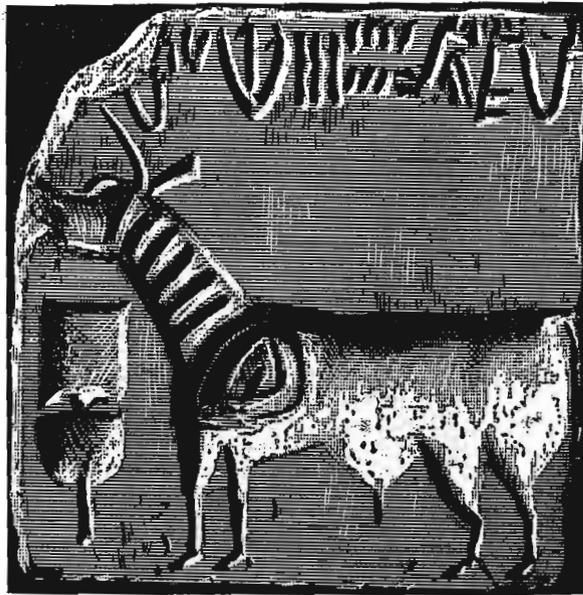


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The Soma Plant

Many attempts have been made to identify the Soma plant of the Vedic literature. The plant is not indigenous to the plains of the Punjab, its description is meagre, and there has been no Soma sacrifice during the last two millenarities. The word 'Soma' primarily denoted the moon, and secondarily the plant. But the Vedic scholars of the West took it to mean the plant only and descriptions which are appropriate to the moon were wrongly applied to the plant. This confusion gave a wrong lead to the botanists. Again, many scholars were misled by the name Soma which was applied in later times to several plants. Some, with Sāyana, took it to be Soma-latā, a climbing plant having milky juice. Others insisted on the unwarranted assumption of fermentation to which they thought the Soma drink was subjected.

It will be shown that the Soma plant is the present Bhaṅgā, the Hemp plant, the *Cannabis sativa* of the botanists.¹

Bhaṅgā

The Bhaṅgā plant is an erect annual, growing to a height of three or four feet or more preferring loamy soil and moderate rainfall and temperature. Leaves are divided so as to resemble the hand with three, five or seven fingers. Flowers are without petals. Male and female flowers are borne on separate plants. The female plant produces seed as small as Arhar seed (*Cajanus*). The seed is an article of diet and an useful oil is expressed from it. The inner

1 I am indebted to late Mr. Brajalal Mukherjee, M.A., M.R.A.S. for the suggestion that Soma might be *Cannabis sativa*. He wrote and published in Calcutta in 1922 a small pamphlet on the Soma plant. The information collected is valuable but unfortunately incomplete and the evidence unconvincing. Besides the author like others laboured under the confusion arising from the double denotation of the word Soma.

bark of the plant yields a strong fibre, fit for strings and ropes, and a coarse cloth, canvas, is woven. The green leaves develop a narcotic principle for which they are used in preparing an intoxicating drink called Bhāṅg. The dried flowering tops of cultivated female plants form Gānjā which intoxicates when smoked dry.

Dhanvantariya Nighantū, the earliest dictionary of Indian medicine compiled before 500 A.C., describes the drug as antiphlegmatic, heating, exciting, intoxicating, bitter, constipating, digestive, causing appetite and talkativeness, and inducing sleep and hallucination. Its names are Vijayā, Bhaṅgī, Ganjikini, etc.

The original home of Bhaṅgā is believed to be Central Asia from which it spread to the east, west and south. Hooker included North-Western Himalayas in the habitat and Sir George Watt was inclined to this view. But other botanists disputed it, and the Hemp Drugs Commission in their Report (1893-94) were of the opinion that the plant is not indigenous to India. But this fact does not affect our problem. For they say that the wild growth is prevalent throughout the Himalayas from Kashmir to the extreme east of Assam, disappearing at an altitude higher than 10,000 feet. It extends down the southern slopes of the mountain into the Punjab and the Gangetic plain to a limited extent. (*Report*, p. 33). The seed germinates at the elevation of Simla in May and June and the plant ripens in six or seven months.

The Bhāṅg leaves have to be collected just before the flowering of the plant, or the narcotic will be nearly absent. They also deteriorate with age. The seeds lose the germinating power quickly. Further, every plant is not capable of developing the narcotic, which is found in a class growing in a particular climate and soil.

