memories of the tribes who were settling from the Arachosis and Kabul to the Sarasvati_ and farther...Tvas.t.r. did not stand -- as Indra, Soma and Agni did -- in the centre of the religious life of the R.gvedic people, but only on its periphery...It is even possible that the Soma sacrifice and other sacrifices were performed without the guidance of the brahmins. That it was possible can be seen in the example of the Iranians and their Haoma cult...Vedic mythology is not a system, but a conglomeration... [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp.11-18].

"...I may suggest that remote originals of the semi-Vedic Avesta Yas.t compositions, now long lost to us, may have been composed even previously to the Ga_thas;-- and the commentary Lore upon them, which doubtless arose, may have long preserved their more ancient and quasi-vedic tone among certain sections of the population,-- for recruits from the D(a)e_va-party in the Ga_thic conflict must have been gathered from many such-like groups, while they left the impression of their influence upon the authors of some of our Avesta Yas.ts now extant, and this in spite of the final signal predominance of Ga_thic party. But, in view of that victory, all the later Avesta, however unmistakeably it may give evidence of a recrudescence of Vedic feeling, had, or has, felt the influence of the Ga_thic school from their day to this, -- for it is inspired with Ga_thic thought throughout, and its law-book is actually the Vi-d(a)e_va-da_ta_ 'the Law against the Devas', the Ga_thas having been, as I need hardly recall, almost the continuous battle-songs of a political-religious struggle between the Ahura-worshippers and the D(a)e_va-party." (Lawrence Mills, 1910, *The Yasna of the Avesta*, Leipzig, FA Brockhaus, p.xviii).

At present two priests, viz., Zaotar (Skt. Hotr.) and A_tarevaxs. (Skt. Atharvan) are required to perform Yasna liturgy instead of eight priests in the ancient times.

1. Av.Ha_vanan is a subordinate priest who pounds the Haoma, derived from ha_vana-mortar and pestle used to pound Haoma.
2. A_tarevaxs. (Pahl. A_tarvaxs.) is the tender of fire;
3. Fra_bereta_r brings to the Zaotar all the implements and other things required for the ceremonies;
4. A_beretar brings the Holy Water (der. from a_p, water and beret, bringer; the author of the Ni_rangista_n uses a synonym: da_nava_za);
5. A_sna_tar, a_-sna_tr, is a priest who washes and strains the Haoma;
6. Rae_twis.kara (lit. one who mixes) mixes the Haoma juice with ga_m jivya_m (milk);
7. Sraos.a_varez (lit. one who keeps good discipline) superintends the sacrifice and prescribes punishment for negligence or remissness in performing the sacrifice and priestly duties.

These seven priests (plus the eighth, Zaotar), performed functions which are now performed by two priests only: Zaotar and the Rae_twis.kara (Ra_twi-Ra_spi_). Ha_9-11 are recited in honour of Haoma and the sacred Haoma juice is prepared from the twigs dedicated to him. The officiants of the Soma sacrifice are: Hota_, Maitra_varun.a, Accha_va_ka, Adhvaryu, Gra_vastut, Nes.t.a_, Unneta_, Pratiprastha_ta_, Udga_ta_, Prastota_, Pratiharta_, Subrahman.ya, Brahma_, Bra_hman.a_ccham.si_, Pota_, A_gni_dhra, with their president Sadasya-- a total of 17 officials. Avestan tradition remembers 8 of these functionaries.

In phonology, the Avesta agrees with the Sanskrit in its vowels in general. Skt. diphthong e_ appears in Avesta as ae_, o_i,e_. Skt. o_ appears as Av.ao, eu. Avesta inserts epenthetic vowels: i,e, u (Av. bavaiti = Skt. bhavati; Av. haurva = Skt. sarva). In R.gveda 9.101.3 we come across the phrase duros.am...somam, which may be compared with the corresponding Avesta phrase haomem du_raos.em, meaning: Haoma, which keeps death afar or Haoma of far-spreading radiance... (M.F. Kanga and N.S. Sontakke, eds., 1962, *Avesta, Part I: Yasna and Vi_sparaṭ*, Pune, Vaidika Sams'odhana Mand.a.la). The Vedic hapax os.am 'quickly' may be from older 'burning'; hence duros.a can mean, 'hard to burn', a context which fits the interpretation of soma as electrum subjected to a process of cementation and smelting.

[Similarly the epithet 'drapsa' related to Soma can be explained, both as a 'drop' and 'a spark of fire': m. (2. %{dru}?) a drop (as of Soma, rain, semen &c.) RV. S3Br. Gr2. and S3rS. ; a spark of fire RV. i, 94, 11; x, 11, 4; the moon (cf. %{indu}), vii, 87, 6; flag, banner, iv, 13, 2; n. thin or diluted curds L.]

According to Bailey duras'a ttraha means 'an exhilarant draught'. In Khotanese du_ra-'hard' is used in connection with uysma_- 'soil' as in uysmi_nai pin.d.ai du_ra_ 'a hard clod of soil' (Bailey 1951: 67-- Des'ana_ 22). Duras'a = *duras'ma, 'in hard soil'. This interpretation is consistent with the present thesis that soma meant an ore block, quartz or electrum (gold-silver ore block). Yasna 32.14: Zarathushtra speaks of certain miscreants who 'set their thoughts on helping the wicked one, whereby the bovine is ordered to be slain, (the wicked one) who burns the du_raos'a- for help'. Here Haoma is referred to as du_raos.a, an epithet of Haoma. Avesta knows that soma was something that was burned. [Electrum has to be subjected to smelting to separate out the valuable metals: gold and silver from the compound ore].

'When (the solid remains of the twigs out of which the liquid has been well squeezed by the fingers in the strainer are) thoroughly dry, they are put into the fire of Atash Nyayish' (Haug 1884: 402 n.1). This is a reference to Yasna 62.9, after which ritual instructions are for the raspi_ to place ho_m and urwara_m upon the fire (ho_m ud urwara_m kustag o_a_taxs. dahis.n' (Darmesteter 1892-1893: I,389 n.28). This burning of the residue of haoma is also noted by A. Khodadian (1975: 228-229), F. M. Kotwal (in Boyce 1975: 167 n. 134 and 323) and F.M. Kotwal and J.W. Boyd (1977: 31). [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore*, Berkeley, Univ. of California Press, p. 65, n. 29].

Hypothesis: The Avesta is comparable to the Vedic Gr.hyasu_tras in the liturgical segments of parallel traditions, which evolved after the movements of people after the desiccation of the River Sarasvati--one group moved towards the Helmand region and another towards the Ganga-Yamuna doab. The high office of the Yazis.n (of the Yasna) consisted chiefly in the ceremonial preparation and offering of the Paraho_m (Av. parahaoma), i.e. the juice extracted from the Haoma-plant mixed with consecrated water, milk and aromatic ingredients; this represents a time when the Soma yajn~a had already become a 'ritual' or a liturgical performance, as distinct from the material, metallurgical process delineated in the R.gveda to purify soma, electrum.

PHYSICAL CHARACTERISTICS OF SOMA

"Everywhere it is the juicy 'shoots' of light colour with joints, perhaps also with edges, called occasionally 'fingers', 'reeds', once or twice directly 'branches', that are mentioned in the hymns...all the passages agree that it is the 'shoots' or 'stalks' which dually the drink.

The RV states repeatedly that these are bright-coloured...The pavitra, the strainer through which the Soma flows, is like the pavitra in the heavens, the colour of the drops is golden like the lustre of the moon, the drops flowing through the strainer are like rain... te krn.vanti ki_kat.es.u ga_vo na_s'iram duhre na tapanti gharmam a_no bhara pramagandasya vedo naica_s'a_kha_m maghavan randhaya_nah (RV 3.53.14)...naica_s'a_kha_...'that which belongs to one which has low branches'...Ya_ska 4.33 says that maganda = kusi_din, i.e. usurer. Pramaganda would then mean 'arch-usurer', and we would have to look for tradesmen in the tribe of Ki_kat.as...two later lexicographers, viz., the author of Trika_n.d.as'es.a 2.11 and Hemacandra 4.26...equate Magadha with Ki_kat.a...The statement of Vis'va_mitra hymn that the Soma has hanging branches is based probably on an old tradition...Avesta-- Yasna 9.16: namyasus....almost synonymous with naica_s'a_kha... 'with bending sprouts...

"arun.a, bright-red, bright-coloured...RV 7.89.1: adhvaryavo arun.am dugdham am.s'um juhotana vr.s.abha_ya ks.iti_na_m 'Adhvaryus, make an offering of the reddish shoot which milked to the lord of the people'...

"babhru, red-brown, brown...Ta_n.d.ya Bra_hman.a 9.5.3... prescribes substitutes of this very colour...

"hari, golden...RV 9.92.1: pari suva_no harir am.s'uh pavitre ratho na sarji saye hiya_nah 'the golden shoot was pressed and hurled on the strainer like a chariot despatched for profit'... Avestan texts speak repeatedly of zairi, zairigaono_haomo_ (Yasna 9.16, 30;10.12)...RV1.137.3: ta_m va_m dhenum na va_sari_m am.s'um duhanty adribhah 'They milk for you the shoot, which is like a bright-coloured cow, with stones'...

"the colour of the Soma cow...Even Ludwig(Der R.gveda IV,p.3(on 1.49.1) refers to the colour of the cow which serves as the price for Soma... S'Br 3.3.1.14ff.: 'the red-brown one with reddish-brown eyes is the Soma cow. The red one is the property of the Vr.tra-killer, which the king takes over here after he has won the battle... TS 6.1.6.7: arun.aya_pin:ga_ks.ya_kri_n.a_ti etad vai somasya ru_pam svayaivainam devataya_kri_n.a_ti, 'he buys for a bright-coloured, yellow-eyed cow. That is Soma's colour. For its own deity he buys it'...MS 3.7.4.1: ya_run.a_babhrulomni_s'vetopaka_s'a_sucyadaks.i_tat somakrayan.ya_ru_pam svenaiva ru_pen.a_kri_yate, 'a bright-coloured, red-brown-haired one with white spots and bright eyes; that is the form of the Soma cow. He buys it for its own form'...

"parvan, parus, joint, stalk. parvan, like its synonym parus, means originally 'joint, node'...TBr 3.7.13 (Vaita_na Su_tra 24.1): yat te gra_vn.a_cicchiduh soma ra_jan priya_n.y an:ga_ni svadhita_paru_m.s.i tat sam.dhatsva_jyenota vardhayasva ana_gasadam it sam.ks.iyema, 'O King Soma, that part of you which they broke to pieces with the stone, your lovely limbs, your sweet joints, you cure that again and let it grow with butter. May we live together without guilt.' Furthermore it is said in Vaita_na Su_tra 24 f.: abhiks.aranti juhvo ghr.tena an:ga_paru_m.s.i tava vardhayanti, 'the ladles pour butter over you and strengthen your limbs and joints'...The parvans of the Soma plant occur in a passage of the RV also, viz., in 1.9.1...indrehi matsy andhaso vis'vebhah somaparvabhah maha_n abhis.t.ir ojasa...Ludwig (no. 448) surmises a pun and translates it as 'in all the limbs of the Soma stalk and at all the Soma festivals'...'Come, Indra, rejoice in the drink, (rejoice) in all the shoots of Soma, mighty and benevolent through your strength'.

"am.s'u, shoot, stalk. am.s'u belongs to the Avestan as well as to the Vedic literature and is employed in both cases for the Soma plant...In Sanskrit am.s'u means 'ray', besides the parts of a plant. In AV 13.2.7 the sun-chariot is called am.s'umat, 'endowed with rays'...The commentary on the TS explains am.s'u quite correctly as su_ks.mo vayavah, 'slender sprout'...characteristic of these shoots is the abundance of juice. RV 8.91.9: yad a_pi_taso am.s'a_vo ga_vo na duhra u_dhabhih, 'when these swelling shoots gave milk like cows with udder'...The shoot is called 'intoxicating', 'inebriating', 'sweet': madira RV 6.17.11; RV 20.6; matsara RV 1.125.3; madhumat RV 4.97.14...the expression bahula_nta in RV 10.42.8: pra yam antar vr.s.asava_so agman ti_vra_h soma_bahula_nta_sa indram...The PW renders the word, which occurs in this passage only, as 'having a thick end (deposit)'...Sa_yan.a's explanation, bahulam anna_dikam ante yebhyas...bahula_nta can very well mean 'with numerous ends or stolons'. ti_vra means 'pointed'...Thus the verse should be translated as follows: 'into whom the pointed Soma shoots with multiple branches entered in powerful pressings'...It is said often that the shoot roars, thunders, hisses (ara_vit RV 9.74.5; roruvat RV 9.91.3; dhamat RV 8.96.13; stanayat RV 9.72.6; va_vas'a_na RV 9.95.4)

Note: the use of dhamat is significant; this lexeme is related to the smelting process of electrum; similarly in AV 10.2.11, the waters are called ti_vra_arun.a_lohini_s ta_mra dhu_mra_h; a clear metallurgical allegory, explaining that the word, 'ti_vra_' in RV 10.42.8 can also be explained as 'strong' or 'thick', apart from being 'pointed, sharp', or even 'astringent, seasoned', in reference to the smelted quartz ore. The word ti_vra occurs together with 'rasa' in RV 6.47.1: sva_dus. kila_ya_m madhuma_n uta_yam ti_vrah kila_yam rasava_n uta_yam. The metallurgical context is apparent in the use of the word, 'r.j.i_s.in': RV 8.79.4: tvam citti_tava daks.air diva a_pr.thivya_r.ji_s.in ya_vir aghasya cid dve_s.ah, 'by your insight and your skill, O Soma R.j.i_s.in, drive out every wickedness of the sinner'. In RV 3.32.1 also, r.ji_s.in means 'the enjoyer of the husks'. Ya_ska comments on RV 3.68.9: r.ji_s.i_yadi somo bhipretah tasya r.ji_s.atvam upadyate athendro bhipretah tasya tayor as'vayor r.ji_s.abha_ga_ity anaya_peks.aya_r.ji_s.atvam...r.ji_s.i: vajri_vr.s.abhah (RV 5.40.4). Husks are used to generate intense heat in the soma yajn~a, metallurgical process.

"...RV 8.1.17: sota_hi somam adribhir em enam apsu dha_vata gavya_vastreva va_sayanta in narah nir dhuks.an vaks.an.a_bhyah, 'Press out the Soma with stones; wash it in the waters. May men milk it from the stalks by dressing it as it were in the robes of milk'...

