# The Soma Code, Part II:

# Soma's Birth, Purification, and Transmutation into Indra

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## ABSTRACT

In this paper, the second in a three-part series on interpretation of metaphors for luminous visions in the Rig Veda (RV), we sort the metaphors used to describe the visions of Soma and Indra into sets based on certain abstract features (shape, movement, color, and temporal order), then show that these metaphor-sets closely match the characteristics of the meditation-induced phosphenes described in Part I. Our analysis of suggests (1) that a vision which looks like a terrestial dawn appears before the vision of Soma, analogous to the gradual brightening and bluing of the visual field that occurs in the paroxysmal phosphene sequence; (2) that the vision of newborn Soma - the 'woolen filter' in which the Soma juice is purified - has a distinctive bulbous shape and moves by itself, characteristics analogous to those of the translucent white bulbous image in the paroxysmal phosphene sequence; (3) that the vision of three 'purified' Soma streams rising and spreading is analogous to the phosphene rays which evolve in three discrete stages; and, finally, (4) that the visions of Indra, which are variously described in the RV as lightning-like flashes, as a continous flood of light waves, as 'milk with curds' or as 'light with a thousand studs,' can all be matched with the phosphene effects that appear when paroxysmal activity reaches its maximal stages or with residual sequelae that appear after the paroxysm. In this analysis, the precision of the match between the transformations of Soma and the analogous phosphenes is particularly noteworthy. A table at the end of this paper summarizes the full extent of the parallels linking metaphors for luminous visions in the RV and paroxysmal, meditation-induced phosphenes.

#### The Birth of Soma

The metaphors used to describe the initial vision of Soma all refer to a bulbous shape, for example, to an "udder," "stalk (*amsu*)," "navel," "bull's horn," "phallus," "pot," "stormcloud," "waterskin," "heaven's head," or "woolen filter." More than one of these bulbous metaphors may appear in the same verse [italics added for emphasis]: Udder:

[F]ill the dhih up, make it *swollen like an udder filled with milk* ... 10.64.12 [GON, 1963, p. 124]

When the *swollen amsu* ['stalks'] were milked like cows with *udders* ... 8.9.19 [BH/W, pp. 43-44]
The *Soma <u>amsu</u>, filled full, moves itself everyway* ... 9.74.1-2 [GRF]
The *udder* of the cow is *swollen*; the wise juice is imbued with its streams ... the cows milk their milk with *Soma, heaven's head*. 9.93.3 [BH/W, p. 46]

## Navel:

[T]he *navel* of the earth, which is also the mainstay of the sky 9.72.7 [BH/W, p. 47] Your *highest navel is attached in heaven* ... 9.79.4 [BH/W, p. 50]
Thy descendants, O Immortal One ... receive them on thy *navel*, *O Soma*, thou who are the *head* [of heaven]. 1.43.9 [BH/W, p. 51]
Soma, *Navel* of the Way (*Rta*) 9.74.4 [BH/W, pp. 29-30, 50]

## Bull's Horn:

He bellows, terrifying *bull*, with might, *sharpening his shining horns*, gazing afar. The Soma rests in his well-appointed birthplace. *The hide is of bull, the dress of sheep*. 9.70.7 [BH/W, pp. 41-42]

Penis (of a Bull, a Stallion, or a Man):

- O Soma . . . thou, Bull, seated in the filter above the calf's wool, clarifying thyself, thou Soma, that Indra may have his pleasure! 9.86.3 [WIL]
- The *penis, men, take the penis and move it and stick it in to win the prize*. Inspire Indra . . . 10.101.12 [OFL]
- They milk the *amsu* ['*stalk*''], this *bull* at home on the mountain. 9.95.4 [BH/W, pp. 23, 45]

Clarify thyself, O Soma . . . . Thou who art a *bull* . . . 9.70.9 [BH/W, p. 55]

Soma, *stormcloud* imbued with life, is *milked* of ghee, milk. . . *The swollen men piss the flowing* [Soma]. 9.74.4 [BH/W, pp. 29-30, 50]

Heaven's Head:

On Soma's *head* the cows with a *full udder* mix their best milk in streams. 9.71.4 [BH/W, pp. 22, 46] This *bull*, *heaven's head*, Soma, ... 9.27.3 [BH/W, p. 45]

Pot, Waterskin, Stormcloud:

(Soma), send (us) him who is like a *pot*; ... 9.52.3 [WIL]

The fingers press the Soma, they squeeze it *glittering like a water-skin*; its juice becomes three-fold, enemy-averting. 9.1.8 [WIL]

<sup>Whilst alighting, this quick-flowing Soma hastens to the filter . . . (he</sup> *moves*) *like a buffalo sharpening his pointed horns, like a warrior on a foray for cattle*. 9.87.7 WIL
Soma with *sharpened horns* attains his [full] reach. 9.97.9 [BH/W, pp. 41-42]

Soma, stormcloud [atmanvan nabho] imbued with life, is milked of ghee, milk. Navel of the Way, Immortal Principle, he sprang into life in the far distance.
9.74.4 [BH/W, pp. 29-30, 50]

Woolen Filter:

- The *sharp* seer, in *heaven's navel*, is magnified in the *woolen filtre*, Soma the wise, possessed of good intelligence. 9.12.4 [BH/W, p. 51]
- O Soma, . . . thou, *Bull, seated in the filter above the calf's wool*, clarifying thyself, thou Soma, that Indra may have his pleasure! 9.86.3 [BH/W, p. 57]

The vision of newborn Soma is described as a "celestial structure" located "in the far distance," as if "seated on the mountain top," and it is clear from the context that, unlike those verses that describe Soma as a plant that priests gather from the mountains, these specific references to 'mountains' are metaphorical and designed to put Soma in his "accustomed place," which is "in the firmament of heaven:"

- *In the firmament of heaven* the Seers milk . . . the bull-Soma *seated on the mountain top*. 9.85.10 [BH/W, p. 22]
- Clarify thyself, O Soma, in the *celestial structures* of thine essence . . . " 9.86.22 [BH/W, p. 39, 57]

