

The Soma of the Rig Veda: What Was It?

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R. Gordon Wasson

In his paper Mr. Wasson summarizes his argument in favor of a mushroom, the flyagaric called by mycologists *Amanita muscaria*, as the Soma of the Rig Veda. This mushroom was still being used as an inebriant by the shamans of remote tribes in Siberia only a few years ago. Mr. Wasson quotes from the Rig Veda to show how apposite are the poets' words to the fly-agaric, in most cases illustrating his points with colored plates. The Siberian tribesmen drink the urine of one who has taken the fly-agaric and find it as inebriating as the fly-agaric itself. Mr. Wasson raises the question whether the Vedic priests did not do likewise, marshalling certain evidence in favor of this view. He then explains how he thinks it happened that the identification of Soma has had to wait until now to be achieved, and finally he suggests certain textual *cruces* in the hymns that may be resolved by his discovery and outlines other channels of inquiry for fruitful research.

LOUIS RENOU WITH HIS VAST LEARNING in matters Vedic once said that the themes presented by Soma incapsulate, so to speak, the whole of the Rig Veda.¹ Soma saturates the Rig Veda, not merely Mandala IX. So long as Soma remains unidentified—so long as it is an unknown plant in appearance, in its habitat, in the stages of its life cycle, in its hallucinogenic properties-the student of this extraordinary collection of hymns is gravely handicapped. The poems are filled with figures of speech, plays on words, allusive double meanings, that must remain blind to him. If from the play Hamlet the utterances of the Prince of Denmark were completely excised, what could we make of it? Soma plays the rôle of Hamlet in the Rig Veda. For three millennia Soma has remained unidentified and Vedic scholars have seemed disposed to give up hope. There have been so many unpersuasive tries at giving the plant an identity! Some scholars find peace of mind by imagining that the Vedic poets possessed only a fading memory of the plant, thus happily attributing to the poets their own disability. Yet others seek comfort by asking whether Soma from the outset was only a mythological concept. There may even be Vedic scholars so inured to the enigma that they will be upset by the dramatic entrance on stage of the long-absent jeune premier.

* Paper prepared for the International Congress of Orientalists, Canberra, Australia, January, 1971.

Almost ten years ago I approached the problem from the botanical field. I was generally familiar with the hallucinogens used in historic times in the Eurasian landmass. As I was too old to acquire a mastery of the Vedic language that would be useful to me, I enlisted the aid of a Vedic scholar, Dr. Wendy Doniger O'Flaherty, who dealt with all my questions about Vedic culture and linguistics and who wrote Part II of my book, the post-Vedic history of Soma. She is unable to be with us today but in her absence I gladly pay tribute to her patience with my queries and to her labors on my behalf. For long she was skeptical about my thesis but now that our book is out she authorizes me here today to say that she is a fullfledged convert.

For my principal source I relied on the scholarly translations of the Rig Veda published in the past twenty years, Geldner's and especially Renou's. so far as he had gone before his untimely death. I relied on the Rig Veda. The Vedic poets knew Soma if anyone did. The poets lived over generations, probably centuries, in various centers of Vedic culture. When we consider the nature of poets everywhere, always, can we imagine the Vedic poets singing the glories of a plant without using the descriptive terms, the tropes, that will serve as its hallmark, its signature? Sometimes I think it was to my advantage that I was untroubled by thorny questions of syntax, by the far-flung network of Indo-European roots and hypothetical etyma, by mythological themes as-

¹ Etudes Védiques et Pāņinéenes, Tome IX 8.

cending deep into Eurasian pre-history. I read these lyrics in Renou's rendering as poetry. At first I had harbored the secret notion that Soma would turn out to be a member of the mint family, *Lagochilus inebrians* Bunge, growing in Bactria and there used an an hallucinogen as far back as we can trace its history. This mint, strangely, had never been suggested as Soma. But on reading Renou I quickly saw that Soma had to be a mushroom and specifically the fly-agaric, *Amanita muscaria* L. All unknowing, Renou was consistently describing this mushroom.