Buying Soma at a price

"RV 4.24.9: bhu_yasa_vasnam acarat kani_yo avikri_to aka_nis.am punar yan sa bhu_yasa_kani_yo na_rireci_t di_na_daks.a_vi duhanti pra va_n.am...Oldenberg (Hymnen des R.gveda, I, p. 153) has convincingly explained that the tenth verse is, so to say, the query of a sinner who offers his Indra for sale...I translate as follows: 'too little came for sale (or for trading) at too high a price'...The pronoun sa in the third pa_da refers to this trader: 'he did not let go even the too little for too high a price (now)'...avikri_ya...it is more appropriate to see a Bahuvri_hi in it, 'one to whom nothing was sold'...The fourth pa_da of the verse informs us what the object of the sale was: va_n.a, the 'reed', the Soma shoot...translation of the verse: 'Too little came for sale at too high a price. When he did not sell to me, I wanted, coming again, to be satisfied with that. Then he (the trader) did not (any more) let the too little

go to me for too high a price. Now feeble minds are milking the reed to pieces'...

"andhas, plant, drink...According to the testimony of the PW, the word belongs almost exclusively to the RV, does not occur at all in the Avesta, only twice in the AV, and very seldom in the rest of literature; it appears to have become extinct quite early. Nevertheless, it is old because its relation to the Greek anthos is clear as the day. Haug explains andhas as the Soma branch in bloom...that the eagle collects and brings it, that it originates in heaven (RV 9.61.10), that it is called somasya andhas or somya_m andhas (RV 8.32.28; 10.32.1; 50.7)...andhas is simply the Soma plant...andhas means the 'soma drink' or 'soma juice' (ars. andhasa_ RV 9.1.4; 86.44; dha_ra_ andhasah RV 9.58.1; madhvo andhasa_ yam RV 7.92.1...the god Indu is clearly distinguished from his representative, the andhas. RV 9.51.3 tava tya indo andhaso deva_ madhor vy as'nate pavama_nasya marutah, 'Indu, th gods enjoy your sweet andhas, the Maruts (enjoy) the one who purifies himself'...KS'S 19.1.18 prescribes for this s'as.pakraya, the 'purchasing of s'as.pa', and the commentary explains s'as.pa as germinated rice; others think it is only a kind of grass. Besides Indra Sutra_man, only the As'vins and Sarasvati_ are mentioned as the gods to whom offerings are made during the Sautra_man.i_. The refers to the last one in this very context appears to me to be significant; for the deity, who is addresses as s'ubhra in our R.gvedic verse, is precisely the Sarasvati_ on whose banks the Pu_rus were settled. In Indian tradition the Sarasvati_ is regarded as the stream on whose banks the gods sowed barley mixed with sweets. At least, in a magic formula of the AV (6.30.1) it is said: deva_ imam madhuna_ sa_myutam yavam sarasvatya_m adhi man.a_v acarkr.s.uh indra a_sit si_rapatih s'atakratuh ki_na_s'a a_san marutah suda_navah, 'The gods sowed at the Sarasvati_ barley mixed with honey over an amulet. Indra S'atakratu was the lord of the plough, the abundantly bestowing Maruts were the drivers'. Here the stream is closely associated with the Maruts, and this is exactly the case in the R.gvedic verse. In the latter verse the reference is to the celestial Sarasvati_ and in the former to her terrestrial sister. Just as the divine one is rich in am.s'us or parus', so is probably her earthly counterpart, and andhasi_ are the two plants which supply the most delicious of drinks, Soma and Sura_. adhiks.iyanti, 'to spread out over', means just as much as ujjayati in the passage from the S'Br...Therefore I translate RV 7.96.2 as follows: 'When the Pu_rus seize both the andhas (on your banks) by force, when, you radiant one, be merciful to us as the friend of the Maruts and direct the favour of the mighty ones towards us'.

Note: the two andhas: Soma and s'as.pa [KS'S 19.1.18 notes that some understand s'as.pa to mean germinated grains of rice --vri_haya viru_d.ha_h-- and that some others, however, take it to mean ordinary grass -- tr.n.a] are from the banks of the River Sarasvati_ ;s'as.pa is a sprouting grass and does not have to related to Sura_. Soma and s'as.pa are both sprouts and andhas (dual) can refer to electrum streaks, deep or young-- one from the panned gold from the river bed and another from the mountains on the banks of the river. Sa_yan.a comments on RV 1.161.8: mun~java_n na_ma parvatah somotpatti stha_nam [Comm. on YS 3.61: mu_java_n na_ma kas'cit parvato rudrasya va_sastha_nam]. RV 10.34.1 compares the charm of the dice to the Soma Maujavata : somasyeva maujavasya bhaks.o vibhi_dako ja_gr.vir mahyam acha_n. In the Baudha_yana (BS'S 6.4), the Adhvaryu asks the seller: mu_javata_h?, 'is this from the Mujavat?'; the seller replies: mu_javato hi (mu_javatparvata_d a_hr.ta iti dhya_yet). [Nirukta 9.8 says that Mu_javat is a mountain: maujavato mu_javati ja_to mu_java_n parvato] The location of Mu_javat may be surmized from MS 1.160 where the sacrificial offerings for Rudra are plaed in a basket and hung from a tree wiht words: 'this is your portion, O Rudra. With this food pass by beyond the Mu_javat(s).' AV 5.22 has the following

Soma, electrum

references:

AV 5.22.5: oko asya mu_javantah oko asya
maha_vr.s.a_h ya_vajja_tas (takmam.s) ta_va_n asi
bahlikes.u nyocarah

AV 5.22.7: takman mu_javato gaccha balhika_n va_
parastara_m s'u_dra_m iccha prapharvyam

AV 5.22.14: gandha_ribhyo mu_javadbhyah an:gebhyo
magadhebyah prais.yam janam iva s'evadhim
takma_nam pari dadmasi_

The mu_javatas as a people are related to bahluka_ ,
gandha_ra and magadha. If gandha_ris lived on the right
bank of the Sindhu, bahluka_s lived on the left bank of the
river. The Mu_javat was 'probably one of the less high
mountains which stretch around the famous Kas'mi_ra
valley, on the south-west'. (Zimmer and Grille, *Hundert
Lieder*, 2nd ed., p. 156; cf. also Muir, OST, II, p.352).

[n. (ifc. f. % {A} ; accord. to Un2. iii , 28 fr. % {zas}
; often incorrectly % {zaspA} and % {zaSya}) young
or sprouting grass , any grass VS. &c. &c. ; loss of
consciousness (= % {pratibhA-kSaya}) L.]

"The bark of the Soma plant. When the stalk is crushed by stones and the juice flows
out, what is left behind is the bark. This bark is called andhas in one passage, RV
9.88.44: mahi_ na dha_ra_ aty andho ars.ati ahir na ju_rna_m ati sarpati tvacam, 'like
a great stream he flows over the bark (of the herb). Like a snake he crawls over the
old skin'...

"In ABr 2.20.15 a Nigada reads as follows: adhvaryo indra_ya somam sota_
madhumantam vr.s.tivanim ti_vra_ntam bahuramadhyam vasumate rudravate..., 'O
Adhvaryus, press the Soma, rich in honey, vr.s.tivani, sharp-ended, thick in the
middle, for Indra, whom the Vasus, the Rudras etc. accompany'. S'S'S 6.7.10 adds
more adjectives: u_rjasvat, payasvat, 'rich in nourishment, rich in milk'. vr.s.tivani
means 'rain-loving'...RV 2.13.1: r.tur janitri_ tasya_ apas pari maks.u_ ja_ta a_vis'ad
yasu vardhate tad a_hana_ abhavat pipyus.i_ payah am.s'oh pi_yu_s.am prathamam
tad ukthyam, 'The season is the mother. Born of her, he soon entered the waters in
which he thrives. Then she became puffed up and swollen with milk. The first juice of
the stalk is to be praised'...

Note: maks.u_ = quickly, soon; in the context of Soma as
electrum quartz, there could be a pun involved in this term with
ma_ks.ika_ which has two meanings: bee and a pyrite: mfn. (fr.
% {makSikA}) coming from or belonging to a bee MalrkP. ; n.
(scil. % {madhu}honey Var. Sus3r. ; a kind of hñhoney-like
mineral substance or pyrites MBh.)

"One more passage from the S'Br may be cited here. It contains a name that does
not occur anywhere else for the plant that supplies the Soma, 3.4.3.13 (= 4.2.5.15):

Soma, electrum

devo vai somo divi hi_ somo vr.tro vai soma a_si_t tasyaitac chari_ ram yad girayo yad as'ma_nas tad es.os'a_na_ na_maus.adhir ja_yata iti ha sma_ha s'vetaketur audda_lakis ta_m etad a_hr.tya_bhis.unvanti, 'Soma is a god. Soma is indeed in heaven. Soma was Vr.tra. The mountains and stones are his body. There grows a plant, us'a_na_ by name. Thus speaks S'vetaketu Audda_laki. They bring it hither and press it'. In the Avesta, Soma is Vr.trahan and possesses sharp weapons; Haoma is veretrajan and hurls his vadare (Yasna 9.30 ff.); this is an assignment of R.gvedic functions of Indra to Haoma in the later-day Avestan tradition. Haoma is zairido_itra, 'golden-eyed' (Yasna 57.19). Just as Soma grows in the celestial waters, Haoma grows in those of Ardvi_ Su_ra) (*Bundahis*. 27.4.Darmesteter, *Ormazd et Ahriman*, p. 140)." [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, p128, 137].

Note: This is the most emphatic statement that Soma has mountains and stones for his body and that Soma is Vr.tra; R.gveda recounts how Indra liberates the Vr.tra part of Soma, i.e. oxidizes the impurities which 'dam' the 'rasa'... RV 5.43.4: madhvo rasam sugabhastir giris.t.ha_m canis'cadad duduhe s'ukram am.s'uh, 'the shining stalk with a beautiful stem milked its mountain-grown, bright honey-juice'.

The colour of the am.s'u is hari (golden), zairi (Avestan, 'golden' or 'yellowish green to green'; or, arun.a (Avestan, arus.a, 'reddish'). The lexeme can certainly refer to the electrum quartz which yields gold, after smelting, or 'purification' through the pavitram, for five days and five nights, in intense fire.

Rigvedic culture which is a continuing phenomenon in Indian civilization, was governed by a cooperating society among the yajn-ikas and others, both endeavouring to generate wealth:

sama_ne u_rve adhi sangata_sah sam ja_nate na yatante mitha-s-te te deva_na_m na minanti vrata_nyamardhanto vasubhir-ya_dama_na_h (RV. 7.76.5)

Being united with common people they become of one mind; they strive together as it were, nor do they injure the rituals of the gods, non-injuring each other they move with wealth. (Sa_yan.a explains sama_ne u_rve as cattle --common property of all: sarves.a_m sa_dha_ran.e go-samu_he).

The vedic period was a nascent material culture: the period had weavers; the words siri_ and vayitri_ denote a female weaver. (RV. x.71.9; PB, I.8.9); tasara is referred to which is a shuttle (RV. xiv.2.51). Reference to women workers engaged in weaving is provided: tantum tatam samvayanti (RV. ii.3.6).

Metallurgy in Vedic times

Like the people of the Sarasvati-Sindhu civilization who were fire- and metal-workers, some people of the Rigvedic culture were fire-workers par excellence. Gold (hira.yapin.d.a_n, hira.yayuh) was highly valued (cf. RV. vi.47.23, vii.78.9). Divoda_sa gave golden treasures to the r.s.i Garga. Rigveda refers to nis.kagri_va (RV. v.19.3) which is a golden ornament on the neck and necklaces of gold reaching down to the chest.hira.ya (pl.) means gold ornaments (RV. 1.122.2). Gold was smelted from the ores (PB, xviii.6.4, JB I,10) which evoke the Indian alchemical tradition enshrined in the soma rasa, later elaborated as the science of alchemy: rasa-va_da. In Tamil soma-man.al means,

sand containing silver ore. In Egyptian, assem means electrum; in Gypsy, somnakay means gold. Gold was won from the river-beds: Sindhu is called the hiran.mayi_ (RV. x.75.8); Sarasvati_ is called hiran.yavartani_ (AV. vi.61.7). [cf. the reference to vasati_vari waters in vedic hymns related to soma, an apparent reference to panned-gold from the Sarasvati_ river-bed.]

"From Vedic Index: ayas. The exact metal denoted by this word when used by itself, as always in the R.gveda (RV i.57.3; 163.9; iv.2.17; vi.3.5), is uncertain. As favouring the sense of 'bronze' rather than that of 'iron' may perhaps be cited with Zimmer (*Altindisches Leben*, 52) the fact that Agni is called ayo-dam.s.t.ra, 'with teeth of ayas' (RV i.88.5; x.87.2), with reference to colour of his flames, and that the car-seat of Mitra and Varun.a is called ayah-sthu_n.a (RVv.62.8), 'with pillars of ayas' at the setting of the sun (note: in the same verse, it is said to be of golden appearance at the flush of dawn). Moreover, in the Va_jasneyi Sam.hita_ (xviii.13), ayas is enumerated in a list of six metals: gold (hiran.ya), ayas, s'ya_ma, loha, lead (si_sa), tin (trapu). Here s'ya_ma ('swarthy') and loha ('red') must mean 'iron' and 'copper' respectively; ayas would therefore seem to mean 'bronze'. In many passages in the Atharveda (xi.3.1.7; Maitra_yan.i_ Sam.hita_ iv.2.9) and other books, the ayas is divided into two species--the s'ya_ma ('iron') and the lohita ('copper' or 'bronze'). In the S'atapatha Bra_hman.a (v.4.1.2) a distinction is drawn between ayas and loha_yasa, which may either be a distinction between iron and copper as understood by Eggeling (*Sacred Books of the East*, 41.90), or between copper and bronze as held by Schrader (*Prehistoric Antiquities*, 189). In one passage of the Atharveda (v.28.1), the sense of iron seems certain. Possibly, too, the arrow of the R.gveda (vi.75.15), which had a tip of ayas (yasya_ ayo mukham), was pointed with iron. Copper, however, is conceivable, and bronze quite likely. Iron is called s'ya_ma ayas of s'ya_ma alone. (AV ix.5.4)...Copper is loha_yasa or lohita_yasa. The smelting (dhma_ 'to blow') of the metal is frequently referred to. The S'atapatha Bra_hman.a (vi.i.3.5; vi.1.1.13; v.1.2.14; xii.7.1.7; 2.10) states that if 'well smelted' (bahu-dhma_tam) it is like gold, referring evidently to bronze. A heater of ayas is mentioned in the Va_jasneyi Sam.hita_ (xxx.14; Taittiri_ ya Bra_hman.a iii.4.10.1), and bowls of ayas are also spoken of (AV viii.10.22; Maitra_yan.i_ Sam.hita_ iv.2.13)...**aya_sya_a_n: girasa** This sage appears to be mentioned in two passages of the R.gveda (x.67.1; 108.8; perhaps x.92.15), and the Anukraman.i_ ascribes to him several hymns of the R.gveda (ix.44.46; x.67; 68). In the Bra_hman.a tradition he was Udga_tr. at the Ra_jasu_ya or Royal Inauguration Sacrifice, at which S'unahs'epa was to have been slain, and his Udgi_ tha (Sa_maveda chant) is referred to elsewhere (Jaimini_ya Upanis.ad Bra_hman.a, ii.7.2.6; 8.3; Cha_ndogya Upanis.ad i.2.12). He is also referred to several times as a ritual authority (Pan~cavim.s'a Bra_hman.a xiv.3.22; xvi.12.4; xi.8.10; Br.hada_ran.yaka Upanis.ad i.3.8.19.24; Kaus.i_taki Bra_hman.a xxx.y). In the Vam.s'as, or Genealogies of the Br.hada_ran.yaka Upanis.ad (ii.6.3; iv.6.3), he is named as the pupil of A_bhu_ti Tva_s.t.ra."