Bhaṅgā and Śana

It is well-known that (1) one and the same plant may have more than one name, and (2) one and the same name may denote

more than one plant. In Sanskrit each name is derived from some particular character of the plant, and since the same character may be present in more than one species the same name is applied to all. This is a fruitful source of confusion. When the plant is common enough, tradition ensures its identification. But it does not follow that it is known by the same name everywhere. For instance, the common tree *Ficus religiosa* is known as *Aśvattha* in Bengal, but as *Pipal* in Northern India.

The *Amarakośa*, the earliest Sanskrit lexicon extant (300 A.C., United Provinces) mentions *Bhaṅgā*, and *Mātulānī* as its synonym. In his commentary *Kṣīrasvāmī* (1100 A.C. Central Provinces) explains it by saying that it has no equal. This is not satisfactory. The word 'Mātula' denotes the *Dhaturā* plant (*Datura*) which was known to be an intoxicant. It seems probable the word *Mātulānī* also meant an intoxicant, this being the female form of the word *Mātula*. *Kṣīrasvāmī* adds that *Bhaṅgā* is also a name of *Śaṇa*. *Sarvānanda*, another commentator (1200 A.C. Bengal) accepts this synonym and remarks that *Bhaṅgā* is well-known in Kashmir, and that its fruit is like that of the field-pea. *Hemacandra* (1200 A.C. Deccan) removes the doubt by giving *Śaṇam* as one of the three names of *Cannabis*, the other two being *Mātulānī* and *Bhaṅgā*.

In the *Kālikā Purāṇa* (800 A.C. Assam) is enjoined the offering of *Bhaṅgā* along with other food grains to *Durgā* (70.21). There is also mention of *Śaṇa* cloth, in the same *Purāṇa* (69.6). Here *Bhaṅgā* is the seed and *Śaṇa* the fibre plant.

This distinction was not maintained everywhere as shown above. The name *Śaṇa* was used both for the seed and fibre plant under cultivation. Thus the *Viṣṇu Purāṇa* (I. 6.22) enumerates *Śaṇaḥ* (masculine) as one of the seventeen food crops of villages. *Kṣīrasvāmī* also mentions under the word *Vrihī* (summer rice) seventeen *dhānyas*, foodgrains, one of which is *Śaṇa*. The word also

denoted the intoxicating Bhāṅg. Thus the *Matsya Purāṇa* (15:37) forbids the offering of Śaṇa and Dhuturā to the Fathers, evidently because they are intoxicants.

In Caraka, the earliest medical work (1000 B.C. to 200 A.C., Punjab), the flower of Śaṇa is said to be constipating (I. 27.78). Its seed is prescribed in chronic diarrhœa (VI. 19.54).

In Suśruta, another standard medical work (500 B.C. to 500 A.C. Bihar) the leaf of Śaṇa is said to be constipating (I. 46.259). Its flower is also mentioned (I. 46.298). Śaṇa thread is used as ligature (I.25). To prevent aging one is advised to eat with milk the fruit of Śaṇa which has been cooked with milk (IV. 27.11).

The fruits of *Cannabis* become agglutinated with the resinous narcotic which becomes responsible for their intoxicating property. The seed is, however, largely consumed in India in various forms on account of its oil just like the poppy seed. In Persia the seed is called Shāhdānāh, 'Emperors' seed,' by reason of its containing the narcotic. There is thus not the least doubt that the Śaṇa of Caraka and Suśruta is C a n n a b i s.

In his *Arthaśāstra* Kauṭilya (400 B.C., Bihar) produced poisonous smoke in warfare by burning many ingredients, one of which was Bhāṅga (XIV. 2). It is worth noticing that the word used is Bhāṅga, and not Bhaṅgā. Bhāṅga or Bhāṅg is the vernacular form of Sanskrit Bhaṅgā.

Kauṭilya mentions also Śaṇa as a fibre-yielding plant of forests (II.17). Among other fibrous plants of forests Atasi (L i n u m) was one, though it was largely cultivated for its fibre (flax) and seed (linseed). The grammarian Pāṇini (400 B.C., Punjab) gives rules for deriving words to denote fields under Śaṇa and Umā (a name of Atasi). In the *Amarakośa* both are denoted as cultivated plants. It is therefore certain that Kauṭilya meant by Śaṇa wild C a n n a b i s used for extracting fibre. Probably his Bhāṅga was a cultivated plant. In the Pāli *Vinaya-piṭaka* (*Mahāvagga* 8.3.1)

are mentioned fabrics made of Śaṇa and Bhaṅgā fibres. Following Kauṭilya we have no hesitation in taking Śaṇa as a form of C a n n a b i s. Similarly the Śaṇa thread and fabric mentioned by Manu (II. 41) were prepared from the fibres of the same plant.