[*N*]*avel of the Earth,* which is also the *mainstay of the sky* 9.72.7 [BH/W, p. 47] *Your highest navel is attached in heaven* ... 9.79.4 [BH/W, p. 50]

- This Soma, which today *circulates in the distance*, which is a cleanser, may it cleanse us in the filtre! 9.67.22-24 [BH/W, p. 34]
- Soma, stormcloud . . . Navel of the Way . . . he sprang into life in the far distance. 9.74.4 [BH/W, pp. 29-30, 50]
- Milking the dear sweetness from *the divine udder*, *he has sat in his accustomed place*. 9.107.5 [BH/W, p. 43]

This is consistent with Gonda's explanation that the Vedic deity, Vivasvant, who was first to celebrate a Soma ritual, performed a ritual milking in his heavenly "seat" (1.53.1) at the "navel of the world" (1.164.35; 2.3.7) (*nabha yajñasya*) [Gonda, 1963, pp. 187].

We can also infer from the many references to a filter of sheep's wool that the surface of the Soma bulb is a dull white color. Alternatively, one might conclude that the Soma "envelop" is simply some kind of brightness - "a radiance associated with Asuras (9.71.2)," rather than white or any other color [Wasson, 1971, p. 40].

Besides giving information about the location and color of the newborn Soma, the hymns often refer to the distinctive movements of the Soma-bulb: for example, 9.74.1 describes the Soma as moving on its own - "The soma stalk [*amsu*], filled full, *moves itself everyway* [GRF]" - and 9.68.4 describes Soma as "protecting his head" from the priests' fingers, suggesting a pulling-back movement. When a bull is "sharpening his horns (9.70.7; 9.87.7)," the animal moves its head back and forth, rubbing one horn against a hard surface; this is a metaphor that succinctly describes the kind of back-and-forth movement of the bulbous phosphene image in response to different intensities of attention (Part I, Figure 3). Another metaphor used in the same verse as the horn-sharpening metaphor is that the movement is "like a warrior on a foray for cattle

(9.97.9)," suggesting that the moves are furtive, tenative, exploratory - and, again, this would also be an apt metaphor for describing the attention-driven movements of the bulb in the phosphene sequence. There are also allusions that suggest these movements resemble those that occur during sexual congress, an important subject that we address below in a separate section.

## The Purification of Soma

When Soma emerges from the 'filter' as purified juice, it suddenly presents a very different image:

Aggressive as a killer of peoples he advances, billowing with power. *He sloughs off the Asurian color that is his. He abandons his envelop, goes to rendevous with the Father [Sky].* 9.71.2 [BH/W, pp. 40-41]

Like a serpent he *creeps out of his old skin* ... 9.86.44 [BH/W, p. 41]

The first vision of purified Soma displays three thin white "streams" (or "jets" or "rays") of light spreading apart from a common base in a trident-like image. The white color is translucent like fresh milk squirted out of a cow's udder. The three Soma jets move "as rapid as thought," rising up like birds flying and at the same time "spreading" at "oblique angles," so that the "rays spread a filter on the back of heaven," creating a "dazzling mesh . . . spread afar." The speed of the jets makes it seem that the Soma had been "pressed" through a sieve by application of some invisible force:

The filtre of the burning [Soma] has been spread in heaven's home. Its dazzling mesh

- was spread afar . . . They climb the back of the heaven in thought. 9.83.2 [BH/W, p. 54]
- Thy shining rays spread a filtre on the back of heaven, O Soma, with Forms. 9.66.5 [BH/W, p. 26, 52]
- The heavenly Somas spread the strainer of the sun's rays. 9.10.5 [BH/W, p. 52]
- Thy clear *rays spread over the back of heaven*, the filtre, O Soma 9.66.5 [BH/W, p. 26, 52]
- Thy filtre has been *spread*, O Brahmanaspati [Soma]... 9.83.1 [BH/W, p. 53]
- Thou runnest through the three filters stretched out; thou flowest the length, clarified. 9.97.55 [WIL]
- [*I*]*n jets, the pressed Soma is clarified* according to its nature, suitable for thee, O Indra! 9.72.5 [BH/W, p. 56]
- *Passing obliquely through the sheep's hairs* ... 9.42.8 [WIL]
- Thy inebriating drinks, *swift*, are released ahead, like teams *running in divers directions*, like the milch cow with her milk towards her calf, so the Soma juices, waves rich in honey, go to Indra... 9.86.2 [BH/W, p. 57]
- High in the seat of heaven is spread the Scorcher's sieve: its threads are standing separate, glittering with light... with consciousness they stand upon the height of heaven. 9.83.2 [GRF]
- From tawny Pavamana, the Destroyer, *radiant streams have sprung*, *quick streams* from him whose gleams are swift . . . 9.66.25 [GRF]
- The royal (Soma) *plunges into the firmament*, . . . the *streams*, he associates with the wave of the waters; *being filtered*, *he stands upon the uplifted woolen filter* on the navel of the earth, the upholder of the vast heaven. 9.86.8 [WIL]

This (Soma) . . . filtered, and sent forth, . . . *as a bird goes with a stream (of juice) through the fleece;* . . . . / *Wearing a coat of mail (i.e. clothed in light) reaching to heaven,* the adorable Soma, who *fills the firmament* . . . 9.86.13-14 [WIL]

Soma . . . *widely spreading* . . . / . . . When Soma seeks to gain (heaven) he assumes a white color; . . . he bursts asunder the raincloud from heaven. 9.74.7-9 [WIL]
Let loose thy stream which is as rapid as thought. . . 9.100.3 [WIL]

These descriptions of rays rising from the same place where the filter had just disappeared and spreading apart at oblique angles match the author's report of seeing the bulbous phosphene replaced by a cluster of three thin white filaments stretched halfway to the perimeter of vision and spreading apart from a common base to form a trident-like image (Part I, Figure 3).