S'Br 4.1.3.9 refers to the smell emanating from Soma: 'All the smell the gods removed they placed in the cattle. Therefore, there is putrid smell in (dead) cattle. hence, one should not close one's nose because of the putrid smell, since it is the smell of king Soma'. [cf. MS 4.5.8 (75.1 ff.)]

soma_s trya_s'irah (RV 5.27.5) and traya indrasya soma_h suta_sah (the three kinds of Soma: RV 8.2.7) may refer to gava_s'ir, dadhya_s'ir, yava_s'ir (sweet milk, curd and barley) with which Soma is clothed. (TS 6.1.6.4: a_s'iram ava nayati sas'ukratva_ya). RV 9.8.6: puna_nah kalas'es.v a_ vastra_n.y arus.o harih pari gavya_ny avyata, 'purifying himself, the reddish and golden one clothed himself with the garments of milk in the jars'; soma puts on a splendid robe: ga_h kr.n.va_no na nirn.ijam (RV 9.14.5).

Intimations of panned gold are seen in the references to Vasati_vari_ and Ekadhana_waters: 'The former should be collected as far as possible from a river that breaks through a mountain. One should do this when the sun is hidden by a cloud, or at least in the shadow of one's person or of a tree or of a hill. If the sun sets before the waters are collected, one should, after making offerings to the sun, hold a fire brand over the vessel, put a piece of gold in it and then fill it. Water from the vat of a brahmin also serves the purpose if that brahmin had already performed the Soma sacrifice.(A_pS'S 11.20.5; S'Br 3.9.2; KS'S 8.9). These Vasati_vari_s are meant for pouring over the Soma plant. (somopasarga_rtha_a_pah: A_pS'S 11.20.5). Before the preliminary pressing begins, the Hotr.-camasa is filled with these Vasati_vari_s (S'Br 3.9.3.30; 4.14; KS'S 9.3.15; A_pS'S 12.9.1). The waters in the Hotr.camasa, employed for soaking the plants, are called Nigra_bhya_s. The second variety, the Ekadha_nas (KS'S 9.2.23; 3.7 ff.; A_pS'S 12.5.5), are collected early in the morning...from flowing water at such a distance from the sacrificial place that one can still hear the voice of the Hotr. reciting. One fills three or more vessels and also the Maitra_varun.acamasa with the words, 'I take you, the juice, for the Soma of the Mu_javat'. These Ekadhana_s serve exclusively the purpose of diluting the Soma and are added to the juice itself. (A_pS'S 12.2.13: somavardhana_rtha_h)[Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, pp.301-302].

A_pS'S 12.16.11: 'According to the need he pours from the Ekadhana_s -- besides these, all the water in the Maitra_varun.acamasa -- in the A_dhavani_ya. Then he pours the Soma which is in the A_dhavani_ya and is mixed with water partly into Pu_tabhr.t, having spread the woollen strainer over it previously.' RV 9.21.3 notes: sindhoru_rma_vy aks.aran: the Soma drops dissolve on the surface of the water and spread a bright glimmer in the water: RV 9.76.1 harih sr.ja_no atyo na satvabhir vr.tha_pa_ja_m.si kr.n.ute madhi_s.v a_. 'The king who dives into the streams in RV 9.86.8 is the god Soma in heaven as well as the terrestrial drink, which indeed is a part of the former. The same is the case in RV 9.68.6'. RV 9.79.4 adrayas tva_bapsati gor adhi tvaci apsu tva_hastair duduhur mani_s.in.ah, 'The stones chew you on the cowhide; with their hands the wise men milked you into the water.' RV 9.97.57 hinvarianti dhi_ra_das'abhih ks.ipa_bhiih sam an-jate ru_pam apa_m rasena, 'The wise men send him forth with ten fingers and decorate his form with the juice of the waters'. [Avesta refers to ap haomya, 'Haoma water' (Yasna 3.3), a reference to water mixed with Haoma].

[The commentary notes: ya_vati_bhir vardhitam rasam pra_tahsavana_ya parya_ptam manyeta ta_vati_bhiih; KS'S 9.3.21-22 states that apart from the water in the Maitra_varun.acamasa, one third of the Vasati_vari_s and the same amount from the Ekadhana_s should be poured into the A_dhavani_ya; the objective is clear: vardhitam rasam, or somavardhana_rtha_h, enriching the rasa, with panned gold; hence the lexeme -dhana, (i.e. 'wealth') in the compound: ekadhana_].

Soma's s'ri_ is milk; s'ri_ is prosperity; many times in RV, the term abhi-s'ri_ is used to intensify s'ri_; in RV Khila_Su_kta, cikli_ta or 'purchased Soma' is designated as the son of S'ri_:

RV 4.41.8:s'riye_na_ga_va upa soman asthuh indram giro varun.am memani_s.a_h,'just as the milk has gone to Soma to become his ornament, so have my songs to Indra, my thoughts to Varun.a'.

RV 9.16.6: puna_no ru_pe_avyaye vis'va_ars.ann abhi s'riyah s'u_ro na go_s.u tis.t.hati, 'flowing towards all the ornaments...'

RV 8.72.13: a sute sin-cata s'riyam rodasyor abhis'riyam rasa_dadhi_ta vr.s.abham, 'pour into Soma that which makes him prosper...'

Soma goes through many forms, ru_pa:

RV: 9.25.5 vis'va_ru_pa_n.y a_vis'an puna_no ya_ti haryatah,'entering all the forms, purifying himself, the desirable one moves forth.' RV 9.34.4: sam ru_pair aiyate harih; thus in RV 9.81.1, the richly adorned (supes'as) all the forms of Soma enter into Indra's body.

KS'S 8.4.28: 'He digs the resonance holes (uparava) under the shaft of the cart standing in the south...8: In the same order as he has dug, he throws the earth out of the holes uttering the mantras: 'Here I dig out the magic which a strange or a servant has buried'. 10: ' he digs them one arm deep. 16: The Adhvaryu asks: 'O Sacrificer, what is here?' 17: The latter replies: 'It is prosperity'.

18: 'The Adhvaryu whispers: 'This is common to us both'

20: '[After they have given each other their hands through the opening below], the sacrificer asks: 'O Adhvaru, what is here?'

21; 'Upon being told 'prosperity', the sacrificer says: 'this is for me'.

22: 'He besprinkles these holes with the words: 'I besprinkle you, you who kill the Raks.as, you who kill the magic, you who belong to Vis.n.u'.

24: 'He pours [the rest of the water into the holes], with the words: 'I pour upon you, you who kill the Raks.as' etc., and covers them with Darbha grass etc.

25: 'Having placed thin blades of kus'a grass over the resonanceholes, he puts over them two boards on which the Soma is to be pressed. [S'Br 3.5.4.22. Eggeling (SBE, XXVI, p. 140, n.1) speaks of these boards: 'The pressing boards are a cubit long, and somewhat broader behind than in front. They are placed one south of the other, and so as to lie close together behind (sam.baddha_nte, Ka_n.va rescension), or the space of two inches between them. The space between them is filled with earth.' According to the A_pS'S 11.13.5 two resonance holes are covered with the southern and two with the northern pressing board]. They are (made of Varan.a wood and one span wide) separated from each other by two fingers width, ends pointing to the east, cleansed, one arm in length and joined to each other or not joined. He heaps (earth) around them so that they remain steady and do not move during the pressing. (A_pS'S 11.3.7 notes that this is earth dug out from the holes).

26: 'On these two boards he places a red skin cut equally all around (with the fur upwards and the neck towards the east), saying 'you belong to Vis.n.u'. (A_pS'S 12.2.14 notes that the hide for pressing is cut out from the hide used during the measuring of Soma. It is rough (not smoothened), cut all around, has four folds (put.a) in which the stones are placed, and above a drain (uparis.t.a_d a_secana); HS'S 7.6: lohita a_naduhan uparis.t.a_lloma_secanavad yatha_bhis.ava_yopa_ttam bhavat).
Note: the reference to 'lohitam' in HS'S.

27: 'Upon this the five stones: 'You all belong to Vis.n.u'.

28: 'To the east of this he raises a square mound with sand (for the Soma vessels) on a place marked and besprinkled earlier.' [Later when the vessels required for the Soma sacrifice are placed on this khara, the Upa_m.s'usavana stone, i.e., the stone with which the Upa_m.s'usavana is pressed, should be placed, according to A_pS'S 12.1.9, between the Upa_m.s'u vessel and the Antarya_ma vessel in such a way that it touches both the vessels and its mukha faces the south].

29: A_pS'S 12.2.15 describes the five stones: 'They are one span wide with a high back and are suitable for hitting. He places the biggest one, the Upara, in the middle as the fifth.' [KS'S 1.3.36 notes about the width of the stones: pus.kara_ gra_va_n.o hastaparn.ama_tra_h]. A_pS'S 12.3.1: 'The hitting surfaces are rather wide'. (sthavi_ya_m.si). A_pS'S 12.3.2: 'He addresses them with the mantra: 'You the abodes of the waters, offsprings of the R.ta, guardians of the world, eagles, guests, peaks of mountains...invoke Indra with your sound, chase the enemies away with your thunder. You have been harnessed. Drive on! Drive the sacrificer to the celestial world!'

RV 1.89.4 equates the stones with the gods and calls them: gra_va_n.ah somasuto:

tan no va_to mayobhu va_tu bhes.ajam tan ma_ta_ pr.thivi_ tat pita_ dyaus tad gra_va_n.ahsomasuto mayobhuvas tad as'vina_

So do RV 7.35.3 and 10.108.11 adores the stones as gods.

RV 5.31.5 notes that they even surpass the gods:

divas' cid a_ vo mavattarebhyo vibhvana_ cid a_s'vapatarebhyah va_yos' cid a_ somarabhastarebhyo agnes' cid arcapitukr.ttarebhyah

RV 10.94.5 explains how the pounding of the Soma plant occurs:

suparn.a_ va_cam akratopa dyavi a_khare kr.s.n.a_ is.ira_ anartis.uh nyam. ni yanty uparasya nis.kr.tam puru_ reto dadhire su_ryas'vitah , 'The birds (stones) raised their voice to heaven. The nimble black ones hopped on the hollow. They go down to the abode of the Upara. From it, which is bright like the sun, they receive much juice.' The RV 10.94.5 is repeated in AV 6.49.3. AV 6.49.2 elaborates on the pounding process:

mes.a iva vai sam ca vi corvacyase yad utara dra_v uparas' ca kha_datah s'i_rs.n.a_ s'iro psasa_pso ardayan am.s'u_n babhasti haritebhir a_sabhih, 'Like a ram you move to and fro, when you, O Uttara (the upper stone with which Soma is crushed), and the Upara consume (Soma) on the wood'. [dru is a wooden base, the adhis.avan.aphalaka. RV 10.175.3 refers to several Uparas: gra_van.a upares.v a_mahi_yante sajos.asah].

RV 5.31.12: vadan gra_va_va vedim bhiya_te yasya ji_ram adhvaryavas' caranti,'The speaking stone (cf. the resonance holes referred to in KS'S 8.5.25) should be placed on the vedi, the stone for whose quick movement the Adhvaryus approach'.

RV 1.109.3: ta_hy adri_dhis.an.a_ya_upasthe, 'for, the two stones are on the lap of the vedi'. [dhis.an.a_ = earth; the Vedi; or, a bowl-like shaped hollow in the ground; the Soma falls down from the lap of the dhis.an.a_-- (10.17.12); or, 'it was a sort of support on which the pressing-stones rested' (Oldenberg, SBE, 46, 120-122)]. The sacrifice is called 'karman' in RV 9.97.33: 'Soma, swelling the streams with toil (karman) at the gods' banquet'; karma_ra of ancient times, is a

metalsmith.

Soma is not pressed between the stones but upon them. Under the stones, a cowhide was spread.

The Upa_m.s'usavana, the preliminary pressing is followed by the Maha_bhis.ava, the main pressing which is done by Adhvaryu, Pratiprastha_tr., Nes.t.r., and Unnetr.; each one gets a stone and a part of the Soma. KS'S 9.5.6: all the four priests fasten a piece of gold to their fingers and take their stones; then pouring the Nigra_bhya_s, dividing Soma in four parts, and crushing Soma with the stone in an unlimited number of strokes.

RV 3.52.1,5,6 (theVis'va_mitra hymn) are the Puronuva_kya_ verses recited during the cake-offerings of the three Savanas. Pressing of Soma and baking/frying grains are mentioned together: RV 4.24.7: ya_indra_ya sunavat somam adya_pa_ca_t pakti_r uta bhr.jja_ti dha_na_h; RV 6.29.4: sa_soma dmi's'latamanah suto_bhu_d ya_smin paktih pacyate santi dha_na_h; RV 8.32.8: suno_ta_somapa_vne somam indra_ya...pa_cata_pakti_r. The Savani_ya Purod.a_s', the cake offerings which occur with Soma yajn~a, end always with an offering to Agni Svis.t.akr.t, accompanied by the first, fourth and fifth verses of hymn RV 3.28. (A_pS'S 12.20.16; 13.1.13, 14; S'S'S 7.1.6; 17.2; 8.2.2). Dha_na_s are offered to Indra (RV 3.35.3,7; 3.52.7), a Karambha to Indra Pu_s.an.vat, a Payasya_for Mitra-Varun.a and a Pariva_pa for Sarasvati_Bha_rati_. (MS 3.10.6 (137.6); S'Br 4.2.4.22; TBr 1.5.11). Comparable to dha_na_h offered, Yasna.XI.7 recalls the ancient observance: 'Swiftly may you cut from the flesh an offering (draonah) for the very strong Haoma'.

