

# The Somahuasca Hypothesis

DANIEL DEVATMAN HROMADA\*

Universite der Kunste, Berlin, Deutschland, Union, Erde

University Paris 8, Paris, France, Union, Terre

Slovak Technical University, Bratislava, Slovakia, Zem

## Abstract

*The Somahuasca hypothesis posits that the drink Soma of ancient indian and Haoma of ancient iranian people contained a mixture of DMT-like alkaloids and MAO-inhibitting entheogens like harmaline. It extends the hypothesis of Flattery & Schwartz, who identified Haoma with Peganum Harmala, with a second "invisible" component present in the milk, with which the crushed plant is to be mixed in the culminating phase of both Vedic and Avestic Ritual. In its more specific form, the hypothesis suggests that milk, and especially colostrum milk, given by cows who have grazed high quantities of Phalaris grasses, shall contain non-negligeable amounts of psychoactive tryptamines able to induce altered state of consciousness in those who have consumed such a mixture in appropriate set and setting. The epistemologic advantages of the hypothesis hereby proposed are both its experimental falsifiability as well as its ability to offer an answer to the question: "Why was knowledge about Soma lost?"*

## I. OF GÓ AND SOMA

*Two religions there are which consider cow as sacred, religions of Avesta and RgVed are they called.*

GAndhi has once stated that the "Central fact of hinduism is the cow protection". And the very existence of this "central fact" obliges a honest man of science to ask what is the *prima causa* of cow's veneration. Even more obliged should be a good Orientalist: for his very method forbids him to be fully satisfied with either superstitions, or folk explanations, of such widely spread phenomenon. Knowing histories of dialects and languages, being initiated into stories of families and clans, tribes and nations, such a truth-seeking soul should never cease to try to unveil the *maya* which hides the origin of things.

Whether one wants it or not, *episteme* of India is -and until India stays Indra's continent, it shall ever be- strongly rooted in Vedas and among all Vedas to which we have access today,

RgVed is the oldest. And among ten mandalas of RgVed and asides "family books" stored in mandalas 2-7, and asides the youngest mandalas 1 and 10, there exists a somewhat irregular 9th mandala. Ten mandalas, ten collections of hymns sometimes older than old, could they tell us something new yet eternal, something obvious yet unknown about primordial relation between a man and a cow? And if yes, should we be able to parse and understood the message even today, millenia after the message was first uttered?

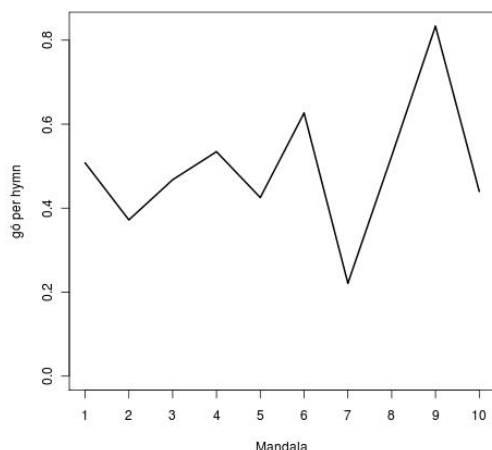
If no was the answer, this article nor any subsequent study which shall follow from it, would have never seen the light of the world. But it was RgVeda<sup>1</sup> herself which has furnished us an initial affirmative answer. More concretely, the first indication of veracity of the Somahuasca hypothesis hereby proposed was furnished by a quantitative analysis of frequency of occurrence of all declinated word forms of the word "gó" (meaning "cow") in diverse mandalas of RgVed.

\*hromi at giver dot eu

<sup>1</sup>In Slavic languages, the word "veda" still means what it's supposed to mean, i.e. "science". Since in these languages the word is considered to be a feminine substantive, we shall declinate it as such.

## II. OF SOMA AND HAOMA

**Figure 1:** Relative (per hymn) occurrence of declined forms of "gó" in diverse parts of RgVed



What such a trivial <sup>2</sup> quantitative analysis indicates is, that the word "gó" is used, in average, not more than once in two hymns. In case of mandala 7 it is even used as little as once in five hymns. But in case of 9th mandala, one can observe a significant peak suggesting that, statistically speaking, a form of "gó-" shall be mentioned, in any given hymn, with not less than 80% probability.