## The Number 'Three'

Many verses specify that the purified Soma is pressed out in three streams:

- The fingers press the Soma, they squeeze it glittering like a water-skin; *its juice becomes three-fold* . . . 9.1.8 [WIL]
- The ancient sage (Soma) is purified by the wise . . . he roars into the receptacles; generating *the water of the three-fold* (Indra), . . . 9.86.20-21 [WIL]
- He invests himself with the *rays* of the sun *stretching out the triple thread* in the way he knows.... 9.86.32 [WIL]
- The supporter of heaven the prepared exhilarating (Soma) is let loose, *the triple* (*liquor*) *rushes to the waters*; ... 9.86.46 [WIL]
- Raise the *three voices* that are preceded by light and that milk the udder, which is milked of sweetness ... 7.101.1 [BH/W, p. 15]
- The Guardian of the Rta [Soma] cannot be deceived, he of the good inspiring force; he carries *three filters* inside his heart. 9.73.8 [BH/W, p. 54]
- Thou comest unto *three extended filters*, and *hastenest through each one* as they cleanse thee. 9.97.55 [GRF]
- He took the Soma for himself and *drank the extract from the three bowls* . . . 1.32.2 [OFL]

The ancient sage (Soma) is purified by the wise . . . he roars into the receptacles; generating *the water of the three-fold* (Indra) . . . 9.86.20 [WIL]

At the *Trikadrukas* the Gods span sacrifice that stirred the mind ... 8.13.18 [WIL]

The meanings of these references to the number, 'three,' which have hitherto been considered obscure [Dange, 1992, p. 229], would be clarified, if, as we propose, the reference to 'three' represents an empirically-oriented description of an image in the visual field, i.e., the phosphene image of three rising rays. Since this trident-like vision of Soma being pressed through the filter appears shortly before the advent of the Indra vision, seeing these three rays would likely be considered as a propitious omen by someone who fervently hoped to see Indra. This suggests the possibility that the vision of three phosphene jets arrayed in a trident-like pattern might be the original source of the Trident symbol so important in modern Hinduism.

Another interesting aspect of the number, 'three,' as it appears in the RV is that the descriptions of the purified Soma streams of refer to 'three' in conjunction with the

number, 'seven,' a conjunction which is usually translated into English by phrases like "thrice seven," "three times seven," or "seven . . . three-parted:"

- He unto whom they sang the *seven-headed* hymn, *three-parted*, in the loftiest place, he sent his thunder down . . . 8.22.4 [GRF]
- He to whom they sang the seven-headed hymn with its *three parts* in the *highest region* he has made all these worlds *tremble* . . . Vala 3.4 [WIL]
- O Lords of splendor, aid us through the *Three-Times-Seven*... Vala 11.5 [GRF]
- (Soma) is purified by the wise . . . he roars into the receptacles; generating *the water of the three-fold* . . . / . . . this Soma, having milked the *thrice seven* (cows) of their curds and milk, exhilarating, flows pleasantly . . . 9.86.20-21 [WIL]

The linking together of 'three' and 'seven' suggests an interesting parallel with the meditation-induced phosphenes described by the author (Part I, Figure 3). The phosphene image of the rising rays evolves in three stages: at first there are only three rays rising halfway to the perimeter of vision, but one second later the three rays are replaced by six, all of which extend to the perimeter of vision. In the third and final stage of this evolution, the six rays fan farther apart, a movement that looks like the petals of a flower opening (or wilting) in the heat of the sun. While 'three-to-six' is not identical to the three-seven conjunction used in the RV, it seems reasonable to infer that witnesses might differ slightly in their recollections of the number of rays, especially since this would be a strange and fleeting event that only occurred once in a lifetime. It is also possible that, if the number 'seven' were considered auspicious by the Indo-Aryan religious tradition, this might influence reports about the number of rays observed. But, whatever the source of the disparity, our analysis suggests that the usual English translations of the conjoined use of the numbers three and seven as "thriceseven" or "three-times-seven" are incorrect, and that it would be more accurate to translate the conjunction as "three-then-seven," i.e., as a reference to the evolution of the rising rays of Soma.

## The Final 'Nesting' of the Soma-Rays

Several verses in the RV describe the final stage in the unfolding of the Soma rays using bird metaphors, i.e., the rays rise like a bird flying up to the rim of its nest and then "alighting" as it comes to rest:

- [*F*]*alling like a bird alighting on the trees* the Soma when purified alights upon the pitchers 9.96.23 [WIL]
- [I]n the (Vasativari) waters: *he alights like a falcon on his own place* 9.42.4 [WIL]
- The shining (Soma) approaches the golden seat . . . *as a falcon (approaches) his nest* 9.71.6 [WIL]
- The Soma . . . purified, he pases through the sheep's fleece, to alight on the watermoistened seat like a hawk (on its nest)." 9.82.1 [WIL]

This 'alighting' motion recalls the distinctive "drooping" or "wilting" movement that occurred in the third and final stage of the evolution of the meditation-induced phosphene rays. The metaphor of a bird alighting recalls other verses that refer to the purified Soma as a "sun-bird," e.g. 10.177.1-3 (discussed in Part I) in which the wise men

are described as having seen in their hearts "the bird annointed with the magic of the Asura [sky gods]" or "the footprints of his rays" as a "revelation that shines like the sun in the footprint of Order [OFL]."