[This is a liturgy relatable to the process of creating a furnace pit in which the ore is subjected to the process of smelting or cupellation].

Hypothesis: aya_sya a_n:girasa is a meaningful compound which links 'soma' and 'metallurgical artifacts' and metal-workers of the Sarasvati-Sindhu civilization.

Additional foods such as Purod.a_s'as or Carus are offered along with Soma because they are necessary for 'holding the Soma'. (MS 3.10.5 (136.19): tasma_d anusavanam purod.a_s'ah pra_s'yah somapi_thasya dhr.tyai).

Flour is added to a Graha (Soma container), the Ha_riyojanagraha and Manthingraha. (RV 8.92.4: apa_d u s'ipry andhasah indor indro yava_s'irah). A part of the dha_nas -- the barley grains used in the yajn~a -- is husked, mixed with butter and added after the evening pressing to the Graha that is offered to Indra and his horses. (A_pS'S 13.17; La_t.ya_yana 2.11.10; TS 6.5.9.1). In all the three pressings the Manthingraha is drawn together with the S'ukragraha for the two demons S'an.d.a and Marka (i.e. death)...S'an.d.a and Marka are the priests of the

Asuras. [cf. PW; MS 4.6.3 (81.1)]...marka is the same as Avestan mahrka and denotes 'death'. [cf. ma_raka ve_tai = killing of metals (Ta.)]

Late Harappan
Period large burial
urn with ledged
rim for holding a
bowl-shaped lid.
The painted panel
around the
shoulder of the
vessel
depicts flying
peacocks with sun
or star motifs and
wavy lines that
may
represent water.
Cemetery H
period, after 1900
BC. These new

pottery

styles seem to have been introduced at the very end of the Harappan Period. The transitional phase (Period 4) at Harappa has begun to yield richly diverse material remains suggesting a period of considerable dynamism as socio-cultural traditions became realigned. [Source: Kenoyer and Meadow; Slide 164 in: <http://www.harappa.com/indus2/index.html>]

A homonym 'maraka' denotes the 'peacock' depicted on the funerary pots of the civilization. TA_r (4.29; cf. MS 4.9.19 (136.1) has a verse: as'r.m.mukho rudhiren.a_bhyaktah yamasya du_tah s'vapa_d vi dha_vasi gr.dhrah suparn.ah kun.apam ni s.evase yamasya du_tah prahito bhavasya cobhaoh, '(You have a) bloody face; (you are) anointed with blood. As the messenger of Yama, you run around tearing. (You are an) eagle; (yet you) enjoy carrion. (You are) sent as messenger of both Yama and Bhava.' The gr.dhra (as yamasya du_ta, an inauspicious bird of death) is the demon Marka of the S'rauta ritual.

SOMA

With this background information on the locus of Rigvedic culture and the Sarasvati-Sindhu civilization, we can revisit the archaeological evidence and the textual evidence.

The Soma yajn~a is the soul of the Rigveda (a_tma_yajn~asya: RV. IX. 2,10; 6,8). Linking with Indra, Soma is called in RV. IX.85,3 the 'soul (a_tma_) of Indra', the bolt (vajra) of Indra' (RV. IX.77,1) and even 'generator of Indra' (RV. IX.96.5).

somam manyate papiva_n yat sampim.s.anty os.adhim

RV 10.85.3: he thinks that he has drunk Soma when they trample

the herb

What is Soma? Soma which was the 'soul' of the vedic sacrifice was put through three daily pressings, while worshipping all the gods. (Avesta Yasna X.2 mentions only two pressings). Soma/haoma literally means 'extract', from the root su – hu 'to press'. Scores of decipherments have been claimed as summarized by Harry Falk (Soma I and II, 1989, BSOAS, LII, Pt. 1, pp. 77-90). It would appear that a new interpretation is possible: Soma was electrum (gold-silver ore) which was purified in the pavitrām to yield potable gold and silver after reducing and oxidizing the baser metals using ks.a_ra supplied by plants and using bones also as reducing agents. (Kalyanaraman, Indian Alchemy: Soma in the Veda, Delhi, Munshiram Manoharlal, in press). This metallurgical, allegorical interpretation is consistent with the decipherment of the script of the civilization revealed through over 3000 inscriptions on seals, tablets, copper tablets and on metallic weapons. The decipherment claims that the inscriptions are lists of bronze-brass-copper weapons produced by the fire- and metal-workers of the civilization. The dawn of bronze age in the civilization area is attested by many hundreds of artefacts of weapons and tools, apart from exquisite articles of jewellery using gold, silver, electrum, bronze, copper and artificial stones.

Soma is adored with all the 114 hymns of the ninth book of the Rigveda apart from 6 hymns in other books. He is also adored as a dual divinity with Indra, Agni, Pu_s.an or Rudra in 6 additional hymns. Soma as a word in its basic form and in compound form occurs hundreds of times in the Rigveda. "Judged by the standard of frequency, Soma therefore comes third in order of importance among the Vedic gods. Soma is much less anthropomorphic than Indra or Varun.a, the constant presence of the plant and its juice setting limits to the imagination of the poets who describe its personification. Consequently little is said of his human form or action... Like other gods, he is, under the name of Indu as well as Soma, invoked to come to the sacrifice and receive the offerings on the strewn grass. The ninth book mainly consists of incantations sung over the tangible Soma while it is pressed by the stones, flows through the litter of grass to the gods as a beverage, sometimes in fire (I,94; 5,5; 8,43)...The processes to which it is subjected are overlaid with the most varied and chaotic imagery and with mystical fancies often incapable of certain interpretation." (A.A. Macdonell, *The Vedic Mythology*, Varanasi, Indological Book House, 1963, p. 104). This work supplies the references collated in the following two paragraphs.

A_s'vala_yana Gr.hya Su_tra (which belongs to the R.gveda) ed. K. Sa_mbas'ivaS'a_stri in the Trivandrum Sanskrit Series CXXXVIII (S'ri_Citrodayaman-jari_No.XXVII) 1938 includes a commentary in Sanskrit by S'ri_Haradattamis'ra.

A_G1.5.4: as.t.au pin.d.a_n kr.tva_r.tam agre prathamam jajn~e, r.tesatyam pratis.t.hitam yadiyam kuma_ry abhija_ta_tadiyam iha pratipadyata_m yat satyam tad dr.s'yata_m iti pin.d.a_n abhimantrya kukmari_m bru_ya_t es.a_m ekamgr.ha_n. eti: He makes eight lumps of earth (taken from different places) and consecrates these lumps with the Mantra R.tam (the world-order ordained beforehand) was born in the beginning, the primeval. On R.ta is established Satya (Truth of conformity of events to this world-order); What this girl is born to that she may attain here. What the Truth is, may be seen! He then should say to the girl 'Pick up one of these'. [Vinayak Mahadev Apte, Non-R.gvedic mantras rubricated in the A_s'vala_yana Gr.hya su_tra: sources and interpretation, in: *New Indian Antiquary*, Vol. III, Nos. 2-7].

The terms r.tasya yoni (RV 9.64.11, 12); and r.tasya dha_ra_ (RV 9.63.14, 21) -- may be translated as 'the home of the jajn~a', and 'stream of the jajn~a' respectively, indicating that the r.ta may be a synonym of the Vedic altar of the Soma-receptacle. Soma is r.tam br.hat, the lofty jajn~a (RV 9.56.1).

NOTE: R.ta of the R.gveda becomes as'a in Avesta meaning, 'truth'. The A_G reference may point to the stage when Avestan broke off from the R.gvedic tradition; after the Gr.hya su_tra times... VS 11.47 explains: r.tam satyam, r.tam satyam; this mantra is recited while the lump of clay for the construction of the

Soma, electrum

fire altar, is held above the goat (one of the victims of the ceremony). [The lump of clay can be explained in the context of the process of cementation, using salts, of the quartz containing the soma -- electrum to remove the impurities such as lead.

A_G1.3.10:

tad es.a_bhiyajn~a ga_tha_gi_yate: pa_kayajn~a_nsama_sa_dyaika_jya_n
ekabarhis.ahakasvis.t.akr.tah kurya_nna_na_pisati daivate:

In this connection, the following sacrificial ga_tha_ is sung. 'If one has (before one, the performance of different) pa_kayajn~as (at the same time), one should perform them with the same common A_jya, barhis and the same common Svis.t.akr.t (oblations), though the deity (of these pa_kayajn~as) may not be the same.'

NOTE: The use of the term 'ga_tha_' is significant and parallels the Avestan tradition of ga_tha_s, a clear indication of the chronology of the R.gvedic > Avestan traditions during the Su_tra times.

A_G 1.21.2 and 3:

samidham a_dha_ya_gnim upaspr.s'ya mukham nima_rs.t.i tristejasa_ma_samanajmi_ti
tejasa_hyeva_tma_nam samankti_ti vijn~a_yate:

After putting the fuel (on the fire) and touching the fire (reverently), he wipes off his face three times (with the hand warmed up at the fire while it was touched) with the formula: I anoint myself with lustre, (for), it is known (from the s'ruti). With lustre indeed, doe he anoint himself.

NOTE: Parallels with the Fire-Temple worship in the Avestan tradition are apparent. In the Vedic tradition, the yajn~a is brought into the context of the sam.ska_ras; in the Avestan tradition, the yasna is taken up to a religious plane.

The part of Soma which is pressed by Adhvaryu (RV. 8,4) is the am.s'u (lit. shoot or stalk). Soma is described as maujavata (RV. 10,34; lit. produced on Mount Mu_javat); also as dwelling in the mountains (giris.tha_) or growing in the mountains (parvata_vr.dh: RV. 9,46). In one figure of speech, Varun.a is stated to have placed soma on the rock (RV. 5,85) and in another, the eagle carries off soma from the rock (RV. 1,93). Terrestrial mountains are the abode of soma (RV. 9,2). Soma is the branch of a ruddy tree (RV. 10,94). It is the ruddy or tawny shoot which is pressed into the strainer (RV. 9,92). During pressing with ten reins (i.e. fingers: RV. 6,44), soma is figuratively placed in the heaven, the highest place of the cows (RV. 5,45); other figures of speech are purification with the hands (RV. 9,86), with ten fingers (RV. 9,8.15), by ten maiden sisters (RV. 9.1.6) . Stone (adri; also, as'na, bharitra, parvata, parvata_adrayah: RV. 8,2; 3,36; 3,35; 10,94.) is used to crush Soma (RV. 9,67; 9,107); pounding is the verb (RV. 10,85). The stones are on a skin ['chewed on the hide of the cow' (RV. 9,79)]. The stones are placed on the vedi or altar (RV. 5,31). Ten reins guide the crushing stones (RV. 10,94); ten fingers yoke the stone (RV. 5,43) and hence compared with horses (RV. 10,94).

[Rigveda uses the general technique of pressing using stones, though the process using mortar and pestle is known (RV. 1.28); this latter practice is used by Parsis. Avesta also states that Haoma grows on the mountains]

As a juice, Soma is called the rasa, fluid; and in one hymn it is pi_tu (lit. beverage). King Soma when pressed is the am.r.ta (or somyam madhu or lit. soma mead (RV. 4,26; 6,20). Very often, the figure of speech for soma is indu (lit. the bright drop). The drop is for Indra to drink (RV. 9,32.38). The seme, su (lit. to press) describes the extraction process of the

rasa. Sometimes the seme, duh (lit. to milk) is used. The drops are poured through a strainer of sheep's wool (RV. 9,69) to remove impurity (RV. 9,78). The strainer is a skin (tvac), hair (roman), wool (va_ra), filter (pavitra), ridge (sa_nu or the top of the contrivance). These terms are used with or without an adjective formed from avi (sheep). The stage of passing through the strainer is called pavama_na or puna_na (from seme, pu: lit. flowing clear). The unmixed, purified soma is offered exclusively to va_yu and Indra (va_yu is adored with the epithet: s'ucipa_: drinking clear (soma). As the juice flows, the comparison is with the 'wave of a stream' (RV. 9,80) or just a wave (RV. 9,64). As the juice accumulates in the vat (kalas'a: RV. 9,60), it is compared to a sea (arn.ava: RV. 10,115) or a samudraa (RV. 5,47; 9,64). As water is poured to mix with the rasa, the stalk roars (RV. 9,74). "Like a bull on the herd, he rushes on the vat, into the lap of the waters, a roaring bull; clothing himself in waters, Indu rushes around the vat, impelled by the singers (RV. 9,76.107)." The roar is likened to the roar of a bull ('As a bull he bellows in the wood (RV. 9,7). Soma is brilliant and coloured yellow and hence compared with the rays of the sun (RV. 9,76.86). Gods drink him for immortality (RV. 9,106); soma confers immortality on gods (RV. 1,91; 9,108) and on men (RV. 1,91; 8; 48) gods love the amr.ta (RV. 9,85); all the gods drink soma (RV. 9,109); all the gods become exhilarated (RV. 8,58); soma is immortal (RV. 1,43; 8,48; 9,3). Soma strengthens Indra in his conflict with the hostile powers of the air, with Vr.tra (RV. 8,81); soma becomes the thousand-winning bolt (RV. 9,47), wins a hundred forts (RV. 9,48). Soma is a treasure (rayi: RV. 9,48). Soma is a god pressed for the gods (RV. 9,3).