I repeat that I relied on the Rig Veda. The earliest commentators in India were suspect because they themselves may not have known what Soma was. Or it has been suggested to me that, even if they knew what Soma was, from the highest motives they may have engaged in mystification to throw posterity off the scent. The obliteration of Soma's memory may have been, in post-Vedic times, the goal of the priests' efforts. Over the past centuries Vedic exegetes have included some of the finest minds in the world of scholarship, but their efforts to identify Soma have failed and to follow them was to accept the guidance of the blind.

I will start with a précis of my argument, illustrating it with Plates. Then I will submit a second category of evidence, quite different and not essential to my case, but if it holds up, it is testimony of a kind to clinch my identification. Afterwards I will tell you why I think the identification of Soma has become possible only now. Fourthly, I will say why I do not attempt to answer certain challenging questions that are invariably put to me. Finally, I will suggest a few of the many perspectives that open up in the light of my identification of Soma.

I. The Rig Veda and the Mushroom

In reading Renou I quickly perceived that the poets speak neither of the roots, nor of the leaves, nor of the branches, nor of the blossoms, nor of the fruit or seed of Soma. These are essential components of the chlorophyll-bearing plants, and if the poets never mention them, Soma must have been without them. It must have been a mushroom. Soma grew on the mountain heightswhich, in Kashmir and the Indus plains, meant either the Himalaya foothills or the Hindu Kush, where the wild mushrooms that grow at sea-level in the forest-belt of Eurasia may be found at altitudes from 2,500 meters up. Right away one thinks of the fly-agaric, *Amanita muscaria* L., the mushroom of the Siberian shaman. This superb, this regal plant plays a central rôle down to our own days in the religious life of the Uralic Ob-Ugrians and Samoyeds, and also all but one of the Paleo-Siberian peoples. How odd that no one had ever before considered a mushroom, though the fungal world offers a number of hallucinogenic possibilities.

The fly-agaric first appears as a fluffy ball, dazzling white. As it swells and grows upward it bursts its white envelope and its brilliant red skin shows through the fragments of the white envelope that continue to adhere to the cap. In Plate I, I offer an assembly of these fly-agarics, including young and mature specimens. Sometimes the white patches that stud the cap in maturity are wholly or partly washed away by rain.

I.1. The poets of the Rig Veda habitually compare Soma with the Sun, with Fire. Soma shares its liquid nature with the rain, its brilliance with the lightning and with the fire that lightning stands for. I think our Plates justify this, especially Plate II. Hymns IX 66 and 67 contain apostrophes to Soma under the name of 'Fire' and the Sunimagery runs all through the hymns. Here are a few examples:

I 46 ^{10ab} :	Light has come to the plant, a sun
	equal to gold
I 135 ^{3b} :	[Soma is] thy precise share, ac-
	companied by the rays that are his
	in common with the sun
IX 26c:	[Soma] shines together with the
	sun
IX 285ab:	[Soma] has made the sun to shine.
	$(IX 37^{4bc} also.)$
IX 61 ^{8c} :	[Soma] joins forces with the sun's
	rays.
IX 71 ^{9b} :	he has clothed himself with the
	fire-bursts of the sun.
IX 76 ⁴ °:	he who has been cleansed by the

sun's ray.



PLATE I · The Soma of the RgVeda English: 'toadstool', 'fly-agaric'; German: Fliegenpilz; Russian: mukhomor; Ob-Ugrian: pono, pano, pongo, pango; Vedic & Sanskrit: Soma; Old Persian: Haoma.

> PLATE II · The Single Eye IX 97^{46c} [Soma] who has for eye the Sun

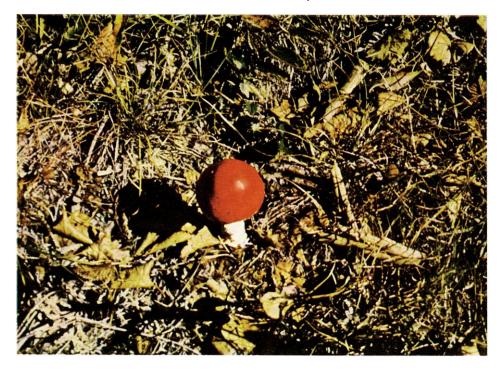




PLATE III Nirņíj; vesture-of-grand-occasion

PLATE IV \cdot Pávamāna IX 86^{29d} Thine, O Pávamāna, are the lights, the sun.