# The Vision of Soma Penetrating Indra

The streams of purified Soma are described as "penetrating" into Indra's belly but also as Indra "drinking up" the Soma streams like a calf drinking milk from an udder, with both metaphors sometimes present in the same stanza:

- Soma, being purified, alights on the vessels; *putting his seed (in the vessels) as in a heifer* ... 9.99.6 [WIL]
- [*G*]*oing to his station like a bridegroom to his bride,* he combines in the pitcher with the curds and milk 9.93.3 [WIL]
- [T]he omniscient (Soma) hastens invoking (the gods) towards (the cups) *like (a libertine) to the wife of a friend. /* O Pavamana . . . *thou goest like a gallant to his mistress* 9.96.23 [WIL]
- Clarify thyself, O Soma, for the invitation to the gods. *Thou who art a bull enter into the heart of Indra, receptacle for Soma*!... 9.70.9 [BH/W, p. 50]
- *Enter into the heart of Intra, Soma's receptacle, like the rivers into the ocean,* thou [O Soma] .... supreme mainstay of the sky! 9.108.15 [BH/W, p. 58]
- Pressed by the pressing stones, thou clarifiest thyself in the filter, O Soma-juice, when *penetrating into the entrails of Indra*! 9.86.23 [BH/W, p. 58]
- Cleansed like a winning race horse, thou hast spilled thyself in the belly of Indra, O Soma! 9.85.5 [BH/W, p. 57]
- Cleanse the Soma . . . put the Soma juice into Indra. 9.11.5-6 [BH/W, p. 28]
- [*I*]*n jets, the pressed Soma is clarified* according to its nature, suitable for thee, O Indra! 9.72.5 [BH/W, p. 56]
- Like a race horse launched in movement for the victory prize, flow, O Soma, . . . thou, *Bull, seated in the filter above the calf's wool, clarifying thyself, thou Soma, that Indra may have his pleasure*! 9.86.3 [BH/W, p. 18]
- Clarify thyself, O Soma, in the celestial structures of thine essence, thou who hast been released roaring into the vessel, in the filter. / Lodged in the belly of Indra, roaring with vigour, held in hand by the Officiants, thou hast made the sun to mount the sky. 9.86.22 [BH/W, p. 57]
- The penis, men, take the penis and move it and stick it in . . . Inspire Indra 10.101.12 [OFL]

While both Soma and Indra participate in this single vision, they are described as still retaining their separate existences since each continues to inhabit his own celestial 'seat': "Indra is farther than this seat [i.e. Soma's seat] when the milked amsu, the Soma, fills him ... 3.36.6 [BH/W, p. 44]."

Describing the purified Soma as streams that "penetrate" into Indra's belly implies sexual congress, an implication made explicit in the verses listed below that refer to Soma as going to Indra like a bull "putting his seed . . . in a heifer," "like a gallant to a mistress," "like a bridegroom to his bride," or like "a libertine to the wife of his friend." Alternatively, verses may use the metaphor of a bull or stallion being milked. Gonda, in a critique of translations of verse 10.31.2, suggests that the sexual metaphors in the

RV may express the thought that the poet-seers 'conceive' their visions and inspired hymns in the same way a baby is conceived:

Geldner's translation of *adhayi dhitih* "die Erkenntnis is erfolgt" is perhaps not completely incorrect; it is however a tempting surmise to connect this phrase with the combinations of dha- and retah, garbham and to compare the double sense of the English conceive. Cf. also 8.12.11 where the dhitih is called garbho yajnasya. [Gonda, 1963, p. 184]

Before leaving this subject, we also point out that the penis metaphor is used in a different way in a verse that describes the jets of purified Soma using a 'pissing' metaphor:

Soma, stormcloud imbued with life, is milked of ghee, milk. . . Acting in concert, those charged with the Office, richly gifted, do full honor to Soma. *The swollen men piss the flowing* [Soma]. 9.74.4 [BH/W, pp. 29-30, 50]

Most translators interpret the pissing metaphor as an embellishment of the image of a stormcloud spitting rain with which the verse begins, but, in view of the fact that many other verses incorporate allusions to the ejaculation of male semen, we suggest that the more literal interpretation is the most accurate, that is, that the eulogists meant to say that jets of Soma shoot out like urine from men who are finally able to release their swollen bladders.

#### What Force Expels the Soma Jets from the Soma Bulb?

Many verses describe the Soma juice as having been forced out of the woolen filter by "priests" ("officiants," "masterly men," "wise men," "preparers of the Soma") who use their "fingers" to wield "pressing stones" to accomplish this task:

- The *ten fingers, the two arms, harness the pressing stone*; they are the preparers of the Soma, with active hands. The one with good hands has milked the mountaingrown sap . . . the amsu has yielded the dazzling. 5.43.4 [BH/W, pp. 22, 44]
- The priests, the ten fingers, milk thee forth for the gods . . . ten fingers of the skillful (ones) milk thee forth with the stones . . . 9.80.4-5 [WIL]
- This bull, heaven's head, Soma, when pressed, is *escorted by masterly men* [*nrbhir*] *into the vessels*, he the all-knowing. 9.27.3 (BH/W, p. 45)
- Many wise men utter praise together, when they have milked the Soma into Indra's belly, when *fair-armed men cleanse the delightful exhilarating juice with their ten united fingers* [lit., "ten having one nest"] 9.72.2 [WIL]

The best juice (dwells) in the navel of heaven, . . . the stones devour thee upon the cowhide; the wise (priests) milk thee into the water with their hands 9.79.4 [WIL]

There are many reasons why the metaphor of priests wielding stones should not be interpreted literally. One objection is that a literal interpretation would reverse the timing of events: in these verses, the vision of Soma is already present in the visual field, so it cannot be the case that the priests are still engaged in crushing the stalks to prepare the Soma drink to be used in the ritual. A second objection is that the pressing of Soma is described here as a "celestial" event and thus one that takes place at "heaven's

seat" or at the "seat" of a god. For example, 9.102.2 describes Soma as appearing "at a place near the two pressing stones of Trita [WIL]." This reference to Trita, a sky god, is particularly interesting since the name, Trita, which connotes the number 'three,' anticipates the number of Soma streams that will later shoot out of the filter. Also, 8.12.32 describes the first Soma sacrifice by the god, Vivasvant, as a "navel-milking" (*nabha yajnasya*) performed in the god's celestial seat [Gonda, 1963, p. 187]. Hints of divine agency in the pressing of Soma are also apparent in 9.47.1, which states that "The shining soma [is] being purified by *the golden hand* that urges it forth . . . [WIL]."