In the early stages of the use of Soma, mythology was not the dominant characteristic; it was simply a product which had to be processed. (See also Falk, Harry, *Soma I and II*, 1989, BSOAS, LII, Pt. 1, pp. 77-90; Falk analyses Soma as a plant and concludes that it was ephedra, used as a stimulant). In the context of the poetics of the Rigveda which abounds in allegories, puns and metaphors, it is hypothesised that only Soma, and Soma alone was a product refined using Agni; all the other references to gods are poetic degrees of freedom to invoke gods into artefacts used in the processing of Soma. Perhaps, even Indra was relatable to the lexeme: indh (semant. firewood or charcoal):

i~dhaur.a_ = room for storing wood (H.); idho_n = tripod to put over the fire (Kal.); indhana = fuel (Pali); e~_date = fireplace (Wg.); saminddhe_ = sets fire to, takes fire; samiddha = ignited; samidh = fuel (RV.); samidha_ = fuel (Pali); samiha_ = fuel (Pkt.); su~dhkan.a_ = to be kindled (P.); negad.i = large fire lighted for warmth in cold weather or to keep off wild beasts (Te.); iruntai, iruntu, iruntil = charcoal (Ta.); cirun = charcoal (Pa.); sindi = soot (Kol.); sirin (pl. sirnil) = charcoal, cinders (Ga.); irk, sirik = charcoal (Go.); ri_ka, ri_nga = charcoal (Pe.); si_nga = charcoal (Kui); ri_nga, ri_nгла charcoal (Kuwi)

Gernot L. Windfuhr, [Haoma/Soma: the plant, in: *Acta Iranica 25* (= Papers in Honour of Professor Mary Boyce, Hommages et Opera Minora, 11) (Leiden, 1985), 699-726, see pp. 703, 707] has pointed out that Soma was neither hallucinogenic nor intoxicant and proceeds to identify Soma as ginseng, a root used as a stimulant. The identification of Soma as a root is questionable because ginseng has no component to connote am.s'u/asu.

RV 10.34.1 states: Somasyeva maujavatasya bhaks.o vibhi_dako ja_gr.vir mahyam accha_n (an alerting eatable or food from mount mu_javat). Soma keeps Indra awake (vivyaktha mahina_ vr.s.an bhaks.am. Somasya ja_gr.ve (RV. 8.92.23). Soma is the inspirer or vipra of Angiras (RV. 9.107.6). [cf. an:ga_ra = glowing charcoal (RV.); angar id. (Gypsy). in:gha_l.a = growing embers (Pali); i~gal., i~gl.a_ charcoal-burner (M.); aggi = fire (Te.)] In the context of processing (refining or purifying or smelting) Soma (electrum ore or quartz), charcoal is a vital component; since charcoal combines with the baser metals and oxidizes them leaving the residual potable, gold-silver compound which is electrum. When Soma is referred to as indrapi_ta or 'drunk by Indra (indav indrapi_tasya) (PB 1.5.4), the reference is indeed to the

reducing action of glowing charcoal embers during the process of smelting the electrum ore. Naturally, Indra received the major share of Soma. (RV. I.2,3; II.41 indicate the sequence of offerings of Soma: va_yu, indra-va_yu, mitra-varun.a, as'vins, indra, vis've deva_h, Sarasvati_) Thus, Indra, as the chief partaker of Soma, is linked with Soma from the mountains (the ore) and some on the earth (ground in pressing-stones): 'May heavenly drink exhilarate thee, Indra, and also what is pressed in earthly places'. (RV. X. 116,3).

RV. X. 85,3 refers to the Soma known only to the brahmans; this is an early indication of the mystery or secret doctrine that would surround the Soma pressing process in later-day texts. The nature of Soma would be mystified in later texts by references to the moon (the colour of silver component of electrum). Tamil tradition has it in a lexeme: co_ma man.al = sand containing silver ore. (Winslow's lexicon).

The water element is the potable metal; Vr.tra withheld the waters. Indra frees the waters. Soma is described as having 'hanging branches bending down' (naica_s'a_kha: RV. III.53,14) It is not necessary to interpret the term 'ti_vra' (sharp) in the context of taste; ti_vra connotes the sharpness of the metallic components of the ore blocks. a~_su = fibrous layer at root of coconut branches, edge or prickles of leaves; a~_s = fibre, pith (Or.); a~_si~_ fine particles of flattened rice in winnowing fan (M.); these lexemes provide a semantic lead to the am.s'u/asu used to describe Soma; the term connotes the streaks of metal, seen like fibres of a stringy fruit or nap of cloth [a~_s (B.)]. The am.s'u was ruddy (RV. VII.98,1). The RV reference to Soma 'growing' on the mountains (giris.t.ha_) is explained in the context of the ores obtained from the mines in NW India. (giris.t.ha: RV. III.48,2; V.43.4; IX.18.1, 62,4; parvata_vr.dh: RV. IX.46.1) Hence, the reference to Somam adrau (RV. 5.85.2) plucked in two rocks. The colour of the Soma filaments contained in the ore block are 'reddish' or 'yellow' (arun.a/arus.a or hari/za_iri). Za_iri = golden-hued (Yasna IX.16,30). RV. 10.97.18, 19 refer to the group of herbs having Soma as their king (Somara_jn~ih); the growth of herbs on the mountains is the obvious reference here. 'Ma_taris'van fetched one of you (Agni and Soma) from heaven; the eagle twirled the other from the cloud-rock'. (RV. I.93,6). The links of Soma with rocks are vivid. (adri: RV. V.85,2; I.93,6)[See Bloomfield, The Legend of Soma and the Eagle, JAOS, 16, 1896, pp. 1-24]. 'High is the birth of thee, the plant; thee being in heaven the earth received'. (RV. IX. 61.10). Yasna (X.4,10-12,17) places haoma on the high mountain haraiti; it is placed there by a skilful god, wherefrom holy birds carried it everywhere to the heights. Rigveda connects Soma with the mount Mu_javant: 'As draught of Maujavata Soma, so doth, the enlivening vibhi_daka delight me' (RV. X.34,1). Griswold notes: 'The mountain Mu_javant (if it was a mountain and not simply the name of a people), being closely connected with the Gandha_ris (AV. V.22,5,7,8,14) must have been situated somewhere between Bactria and the Punjab. In the Tait. Samh. I. 8,6,2 and the AV. Passages referred to above the Mu_javants are taken as a type of distant folk, to which Rudra with his fever-bearing bow is entreated to depart. In fact Mu_javant is as far off and mysterious as the river rasa_. Possibly both embody dim reminiscences of the undivided Indo-Iranian days.' (p. 217). Soma flourished during the rainy season, swelling with milk (RV. II.13,1), strengthened by the rain-cloud, parjanya (RV. IX.82,3; 113,3). Yasna (X.3): 'I praise the cloud and the waters that made thy body to grow upon the mountains.' Later rituals state that Soma had to be purchased from a s'u_dra, who was a trader in Soma who was like the gandharva who held back the celestial Soma. (cf. ks.udraka = maker of minute beads or minor work in gold (Arthas'a_stra: 2.13.37 and 40). There is a reference to ki_kat.as in the context of the sacrifice: 'Amid ki_kat.as what do thy kine, O Indra? That tribe nor mixture (a_sir or milk for mixing with Soma) pours nor heats oblation; bear thou to us the wealth of pramaganda, give up, O Maghavan, to us the 'low-branched'. (RV. III.53,14). Regarding the ritual purchase of the Soma, TS. 6,1,6,7 states that one buys the Soma with a ruddy, yellow-eyed cow; 'this, one should know, is the form of Soma: then one buys it with its own deity. That became gold... Those who discourse on brahman say, 'how is it that offspring are produced through that which is boneless, and yet are born with bones?' Because one offers the gold, placing it in the ghee, therefore offspring are born... with bones.'

Avesta shows that Haoma is connected with the mountain Haraiti. (Yasna 10.4, 10-12,17: Haoma is placed on the high mountain Haraiti by a skilful god, whence holy birds carried it everywhere to the heights, where it grew both on the lofty tablelands and in the mountain valleys). (cf. H.D. Griswold, 1971, *The Religion of the Rigveda*, Delhi, Motilal Banaridass, p.217)

In the tradition of the Black Yajurveda, A_pS'. 10,25,11 states that the adhvaryu should buy the Soma with gold saying: " I buy the bright (s'ukra, Soma) with bright (gold), the glittering (candra) with glittering, the amr.tam with amr.tam to match thy cow" (TS. 1,2,7,1); the Soma-dealer answers: "King Soma deserves more than that". Adhvaryu washes king Soma with water and unfolds him (A_pA'. 11,1,11). "Every shoot of thee, O Soma, must swell for Indra..." (TS. 1,2,11,1). The purpose of the yajn~a is: ' by means of ghee as the vajra and two sacrificial ladles as their arms the gods slew Vr.tra. Vr.tra is the Soma. One should know that they slay Soma, when they sacrifice with ghee in his presence. By means of these mantras one makes Soma swell again." (TS. 6,2,2,4)

The Avestan references to Haoma as a plant can be explained as a ritualistic representation of the Soma refining process of the earlier days on the banks of the Sarasvati river. Yasna refers to the scent of the plant (Yasna, 10,4) but RV does not. There is, however, reference to the intense smell of the type common in the workshop of a metalsmith who uses ks.a_ra (plant-based alkalis) to oxidise the impurities or baser metals in an ore block. Griswold notes that there are only two references to haoma in the Ga_tha_s of Zoroaster, one mentioning du_raos'a ' the averter of death' (Yasna, XXXII.14), the standing epithet of haoma in the later Avesta, and the other alluding to 'the filthiness of this intoxicant'(Yasna, XLVIII.10). These allusions are sufficient to prove that the intoxicating haoma was under the ban of the great reformer (H.D. Griswold, 1923, *The Religion of the Rigveda*, London, Oxford University Press, p. 14).

Ho_m of three kinds

It should be noted, at the outset, that the Iranian haoma hymns, treating haoma as sacred, are in the Younger Avestan language, in which texts continued to be composed in the Hellenistic period, and perhaps even later. (David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore*, Berkeley, Univ. of California Press, p. 10, n. 10).

The chief Zoroastrian sacrament is the consecration of haoma. The yazata of plants, Haoma tends to be assimilated to Amereta_t, yazata_ of Immortality and protector of plants. Amereta_t (Amurda_d), like the White Ho_m is: 'the chief of plants; the for the plants of the world belong to her, and she makes plants grow and increase flocks of animals, because all creatures eat and live by her'. (GBd. XXVI 113). 'Gathic' Amereta_t replaced the ancient Haoma. (cf. L.H. Gray, *The foundations of the Iranian religions*, in: *Journal of the K.R. Cama Oriental Institute*, XV,1929).

Haoma is a priest of the sacrifice; his name is derived from the sacred plant. Haoma, the priest, makes the offering of consecrated haoma to the other gods: Haoma 'was the first to offer up the

haomas with a star-adorned, spirit-fashioned mortar upon high Haraiti_.' (Yt.X.90). Identified as an ephedra, the plant grows on the mountains of Central Asia and Persia. (See G. Watt, *Dictionary of the Economic Products of India*, III, 246-7: 'In India one species only can be said to occur throughout the Himalaya, viz. *Ephedra vulgaris*, *Rich.* (= *E. Gerardiana*, *Wall.*); but this is also distributed to Central and Western Asia and to Europe. The other two Indian species have a more easterly distribution, the one extending from Garhwal to Afghanistan and Persia (*E. Pachyclada*, *Boiss.*) and the other being met with in the Punjab, Rajputana, Sind, and distributed to Afghanistan and Syria (*E. peduncularis*, *Boiss.*).' Mary Boyce notes that *E. Pachyclada*, *Boiss.* is called *hum*, *huma*, *yehma* in the Hari-Rud valley. Haoma is pressed and consecrated in the Yasna sacrifice; the yazata urges Zoroaster: 'Gather me, O Spitama, press me for drink, praise me for strength!' (Y.IX.2 as translated by W.B. Henning). In *De_nkard* (Dk.VIII.3.29f.-- Sanjana, Vol. XIV), Zoroaster consecrates haoma to be drunk by the bull of a righteous man, whereby the animal was cured of sickness. The consecrated haoma which gives spiritual strength on earth is the symbol of the mythological White Ho_m, also called the Go_karn Tree, which grows in the waters, at the source of Aredvi_Su_ra_. (Vd. XX.r; Zsprm.XXXV.15; GBd.XVI.4; MX.LXII.28-30; she is ana_hito_, that is, immaculate: Yt.X.88). Haoma 'derives its contentment from the a_bzo_hr', that is, from the libation of consecrated haoma to the waters. 'The well-grown ho_m...is the symbol of that White Ho_m of the Go_karn, from which (will be) manifest the immortality of Fras'egird'. (Dd., Purs. 47.16--PKA.98.17-20). This White Ho_m, the 'pain-dispelling Tree', has more power of healing than any other plant; for through it 'the dead will become living, and the living immortal', when they partake of it at the final yasna of Fras'egird.. Haoma is the chief of all plants, urwara_n rad. (GBd. VIe,4). There is explicit reference to 'Ho_m Yazad who is in the Go_karn'. (GBd.XXVI.93: Ho_m Yazad i_andar go_karn). Based on these reference, Mary Boyce concludes: 'It seems possible, therefore, that the "ho_m of three kinds" which is said in the same Bundahis'n chapter belong to Ho_m Yazad may consist of the natural ho_m, the consecrated ho_m, and the mythological White Ho_m.'

"There appear to have been two separate rites in this connection. In one, called yas't pad zo_hr, the ritual corresponded closely with that which is still performed. The animal was sacrificed before the service took place and its flesh was roasted to provide go_s'oda_g for the ca_s'ni_ during Ha_ VIII. The zo_hr of fat to the sacred Fire was offered at the same time. This oblation was made by the assisting priest called the fraberetar or frabarta_r, who left the enclosure of the yasna to carry it to the Fire." Y.XI.7 recalls the ancient observance: 'Swiftly may you cut from the flesh an offering (draonah) for the very strong Haoma'.

(Mary Boyce, Haoma, priest of the sacrifice, in: *W. B. Henning Memorial Volume*, 1970, London, Lund Humphries, pp. 62-80).