PLATE $v \cdot Pavítra$; the Filter

IX 86^{40cd}: King, having the filter for chariot, he has attained the victory prize; with his thousand studs, he conquers mighty renown.



PLATE VI The Sun-Plant; the Fire-Plant



Plate viia By day he appears *hári*

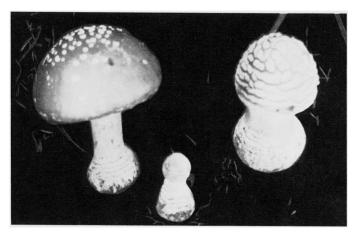


PLATE VIIb By night silvery white



PLATE VIII Pillar of the Sky

- IX 86^{32a}: [Soma] wraps himself all around with the rays of the sun.
- IX 97^{31d}: [once] born, thou [Soma] didst fill the sun with rays.
- IX 111^{3b}: [The Soma] races against the rays [of the sun], vehicle beautiful to see, celestial vehicle beautiful to see.

I.2. The flaming steeds of the Sun, *etaśa*, are a flaming red-yellow, and Soma is of the same dazzling color. Not only is the parallel with the sun revealed in the red or reddish-yellow cap, but the white studs suggest the sun's rays, and for 'Soma' the poets sometimes substitute *pávamāna*, the tawny yellow liquor expressed from Soma in the course of the liturgy, as illustrated in Plate IV.

- IX 27^{5ab}: Here he is, racing with the sun, $P\acute{avamana}$ in the sky . . .
- IX 63^{7ab}: Purify thyself with this stream by which [Soma] madest the sun to shine.
- IX 63^{8ab}: Pávamāna has hitched Etaśa [the sun's steed] to the sun . . .
- IX 64⁷: [the Soma's flowing liquor] like the rays of the sun.
- IX 86^{29d}: Thine, O Pávamāna, are the lights, the sun.
- IX 97^{41d}: the juice has engendered light for the sun.

I.3. Time and again the poets call Soma the Pillar or Mainstay of the Sky, a figure of speech that is understandable after looking at Plate VIII, the sturdy column topped off with an appropriate capital. Here are a few of the many relevant passages:

- IX 2⁵: The ocean [of Soma] has been cleansed in the waters; mainstay of the sky, the Soma in the filter, he who is favorable to us.
- IX 72^{7ab}: In the navel of the earth [is situated the Soma], which is also the mainstay of the sky...
- IX 74^{2ab} : Mainstay of the sky, well laid, the full $am \le u$ runs throughout everything . . .
- IX 86^{35ed}: ... thou sittest in the vessels, having been pressed for Indra, inebri-

ating drink, which inebriates, supreme mainstay of heaven, [Soma] who gazes in the far distance.

- IX 86^{46ab}: He has spilled forth, mainstay of the sky, the offered drink; he flows throughout the world ...
- IX 87^{2cd}: ... father of the gods, progenitor of the moving force, mainstay of the sky, foundation of the earth.
- IX 89^{6ab}: Mainstay of the sky, foundation of the earth, all establishments are in the hand of this [Soma] . . .
- IX 108¹⁶: Enter into the heart of Indra, receptacle for Soma, like rivers into the ocean, thou [O Soma] who pleasest Mitra, Varuṇa, Vāyu, supreme mainstay of heaven!
- IX 109^{6a}: Thou Soma art the mainstay of the sky, . . .

I.4. From our various Plates we see now why it is appropriate that our poets speak of the swollen 'udder' of Soma:

- III 48^{3ab}: [Indra] looks toward the sharp Soma as toward the udder.
- VIII 9^{19a}: When the swollen stalks were milked like cows with [full] udders
- IX 107^{5ab}: Milking the dear sweetness from the divine udder . . .

