

The *Soma* Drinker of Ancient India: An Ethno-Botanical Retrospection

Sachidananda Padhy and Santosh Kumar Dash

INTRODUCTION

In Rig Veda (R.V.), '*Soma*' is projected as an ambiguous entity, being attributed to multifarious forms such as : *Soma* as light; *Soma* as dawn; *Soma* causes the sun to shine; *Soma* as a constellation and luminous species; *Soma* as bird; *Soma* as child; *Soma* as support of the sky and *Soma* as the King, which ultimately characterised as if a mythological form. Above all, the Vedic literature supports that *Soma* was a sacred plant, the juice of which (*Soma-Rasa*) was considered as the divine drink offered to Gods, contemplated with medicinal efficacy, used as natural restorative for health that makes the consumer awakened and alert.

More additions to the glory of *Soma Rasa*, that, it was poured into the fire as an offering to the Gods and was drunk by the priest that inspired and stimulated to compose hymns and maxims. It bestowed long life and responsible for removal of sins from the heart and takes away the diseases from the weak and is the medicines of the infirm; it gives protection against human wickedness and bad omens; encourages truth and destroy untruth and condemns false dignity (Hillebrandt, 1891). In Law Books, *Soma* is regarded as a purified drink and is characterised to an extent that a *Brahmana* (yogic elite) by drinking *Soma*, was supposed to acquire the powers, which could kill others merely throwing a glance. Moreover, the alternative name of the Moon God 'Chandra' is *Soma*, who is the controller to generate medicinal properties in plants and the authority of *Amruta* (i.e. Nectar), the so-called elixir of immortality, for which the man wonders.

During the last more than one century, there have been substantial research to identify the specific plant species of *Soma*, used by the Vedic people to make a fruitful utilisation of it for the present day humanity. We have dealt extensively on the *Soma* plant in our recent review (Padhy et al., 2001) and have presented it for an open discussion (Padhy and Dash, 2001, 2002). The present paper is aimed to bring out the ethnobotanical facts relevant to the regime of *Soma* drink from vedic age to modern day.

THE *SOMA* PLANT AT A GLANCE

The description of the *Soma* plant can be traced out in Rig Veda, especially in the ninth Mandala and few more hymns in other Mandalas. However, the difficulty in interpretation of Sanskrit literature and clear-cut non-specifications of the morphological features of the plant has created problems for the scholars for ascertaining its exact botanical identity. The details of the Vedic description on it, is being depicted in our recent review (Padhy et al, 2001). However, for the benefit of readers, the description of *Soma* plant given by Haug, 1875 (c.f. Hillebrandt, 1891), is mentioned here to give a brief idea on it. The *Soma* plant is not mere a plant; but a creeping, somewhat twisting, semi-shrub with a series of leafless shoots, which contain an acidulous milky juice. On the other hand, there are evidences for the search of alternatives to *Soma* plant in the Vedic age itself, which indicate the scarce availability or extinction of the plant proper, in course of time.

Aayurveda, known as the fifth Veda in which, two *Samhitaas* (Charaka and Sussruta) are highly significant. The amount of research carried out on *Soma* drinking in Aayurveda tops the list among all the efforts made by Aryans to explore the benefits of the plant. Sussruta Samhita (S.S.) has mentioned 24 varieties of *Soma* based on the differences in their habitat, name, shape and specific potencies. As a general characteristic, all the *Soma* varieties were furnished with 15 leaves, the character contradicting to the Vedic description that the plant was leafless. However, all the varieties had possessed a bulb, a creeper like morphology and secreted milky juice. Interestingly, the emergence of 15 leaves in all these 24 varieties, one by one daily keeping pace with the *Tithis* (lunar days) of bright fortnight (*Sukla Paksha*) and becoming well furnished with 15 leaves on full-moon day (*Poornami*). Subsequently, they lose the leaves one by one in the same order of *Tithies* of dark fortnights (*Krushna Paksha*) and finally on no-moon day (*Amaavaasyaa*) remained in the form of a leafless stump (SS. IXXX. 20, 21 and 22). But, the existence of such plant is

yet to be established from botanical stand point.