In current language the word Śaṇaḥ (masculine) denotes the well-known fibrous plant, *Crotalaria juncea*. But its seed is not edible and its fibre is too stiff to be used in wearing cloth. Besides, the word does not occur in this sense in the *Amarakośa* and *Dhanvantarī*. The plant is believed to be indigenous to India, but is not wildly grown. It was, however, known to them. For they mention a plant named Śaṇa-puṣpī, 'having flowers like those of Śaṇa' which is undoubtedly *Crotalaria*. It seems certain that the name Śaṇa was applied to *Crotalaria* on account of its possessing fibre like that of Śaṇa or C a n n a b i s. *Rājanighaṅṭu*, a late medical dictionary, mentions this Śaṇa as an emetic.

Śaṇa and Soma

The *Arthaśāstra* speaks of forests of Brahma-soma given to Brahmins and to ascetics (II. 2), so it is evident that there were forests of such Soma in 400 B.C. They were not far away from villages (III. 9). The empire for whose welfare the work was composed extended from the Punjab to Bihar. As the Soma plant was usually found in mountainous regions the forests of Soma might be in the sub-montane tracts of the Himalayas from the Punjab to Bihar. Brahmins were forbidden from drinking any kind of alcoholic liquor. There was no restriction to Soma. From Manu (III. 180) and Yājñavalkya (I. 223) it appears that there were Brahmin vendors of Soma drink. Bearing these facts in mind it is inconceivable that forests of wild growth of Soma disappeared altogether from their former situation. No cultivation was necessary

to save the plant from extinction. The probability is that the plant has been and is there under a different name.

The words *bhaṅgā* and *bhaṅgī* are feminine forms of *bhaṅga*. It occurs in the *ṚV.* (IX. 61. 13). Prof. Macdonell takes it as an epithet of Soma, "presumably in the sense of intoxicating." (*Vedic Index*). Hence, the word *bhaṅga* would be a synonym of Soma, and Soma C a n n a b i s.

In the *Śukla Yajurveda* (IV. 10) *mekhala*, the girdle, is described as the tying front knot of Soma. The stuff is not mentioned. But the point is, Soma cannot be made into a knot unless there was fibre in the plant. This is an important question. In the *Kṛṣṇa Yajurveda* (VI. 1.1) Soma is said to be the deity of the linen garment and its body. This shows that Soma yielded a textile fibre like that of Kṣauma (linen). In the *Atharvaveda* (II. 4) *Śaṇaḥ* (masculine) is a fibrous plant as well as a remedy against Viṣkandha, a kind of rheumatism. Whitney translates the passage: "Let both the hemp (*Śaṇaḥ*) and *janḡida* defend me from the Viṣkandha: the one brought from the forest, the other from the juices (*rasa*) of ploughing." Here *Śaṇa* is taken to be a forest plant. But *Sāyaṇa* takes the opposite view. According to him *Śaṇa* was a cultivated plant and furnished the string to tie *janḡida* with as an amulet. He seems to be right. *Śaṇa* was a cultivated plant for fibre in the time of the *Atharvaveda*. It furnished fibre for cloth in the *Śatapatha Brāhmaṇa*.

There is a passage in the *Atharvaveda* in which the words Soma and *Śaṇa* occur together. But we have seen that Kautilya had Brahma-Soma or Soma, *Śaṇa* and *Bhāṅga*, the names of the three forms of the same plant.

The word 'Soma' is derived from the root *sū*, to bring forth. Soma, the moon, brings forth *amṛta*, ambrosia for the gods. So does Soma the plant for men. The process of production is *abhiṣava*, a word derived from the same root. The word, *bhaṅga*, comes from the root *bhanj*, to break. *Bhaṅga* breaks sameness. It is a wave, a

flow of speech, a wit. But what is Śaṇa? Its etymology is unknown. The *Ś.Br.* (III. 4.3.13) says that "the body of Soma is the same as the mountains and rocks; thereon grows that plant called Uśānā, so said Śvetaketu-Auddālaki, that they bring hither and press, and by means of consecration make into Soma." The words of Śvetaketu are repeated in IV. 2.5.