And this is where Soma comes in. For the *raison d'être* of 9th mandala is to praise and venerate Soma in the process of his purification. That is, 114 hymns of 9th mandala are to be chanted when the Soma plant is pounded with stones, the resulting juice is filtered through lamb's wool so that only the drops of pure, cleansed Soma Pávamāna can be finally gathered in the receptacle. And as is often the case in Vedic mind, diverse attributes of Soma, his origin, whereabouts and goals, his forms, friends and feinds are listed in the process.

In other words, what Figure 1 shows not qualitatively, but purely quantitatively, that there used to exist, in hymns - and therefore also in minds - of ancient proto-indo-iranian people, a non-negligible semantic association between Soma and cows.

*In both of these religions, a pounded plant, its juice and a bowl of milk, play a central role.*

Given the volume and consistency of archeologic, linguistic, anthropologic and other evidence, even the biggest sceptic has to accept that millenia ago, in a certain moment of a so-called proto-indo-iranian period, and before an ultimate split between people of Vedas (indian people) and people of Avesta (iranian people), did the terms Soma and Haoma denote the same plant. Since offering of such introductory evidence is an objective going well beyond the modest objectives of this article, anyone interested in more detailed arguments should consult studies of [2, 3, 4] as well as works to which these studies refer. For the purpose of this article, let's just summarize the most salient aspects of Soma/Haoma parallelism:

- both names are derived from verbal root meaning "to pound, to crush" ("so-" in vedic sanskrit, "ho-" in avestic)
- both names are used to denote not only 1) plant, but also 2) juice extracted from the plant and 3) an associated divinity
- in both contexts preparation and consumption of juice is accompanied with ritualized chanting
- in both contexts consumption is to be preceded with preparatory activities like fasting
- priests of both religions consider cows as sacred
- priests of both religions mix the filtered juice with milk and potentially other admixtures
- priests of both religions offer multiple temporally shifted libations both to the one-who-drinks as well as to divinity-which-is-drunk
- divinities thus actualized offer to the one-who-hears an access to a certain supra-mundane, psychic, non-physical, poetic and potentially "divine" realm

<sup>2</sup>Resulting quantities was obtained by dividing the absolute frequency, i.e. number of occurrences of the word in the mandala M, with the number of hymns contained in the mandala M, i.e.  $F_{relative} = F_{absolute} / \text{hymns}_M$

Knowing that the list could go on and on, it is at this "revelatory" attribute of Soma/Haoma, where we stop enumerating the parallelisms and approach more closely the crux of the matter.

Thus, when it comes to Soma, he is, according to McDonnell's gentle introduction to RgVed, a "A generator of hymns, a leader of poets, a seer among priests. Hence his wisdom is much dwelt upon, thus he is a wise seer, and he knows the races of the gods...He is a king of rivers, a king of the whole earth, a king or father of the gods, a king of gods and mortals" [5].

Haoma, on the other hand, is also fond of helping seers, poets, priests in their task to unify the mundane with the supra-mundane. Thus, it is evident from Hōm Yašt, one of the most important components of both Avestic and Zoroastrian tradition, that not only such figures of old Iranian mythology and history as Wīwahwant, Āthwya, Thrita, Pourušāspa but also the prophet Zoroaster himself have, indeed, succeeded to "prepare Haoma for the corporeal/incarnate world" (Yasna 9.4, 7, 10, 13).

In its very core, Hōm Yašt is in fact nothing else than "transcript" of dialogue between the prophet Zoroaster and Haoma, which is to be recited during the preparation of the *parahaoma* drink. It contains not only historic references but also concrete liturgic receipts and precepts which are to be observed strictly, if one does not want to pass a somewhat bad trip, but rather wants to meet Haoma or even know the superordinate divine entities known as Amša Spnta (i.e. "the bounteous immortals"). Given that these entities are themselves constitutive sparks of the ultimate godhead Ohrmazd, a well-prepared and well-governed experience with paramhaoma could thus eventually lead the one-who-drinks to practical omniscience of both mundane and supra-mundane realms.