Further, the Chapter XXX of Sussruta Samhita, has focussed on 18 more plants with their brief morphological descriptions, their availability and allied therapeutic action like *Soma*. All these plants, have a lot of morphological and ecological variations with a common feature of possessing a latex containing bulb. However, the multifarious brief descriptions of all these 24+18 = 42 plants could not ascertain, so far, to pinpoint on the *Soma* plant. The non-availability of the detailed phytography of these plants, is due to the general practice in the ancient days to learn the identification of the plants from the *Guru* and mostly, the phytographic know-how of identifying characters were limited only to the expert (i.e. the *Guru* concerned). The same practice of non-revealing the drugs is still continuing with the quacks and tribal physicians with the claim (a falsehood) that the therapeutic potency of the plant be lost if revealed out. On the contrary, the non-declaration of the drug bears a positive implication of long-term sustainability of it ecologically; while it suffered negatively, by dwindling / deterioration / extinction of the knowledge.

As per the habitat perspectives of the plants, Vedic description has mentioned that it used to grow in mountains, which indicates the plant as xerophytic. On the contrary, Sussruta Samhita has mentioned that some varieties of *Soma* used to grow in the hillocks and mountains of ancient India, like Himalayas, Arbuda, Sahya, Mahendra, Malya, Sree Parvata, Devagiri, Devasaha, Paariyaatra and Vindhya, while few other varieties are reported to grow in aquatic habitats restricted to Devasunda lake, Sindhu river and the little Maanas lake in Kashmir. All these above narrations create impediments to concentrate on the ecological niche of the plant either as xerophytic or hydrophytic.

Present day research has focussed on 20 different plants as *Soma*, alphabetically mentioned as: *Amanita muscaria*, *Asclepias acida*, *Basella cordifolia*, *Cannabis sativa*, *Ceropegia decaleneana*, *Ceropegia elegans*, *Eleusine coracana*, *Ephedra* sp., *Ichinocarpus frutescens*, *Periploca aphylla*, *Ruta graveolens*, *Saccharum* sp., *Sarcostemma acidum*, *Sarcostemma brevistigma*, *Sarcostemma brunonianum*, *Sarcostemma intermedium*, *Sarcostemma viminalis*, *Sorghum* sp., *Vitis vinifera* (Afgan grape/vine) and *Humulus lupulus* (Hops). The above list is the

outcome of the perception from different schools of thoughts based on the interpretation of Vedic view, from their own angle and still fails to pin point on a plant as *Soma*. *Sarcostemma* – a succulent angiosperm, supported much by the old school of thought (Fig. 1); while *Ephedra* – a gymnosperm, enriched with the active drug principle ephedrin, is not a natural habitat of India, where the *Soma* culture existed. The mushroom *Amanita muscaria*, the latest identified plant as *Soma*, has gained much consensus for its intoxicating and hallucinogenic properties. But, it suffers from objections as the prime vedic age human ethical compendium Manusmriti claims that, mushrooms are prohibited food for human beings; then how can they be offered to Gods ?; and be a divine plant of Vedic age ?! (Dash and Padhy, 1997).

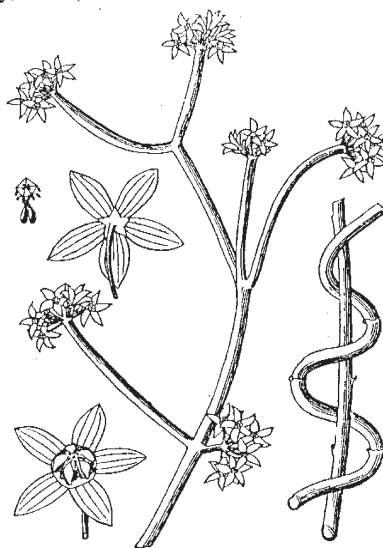


Fig. 1. *Sarcostemma brevistigma*, W&A. (Adopted from: Indian Medicinal Plants, by Kritikar and Basu, 1918).