I.5. The 'cap' of the fly-agaric is called 'head' in Vedic and Sanskrit, as it is in many, perhaps most, of the languages of the world. The word in Vedic is $m\bar{u}rdhán$ or śíras

- IX 27³: This bull, heaven's head [mūrdhán], Soma [is] pressed.
- IX 68^{4cd}: While Soma enters into contact with the fingers of the officiants, he protects his head [*śiras*].
- IX 93^{3abc}: The udder of the cow is swollen; the wise juice is imbued with its streams. In the vessels the cows mix with their milk the *mūrdhán*.
- **I.6.** When the poet says:
 - IX 70⁷: The hide is of bull, the dress is of sheep

we understand what he means by looking at Plate III. Here the red skin of Soma shows through the woolly tufts of the envelope, the hide through the 'dress of sheep'.

This Plate III also illustrates well

IX 69⁵: With unfading vesture, brilliant, newly clothed, the immortal *hári* wraps himself all around. By authority he has taken the back [*i.e.*, the vault] of heaven to clothe himself in, a spread-cloth like to a cloud . . .

and

IX 71²: . . . He sloughs off the Asurian color that is his. He abandons his envelope . . . With what floats he makes continually his vesture-of-grand-occasion.

His 'vesture-of-grand-occasion', that is to say his *nirnij*. The traditional, the accepted meaning of *nirnij*, is the milk that is mingled with the juice of Soma after pressing. But is there any objection to giving this word, when used by the poets of the Rig Veda, a dual meaning, the milk that is white like the glorious dress of the exalted plant, and the dress of the plant that is white as milk of cows? To me this double metaphor seems the kind of word-play that the Vedic poets were addicted to, as they shift with lightning-speed, with quantum jumps, from one metaphor to another.

I.7. On occasions the poets speak of the eye, the single eye, of Soma:

- I 87^{5ab}: We speak because of our descent from the ancient father; the tongue moves with 'the eye of Soma'.
- IX 9⁴: . . . [Soma] has encouraged the rivers free of grief, which have strengthened *his single eye*.
- IX 10^{sab} : Indeed the eye is altogether with the sun.
- IX 10^9 : The sun [*i.e.*, Soma] looks with the eye towards the dear places and the highest place of heaven, . . .

IX 97^{46c} : [Soma] who has for eye the sun.

Could there be a more compelling metaphor for Soma than 'the single eye' of the divine plant, illustrated in Plate II? When the poet refers to the eye of the sun, as he frequently does, may he not mean Soma? **I.8.** Then there is the question of the filters. After the juice is expressed from the plant, this juice runs down to the woollen filter and through it. That filter is clear. But there is another filter, illustrated by Plate V.

- IX 86^{40cd}: King, having the filter for chariot, he has attained the victory prize; a thousand studs, he conquers mighty renown.
- IX 66^{5abc}: Thy clear rays spread over the back of heaven, the filter, O Soma, . . .
- IX 67²²⁻²⁵: This Soma, which today circulates in the distance, which is a cleanser, may it cleanse us in the filter! The filter that has been spread in thy flame, O Agni, . . . with it, cleanse us with the fruits of sacred songs! With these both, the filter and the fruits [of song], O God Savitr, cleanse me through and through!

Here Soma is addressed under the name of Agni. Metaphorically the miraculous plant seems to share every attribute of Agni,—flame-colored, subtle, it purifies with its filter as fire does with its flames.

- IX 83^{2abd}: The filter of the burning [Soma] has been spread in heaven's home. Its dazzling mesh was spread afar...
- IX 86^{30ab}: As for thee, O Soma-juice, thou art clarified in the filter so as to establish thyself [in] space for the gods.
- IX 86^{32ab} : The Soma envelops himself all around with rays of the sun, ...
- IX 91^{3cd}: By a thousand paths free of dust, Soma, armed with verses, knowing the Word, the Sun passes the filter.

We have seen that the head of Soma is likened to the vault of heaven: its studs are likened to the rays of the sun, caught on the skin of the 'back of heaven' and serving as a filter for the rays of Soma arrived from heaven.

I.9.

IX 97^{9d}: By day he appears hári, by night silvery white

says the poet. Our Plates IIIa and IIIb illustrate this verse well. In daylight the dazzling red of the fly-agaric's pileus dominates the sight, but on a moonlight night, all colors vanish and only the silvery whiteness of the *nirnij* is to be seen.