Thus, in parallel to indian Soma about whom was said: "We have drunk Soma, we become immortal, we have gone to the light, we have found the gods", the iranian Haoma also seems to be more than willing to bestow immortality to those who praise him with words like

*"Good is Haoma, and the well-endowed, exact and righteous in its nature, and good inherently, and healing, beautiful of form, and good in deed, and most successful in its working, golden-hued, with bending sprouts".*

### III. OF VISIBLE AND INVISIBLE

A belief that asides the mundane plane of physical "objective" reality there exists another supramundane/astral/psychic/spiritual plane is so universally widespread among all human cultures, that it may be considered to be a kind of "anthropological constant". This is hardly surprising given the fact that practically every healthy human brain generates, during dreaming and sleeping, alternative and parallel realities practically every night.

It has been suggested that a molecule called N,N-Dimethyltryptamine (DMT) could be a chemical trigger of such dream-like experiences [1] and even that DMT is endogenously synthesized by brain's pineal gland [6]. Be it the case or not, it is without doubt that when DMT is administered exogenously, it can induce dreamy, hallucinatory, visionary or even mystical states of consciousness.

We say "without doubt" because anthropologic and ethnologic field studies of dozens of different Amazonian tribes as well as few rare clinical studies demonstrate since many decades that consumption of DMT allows human souls to access such alternative psychic worlds. For amazonian people this psychic worlds are populated with spirits of totemic animals or ghosts of elders while modern people often encounter in them diverse mythological and fantastic figures (elves, aliens, artificial intelligences etc.)

Humming, mantra-like, base vibration and/or high-pitched whistling sound is also often reported by subjects who had undergone the DMT experience.

In tribal amazonian societies, ayahuasca or yage (which are two most popular names for traditional DMT-containing potions) is almost always consumed with intention either to heal the member of the tribe, or with intention to de-

feat the adversary on the ghostly plane so that it shall be easier to defeat him on the earthly plane. In case of the fighting scenario it is practically always the shaman who undertakes the risky journey. In case of healing scenario, it is sometimes the patient himself who becomes the one-who-drinks and departs on the trip to the netheworld. In such a case, the one-who-drinks can be sure of the physical proximity of the Shaman whose voice chanting repetitive and recursive formulae furnishes an anchor which shall help the departed soul to come back, healed, unharmed, victorious, to the very place from which she had departed.

But besides this "psychotherapeutic" responsibility, the Shaman is also responsible for the correct brewing of the entheogen-containing potion. The importance of this biochemic responsibility is not to be underestimated since not only wrong choice of plants or their maturational cycle, but also an incorrect estimation of the dose which should be administered to the one-who-drinks, practically any little omission or error can lead to fatal consequences. Moreso in the amazonian forrest full of unknown dangers and unexpected surprises.

And even more in case of potions like ayahuasca or yage which have to contain not one but two active verbal components. We explain: in order to induce the expected modification of consciousness, DMT has to get into brain. But if administered orally, DMT gets decomposed in stomach by the enzyme monoaminoxidase (MAO) which plays a role of a biochemical barrier protecting us from diverse poisonous substances. Thus, in order to get into brain, MAO has to be first deactivated by another substance, a so-called MAO-inhibitor which shall unlock the barrier thus making DMT's passage into brain's vessels free.

How, in all the diversity of the rainforest, could ancient amazonian shamans discover the combination of the plant rich on DMT and the plant rich on MAO-inhibitor shall most probably forever be a mystery. At least for western, cartesian science. But luckily for us, we do not aim to solve it, for our objective here is to elucidate shamanic history of another continent:

the euro-asian one.

Another continent, yet parallel beliefs and behaviours: potions made of mutually interacting sacred plants, worlds of spirits, Shaman and Priest repeating the recursive formulae in order to bring the one-who-journeys back, fasting, healing, humming and high-pitched vibrations, fight with an invisible adversary, visual flow, experience of light, near death experiences, immortality...

Seeing all this common phenomena we feel that between nature-lovers and healers of two continents separated by Atlantic Ocean and potentially even by even deeper and greater abysses, there nonetheless exists an invisible, intangible link, the communion of Life, and the unity of Soul, both unconstrained by space and time.

#### IV. OF HARMEL AND PHALARIS

*In RgVed Soma, in Avesta Haoma, this plant-drink-god is called...*

To have the "shamanic link" established, one has to have DMT and MAO-i carrying plants at one's disposal. In Amazonia it is definitely the case. But what about Eurasia: among its flora are there any DMT or MAO-i candidates and if yes, in what extent do their biotopes co-occur?