This legendary plant which occupied a significant place in Aryan cult for thousands of years; yet remains without any established identification of its integrated original characteristics; ecological niche and still continued to be a botanical enigma.

THE REGIME OF SOMA DRINK

Vedic Procedure

The Vedic treatise for extracting *Soma Rasa*

involves collection of plant twigs enriched with acidulous milky juice, crushed between stones in mortar and the juice collected in a cowhide or plate. For better yielding, the twigs previously steeped in water and the extracts purified by passing through sieves.

The juice (*Soma-Rasa*), as described was with characteristic sharp taste and intaken in pure or mixed form along with milk, curd, grain or honey (Macdonell and Keith, 1912). Hardly, there was any time left between the extraction and administration which rules out any possibility of fermentation. The drink recipe so prepared, was sweet smelling and neither hallucinogenic nor intoxicating; rather acting stimulant that kept the drinker awake and alert all through. Its effective stimulus at intellectual level provoked complementary thoughts to compose maxims and hymns (Kochhar, 1996). The drinking of *Soma* Rasa was ritual oriented, offered to Gods and entitled not for a common man. The *Soma* drink praised with different adjectives in different hymns of Rig Veda, such as : 1) *Ssukra* RV. IV. 27.5 (gives contentment); 2) *Ssubhra* RV. IX. 62.5 (beautiful); 3) *Madhu* RV. I. 13.4 (sweet), 4) *Madya* RV. VIII. 92.1 (priority for consumption), 5) *Gorjika* RV. VII. 21.1 (free from excreta), 6) *Vivakshaswa* RV. VIII. 1.25 (to be praised aesthetically), 7) *Maneeshinah* RV. II. 19.1 (enrich cheerfulness), 8) *Sudaksha* RV. VIII. 92.4 (cream of the food) etc. (Acharya, 1992). Moreover, in Indian scenario, the *Soma* culture has influenced our day-to-day life such that, one is expected to offer *Tarpana* (offering of sacred water) daily to the *Pitru* (*Manis*) with the chant “*Oum Somapaah Pitara Strupyantaam*” (meaning : Let all the *Soma* drinkers’ ancestors be contented).

Next to Vedas, Manusmriti is regarded as the first ethical law book of human beings that guide the society in right perspective (Padhy et al., 2001), clearly elevates the status of *Soma* drinkers (Dash and Padhy, 1998) in comparison with the drinker of *Suraa* (Manusmriti: XI/150). This shows that the social confusion between the *Suraa* drinker and the *Soma* drinker almost rose to the post Vedic period; and the present public opinion is not free from that (Dash and Padhy, 1998). However, the *Soma* drinking is indicated as a luxurious and costly ritual with a lot of financial involvement. The person, who had potential to meet the food requirements of all his dependants for 3 years or more in advance, was considered

worthy to drink *Soma* juice (Manusmriti: XI/7,8). Further, if the *Soma* sacrifice remains incomplete due to deficiency, the sacrificer may redress such wants from others, who are rich enough to afford; but not themselves have performed the said rituals; if necessary even forcefully (Manusmriti: XI/11,12,14).

Aayurveda

Sussruta Samhitaa claims that, the person who uses the *Soma* bears a new youthful body which is supposed to be not harmed by fire, water, poison or weapon. He enjoys the energy of a thousand elephants. He can walk unimpeded to any difficult place and bears the beauty of a *Kandarpa* and the lustre of a full moon. The entire *Vedas* with all its branches and sections become thoroughly mastered by him. He never meets failure in life and moves every where with a divine spirit. He gives pleasure to the minds of all living beings (Shastri, 1953).