The points to be noted from these notes of Mary Boyce are:

River Sarasvati_ (Aredvi_ Su_ra_ Ana_hita_) was associated with Haoma

The functions of the priests, Haoma and Frabarta_r, were delineated during the consecration of Haoma. The names and functions of the priests are comparable to Hotr. and Pratiprastha_ta_ of the Bra_hman.a period. The R.gveda does not identify nor delineate the functions of a set of priests, pointing to the possibility that the processes detailed in the R.gveda ante-date the reference to Haoma in the Avestan tradition. "A_pastamba has prescribed the Hotr.'s duties in connection with the New-moon and the Full-moon sacrifices in A_pS'S. XXIV.11-14, and at the end he says that the remaining duties of the Hotr. in connection with the New-moon and the Full-moon sacrifices have been prescribed along with the Adhvaryu's duties in that connection, and that his other duties (in connection with the modification-sacrifices) should be taken from the R.gveda...The tradition of adopting the R.g-hautra throughout by a Taittiri_ya seems to have been originated probably from the fact that a Taittiri_ya had to resort to R.gveda for the Hautra at the Soma-sacrifice--the most significant part of the Vedic rituals. What was to be taken for the Soma-sacrifice was accepted for other rituals also. According to Baudha_yana (BS'S II.4), all the sixteen officiating priests are to be formally chosen by the sacrificer at the setting up of the sacred fires itself. It was, therefore, natural that the sacrificer chose the Hotr. belonging to the R.gveda in view of his requirements at a Soma-sacrifice." (C.G. Kashikar, 1964, The Vedic sacrificial rituals through the ages, in: *Indian Antiquary*, Vol. 1, No.2, Bombay, Popular Prakashan, p.88)

Soma, electrum

Yasna ceremony: apparatus and implements used as they appear in the Stage of Ha_ 27; Explanatory notes: The seat of the Chief Priest (Zo_t) is not shown; it is behind the work-table on a raised platform; A. Reservoir of consecrated water: zor; the vessel is called Kundi; B. A pitcher of water on a stand; it serves to wash the hands of either of the two priests Zo_t and ra_spi_, whenever necessary; C. Two blocks of marble over which sandal-wood chips and incense are placed, later to be deposited on the Altar-Fire; D. Dish containing sacred bread (Darun); this is already consecrated at the stage of the 8th Ha_, when it was on a work-table; E. The throne (xva_n) of the Sacred Fire (Dadga_h) which is solemnly washed at the beginning of the 1st Ha_ by the Zo_t; symbolically, the rite resembles washing the feet of the Deity to be installed on the altar; F. The Fire-Censer; the fire is fed with wood and incense; the stool near the window is the Ra_spi's seat, though he has often to leave his place to carry out functions assigned to him; the ledge of

the window has stock of sandalwood-chips, also tongs and ladle; G. The Niche (Ta_kh) contains an oil-lamp, a box of Haoma-twigs and reserve stock of Para-Haoma; the work-table proper which is of marble is so arranged as would show the position of apparatus at Ha_ 27. (1) The pair of tripod stands with crescent-shaped tops (known as Ma_h-rue moon-shaped). Between the two poles is laid the Beresma-bunch of wires. This bunch is tied with a girdle made of palm-leaf strand known as Aivyaonghan. This girdle keeps the bunch of 21 wires together and at the same time connects the bunch with one of the horns of the Ma_hrue facing the Fire; one of such wires is deposited between the tripod lower legs; (2) Saucer containing milk in sacred water known as ji_va_m; another wire is placed over this saucer; (3) The mortar (Ha_vani) and Pestle (Lala) used for pounding pomegranate (urvara_m) twigs along with Haoma-twigs to prepare the extract for sacrament; the pestle is also used for tolling bell-like sounds (a) to exorcize (snatha_yi) evil influences and (b) to proclaim the victory of Divine elements as against our lower nature; (4) The knife (Kapla) used for preparing the girdle of the Beresma and also for cutting twigs from the pomegranate tree and a blade from the palm-leaf, before the ceremony at the Para-Yasna stage; (5) Contains water consecrated (Zaothra); (6) Contains Ring-condenser (Varesa-angushtri) immersed in water; the bull's hair and ring are not shown; (7) Saucer used to take water out of the kundi; (8) The cup containing consecrated Haoma-sacrament is below the saucer with nine holes (Sura_khda_r-Tashta); this saucer is a sort of filter for refining Haoma-extract poured from the mortar; (9) The covered cup containing Para-Haoma reserve of sacred Haoma-juice. (Source: Diagram 1 in: Lawrence Mills, 1910, *The Yasna of the Avesta*, Leipzig, FA Brockhaus).

Soma substitutes for the original *Peganum harmala*: *Amanita muscaria*, *Ephedra vulgaris*, *Sarcostemma brevistigma*

Ephedra is called soma, som, sumanai, asmania, amsania, asminabuti_ and somalata_ in Dardic and Indic languages. Avestan barezis., baresman (Zoroastrian barsom; Persian ba_lis. meaning 'cushion') are strewn than held in the hand; this is cognate with Vedic barhis. An important part of some Zoroastrian rituals is the tying of the barsom twigs into a bundle. The lexemes may simply

refer to woody twigs.

RV 4.18.13: apas'yam ja_ya_m amahi_yama_na_m adha_me s'yeno madhv a_jabha_ra, 'I saw the woman in distress; then the eagle brought me the Madhu,' (says Indra).

RV 10.116.3: mamattu tva_divyah soma indra mamattu yah su_yate pa_rthives.u, 'Let the celestial Soma intoxicate you, Indra, let that intoxicate you which men press'. "Spiegel is not wrong when he maintains (*Arische Periode*, p. 177) that there was little mention of the intoxication of the singers and priests...these hymns, after all, occupy themselves more with gods than with men...Indra drank pure Soma which pressed forward again through all the openings of his body so that the gods had to cure him by means of the Sautra_man.i_ ceremony which was intended for this pvery purpose by the Bra_hman.as' (cf. Av 3.3.2; TS 2.3.2; S'Br 5.5.4.9 ff.; 12.7.1.11). [Alfred Hillebrandt, 1927, *Vedische Mythologie*, tr. Sreeramula Rajeswara Sarma, 1980, *Vedic Mythology*, 2 vols. Delhi, Motilal Banarsidass, p184].

"...*sauma-, the form which must be reconstructed for the Proto-Indo-Iranian ancestral language, merely denoted a 'pressed out (liquid or plant)...early on came to be used as a common name for a secondary plant (namely, Ephedra)...R.Gordon Wasson's *Soma: Divine Mushroom of Immortality* (1968)...where it is argued that soma was the fly-agaric or *Amanita muscaria*, a hallucinogenic mushroom consumed until recently for intoxication by peoples in Siberia. Wasson (1971: 171) states that the following four points respecting the R.gveda lead him to equate soma with *Amanita muscaria*: (1) there is no mention of the roots or branches or blossoms or seed of soma; (2) the poets locate the plant high in the mountains (and *A. muscaria* may be the one psychotropic plant which can only be found at high elevations in the Indo-Iranian area); (3) there appears in the hymns 'a succession of tropes each appropriate for the fly-agaric, indeed fitting it like a glove'; and (4) 'no word in the R.gveda is inconsistent with this plant'...the soma referred to in the R.gveda and adduced by Wasson as pertaining to the mushroom is the liquid extract (soma pavama_na) or the deity Soma, and hence not the soma plant at all...While soma in the R.gveda (and haoma in the Avesta) is indeed repeatedly said to grow in the mountains, it may be questioned whether these passages were intended to locate the plant physiographically, to indicate that it grew wild, or merely to assert its lofty origins...Ambiguity pervades virtually all of the complex metaphors and similes associated with soma in the R.gveda...Wasson attempted to find a plant that would provide a material basis for a widely assumed theory, namely, that the soma hymns of the Ninth Book of the R.gveda reflect direct experience of the drug, and that, as the hymns imply, soma was consumed in order to experience ecstasy, but that not long after the hymns were composed, the original plant ceased to be available, for which reason it was replaced in the ceremonies by nonintoxicating substitutes...In the R.gveda soma is represented as an offering, made above all to Indra, who is said to depend upon it for his strength. The concept of the extract as an offering to be drunk by the gods, however, is not found in the Iranian texts, and must have emerged in India at a time when the extract no longer had the purpose of intoxicating the priests who consumed it. Because an extensive mythology associated with this apparent rationalization of the ritual presence of soma had already developed, it may be supposed that the use of the intoxicating plant had vanished from the usual ceremonies long before the final fixation of the R.ksam.hita_ as we have it. [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore* Berkeley, Univ. of California Press; See John Brough, 1971, Soma and *Amanita Muscaria*, *Bulletin of the School of Oriental and African Studies* 34, 331-362; Problems of the 'soma-mushroom' theory, *Indologica Taurinensia*1, 21-32; Rahul Peter Das, 1987, On the identification of a Vedic plant, *Studies on Indian Medical History*, papers presented at the International Workshop on the Study of Indian Medicine held at the Wellcome Institute for the History of Medicine 2-4 September 1985. Ed. by G. Jan Meulenbeld and Dominik Wujastyk. Groningen, 19-42; O'Flaherty, W.D., 1968, The Post-Vedic history of the soma plant, in: R.G. Wasson, *Soma: divine mushroom of immortality*, New York, Part II (95-147); Muller, R.E.G., 1954, Soma in der altindische Heilkunde, in: *Asiatica*, Festschrift Friedrich Weller zum 65. Geburtstag gewidmet vom seinen Frunden, Kollegen und Schulern. Leipzig, 428-44].

The entire edifice of identification of soma as an 'intoxicant' is built up on the assumption that the Vedic texts do refer to the 'ecstasy' generated by drinking soma juice. The 'ecstasy' may be an exaggeration by the Vedic poets; in the Atharvaveda even the remains of the sacrifice (4.34.35; 11.1.25), the odana (porridge) can produce 'ecstasy' (Keith 1925: I,275). Since the Soma was prepared freshly three times a day, in three savanas, there could have been hardly enough time for the fermentation to occur to make it an intoxicant. "...the use of Ephedra in present day Iranian haoma rituals was probably paralleled by the use of Ephedra in the soma rites of the north Indian Vedic schools, which endured until the tenth century Islamic invasions of north India. Today soma rites are rare and are found only in south India, where schools of Vedic priests were to some extent reestablished by refugees from these invasions. The plant which reports uniformly indicate to be used as soma in these south Indian rites is an asclepiadaceous, leafless climber, *Sarcostemma brevistigma* Wight & Arn. (Synonyms include: *Asclepias acida* Roxb., *Sarcostemma acidum* Voigt., and *Sarcostemma viminalis* Wall. ex Decne. A.C. Burnell (1878: viii n.), states that, while *Sarcostemma* was used for soma on the east coast of India, on the west coast two species of *Ceropegia*, '*C. Decaisneana*' and '*C. Elegans*' were used, but he does not say how he knew of the ritual use of these species. The two *Ceropegias* are also asclepiadaceous vines and probably merely substitute for *Sarcostemma brevistigma* in local rites). The twigs of *Sarcostemma brevistigma* contain a milky sap, but when dry they may be difficult to distinguish from Ephedra stems. *Sarcostemma* are tropical species and could not have been available for use as soma in Vedic times because they are absent from the flora of north India, and must therefore have been adopted only when, long after the Vedic period, Brahman priests emigrated to south India. These priests must have then selected *Sarcostemma* to substitute for the plant traditionally used as soma in north India. Ephedra species do not seem to occur in south India, nor in fact near the ritual centers of the northern plains themselves, so, to have been used there during the many centuries of Vedic practices, they would have to have been imported from adjacent uplands to the north and northwest. (Note: The importance of soma plants is reflected in the ritual enactment of the purchase of a cart of soma plants described in *S'atapatha Brahman*.a 3.3.1.1. f (see Hillebrandt 1980: 160-167; Dandekar 1973: II, 112-144; Kashikar 1964: 270-277; and Staal 1979). That it was Ephedra which *Sarcostemma* replaced as soma is evidenced by the fact that in Nepal today Ephedra is called by the Sanskrit name *somalata* 'soma creeper' (Singh 1979; Shreshtha 1979; Manandhur 1980). The Islamic invasions resulted in the flight of Hindu refugees both to south India and to Nepal. Although these refugees do not appear to have established Vedic rites in Nepal, they introduced the Sanskrit language there. Sanskrit names for plants in Nepal date from the arrival of these refugees (J.F. Staal)...Some of the Ephedra species known by names reflecting haoma/soma contain, in quantities conditioned by rainfall and season, ephedrine, a sympathomimetic alkaloid somewhat similar in physiological action to adrenaline...Ephedra is unknown in traditional Indic or Iranian folk medicine, while in China, where it has been recognized for many centuries as a medicine, it is not regarded as intoxicating and its consumption lacks ceremonial or religious associations. The clearest demonstration that Ephedra cannot have been *sauma* exists in the very fact that Ephedra extracts are today drunk as haoma by Zoroastrian priests who do not become intoxicated from them...*Peganum harmala* is a commonplace weed without significant economic value, as compared with other Iranian plants, and in general unremarkable, except in the one respect that it alone among Iranian plants contains the visionary drugs harmaline and harmine. This property is not exploited today, but because it is the sole significant distinctive feature of harmel, the only way the plant could have acquired sanctity among all Iranian peoples was for these drugs to have been used and for their effects to have been widely experienced and esteemed." [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore* Berkeley, Univ. of California Press].["In Margiana, Sarianidi has discovered vessels which chemical analysis has shown to contain organic remains of Ephedra. They came from temple-like buildings at Togolok-21 and Gonur-1, with white-plastered rooms having platforms along walls with sunk-in vessels, and adjoining rooms having ceramic stands and sieves...At Gonur-1 the ritualistic vessels also contained remains of poppy and cannabis, at Togolok-21 traces of poppy were found on stone mortars and pestles (Sarianidi 1987; Sarianidi 1990: 102 ff.; Sarianidi 1993, 8; Sarianidi 1993; Kussove 1993)...if the Margiana temples and their vessels date to the BMAC period (ca. 1900-1700

BC) and if the vessels contain remains of Ephedra, we may assume that the Dasas of Margiana did in fact press Soma, and that they had introduced the cult from the early phases of the Andronovo (i.e. Petrovka) culture." (Asko Parpola, 1995, The problem of the Aryans and the Soma: Textual-linguistic and archaeological evidence, in: George Erdosy, ed., *The Indo-Aryans of Ancient South Asia*, Berlin, Walter de Gruyter & Co., p. 371) [Note: Hari Nyberg, 1995, The problem of the Aryans and the Soma: the botanical evidence, p. 401, *ibid.*, notes that the evidence from the Togolok 21 finds are not conclusive: 'In 1991, I received some samples from the site, which were subjected to pollen analysis at the Department of Botany, University of Helsinki. However, upon analysis, it was evident that most of the pollen in the samples had been destroyed... in most cases only pollen of the family Caryophyllaceae was found, along with some pollen remains from the families Chenopodiaceae and Poaceae (grain crops?)... No pollen from ephedras or poppies was found... Thus, further archaeological investigations are necessary to add weight to the existing, but scarce, archaeological evidence for the early use of ephedras.']

Haug in *Goettingische Gelehrte Anzeigen* 1875, p. 568: 'The Soma plant is not a mere plant, but a creeping and somewhat twisting semi-shrub with a series of leafless shoots which contain an acidulous milky juice. Its present botanical name is *Sarcostemma intermedium* (de Candolle, *Prodromus*, p. 538). It grows everywhere in India. *Sarcostemma brevistigma* and *S. brunonianum* are closest to it (*ibid.*). In *Icones plantarum Indiae orientalis* vol. IV, No. 1281, R. Wight gives an illustration of it which should be compared with the text on p. 17.'