In Tibetan, Bhaṅgā is known as *So-ma-ra-rtsa* which is undoubtedly Soma-rasa of Sanskrit. It is a singular survival of an ancient name which has been long forgotten in the mother country. It is, however, not an isolated word.

The Soma plant in Vedic Literature

As has been already pointed out the word Soma in the *ṚV.* has the double denotation of the moon and the plant. In most of the hymns the Ṛṣis begin to praise the moon and end with the plant. One must therefore be careful in discriminating the descriptive words applicable to a plant. It has been distinctly stated that no one can drink the Soma whose praise is sung by the poets (X. 85.3).²

Soma is *oṣadhi-pati*, 'lord of oṣadhis,' annuals or medicinal herbs (IX. 114.2). It is also *vanas-pati*, 'lord of the wood' (IX. 127). Soma is therefore an erect plant. Sāyaṇa takes *vanaspati* in this sense. In one passage Soma is said to be a *vīrudh*, which generally means a climbing plant. But the plant cannot be also a *vanaspati*. The word *vīrudh* is used in the sense of oṣadhi. It excludes large trees. In his *Vedic Index* Prof. Macdonell quotes the character *naicaśākha*, 'having branches hanging down.' This is a character of Bhaṅgā also.

The plant has *aṃśu*, 'hair' (IX. 95.4; 96.2). The word properly means rays. The moon has rays and is thousand-eyed (IX. 60.1). Applied to the plant *aṃśu* may convey the sense of fibre as in

2 The figures in brackets without the name of the text refer to the *R̥gveda*.

later Sanskrit. The presence of useful fibre is surmised from the passages in the *Yajur Vedas*. In view of the vast period covered by the *RV.*, it would not be surprising if the Aryans spun threads of fibres of the plant and wove cloth as they undoubtedly did of wool. In the *RV.* the moon is invoked to bestow all kinds of desirable things, including children. In IX. 62.2 he is said to be giving wonderful clothes. In IX. 58.4, the priests are happy at the fact that they received from two kings thirty thousand pieces of cloth. This may be an exaggeration, but the connection of this gift with the preparation of the Soma drink may not be accidental. The allusion is likely to the plant.

The colour is frequently described as *hari*, green or greenish yellow. (Prof. Macdonell renders the word as tawny and adds *babbru*, brown, *aruna*, ruddy). There are a few other words of similar meaning. The plant has strong smell (I. 23.1; II. 44.14), which is also described as pleasant (IX. 97. 19; 107.2). In *Ś.Br.*, it is ill-smelling (IV. 1.3.6).

The plant grew on mountains, that growing on the Muñjavat mountain being renowned. The Muñjavat mountain lies in the North-west Himalaya. On the other side is the abode of Rudra (*Śukla Yajurveda* III. 61). Traditionally it is the Kailāsa mountain. But the plant came to grow on the banks of the Sarasvatī and Ārjikiyā and in Kurukṣetra (IX. 65.22-23; 113. 1-2). The banks of rivers issuing from the Himalayas are exactly the situations of the wild growth of Bhaṅgā. The seeds are carried down by floods and germinate on the rich loamy soil of the banks. Kurukṣetra was a famous place lately inhabited by the *R̥g Vedic* Aryans who were instrumental in the dispersal of the Soma seed. They had therefore two sources of supply, one from the hills of the North-west Himalaya, and the other from the river banks of the plain of the Punjab. But soil and climate influence the quality of drugs. If Soma is Bhaṅgā, the twigs bearing leaves were cut before flowering. There were no

seeds brought to the plains. This was the reason why Soma had to be procured from a distance. Parjanya is the father of Soma (IX. 82.3; 113.5). He increases it (IX. 113.3).

The method of preparing the Soma drink is exactly the same as that of Bhāṅg. The leafy shoots of Soma whether procured from the Himalayan hills or locally were necessarily dry, especially in summer when Soma sacrifice for favour of Indra had to be performed. It is therefore absurd to speak of Soma "juice" for Soma drink. In the *A.Br.* (I.3.) we are told that the plant lost much of its potency on the way. The shoots bearing leaves (IX. 82. 3) were first cleaned and next moistened with, or steeped in, water when the stalks would swell (IX. 31.4). The mass was then crushed and ground between a pair of stones (IX. 67.19) or in a mortar and pestle (I. 28.1). The ground paste was next mixed with water in a jar and the mixture poured from one jar into another causing sound (IX. 72.3). Then it was strained over sheep's wool (IX. 69.9). Thus prepared it was 'pure' drink. Often it was mixed with milk or *dadhi* (IX. 71.8), sometimes with honey and barley meal (IX. 68.4).