The methodology of the use of *Soma*, after care and day to day progress of the user, is dealt widely in the epic (Chapter-IXXX) is presented systematically as follows:

1. A person desirous of using *Soma* (any one of the 24 species described earlier), should get a house constructed with three chambers, one inside another at a commendable site (i.e. a central chamber with 2 successive outer protected chamber / corridor (Fig. 2) being provided with all kinds of routine paraphernalia and attendants. We have named this house as the Intense Care Unit of the *Soma* Drinker (ICUSD).
2. The particular plant should be collected according to the rites enjoyed for a sacrifice with chanting of *Mantras* and offered to the sacred fire in the innermost chamber of the ICUSD.
3. The *Soma* drinker should prick the bulb of the plant with a golden needle and collect a hand-full (*Anjali*) measure of milky exudate in a golden or silver vessel. This juice should be gulped in one sip without testing it and after that should throw away the remnants into water. Such instructions probably indicate the non-palatable taste of the drink. He should then discipline himself by applying the principles of *Yama* (controlling of senses) and *Niyama* (routine life). The day to day progress of the *Soma* drinker are recorded as follows:

1st Day: After drinking the *Somarasa*, with

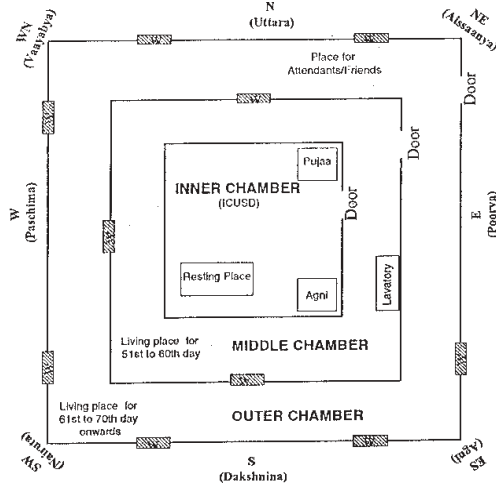


Fig. 2. A hypothetical Chamber for intensive Care Unit for Soma Drinker (ICUSD) developed by the authors based on principle of *Vastu Saastra*, descriptions of *Sussuta Samhitaa* and in consultation with other referrals.

concentrated mind and holy spirit, he should be confined to the innermost chamber of the ICUSD, observe silence, should sit, stand or walk; but should never sleep being attended by friends (outside). The person after his evening meal, followed by a spiritual discourse, should lie down on a bed of *Kussa* grass (*Desmostachya bipinnata*) covered with black-buck (*Krushna-saara Mruga* – *Antilope cervicapra*) skin. He may take a little cold water if thirsty or if he wants can take little milk too.

2nd Day: In the next day morning he should perform the routine and auspicious rites; should sit down as before. When the *Soma* juice gets digested, it causes vomiting of blood and worms. In the evening, he should take boiled cooled milk and rest as usual.

3rd Day: He would get a loose motion with worms which would make him free from impurities accumulated due to errors of his previous diet and conduct; thus making his body well cleansed. He should take milk after a bath in the evening and rests as before.

4th to 6th Day: Swelling appearance of the body and the worms come out from all parts of his body are the characteristics of the day. His bed should be on straw over with sand covered by a silken cloth and his diet is milk as before;

but enhanced to twice daily.

7th Day: The person becomes completely fatigued due to excess wastage of muscles and reduced to a skeletal appearance. However, he continues to respire due to impact of *Soma* as claimed. Along with milk diet his body should be sprinkled over with warm milk followed by anointing with a paste of *Sesamum indicum* – *Rasi* / *Til*, *Madhuka indica* – Mahua flower and *Santalum album* – Sandalwood.

8th Day: Activities are same as the 7th day like milk bath and application of pastes. He should leave the bed of sand by changing to a bed covered with silk cloth.

Later his muscles resume strength, his skin gets desquamated and his teeth, hairs and nails began to shed off.