These arguments to identify anyone of the plant varieties as soma are based on the supposition that some type of ecstasy has to be induced the juice of the plant, assuming that the Rgveda does indicate that the imbibing the juice results in intoxication, hallucination or ecstasy. The Avestan term mada (root mad-) with cognate words in Indic, is a reference to the effects of haoma and the context of 'intoxication' is restricted to the Yasna 9-11 (i.e. the Ho_m Yasht): Y 10.8: a_at ho_yo_haomahe mado_ (the intoxication of Haoma is accompanied by bliss-bringing Rightness); Y 10.14: fras.a frayantau te_mado_ (May thy intoxicants come forth clearly); Y 10.19: raoks.na frayantu te_mado_ (they intoxications come forth to me (clearly)); Y 11.10: twaxs.a_i haomahe mada_i (for the active intoxication of Haoma for well being, for Rightness)-- these references seem to refer to 'intoxication' conjointly with references to 'Rightness' -- as.a. Yasna 10.14 Avestan mado_ is translated me_nis.n 'thinking'; and in Yasna 11.10 Avestan mada_i is not translated at all in the Middle Persian (Pahlavi) translations of the Avestan passages.

arthavantah s'abdasa_ma_nya_t, 'vedic stanzas are significant because (their) words identical (with those of the spoken language)'. (Niruktam 1.16)

gobhih s'ri_n_i_ti matsaram (Niruktam 2.4): 'The word gauh is a synonym of 'earth'... Matsarah means soma; it is derived from (the root) mand meaning to satisfy. Matsarah is a synonym of greed also; it makes man mad after wealth. Payas (milk) is derived from (the root) pa_ (to drink), or from pya_y (to swell)... -- matsara iti lobhana_ma, abhimatta enena dhanam bhavati, payah pivaterva_pya_yaterva_'. (Lakshman Sarup, 1920, *The Nighan.t.u and the Nirukta*, Delhi, Motilal Banarsidass, p.24)

According to Durga, synonyms of gold follow those of the earth, because gold, being found in earth, is intimately associated with it. 'The following fifteen (words) are synonyms of gold. From what (root) is hiran.yam derived? It is circulated (hriyate) in a stretched form, or it is circulated from man to man (tena hi vyavaha_rah kriyate), or it is useful and delightful, (or it is the delight of the heart), or it may be derived from (the root) hary, meaning to yearn after.' (Niruktam 2.10).

Soma, electrum

Adrih (thunderbolt) is (so called because) with it he splits (mountains), or it may be derived from (the root) ad (to eat). It is well known: they are eaters of soma. The word ra_dhas is a synonym of wealth: with it, they conciliate. Bring that wealth to us, O Lord to whom treasures are known, with both thy hands. Let both thy hands be full...may we, with an active mind, partake of thy pressed soma, as if it were paternal property' (Nir. 4.4, 6): adri van adri ra_dr.n.a_tyenena api va_tteh sya_t te soma_do iti ha vijñ-a_yate; ra_dha iti dhanana_ma; ra_ghnuvantyanena; tannastvam vittadhanobha_gya_m hasta_bhya_ma_hara; ubhau samubdhau bhavatah...te manasa_sutasya bhaks.i_mahi pitr.yasyeva dhanasya).

The essential part of the a_tas.-zo_hr (the zaotra to the Waters) is the fat of a sacrificial animal. (Boyce 1966). The use of ghr.ta or animal fat can be explained as necessary to attain the temperature required to achieve oxidation of baser metals from a compound quartz such as electrum.

"In the translations of Vi_sperad 8.1 and apparently Ne_rangista_n 30, the Pahlavi glosses in m'd- are interpreted as forms from meh 'greater' (mehe_ni_dan 'to increase' etc.). In the translation of Ho_m Yasht (Yasna 9-11), this m'd- is elaborated by glosses which show it was taken as referring to knowledge. Thus mado_ (Yasna 10.14; 10.19) is glossed vidya_ by Neriosengh, and madem mruye (Yasna 9.17) is glossed m'ds.n go_w tis-e_-m pad frahang go_w ku-m da_na_gi_h bawa_d 'speak *ma_yis.n, i.e. say something to me in instruction: that I may have knowledge'...The Middle Persian word for 'intoxicated' is mast, whence masti_h 'intoxication'...Avestan masti- 'knowledge' (from the root mand-)...in Yasna 9.20 it is stated that haoma grants, to those who avidly study the sacred text, holiness (spa_nah-) and masti...wisdom. [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore*, Berkeley, Univ. of California Press, p. 115-116].

It is extraordinary that despite these Pahlavi interpretations of the term mado_, it is supposed to represent 'intoxication'.

mada (Skt. lexicon)

m. hilarity, rapture, excitement, inspiration, intoxication RV. &c. &c.; (du. wite% {madasya} N. of 2 Sa1mans A1rshBr.); ardent passion for (comp.) MBh.; (ifc. f. % {A}) sexual desire or enjoyment, wantonness, lust, ruttishness, rut (esp. of an elephant) MBh. Ka1v. &c.; (ifc. f. % {A}), pride, arrogance, presumption, conceit of or about (gen. or comp.) ib.; any exhilarating or intoxicating drink, spirituous liquor, wine, Soma RV. &c. &c.; honey Ragh.; the fluid or juice that exudes from a rutting elephant's temples MBh. Ka1v. &c.; semen virile L.; musk L.; any beautiful object L.; a river L.; N. of the 7th astrol. mansion Var.; Intoxication or Insanity personified (as a monster created by Cyavana) MBh.; N. of a son of Brahma1 VP.; of a Da1nava Hariv.; of a servant of S3iva BhP.; (% {I}) f. any agricultural implement (as a plough &c.) L.; n. N. of 2 Sa1mans A1rshBr. <http://www.uni-koeln.de/cgi-bin/SFgate>

matam (Tamil lexicon)

otl matam matam 01 1. opinion, belief; 2. religious tenet, sect, religion; 3. knowledge; 4. agreement, consent; 5. teaching; 6. esteeming highly any

favour received; 7. many; 8. the number '6', as from the six 'matam'

otl matam matam 02 1. exhilaration, exultation, joy; 2. strength; 3. pride, arrogance, presumption; 4. animal or vegetable gluten; essence, juice; 5. honey; 6. madness, frenzy; 7. wantonness, lasciviousness; venereal heat; 8. richness of land, fertility; 9. inebriety, intoxication; 10. musk; 11. rock alum; 12. semen; 13. abundance; 14. greatness <http://www.uni-koeln.de>

It is notable that among the 'meanings' adduced to the lexeme, 'matam' in Old Tamil are included: 1. exhilaration, exultation, joy; 8. richness of land, fertility. The early semant. of the lexeme, mada, seems to be related to the exudation from a rutting elephant's temples; this metaphor and the adjective evolved could as well represent the semant. 'pride' or 'esteem'; like the awe evoked by an elephant in rut. As the Soma processing gets completed and is offered to the gods, to Indra in particular, there is a sense of 'exhilaration' at having achieved an 'exudation' which makes the sacrificer 'haughty' having produced something which has value and can lead to 'riches'; riches are the recurrent theme in the R.gveda referred to in the context of soma pavama_na, the processed soma.

Zand i_ Wahman Yasht III, 6-22 reads: (6) Ohrmazd the Sacred (abzo_ni_g = Avestan spenta-) Spirit, creator of the righteous corporeal existence, took the hand of Zoroaster and put liquid omniscient wisdom into it, and said 'drink it'. (7) And Zoroaster drank it and omniscient wisdom was mixed into Zoroaster...(19) I saw a tree with seven branches on it, one gold, one silver, one copper, one brass, one lead, one steel and one mixed iron. (20) Ohrmazd said to Zoroaster Spita_ma: 'This is what I prophesy: (21) The archetypal tree which you saw is the material existence which I, Ohrmazd, created. (22) Those seven branches which you saw are the seven ages which have come. [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore*, Berkeley, Univ. of California Press, p. 22]...spenta- occurs in the Avesta (Vi_sperad 9.3) as an epithet of haoma in the phrase haoma su_ra spenta 'the haomas, powerful, sacred', and is the only adjective associating sauma with the name of any Iranian plant. This reference is again, as in Yasht III, 6-22, to the sacredness of the haoma and does not necessarily establish that it was a 'plant'. The Ho_m Yasht (Yasna 10.13) states: Thou (Haoma) makest rich in men, more spenta-, and more insightful whomever apports thee combined with gav- ('flesh/cattle-product'); it is in Bundahis.n (17.20) that (Haoma) is called the chief of medicinal herbs.

Yasna 9.1: At the mortar time (the first period of the day), Haoma came upon Zarathushtra, purifying the fire and intoning the Gathas. Zarathushtra asked him: (2) 'Who, man, art thou, whom I see as the most beautiful in all the material world, luminous with thine own life?' Then the righteous du_raos.a Haoma answered: 'I am, O Zarathushtra, the righteous du_raos.a Haoma. Take me, Spita_ma, extract me that I may be drunk, praise me with might, as the other saos.yants (saviors) have pressed me'. (3) Thus spake Zarathushtra: 'Praise be to Haoma! Which mortal in the material world first extracted thee? What reward was granted him? What benefit came to him?' [This passage became the basis for Gernot Windfuhr (1986) to argue that haoma was the (geographically remote and psychomorphologically irrelevant) ginseng plant because (the most highly valued) ginseng roots have a homunculus shape (with one eye)]. The beginning of Ho_m Yasht results in the birth of illustrious sons and this benefit was realized by the first four mortals who extracted haoma. Haoma says (Yasna 9.13-15) that the fourth to have extracted him was Pourusha_spa: 'To him were you born, you, righteous Zarathushtra, in the house of Pourusha_spa, opposed to dae_vas, following the law of the ahuras. (14) Famed in Aryana Vae_jah, you were the first to sing out the Ahuna Vairya prayer; four times, each (time) sung out louder. (15)

Soma, electrum

You who made all the demons disappear beneath the earth, those who had earlier rushed against this earth in the form of men. You who are the strongest, who are the bravest, who are the most active, who are the swiftest, who are the most victorious of the creatures of the Two Spirits.'

Vedic sacrificial rituals through the ages

"Indian Brahmans know the plant now used as soma in south Indian rituals, *Sarcostemma brevistigma*, to be a substitute for an earlier 'soma'. The 'soma' which *Sarcostemma* has directly replaced, however, seems not to have been the original plant but an *Ephedra*, a nonintoxicating plant which was itself a secondary constituent of rituals.' [David Stophlet Flattery and Martin Schwartz, 1989, *Haoma and Harmaline: The botanical identity of the Indo-Iranian sacred hallucinogen 'Soma' and its legacy in religion, language, and middle eastern folklore* Berkeley, Univ. of California Press, p. 4].

Keith, however, notes, while reviewing the chronology of the R.gvedic tradition: '...much which is recorded later is clearly old and is omitted in the R.gveda mainly because that collection is only concerned with a limited portion of the religious practice; on the other hand, religion is in the constant process of change, and things recorded first in the later texts may be new inventions'. (Keith, *Religion and Philosophy of the Veda and Upanishads*, p. 256).

In the Avesta we find Zaotar and Rathwi who are comparable to Hotr. and Adhvaryu of the Vedic tradition.

v&[>/kae>? pvtēmxv? ^ imRoē&/aUāy v&/ay/patve,

v&[aXvy&/asaēAŌyaē&[ksamkv&/ay? swit .

2.016.05 The juice of the gratifying and exhilarating (Soma), the exciter (of) those who drink it, flows to the showerer (of benefits), the dispenser of food, for his beverage; the two priests, the sprinklers of the oblation; and the stones (that express the Soma), offer to the best (of the deities), the Soma, the shedder (of blessings). [Soma juice which is vr.s.an flows (to) vr.s.abha, Indra, who is also vr.s.abha_nau; the two priests, adhvaryu and pratis.t.ha_ta are both vr.s.abhas;so are the stones used to bruise the Soma; Soma juice is vr.s.an.a; so, the thunderbolt is vr.s.a; the car is vr.s.a; the horses, vr.s.n.au; the weapons are vr.s.abha_n.i; Indra and Soma are both designated vr.s.abha; all these forms such vr.s.an, vr.s.an.a, vr.s.abha are from the radical vr.s. = lit. to rain, and implying raining, shedding, showering, sprinkling; or bestowing freely or liberally, when used, as they most commonly are, in a figurative sense].

The term 'adhvaryu_' is interpreted to mean two priests: Hotr. and the Adhvaryu by Potdar (K.R. Potdar, *Sacrifice in the R.gveda*, Bombay, 1953). Sa_yan.a interprets that the two priests, adhvaryu_, refer to Hotr. and Pratiprastha_tr or Pratis.t.ha_ta. Potdar characterizes four stages in the ritual activity of the Vedic period: 1) worship of the individual divinities within the household; 2) cooperative effort leading to a system of sacrifice; 3) development in the mode of performance; and 4) brahmanical aspect of the sacrifice. Kashikar adds: "If the Iranians may be regarded to have gone to Iran from Punjab on account of differences with regard to the ritualistic religion, the schism might have taken place only at the initial stage. Indra is said to have attained prominence during the second stage, but in view of the very large number of Indra-hymns in the R.gveda, and also in view of the character of Indra, it can hardly be said that Indra attained prominence at a subsequent

stage." It is possible that another priest, the Udga_tr. is implied in the specific references in the R.gveda to the chanting of sa_mans.

Potdar notes: "Very possibly the idea of offering the animal-flesh as an offering came into existence after the introduction of the Pitr.yajn~a." (*Sacrifice in the R.gveda*, p. 118).

Aj ae- ags! tp'sa/t <tpsv/t <tēz aics! tptūt <tēA/cR,
yas! tēz vas! tMvaej atvdś! tai- rōehē <sk tam! %I ak m! .

10.016.04 The unborn portion; burn that, Agni, with your heat; let your flame, your splendour, consume it; with those glorious members which you have given him, Ja_tavedas, bear him to the world (of the virtuous). [The unborn portion: ajo bha_gah = the goat is your portion; antarapurusa, which has no body, no organs of sense; heat, flame and splendour: tapas, s'ocis and arcis: the positive, comparative and superlative radiance of Agni].

This r.ca refers to a goat in connection with the fire kindled for Pitr. worship.

ma naēimCaevéT aeAyra yocēNô? \ - ūa mēt>/pir? Oyn! ,
ydcraij naēdēj atSy/sYē àvūyamaēivdwevlyarĀ .