Candidates there are, and it would be futile to enumerate them all. But among all possible MAO-i carrying plants, one is the most salient and particular: a shrub called *Peganum Harmala*, or "syrian rue", growing and used practically everywhere in Central Asia. From Mongolia in north until Ladakh in South, from Tibet in the east until Turkey in the west, Harmel is to be found on the markets, sold as fuel and incense, on doors, hanged as a protective amulet against bad spirits, in shelves of local pharmacists, dosed for usage as antibiotics, anti-protozoicum, anti-cancer treatment, contraceptive or even aphrodisiacum.

Indeed can be star-like flowers, cracking seeds and bifurcated boughs of Harmel understood not only as plain plant parts, but also

symbols which give Central Asia its unique oriental unity which transcends by far ruptures caused by religious and political divergences.

Biochemically, Harmala is considered to be of particular importance because it contains huge amounts of indole alkaloids harmaline and harmine. Being slightly entheogenic in their own rights<sup>3</sup> it is these very same chemical substances which are ayahuasca's MAO-inhibitors<sup>4</sup>.

It is because of this two MAO-inhibiting alkaloids, because of harmaline and harmine, that grazing livestock often refuses to eat or even touch the Harmala shrubs, leaving them intact sticking out from otherwise completely grazed field. It is because of this, that the mysterious *isfand* had most possibly attracted closer attention of the Ancients.

Since practically all that is to say about Harmel was already said in an amazing interdisciplinary oeuvre of Flattery & Schwarz [2] as well as in deeply inspiring monography Blue Tide [4], let's now focus on DMT-carrying plants. There are indeed many which grow in vaste regions of Central Asia and it may be the case that the DMT-potency of many plants is still yet to be discovered. But the list of those plants, whose DMT-potency was already measured, is dominated by grasses of genus Phalaris<sup>5</sup>

Phalaris (and especially some of its species like Phalaris Aquatica) is a noble, tall, arrow-like grass whose alkaloid content varies in relation to multiple factors, including the amount of grazing (i.e. more it is grazed, more DMT shall new stalks contain), time of the day (i.e. diurnal variation) or, possibly, even lunar phase. We believe that in contexts of these facts, the Vedic incitation to mix Soma with the milk of the "morning cow" can yield new and potentially useful interpretations.

But in order to be mixed, both plants how

to grow at the same place or at least in not so distant regions with established commercial links. In what extent can it be expected that this was so in case of Phalaris? Such was the question which the author of this article decided to answer in november and early december 2011 by travelling by land from Eleusina in Greece all the way to Balkh-Bactria in modern northern Afghanistan. The basic results are summarized in Table 1 (X means "no occurrence", "M" means occurrence on the market and "O" means plant observed growing wildly in nature).

**Table 1:** Co-occurrence of Harmel and Phalaris

| Location        | Harmel | Phalaris |
|-----------------|--------|----------|
| Eleusis (gr)    | X      | O        |
| Hattushah (tr)  | X      | X        |
| Tehran (ir)     | M      | X        |
| Yazd (ir)       | M      | O        |
| Fahraj (ir)     | M      | O        |
| Persepolis (ir) | M      | O        |
| Merv (tm)       | M      | O        |
| Samarkand (uz)  | O      | X        |
| Termez (uz)     | M      | O        |
| Balkh (af)      | X      | X        |
| Tashkent (uz)   | M      | X        |

Unfortunately, the whole journey during which these results were collected, was more swift than would be needed. For example in case of Balkh, the security situation have not allowed to do more than 3 hours of field work, amount of time highly insufficient during the late-autumn period when all grasses are grazed away and to find any stalk whatsoever is identic to miracle.

But notwithstanding these difficulties, stalks of Phalaris were spotted to grow in such places as Yazd, Fahraj (near Yazd), Persepolis, Mergiana-Merv or Termez. That is, in places

<sup>3</sup>For anyone interested into closer descriptions of psychedelic experimentation with Harmala only, the book is highly recommended.

<sup>4</sup>Substance was also called "telepathine" before it was discovered that it is, in fact, harmine

<sup>5</sup>The reason why Phalaris is studied better than other grasses is principally due to the fact that especially small livestock like sheep or goats can suffer so-called "Phalaris staggers". For quite a long time it was believed that DMT should be responsible for these staggers and only later was discovered that it is not DMT but poisonous gramine who should be accused of this syndrome. Compare also with reference to "trembling cows" in Zoroastrian Yasna 10.14.

supposed to be central to past -and in case of Yazd also present- life and rituals of Zoroastrian religion.