9th to 18th Day: His body should be massaged with a herbal oil (*Anutaila*) and a bath with decoction of *Soma Valka* (may be any one of the following plants: *Myrica* sp., *Milletia pinnata*, *Acacia nilotica* and *Sapindus trifoliatus* - refer Padhy et al., 2001). Thence onwards his skin becomes firm with appearance of shining and enduring new teeth towards 17th / 18th Day.

19th to 29th Day: There will be a change in his diet as he should take gruel with milk and old Shali rice. During this time shining nails and glossy fine hairs will regenerate and the skin becomes lustrous.

30th to 50th Day: A hair cut (*Mundana*) is made on 30th day followed by application of paste made from sesum seeds (*Sesamum indicum*), Sandalwood (*Santalum album*) and Usira (*Vetiveria zizanoides*) on the head and bathed with milk. With in seven days stable, glossy and curly black hairs come up. On the 40th day he should come out of the central room to the next, remain for a moment and re-entered into the inner chamber. Afterwards some herbal rheumatic oil for massage, paste of Barley (*Hordeum vulgare*) and decoction of Ajakarana (*Pterocarpus marsupium*) for rubbing and warm milk for sprinkling over the body, followed by bath in well water soaked with Usira (*Vetiveria zizanoids*) roots. He should drink varieties of pulse and other soups mixed with juice of Amlaki (*Embllica officinalis*). Also be given black sesum seeds boiled with milk and Mahua in the curry. This will continue for the next 10 days.

51st to 60th Day: For next 10 days he should live in the middle chamber.

61st to 70th Day: These 10 days he should remain

in the outermost chamber and stabilize himself getting exposed to sun and wind a little and again entered to the central chamber (for rest). During this period he should not look at himself in the mirror or water. All these days he should control his senses, thoughts, avoid anger and remain with constructive spirit. This state will continue till he is released out of the chamber.

Final Exit: On the 4th months in a full moon day after performing the auspicious rites and worshipping the *Braahmanas* he should come out of the chamber.

Truthfully, the difficulties and risk of taking the *Soma*, its after care and the day to day progress after administration of the juice, as well the process of metamorphosis as depicted, is beyond the expectations of any therapy and a modern man can not have trust and patience to undergo such rigorous treatment. But, it must be admitted that the whole process described above is no less than the quarantine treatment of modern medical science.

Modern Concept

The old school of research on *Soma Rasa* has focussed on different species of *Sarcostemma* of family Asclepiadaceae, an apparently leafless plant of several feet high, with smooth cylindrical jointed stalks and pendent lateral branches and small white flowers coming out on terminal umbels. Mostly, the tender shoots are with full of juice, which are often sucked by travellers to allay their thirst. The eminent taxonomist, William Roxburgh, who identified the *Soma* plant as *Asclepia acida* (*Sarcostemma* sp.) has claimed that the abundant quantity of milky juice, enriched in it, was not being witnessed by him in any other plant ever before. In this context, Max Muller has drawn attention to a Sanskrit passage, which he had claimed to be of Aayurvedic presentation, reads as follows:

*Soyaamalaa malaa cha nispatraa
ksheerinee tvasimaamsutaa,
Sslesmalaa vaminee vallee somaakshye
chhaaga bhojanam.*

Meaning: The creeper called *Soma*, is dark in colour, sour, leafless, milky and fleshy on the surface. It causes phlegm and vomiting and eaten by goats.

Eminent botanist I.G. Baker, expressed that the medical text cited by Max Muller clearly refers to *Sarcostemma* as *Soma* as far as his perception is concerned (c.f. Hillbrandt, 1891).

Another old school has co-ordinated *Soma* with Afghan grapes, vine, sugarcane or some species of Sorghum, the juice of which used as ingredient for the preparation of a kind of beer (like hops in Europe) and *Soma* is not a beverage by itself. This claim holds little as *Soma Rasa* is not a fermented product. Even there is a rejected view of identification of *Soma* with *Cannabis sativa* (*Bhanga*). A full length of discussion of such above facts is available in Hillbrandt's Vedic Mythology, 1891.