The effects of the Soma drink are exactly the same as those of Bhāṅg. Soma used to be drunk between eating of food (IX. 51.3). It is nourishing when taken with milk and food (IX. 52.1). It is exhilarating (VIII. 48), exciting (II. 41. 40) and intoxicating (IX. 68. 3; 69. 3). It stimulates the voice and impels the flow of words (IX. 95.2; 101.6). It awakens eager thought (VI. 47.3), and excites poetic imagination (IX. 67.13). It induces sleep (IX. 69.3), and desire for women (IX. 67. 10-12). It bestows fertility (IX. 60.4; 74.5). It cures diseases (VIII. 48.5) and was believed to prolong life (VIII. 48.5). None but the strong can tolerate it (IX. 53.3; 81.1). It is constipating (IX. 18.1), but sometimes causes bowel complaints. It was drunk before military engagement (IX. 61.13; 85.2) and after victory (IX. 101.1), for which Indra's favour was prayed for.

It is to be noted that Soma sacrifice was always accompanied with animal sacrifice. It was a feast and the 'drink added hilarity. At first Indra was the only god to whom Soma drink was offered. The reason is the belief that Soma, the moon, is the controller of the celestial water and that Indra, the rain-giver, is dependent upon Soma for supply. It was for Indra that the moon was invoked to appear in the right phase. Prayerful appeals were addressed to the moon for shedding rain. The Maruts and Vāyu and friend Viṣṇu and Mitra and Varuṇa with Uṣā came in for their share but no others. In course of time even the *Aśvins* of winter and *Rudra* of spring were offered Soma more as consolation than necessity. Three oblations were made on the day of Indra sacrifice, the first being in the early morning. There was therefore no possibility of fermentation. All the 120 Soma hymns in the *RV.* (114 in the ninth book and 6 in other books) have double meaning. Even the seven priests and ten sisters (IX. 8.4), the sheep's wool, the vat and mountain are celestial. It was the moon, which Syena, the eagle, brought from heaven to the horizon for Indra. This legend supplied an answer to the question why the Soma plant grew in the mountains and not in the plains. The metre Gāyatrī also flew up to heaven and fetched Soma (*A.Br.* III. 13.2). The number of syllables contained in it helped in computing the age of the moon.

Soma, the variety of Bhaṅgā prized for use in sacrifice, was not common everywhere in Northern India. Its place had been slowly taken by *Surā* even in the *Kṛṣṇa Yajurveda*. There might be scarcity of supply and the priests had to think of substitutes. It will be noticed that the question of substitutes arose in later *Brāhmaṇas* when Aryan colonization had spread far away from the Punjab. In a passage (IV. 5. 10) *Ś.Br.* names some substitutes one of which is *Dūrva* grass, another *Kuśa* grass. A common substitute in many *Brāhmaṇas* is *Pūtikā*. It is therefore no wonder that Soma became a mythical plant to Caraka (VI. 1.67) and *Suśruta* (IV. 29). They thought that

the plant gives fifteen leaves one by one during the bright half of the lunar month and sheds them one by one during the dark half resembling the waxing and waning of the moon. Suśruta mentions twenty-four varieties, but the majority of the names are of the moon, and some descriptive of the Vedic plant. The Purāṇas thought that it was *amṛta*, ambrosia, obtained by the churning of the milky sea. It was, however, the moon who rose in an evening in the Milky way in the Mṛga nakṣatra of which he became the regent. The moon was confused with the plant.

To sum up. The Soma plant agrees with Bhāṅgā in the habitat in the North-west Himalaya. Both are annuals coming up at the beginning of the rainy season. Both have shining green leaves and the ends of the branches hanging down. Nowhere in Vedic literature Soma is a climbing plant and a leafless plant with milky sap. Indeed the word Soma is masculine, while *latā*, a climber, is feminine. There is mention of milk and honey poured down by Soma. These are figurative expressions of rain-water caused by the moon. The method of preparation of Soma and Bhāṅg is the same, and the effects of the drink on the consumer remarkably agree. Soma drink was a part of the ritual of certain Vedic sacrifices. Bhāṅg has been in use on similar occasions.

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