Consistent with the interpretation that divine hands wield the pressing stones are the verses that describe Soma as moving itself, as, for example, in 9.74.1, which reads, "The soma stalk [*amsu*], filled full, *moves itself everyway* [GRF]," or 9.68.4, which describes Soma as "protecting his head" from the priests' fingers, perhaps a reference to a pulling-back movement. The description of Soma moving itself is consistent with a mythological explanation that the golden hands of the gods are applying pressure on the Soma bulb from a celestial region invisible to humans.

These metaphors suggesting that the fingers that press the Soma bulb are divine, not human, can be reconciled with an alternative interpretation in which the priests' 'fingers' do play an important role - but these are not the 'fingers' one might suppose. A number of verses suggest that the references to "priests' fingers" are actually euphemisms for the priests' singing hymns. Their chants attract the attention of the gods and motivate the gods to act on behalf of humans; therefore, it might be said that the priests' hymn-fingers play an important causal role since they recruit the gods and get them to apply the pressure that 'massages' the celestial Soma-bulb. Thus it is a divine-human partnership that produces the perturbations wise men see when the Soma-bulb appears to "move itself." Consistent with this interpretation are the following verses:

- [*T*]*he worshippers send forth praises; the filtered (juices) hasten to the fair praise*, the exhilarating Soma juices enter Indra 9.85.7 [WIL]
- *They send forth with their fingers* [alt. translation, *'with their praises'*] the powerful Soma . . . passing through the fleece 9.106.11 [WIL]
- [O]ur *holy hymns are pressing nigh to Soma*. To him they come . . . and, longing, enter him who longs to meet them. / *They drain the stalk* [amsu], the Steer who dwells on mountains . . . 9.95.3-4 [GRF]
- (The priests) milk forth the Soma cleansed (dwelling) on a high place like a buffalo, the sprinkler, placed between the grinding-stones; praises attend upon the longing Soma . . . 9.95.4 [WIL]

Having enumerated the reasons why references to priests wielding pressingstones should not be taken literally in those passages that refer to visionary experiences, we acknowledge that there might also be a sense in which it would be reasonable to say that priests actually do grab stones, crush stalks, and prepare a drink that produces visions. If the original Soma plant were some kind of Ephedra, as many scholars suggest (see our discussion in Part III), then we might envision the following scenario: the priests gather Ephedra plants and crush the stalks to prepare a drink containing ephedrine, a stimulant. They use this ephedrine drink to keep awake throughout the night as part of a Soma ritual. As a result, they would lose enough sleep to predispose them to an outbreak of paroxysmal brain discharges when they tried to meditate - and

the photoparoxysmal phosphene images that were generated by the seizure would bestow the visions of Soma and Indra. In this were the actual scenario of events, it is easy to imagine that the preparation of the Soma drink and the visions of Soma would be associated in the minds of the observers as a causal link, even if the link were indirect or perhaps non-existent. In this view, references to the priests' fingers may celebrate two different acts - the physical preparation of the Soma drink, but also the singing of hymns that recruit divine help to press the purified Soma jets out of the celestial vision of the Soma filter.

#### The Vision of Indra

Indra appears in an overwhelming blast of brilliant white light described as "lightning," as "an ocean" of "dazzling" white that flows "continuously," as "a vesture of grand occasion," as "a spread-cloth like to a cloud," as the "dappled one, enveloped in a membrane of light," or as an opening of the divine "eye (*caksus*)," which leaves the seer "sun-eyed (*svarcaksa*)." Indra's brilliance is blissful and god-like but also like a "burning:"

- Soma, exhilarating Indra (and) the celestial people, thou rushest forth, when filtered, *like the wave of a river* 9.80.5 [WIL]
- [T]he *lucid* water-shedding *rivers do not fill the ocean with water* 5.85.6 [WIL]
- *The inspired seers guard this inspired thought which is bright-like-lightning*, a *dhih* of the nature of the *light of heaven at the abode or seat of rta*. 10.177.2 [GON, 1963, pp. 178-9]
- Soma, who art purified, . . . enter Indra's belly in a mighty stream; milk heaven and earth for us *as lightning (milks) the clouds*; . . . 9.76.3 [WIL]
- With *unfading vesture, brilliant, newly clothed,* the immortal *hari* wraps himself all around. By authority *he has taken the back of heaven to cloth himself in a spread-cloth like to a cloud.* 9.69.5 [BH/W, p. 40]
- He sloughs off the Asurian color that is his. He abandons his envelop . . . With what floats he makes continually his vesture-of-grand-occasion 9.71.2 [BH/W, p. 40]
- We have drunk the Soma; we have become immortal; we have gone to the light; we have found the gods. 8.48.3 [OFL]
- *Inflame me like fire* started by friction. 8.48.6 [WIL]
- The filtre of the *burning* [Soma] has been spread in heaven's home. 9.83.2 [BH/W, p. 54]
- [Soma] who has for *eye the sun* [*svarcaksa*] 9.97.46 [BH/W, p. 47]
- [H]e has clothed himself with the fire-bursts of the sun 9.71.9b
- I have drunk the navel into the navel for our sake. Indeed, *the eye is altogether with the sun [caksus cit surye]*. 9.10.8ab [BH/W, p. 46, 50]
- *Quickened by the seven* minds, he [Soma] has encouraged the rivers free of grief, which have strengthened his single eye 9.9.4 [WIL]
- The wise behold with their mind (seated) in their heart the Sun made manifest by the illusion of the Asura; the sages look into the solar orb . . . sages cherish it in the place of sacrifice, brilliant, heavenly, ruling the mind. / I beheld the protector (the Sun), never descending, going by his paths to the east and to the west; clothing (with light) the (four) quarters of heaven . . . 10.177.1-3 [WIL]