In course of time researcher tried to identify *Soma* plant with *Ephedra*, a gymnosperm; leafless bush of 1-6 ft. high, prostrate or erect with pine like aroma, containing the juice with strong astringent taste. The tender twigs are enriched with an alkaloid Ephedrine (1-phenyl, 1-hydroxy, 2-methyl amino propane) which is soluble in water, colourless, odourless and gets decomposed even when exposed to air. When taken orally it stimulates the nervous system, increases the oxygen intake and acts as a restorative and mild anaesthetic agent. It dilates the pupil and contracts the uterus. Excessive intake of ephedrine causes nervousness, insomnia, headache, vertigo, swelling, nausea and vomiting (Kokate et al., 1990; Tayler et al., 1936). Probably the aphrodisiac property of *Soma* coincides with the general feeling of euphoria that ephedrine may produce (Kochhar, 1996). But, this view gathers poor support from the geographical distribution of the plant, as India is not its natural habitat and the only species *E. foliata* grows in the plains of South Punjab and Rajashtan, is not a rich source of alkaloid containing juice. Moreover, *Ephedra* is not explored in Aayurvedic system.

Researches on psychoactive drugs correlated with the *Soma* plant with a poisonous mushroom *Amanita muscaria* (Wasson, 1972), which is enriched with active principles like muscarine, ebotenec acid, muscimol and oxazole derivative of muscarine (Tayler et al., 1936). It has been argued on behalf of this mushroom as Vedic *Soma*, the divine intoxicants consumed by the Aryans, known as the oldest hallucinogen for humanity. In fact, the tribals of Siberia and North America use *Amanita* as a narcotic drug. They have a curious custom of self-urine drinking to enjoy the narcotic effect several times following the first ingestion as the chemicals excreted through the renal system (Wasson, 1967, 1972;

Wasson and Wasson, 1957). Corroborating the structure with *Soma* plant, *Amanita* has characteristics like fleshiness, lack of root description, bulbous base and a doom shaped red cap mottled with white warts, and a white stipe as well, on the interpretation of a specific Vedic passage on the urine drinking, *Soma* was ascribed as *Amanita muscaria* (Wasson, 1967). But, however, relating the *Soma* plant with a mushroom, the latter being a prohibited food for human, from Manusmriti point of view, the position of *Amanita* as *Soma* is not free from objections (Dash and Padhy, 1997).

NARRATION OF AN EXPERIENCE

Amongst all puzzles in *Soma* drinking, we came across a literature which claims the lively status of *Soma* drinking as experienced and described by an Indian saint (Swami Ram, 1978) in his autobiographical book "Living with the Himalayan Masters". For the benefit of the readers few excerpts from Swamiji's book is depicted in a box (Fig. 3).

Recently, we had an interaction with an eminent taxonomist and an ethnobotanist as well (Manilal, 2002), who has expressed his interest for *Soma* plant and *Soma Yagya*. He has witnessed an *Athiratha Soma Yaga* at Trichur and collected information on the plant used for the ritual as *Sarcostemma acidium*, which they have officially claimed as *Soma* plant. Prof. Manilal rectified one of our defects in our previous paper that *Sarcostema acidium* is the latest valid name of *S. bravistigma* which we have mentioned as two species (Padhy et al., 2001). Moreover, we have learned from him that the performance of *Soma* ritual (in Kerala state) extending to 12 days involving many *Rhitwiks*, needs an expenditure of 80 Lakhs. This re-ascertains the costly affair of *Soma Yaga* described in Manusmriti earlier.

DISCUSSION

The *Soma* plant was not only associated with the Rig Vedic people; but was also known as 'Haoma' by Avastan people. The divine power of Haoma is much praised in Avasta (the sacred book of the Zoroastrians), that it bestowed its worshippers with the best of the world i.e. the celestial world. Its medicinal property confers health and longevity, victory over the enemies and elevates the heart of everyone irrespective of

Excerpts from :

LIVING WITH THE HIMALAYAN MASTERS

(Swami Rama, 1978).