1.162.01 Let neither Mitra nor Varun.a, Aryaman, A_yu, Indra, R.bhuks.in,nor the Maruts, censure us; when we proclaim in the sacrifice the virtues of the swift horse sprung from the gods. [a_yu = va_yu (a_yuh satataganta_ va_yuh, vaka_ralopo va_); r.bhuks.in = Indra; but,here Praja_pati, he in whom the r.bhus,or the devas, abide (ks.iyanti); sprung from the gods: devaja-tasya = born as the type of various divinities, who are identified with different parts (e.g. us.a_ va_ as'vasya medhyasya s'irah: Br.hada_ran.yaka Upanis.ad 1.1.1); legend: the horse's origin from the sun, either direct, or through the agency of the Vasus: sura_d as'vam vasavo niratas.t.a].

This and other r.cas of the su_kta, refer to As'vamedha. Since the Avestan references to animal sacrifice are not as vivid as in the R.gveda, it may be surmised that the Avestan tradition evolved at a stage when the offerings of ghr.ta and soma had replaced animal sacrifice. In the Vedic tradition, the Kr.s.n.a Yajurveda is a combination of the mantra and bra_hman.a portions. The Yajurveda ritual thus, is a development from the ritual of the R.gvedic period. A Bra_hman.a gives the meaning of mantras, the origin and significance of a ritual; a S'rautasu_tra is an orderly description of each Vedic ritual. S'rautasu_tra also prescribe more incidental and expiation rites than those found in the Bra_hman.a. For example, A_pastamba S'rautasu_tra (XV.9.9) note that for the Pravargya rite, if a cow and a she-goat cannot be procured, their milk can be obtained and the mantras prescribed for sa_m.na_yya may be recited. That a Bra_hman.a is closely related to S'rautasu_tra (which use the Vidhi-elements of a Bra_hman.a text) is seen from the fact that every injunction from the bra_hman.a is met with in a S'rautasu_tra. (N.Tsuji, 1952, *On the relation between Bra_hman.as and S'rautasu_tras* Tokyo). This stage of evolution of the Vedic ritual (exemplified by the Yajurveda, the Bra_hman.a and the S'rautasu_tra) is, perhaps, coterminus, in time, with the evolution of the Avestan haoma ritual tradition.

(C.G. Kashikar, 1964, The Vedic sacrificial rituals through the ages, in: *Indian Antiquary*, Vol. 1,

No.2, Bombay, Popular Prakashan)

Next in importance to Agni and Indra, Soma is addressed in about 120 hymns of the Rigveda. Indra and Varun.a gain anthropomorphic status as gods; but Soma is generally represented in its physical nature.

Soma pavama_na. Soma in the process of passing through the refining instrument (potr.). [The actors are: Hotr., connected with Indra; the Potr. connected with the Maruts (Potr. is the purifying priest; also the 'cleaning' instrument); the Nes.t.r. linked with Tvas.t.r.; the divine wives, agni_dh with agni, the brahman with Indra and the pras'a_s.t.r. with mitra-varun.a]. ulu_khala (mortar) is used to press Soma (RV. I.28,1,5; gra_van is rendered as a 'press-stone'). This is a reference to the pounding of the ore block to pulverize the ore. In Yasna (XXIV.7; XXV.2) ha_vana (hu = to crush) is 'the utensil in which the twigs of the haoma plant are pounded'. Another method refers to the gra_va_n.ah (press-stones) are placed on the 'ox-hide', held by the hands and with ten fingers and activated through two boards. (RV. X.76,94 and 175). Dhis.an.a_ (RV. X.17,12) is perhaps a reference to a hollow in which the press-stones work. This may be a reference to a hollow covered with ox-hide specially prepared on the sacrificial ground. The ox-hide is referred to in RV. IX.79,4; IX.66,29; IX.101,11 and was used to catch the drops of Soma (apparently, the pulverized bits of the electrum ore block). The later rituals state that the pressing-boards are adhis.avan.a phalaka and are also laid across a sounding-hole dug beneath (See Hillebrandt, VM. I.148). A reference to the sacrificial ground with the hollow is mirrored in the term: r.tasya yoni (RV. IX.64,11,22): the home of the yajn~a. The reference to r.tasya dha_ra_ (RV. IX. 63,14,21) is a reference to the process of flowing through the wool strainer.

Indra's outward appearance flowed away from his semen and became suvarn.am hiran.yam when he had drunk Soma that was exposed to witching. (S'Br 13,1,1,4: S'Br. 12,7,1,1: retasa eva_sya ru_pam asravat; tat suvarnam hiran.yam abhavat; cf. J.Gonda, 1991, *The Functions and Significance of Gold in the Veda*, Leiden, E.J.Brill, p. 5). [Note: S'Br. 12,7,2,10: lead (s'i_sa) is 'a form of both bronze and gold'; ahi is a snake; na_ga is a snake; na_ga = lead (Skt.)] RV. 4,17,11 relates how Indra gained cows, gold, troops of horses. When Soma purifies itself, Soma wins cattle, chariots, gold, the light of heaven, and water for them (RV. 9,78,4). The river Sindhu is rich in excellent horses, good chariots, good garments, rich in gold (RV. 10,7,5,8). RV. 9,112,2 recounts how the blacksmith searches for a customer who possesses (much) gold. Gold is described as s'ukram hiran.yam (RV. 8,65,11) or shining with a light of its own. "He who buys the (Soma) with gold buys it as sas'ukram" (Taittiri_ya Sam.hita_: 6,1,10,1). Even the sun is equated to gold: hiran.yam prati su_ryah (RV. 1,46,10: sun is equivalent to gold). Agni is called hiran.yaru_pa (RV. 4,3,1: gold-like). Apa_m Napa_t (the Child, Descendant of the Waters) has a terrestrial form of the earthly fire and is associated with gold (RV. 2,35,10: hiran.yaru_pah; RV. 2.35,9: hiran.yavarn.a_h). Indra and Va_yu's chariot (which is 'heaven-touching') is made of gold (RV. 4,46,4). RV. 2,35,10 reports that Apa_m napa_t in his earthly manifestation as the sacrificial fire, comes out of the golden yoni (yoni hiran.yaya which is Soma's seat (RV. 9,64,20).

References to electrum may be noticed in RV. 8,45,22 where the metal silver is called 'whitish hiran.ya'; rajata is used as an adjective to mean 'whitish, silver-coloured'. [See A_pS. 5,29,2 which states that rajatam hiran.yam should not be given as a daks.in.a_.]

Pu_s.an has golden ships which sail in the sea (RV. 6,58,3) and bears an axe made of gold (RV. 1,42,6).

RV. 9,86,43 refers to Soma as hiran.yapa_va_h which can be interpreted as 'purified golden Soma.'

Soma was poured through through a sieve made of wool. Every hymn of Book IX of the Rigveda refers to the filtering through the strainer. (pavitra = sieve, means of purifying, filter; pu_ = to purify; pavate = he cleanses himself; pavama_na = self-purifying). References to filtering are in : RV. IX.1, 1 and 6; IX.28, 1,2,6. 'Soma while filtering himself, flows thousand-streamed, across the wool' (RV. IX.13,1). In this filtering process, Soma is tawny in colour; and sounds like the thunder of the sky or the bellowing cattle. In RV. IX.97,33 the word 'karman' is used to denote the toil involved in the sacrifice.

Soma is mixed with milk (gava_s'ir = addition of milk to Soma), curd and grain. These are intended to stoke the burning embers and to act as oxidizing agents to remove the baser metals.

The rasa of the Soma is emphasized (RV. 8,3,20; 9,67,8; 15; 9,76,1 describes the rasa as kr.tvya or efficacious, as daks.a or ability. Somya rasa (RV. 9,67,8) is the 'sap, which constitutes the essence, best, beneficial element of Soma'. The colour of the rasa is hari (yellow, tawny)(RV. 9,19,3; 9,25,1; 9,103,4; 9,78,2; 10,96,6 and 7. RV. 8,29,1 refers to Soma as babhru (reddish-brown) and a youth who is applying a golden ointment (an~ji... hiran.yayam) to himself. RV. 9,107,4 refers to Soma as utsah hiran.yayah: a spring of gold [Geldner, Rig-Veda ubers, K.F. Geldner, Der Rig-Veda ubersetzt, Cambridge, Mass., 1951, III, p. 110). RV. 9,86,43: sindhor ucchva_se patayantam uks.an.am hiran.yapa_va_h pas'um a_su gr.bhn.ate: "purifiers of gold seize in them (i.e. the vasati_vari_ water left standing overnight) the animal (pas'u_), i.e. the bull (Soma) that flies in the upheaving of the river." Thus in this hymn, the gold which is purified refers to the juice of Soma which is golden.

RV. 6,61,7 refers to Sarasvati_ as hiran.yavartani or one endowed with a golden course. RV. 9,8,39; 38 implore Soma to clarify itself while procuring gold.

RV. 9,75,3: ava dyuta_nah kalas'am acikradan nr.bhir yema_nah kos'a_a_hiran.yaye = Soma rushed down in the jars with loud cries, held (in hands) by the men in the golden vessel (kos'e).

Soma is pita_deva_na_m (RV. IX.109,4) or father of the gods.

Hiran.yagarbha, the golden germ was evolved in the beginning (RV. 10,121,1'). Hiran.yagarbha is the title of Praja_pati, who is declared as the only god who encompasses all the created things (ja_tah patir). "(he) who by his might has ever been (babhu_va) the sole lord of the world that breathes and blinks, who rules over these two-footed and four-footed (beings), to what god shall we pay homage with oblation?" (RV. 10,121,3). This reference is considered by some to be a later addition. (for e.g., cf. Edgerton, F., The Beginnings of Indian Philosophy, London, 1965). The Being who evolved in the beginning is also the lord of the snow-clad mountains, the ocean and the river Rasa_. He is the fashioner who tied heaven and heaven. When the waters moved producing Agni, from the waters evolved the asu (life-principle?) of the gods. [Note the use of am.s'u as an epithet of Soma.] Hiran.yagarbha is the only god over the gods: yo_deves.v adhi deva eka asi_t.

Rigveda riddled with allegory and metaphor enters the philosophical domain with these descriptions of Hiran.yagarbha. Post-Rigvedic texts and philosophical tracts abound in references to Hiran.yagarbha as attested by J. Gonda (opcit., ppo. 217-246). Ma_nava S'rautasu_tra (MS. 6,2,3,9) stipulates the use of stanzas 1,3, 2-7 of RV. 10,121 (Hiran.yagarbha su_kta) in connection with the naturally perforated 'brick' (agnicayana). It has been argued elsewhere that the perforated bricks are integral to the later-day alchemical processes of transmuting baser metals into gold. (Kalyanaraman, opcit., in press)

MAHA_VRATA

Maha_vrata is the last day but one of the Gava_mayana Sattrā which represented the whole year. The middle day was the vis.uvat or summer solstice and the last day but one was the Maha_vrata or the winter solstice. The rites are related to the increase of the sun's heat after the solstice. [gava_ can be interpreted as 'earth' and hence, gava_mayana connotes the reference to the winter solstice which records the apparent shift, in relation to the earth, in the motion of the sun.]

Some typical activities on this ancient festival day were: warriors fully armed would pierce with arrows the stretched skin of a barren cow. On a rough hide, an a_rya and a s'u_dra wrestle. The Ma_rjali_ya fire is lit and maidens carrying jugs of water on their heads encircle the fire. Maithuna is an attempt to produce fertility as a form of sympathetic magic. Music by drumming is played accompanied by obscene language to drive away the demons.

Maha_vrata is a remarkable example of the continuity of the civilization and culture on the banks of the Sarasvati_. Maha_vrata is the day of the winter solstice which is celebrated as the New Year's Day in Punjab, Assam and Tamil Nadu (cf. Festivals of Rohri, Bogali Bihu, Bhogi-Pongal; the tradition is to burn out the old and herald the new by using the fresh produce from the harvest.) Aitareya_a_ran.yaka is an integral component of the Rigveda. The a_ran.yaka has three books: (1) the first book explains the maha_vrata as a ritual and as an allegory and described the 'sastras of the morning, midday and evening libations of the maha_vrata day of the gava_mayana; (2) the second book explains the allegory of the uktha, which is the nis.kevalya s'astrā (midday s'astrā as the pra_n.a or purus.a); the second book also has the superb upanis.ad (adhy_ayas 4-6); (3) the third book discusses the mystic meaning of the various forms of the text of the sam.hita_, the nirbhujā, pratr.n.n.a and ubhayamantaren.a, and of the vowels, semi-vowels and consonants. These terms are used to described the sam.hita_, pada and krama pa_t.has of the sam.hita_. The fourth book has maha_na_mni_ verses to be studied in the forest. The fifth book has the nis.kevalya s'astrā of the midday libation of the maha_vrata. The fifth book is attributed to S'aunaka (ca. 500 B.C.) who is anterior to Pa_n.ini by about 100 years. (A.B.Keith, 1909, *Aitareya A_ran.yaka*, Oxford, Clarendon Press).

"Now begins the Maha_vrata rite. Indra having slain Vr.tra became great. When he became great, then there came into being the Maha_vrata." (Sa_yan.a explains the term mah_vrata: maha_n bhavaty anena vratena or mahato devasya vratam or mahac ca tad vratam. (Aitareya A_ran.yaka I.1)

"In the Maha_vrata ceremony there are twenty-five verses to accompany the kindling of the fire (Aitareya A_ran.yaka: V.1)

Maha_vrata is an agnis.t.oma and has the morning, midday and evening pressings of the Soma.. The fire-altar is in the shape of a bird. The activity of the Hotr. in the Maha_vrata rite is recorded only in the Aitareya A_ran.yaka and the S'a_n:kha_yana A_ran.yaka. The activity is shrouded in total secrecy. "The Adhvaryu brings up the vessel containing the libation and the (three) atigra_hya bowls. As soon as he perceives the food, the Hotr. Descends from the swing towards the east. Then they tie up the swing to the west that it may not slay the reciter when about to eat. For the Hotr. eats seated on the place of the swing. Then the Hotr. consumes the (libation in the) vessel with the words uttered in response, 'May speech, the deity, rejoice in the Soma,' 'May Soma, the king, shower life on me for my breath,' 'May my breath milk mightily all life... At the proper time they should carry the swing to the bath, and burn together the seats.' " (Aitareya A_ran.yaka : V.3,2) As it is completed, the vedi and the br.si_s are both consumed by fire.