The sovereign (Soma) has put on *the vestment of the waters* 9.84.2 [WIL]

[T]he asura-colored showerer (of benefits) illumines as soon as born, the whole luminous region . . . / . . . Indra has uncovered the desirable white-colored, fast-flowing Soma, effused by the expressing stones, and overlaid with the shining (milk and other liquids), in like manner as when, borne by his tawny steeds, he rescued the cattle. 3.44-45 [WIL]

The colors and textures of the Indra vision are described by three different but related metaphors: as an opaque whiteness like milk in a bucket, a mottled whiteness like milk "mixed with curds," or an even more variegated surface faceted by "a thousand studs [*bhrstir*]:"

- Now he has gone to the *white pot coated by cows;* the racehorse has reached the winning line . . . 9.74.8 [OFL]
- Pressed for Indra . . . the Soma plants requiring a *mixture of curds*. 5.51.4-7 [BH/W, p. 27]
- [*M*]*ix the libation with curds,* offer the Soma to Indra. 9.11.5-6 [WIL]
- King [Soma], having the filtre for chariot, he has attained the victory prize; *a thousand studs*, he conquers puissant renown. 9.86.40 [BH/W, pp. 52, 59]

If we refer to the paroxysmal phosphene sequence described by the author, we can identify counterparts for each of these descriptions at different stages in the evolution of the Indra vision. In the paroxysmal phosphene sequence, the rising rays are followed by a continuing series of dull white flashes that look exactly like sheet lightning illuminating dark stormclouds from within (see Figure 3, Part I). This is probably the empirical referent of the lightning metaphor. These lightning-like flashes were replaced by a different kind of phosphene vision once the author stopped the initial flashing by diverting attention to other things and then getting up and walking around the house. Then, when he returned to bed, he saw a faint glow hovering in the same place where the bulb and the rays had once been, and, when he looked at this glow, it suddenly began to expand very rapidly, as if it were radiating out in all directions toward the viewer (see Figure 4, Part I). The surface of this expanding white phosphene cloud had a distinctive, variegated, cauliflower-like appearance: in effect, it looked very much like a foam of soap bubbles surging upward in response to a downward jet of water or like the surface of a cumulus cloud billowing outward in response to explosive pressures contained within. This variegated whiteness is aptly described as "milk mixed with curds" or as white light with "a thousand studs." A few nights after the initial photoparoxysm, the glow still remained but, when it expanded, the surface had lost its former variegation and presented an undifferentiated, fog-like cloud of white mist.

While we are addressing the subject of Indra, it is important to make a brief excursion to examine one particular verse that assumes a critical role in the current debate about the identity of the original Soma plant that we will review in Part III. In an influential article arguing that Ephedra is the most likely candidate for the original Soma, Falk [1989] claims that it is a mistake to interpret the hymns of the RV as referring to visual "hallucinations." While it is true that Falk has in mind the kind of dream-like figurative hallucinations induced by harmaline alkaloids (the competing candidate for the original Soma), he states his case in such a way as to exclude all kinds of luminous visions, including those we have documented in this series of papers. The

most recent review of the debate about the Soma plant concurs with Falk's position [Nyberg, 1995]. Since our analysis of the evidence supports a conclusion diametrically opposed to Falk, it is worthwhile to spend a moment studying the verse that Falk cites as an example of misinterpretation:

The only half-serious reason to expect hallucination as an effect of Soma-drinking in an Indian context is the well-known *Labasukta*, RV 10.119. There it is said that some winged creature, after consumption of Soma, touches sky and earth with its wings and extends bodily even beyond these borders . . . Usually it is Indra who grows until he extends beyond heaven and earth (e.g. RV 1.81.5; 8.88.5). . . . But Indra has no wings! And nowhere is it said that human Soma-drinkers feel that they are growing. . . . The act of growing in the Labasukta simply classifies the bird amongst the gods and gives no indication that it was due to the effects of any drug. . . . Because all the proponents of Soma as a hallucinogenic drug make their claim on the basis of a wrong interpretation of the Labasukta, their candidates must be regarded as unsuitable [Falk, Ibid., p. 78].

We believe Falk's reading of this verse is seriously mistaken - that, contrary to his claim, this verse is a perfect example of the celebration of luminous visions in the RV, particularly the culminating visions of Soma and Indra. We have already noted the many times that metaphors of birds flying are used to describe the rising streams of purified Soma, and, in addition, that the streams penetrate as far as the seat of Indra, so that, at the moment when Soma is rising and Indra is drinking, it might well be said that Indra is lifted on wings. Moreover, bird metaphors are also used to describe the sun-like flood of bright light that appears when Indra explodes into view, as, for example, in 10.177.1-3, discussed in the first paper (Part I), where wise men are described as having seen in their hearts "the bird annointed with the magic of the Asura [sky gods]" or "the footprints of his rays" as a "revelation that shines like the sun in the footprint of Order [OFL]." Based on these considerations, we conclude that Falk and Nyberg cannot possibly be right in their conclusion that the RV does not refer to luminous visions, even though we concur in many other aspects of their argument in favor of Ephedra as the original Soma plant (see Part III).

## Indra and the Vision of Dawn

So far we have examined the birth of Soma and its transmutation into Indra and have identified images with similar characteristics in the paroxysmal phosphene sequence described by the author. We know, based on the meditation-induced phosphene sequence, that a gradual brightening and bluing of the visual field occurred soon after the onset of paroxysmal brain discharges, that this took place before the bulbous image appeared, and that this uniform brightening and bluing disappeared abruptly at the same instant that the Soma-like bulbous image disappeared. Therefore, it is reasonable to expect that some hymns in the RV have metaphors that describe a similar phenomenon occurring at a similar place in the progression of luminous visions. Is there any evidence to support this inference?