... It (*Soma*) is a creeper which grows above 11,000 feet. There are only two or three places where it grows at that altitude.

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There are several varieties of mushrooms which have similar effects (like *Soma*). However, the *Soma* creeper was definitely not from the mushroom family; but that it was from the succulent family.

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The *Soma-rasa* mentioned in the ancient literature was used to help inferior students who were not capable of sitting in one position for a long time and who did not have the ability to concentrate their minds. This herb affects the locomotor system and makes one insensitive to external stimuli so that thoughts start running in one direction. The body becomes still and free from pain. Some of those who did not practice steady posture through systematic discipline used *Soma* along with ritual worship before meditation.

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One morning he prepared the juice of *Astha Varga* (a mixer of 8 herbs) and mixed *Soma* creeper juice in it. We both drank this mixture. Its taste was a little bit bitter and sour. After a while, he started chanting and swinging and ultimately threw off all his clothes and started dancing....

It was a chaotic experience, as he danced, began shouting that he was Shiva, the Lord of the Universe and cried, "Where is my Parvati ? I want to make love to her"...

He was tried to be restrained but he became so strong that five people could not hold him down, though he was a slightly built man, he threw them off one after another.

Fig. 3. *Soma* at its lively status

the economic status. The twig known as 'Ansu' in Rig Veda is designated as 'Asu' in Avasta. The name *Soma* still restored in the regions of Baluchi and Pashto as 'Hum' and in Gilgat, Chitral, Nuristhan as 'Sum', which reminds the ethnobotanical aspects of Aryan culture pertaining to this plant.

The simple and sacred description of the *Soma* plant in Vedic literature; dicta in Manusmriti in favour of *Somarasa* and against *Suraa*; expanded research in Aayurveda to project 24 varieties of plants as *Soma* and 18 more plants as alternatives to *Soma* with rigorous treatise of *Soma* drinking demarcates the way that the plant being ethnobotanically associated with human life since the time immemorial. Moreover, the identification

of about 20 different plants as *Soma* with different old and new schools of thought on morphological, biochemical, narcotic and hallucinogenic basis and from phyto-geographic and socio-cultural point of view, has opened a new vista of independent research.

Other than *Soma*, Indian Aayurvedic research, through centuries has identified a good number of drugs for restorative treatments. The Ginseng in China is famous for its rejuvenating property and elsewhere, such drug on regional basis as Indian Ginseng (*Trichopus zeylanicus* ssp. *Travancoricus* Burkill and Narayan) is established (Pushpangadan et al., 1995). Moreover, the modern man wonders with 'Vigra' to enjoy his youthfulness irrespective of age and time. In this context, the effect of *Soma Rasa* was said to be multidimensional; may be aphrodisiac, restorative or elevator of mental stature; but it was never intoxicating or a hallucinogenic product.

ACKNOWLEDGEMENT

Thanks are due to Prof. K. S. Manilal, Calicut and Prof. B.K. Swain, Puri for healthy interaction.

KEYWORDS Vedic *Soma* Plant. *Soma* Rasa. Regime of *Soma* Drink. ICUSD.

ABSTRACT The juice of the plant *Soma*, was an uncommon drink, consumed by the Vedic people known as *Soma Rasa*. It was offered to Gods, considered as divine and contemplated with medicinal efficacy for restorative treatments; being neither hallucinogenic nor intoxicating. The paper presents a brief account of the *Soma* plant as described in Rig Veda and more research on it in Aayurveda along with search for the proper plant by modern man since the last two centuries. The regime of *Soma* drink was simple in Vedic description, while as per the Aayurvedic text, it required an intense care unit (ICUSD) for the *Soma* drinker to take care of the rejuvenating process.

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Authors' Addresses: Sachidananda Padhy, Faculty of Botany, Govt. College (Lead), Chatrapur 761 020, Orissa, India
 Santosh Kumar Dash, College of Pharmaceutical Sciences (Mohuda), Berhampur 760 002, Orissa, India