When it comes to Harmel, its wild growth was observed only once, on the ancient Afrosiyab hill in Samarkand. But given the quantity in which the Harmel was present in all the pharmacies, markets and spice shops from Shiraz to Tashkent it may be stated that practically whole region abounds with Harmel which is easily accessible if one knows where to look for it.

This being said, we conclude that the botanic data gathered on our 1st somic voyage in autumn 2011 do not a priori exclude the possibility that the key to the mind-altering potency of ancient Soma/Haoma is to be explained in terms of mixture of MAO-inhibiting alkaloids contained in *Peganum Harmala* and tryptamines contained in *Phalaris* grasses.

## V. OF ADVANTAGES OF THIS HYPOTHESIS

*...the one who makes the two worlds whole*

There are, of course, multiple ways how *Phalaris* and Harmel can be consumed together<sup>6</sup>. One can be smoked, or another, or both. One can be juiced, or another, or both. One can be chemically processed - diffused in hot water<sup>7</sup>, vinegar, milk, butter - or another can be processed, or both.

Among all these possible combinations the one which resembles the most the original Vedic and Avestic rites, should be chosen. As we had already indicated in the first section of this article, we believe that besides the human and the botanic, there is yet another organic component involved in story of Soma and Haoma: the bovine.

As we see it, cow could play a crucial role in the purification of Soma's invisible component. Its digestive tract could filter away the

poisonous substances and pass into milk only that, which is benign.

What's more, the understanding of cow's role in whole somic affair could implies a very natural answer to the question which all existing Soma-identity theories have failed to answer. *Id est*: "Given the importance of Soma/Haoma for spiritual and social order of proto-indo-iranian society, how it is possible that knowledge about Soma's identity was simply lost?"

The answer is simple: because the very chemical mystery of Soma's potency wasn't fully known in the first place. Until the nomads were in the region abundant with *Phalaris*, whole thing simply functioned. But once were the Ancients obliged to leave towards other biotopes, Soma started to loose his power. Rites were formalized, transparent intuitions were codified into nontransparent hymns, things got less playful and more serious: all that to call Soma back. And he did come back from time to time there, where Harmel grew and the morning cow myriads of juicy stalks chew- but his presence ceased to be stable. Other substitutes were integrated, explanations of his absence found, other rites and divinities got into foreground. What used to be evident, got messy. Soma, the eagle among plants, Soma, the bull of divine draught, ceased to reappear.

The fact that the Somahuasca hypothesis, as hereby proposed, is able to account for Soma's disappearance, is its first advantage. The second is related to its falsifiability.

In other words, a non-negligible epistemological advantage of our proposal is that if true, it postulates measurable and varifiable consequences. Contrary to all previous Somic hypotheses, be it Wasson's Fly agaric, Flatterys&Schwarz's Harmel or Houben's Ephedra, can be the hypothesis hereby proposed operationalized into an experiment which could either verify or falsify it. And by doing so, generate new knowledge.

<sup>6</sup>And we hereby strongly discourage anyone who is not being 100% of what he is doing, or ignorant of interactions of MAO-i and tyramine, or not fasting and taking other precautions, from even thinking about trying to consume together. Kids, do not try this at home and definitely not without guidance!

<sup>7</sup>C.f. "Phalaris Soma" trip-report <http://www.erowid.org/experiences/exp.php?ID=9062>

More concretely, one simply needs a certain field, a certain grass, a certain cow, a certain calf and a certain laboratory in order to measure whether - and if yes, in what extent - is DMT present in cow's milk.

And only afterwards could one express the final judgment about the veracity or falsity of the most extreme variant of Somahuasca hypothesis expressed in the following words:

*It is by grace of intricacies of digestive system of Bos taurus species - and the way body of females of this species succeed to filter away poisonous alkaloids (like gramine) but keep DMT-like molecules, potentially obtained from surrounding Phalaris grasses - that the eternal Kamadhenu is able to establish a communication channel with her children and endow her with all the marvelous attributes which made her to be both primordial, as well as ultimate, totemic mother of all indo-european people.*

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