Several verses in the RV mention that Indra's lightning bolt kills Usas, the goddess of dawn, but, paradoxically, Usas is said to be "enriched" by Indra's triumph:

Indra . . . *thou hast slain the woman, the daughter of the sky [i.e. the dawn],* when meditating mischief. / Thou, *Indra, who art mighty, has enriched the glorious dawn,* the daughter of heaven. 4.30.7-11 [WIL]

If Indra's brilliance, which is a vision, kills Usas and thereby "extinguishes the dawn (9.82.3)[WIL]," this suggests that, in this context, Usas also refers to a vision, one that was present in the visual field at the time Indra appeared. Usas is enriched, even though she dies, because Usas, like all the other deities, is part of 'The One,' and thus, like the others, she has an assigned role in the evolution of luminous visions that culminates in the appearance of Indra. The vision of Indra is a "Union of The Waters and the Sun," a realization of, or restoration of, the primordial cosmic order of Brahman, Purusha, and Rta. Usas, and all creation, benefits when cosmic Unity is restored.

In the verses listed below, there are more hints that the eulogists are sometimes referring, not to a terrestial dawn, but rather to an inner vision of dawn where "paths to the gods are beheld" by the seer, and the path is illuminated by "days that have dawned before the rising of the sun," where the dawn-like light is not as as transient as a terrestial dawn but rather "beheld like a wife repairing to an inconstant husband:"

*The paths that lead to the gods are beheld by me*, innocuous and glorious with light: the banner of Ushas is displayed in the east, she comes to the west, rising above the high places. / *Many are the days that have dawned before the rising of the sun, on which thou, Ushas, has been beheld like a wife repairing to an inconstant husband, and not like one deserting him.* / Those ancient sages, our ancestors . . . *discovered the hidden light,* and, *reciters of sincere prayers, they generated the Dawn.* 7.76.2-3 [WIL]

The next stanza of the same verse adds an important detail:

- Auspicious *Ushas* . . . *who art the conductress of the cattle* (to pasture), the bestower of food, *dawn upon us* . . . 7.76.4 [WIL]
- Come, (Ushas), with the desirable (radiance); let the cows who are of full udders accompany thy chariot 172.1-4 [WIL]

These references to Usas as a "conductress of cattle" are important because they reverberate with another metaphor that is frequently used in verses dedicated to Soma and Indra, i.e., references to a herd of hidden cows that the eulogists use to explain the source of the 'milk' that gets mixed in with the Soma juice. Because of the hidden cows' milk, the Soma juice is white when it shoots out of the filter:

- [T]he asura-colored showerer (of benefits) illumines as soon as born, the whole luminous region . . . / . . . Indra has uncovered the desirable white-colored, fast-flowing Soma, effused by the expressing stones, and overlaid with the shining (milk and other liquids), in like manner as when, borne by his tawny steeds, he rescued the cattle. 3.44-45 [WIL]
- The rishi, the sage, the foremost of men, the far shining intelligent Usanas *he verily by his poetic gift discovered the secret milk of those cows which was hidden and concealed* 9.87.3 [WIL]

For Usas to be the "conductress" of the herd of hidden cows that supplies the milk for the Soma vision, Usas must also be a vision, one recognized by the eulogists as appearing at a set place in the unfolding of the sequence of luminous visions. This

linking of the eulogists' hymns, propitious visions of a divine dawn, and the celestial cows is emphasized several times in the following verses:

[O]ur mortal forefathers departed after instituting the sacred rite, when, *calling upon the dawn, they extricated the milk-yielding kine, concealed among the rocks of the darkness* (of the cave) . . . / . . . unprovided with the means of (extricating) the cattle, they glorified the author of success, when *they found the light*, and were thus enabled (to worship him) with holy ceremonies / Devoted (to Agni), those leaders . . . *with minds intent upon (recovering) the cattle, forced open, by (the power) of divine prayer, the obstructing, compact, solid mountain confining the cows*, a cowpen full of kine. / *They first have comprehended the name of the kine, knowing the thrice seven excellent (forms)* of the maternal (rhythm); . . . / . . . *then they glorified the conscious dawns, and the purple dawn appeared with the radiance of the sun.* / The scattered darkness was destroyed; *the firmament glowed with radiance; the lustre of the divine dawn arose* . . 4.1.11-17 WIL

Note the reference here to the conjunction, "thrice-seven," which we discussed earlier in relation to the three streams of purified Soma that increase in number to seven, which led us to suggest the translation, "three-then-seven." In the context of this verse, the reciting of this conjunction suggests that the eulogists meant to say that, once the ancestors understood what kinds of visions were possible - "hav[ing] comprehended the name of the kine, [and] knowing the thrice seven excellent (forms)," they then realized the importance of inducing a vision of the "conscious dawn" in which the purple shines with the "the radiance of the sun."

Just as a vision of "divine dawn" can be said to herald the vision of Soma, the Dawn vision has its own harbingers - the Asvins' chariot and Agni's flame-arrows:

- May this desireable and gratifying Soma expressed by the stones be, Indra, for thee: *ascend the verdant chariot*, and with thy tawny (steeds) come to us; *Desiring (the Soma), thou honorest the dawn*...3.44.1-2 [WIL]
- The *brilliant chariot, diffusing splendor, rolling lightly on its three wheels,* offering an easy seat . . . . *at whose yoking the Dawn was born,* rich in marvelous treasures I invoke that your chariot (O Asvins) Vala 10.3 [WIL]
- Where is that ancient one of those (Dawns), through whom the works of the Ribhus were accomplished? For as the bright Dawns happily proceed, they are alike and undecaying. / Verily those auspicious Dawns have been of old, rich with desired blessings ... / ... the divine Dawns, arousing the assembly of the sacrifice, are glorified like the (rays) creative of the waters. / Those Dawns proceed verily alike, of similar form, of infinite hues, pure, bright, illumining, concealing by their radiant persons the very great gloom. 4.51.6-10 [WIL]

It is worth noting here that the "divine Dawns" are described in 4.51.8 as "arousing the assembly of the sacrifice," i.e., an invigorating the assembled priests. This point will be relevant in our discussion of the ancient Soma ritual in Part III. One of the leading candidates for the original Soma is Ephedra which contains an adrenaline-like stimulant that has an invigorating effect on users, as this verse suggests.

The hypothesis that Dawn sometimes refers to a type of luminous vision is consistent with Gonda's analysis of the term, *rtasya* (meaning the "seat" or "place" of rta)

in 4.51.8. Discussing the phrase, *rtasya devih sadaso budhana*, Gonda points out that "rta is ubiquitous and not confined to a special locality," and that, therefore, this phrase could be interpreted as referring a light generated inside the seer and not just to a terrestial dawn:

There is, as far as I am able to see, nothing to have us believe either that this sadah is identical with that in 10, 111, 2 or that all rtasya sadamasi are situated in the East. What the text means, is, in my opinion, this: the Dawns have their origin in, or rather are based on or conditioned by, rta; what it says is that at the 'place' where the Dawns awake rta makes its presence known. [Gonda, 1963., p. 182]

Gonda makes a similar point in a monograph analyzing the use of the Sanskrit medium tense in the RV: referring to 7.92.2, Gonda suggests that this phrase which is often translated as "(the dawns) color themselves" could also be interpreted, given the use of the medium tense, as applying to an event that the poet-seer causes to happen within himself, so that "the person who is subject is characterized as performing the process in his own sphere and in his own interest . . . . [Gonda, 1979, p. 23]." Two other verses translated by Gonda describe the seer as beholding an inner vision of dawn that is regarded as an auspicious omen of what comes next:

- [T]he man who in the early morning kindles his sacrificial fire mentally should acquire, by way of a 'vision,' a flash of intuition, the knowledge of the deeper sense of what he is doing: 'I have kindled the fire with the rays of the matutinal light.' 7.104.14 [GON, 1963, p. 77]
- [*B*]*orn still before daylight*, attentive, recited, in parts, when the sacral functions are performed, *dressed in beautiful-and-auspicious white clothes is this our ancestral <u>dhih</u> which was born long ago. 3.39.2 [GON, 1963, p. 77]*

Table 2.1. Synopsis of parallels between phosphene sequence and luminous visions.

Meditation-Induced Phosphenes	Luminous Vision Metaphors
Rings (3 - 5) that shrink in diameter.	Visions of wheel rims moving away.
Waves of amorphous phosphene mist	Visions of flame-arrows assembling like water pouring into holes.
Bright central node & pupil-like space	I G G G G G G G G G G G G G G G G G G G

	Many-colored, smoke-like visions.
A star-like cluster of thin filaments. An influx of thin, dark, fast-paced rings. A radiating spray of beige-colored flecks.	
A gradual brightening and bluing of the entire visual field that obscures & then eclipses the spray.	Visions of a day before the day that lasts longer than a terrestial dawn. A hidden light of Divine dawn.
Small white bulbous glow, upper right quadrant. Attention makes it move.	A vision with a bulbous shape, like an udder, navel, head, bull's horn, pot, penis, waterskin, woolen ball.
Bulbous image & the blue disappear	Indra kills Dawn but also enriches her.
3 thin white rays fan out from a base.	3 jets of pure Soma rise from the filter.
6 rays replace the 3 & extend further.	The 3 become 7.
Same 6 rays move apart ('wilt')	The rays fly like a bird as it 'alights' on its nest.
A sudden outbreak of lightning-like flashes That continues until attention is diverted.	Indra manifests as a bolt of lightning, as a continuous flood of bright, sun- like light, or an 'eye' (caksus) that is altogether one with the sun.
The aftermath = a white glow that expands with a surface texture like the cauliflower.	Indra as 'milk with curds' or a whiteness that is variegated by a 1,000 studs or petals.

# Conclusion, Part II: The Soma Code

Our analysis of the metaphor-sets used to describe luminous visions in the RV has uncovered many parallels with the meditation-induced phosphene sequence described by the author. These parallels, which are present image-by-image and also in the temporal sequencing of images, are summarized in Table 2.1. Our theory about the origins of luminous visions described in the RV provides a detailed, comprehensive, and economic explanation accounting for the choices of particular metaphors and what the composers meant to communicate by choosing these and not others. Our theory also explains some other puzzles that have so far eluded explanation. In the final paper of this three-part series, we use this new theory to investigate the relationship between

visionary experiences in the RV and those described in later works, such as the Upanishads and the many yoga meditation texts in the Hindu, Tantric, and Tibetan-Buddhist traditions. We also propose that the homologies between natural events, the actions of Vedic deities, and the visions of human seers which are postulated by Vedic myths can be best explained as projections onto nature and mythic elaborations that originated in the visionary experiences of tribal shamans. Finally, we show that this theory about the nature of the luminous visions in the RV now makes it possible to choose between the two leading candidates that have been proposed most recently as the original Soma plant.

## **ABBREVIATIONS USED**

BH/W	Bhawe, S. S. 1957, 1960, 1962. The Soma Hymns of the Rig Veda,
	Parts I - III, , as quoted in Wasson, R. G., Soma: Divine Mushroom
	of Immortality (Harcourt Brace Jovanovich: New York, 1971).
DNG	Dange, S. A 1992. Divine Hymns and Ancient Thought, Vol. I:
	RgVeda Hymns and Ancient Thought (N. Singal, NAVRANG:
	New Delhi,.).
GRF	Griffith, R. T. H 1971 [1889]. The Hymns of the RgVeda, Vol. I - II
	(Chowkhamba Sanskrit Series: Varanasi,).
OFL	O'Flaherty, W. D 1971. The Rig Veda: An Anthology (Penguin
	Books: London).
WIL	Wilson, H. H 1888. Rig-Veda Sanhita: A Collection of Ancient
	Hindu Hymns, Vol. I - VI (Trubner & Company: London,).
GON	Gonda, J. 1963. The Vision of the Vedic Poets (Mouton & Co.: The
	Hague, Netherlands).
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