I rest my case on these illustrations. I could multiply my examples, my quotations, my Plates, but they would only confirm the evidence I have given. Conversely, so far as I know there is not a single reference to Soma in the Rig Veda that is inconsistent with my solution. We must not ask the poets to describe Soma as a modern botanist would do. We must be satisfied with something different, we must see the plant as a poet sees it. If we discover that the poets never mention the roots or branches or blossoms or seed of Soma, if we find them placing the plant high in the mountains, if they use a succession of tropes each appropriate for the fly-agaric, indeed fitting it like a glove, if we discover no word in the Rig Veda inconsistent with this plant, then indeed we have hit on its identity. All these elements are so many numbers for a combination lock. A single one might mean nothing, or two or possibly three might mean nothing, but when each of them and all of the lot of them together fit the fly-agaric to a T, then at last the door to an ancient enigma swings open. How better could poets describe the superb, the divine, plant? What plant other than the flyagaric fits these poetic figures? Have not the poets exalted their adored Soma in terms that are unmistakable? The god is suitably enshrined in a plant radiantly beautiful, hári, dazzling. By a miracle of nature the hallucinogen is clothed in vesture suitable to its high station. These correspondences of our Plates recur without ceasing in the hymns, the poets play with them, ring all possible changes on them. There are other parallels, important ones, that I must omit. I will mention just one example: the poets repeatedly apply to Soma the word 'navel', nabhi. This has its analogies in the fungal vocabularies of the vernaculars spoken from France and Russia through Turkey

to Korea and Cambodia! It seems that 'navel' is an archaic metaphor throughout Eurasia for a mushroom.

II. The Third Filter

I now turn to another category of evidence, not essential to my case. Alas, it does not lend itself to illustration with colored plates.

As an inebriant the fly-agaric possesses a property that is peculiar to it, distinctive, unique. Perhaps the Indo-Iranians made no use of this property. But let us read the Rig Veda with it in mind, for if they did resort to it, this would be additional proof—and what proof!—that we had identified the divine plant. It would rivet the superb fly-agaric to the Divine Soma.

Twice in the Rig Veda there is mention of a Third Filter.² This 'Third Filter' awaits explanation. My suggestion offers perhaps a solution to the crux: if I am right we are treading here on the most holy ground in the Vedic religion. In every genuine religion there are acts and objects and words that evoke awe in the believer, that elicit a tug at the sinews of his heart. The Faithful are then in the presence of a Holy Mystery. As we read Mandala IX, there is for me an overwhelming sense of this awesome reverence, no matter though we are far removed in time and place and of a far different cultural orientation. Take for example Hymn 74: it consists of a series of numinous phrases, instinct for the worshippers with religious feeling. Verse 4 ends with an astonishing line. Renou translates it thus: Les seigneurs à la vessie pleine compissent le Soma mis-en-branle. Geldner is in substantial agreement. Dr. O'Flaherty gives me this rendering: 'The swollen men urinate the on-flowing Soma', the 'men' being the priests who are presiding over the Soma sacrifice, and the men are swollen, in the opinion of Geldner and Renou, because their bladders are full.³ In the Rig Veda there are a number of allusions to the

² IX 738ab; IX 9755.

⁸ Renou thinks the 'men' refer to the Maruts. He had recourse to this solution as a *pis aller*, *faute de mieux*, to make some sense out of the passage. But throughout this run of hymns the 'men' are always the officiating priests.

passage of Soma through the belly, the entrails, of Indra, some of these allusions expressing considerable anxiety. I suggest that these become meaningful if we understand that Soma is being filtered through a Third Filter, the human organism, into the urine, and that this is attended by genuine dangers of misadventure.

Do not the poets mean what they say? The priests officiating at the sacrifice piss the on-flowing Soma. They have drunk the juice of the plant and their urine is impregnated with the active agent. Why is this strange or shocking? Those who are familiar with the anthropological facts about the fly-agaric in neighboring Siberia know how this hallucinogen works. He who drinks the juice of the hallucinogenic mushroom saves his urine, and others drink this urine with the identical inebriating effect, perhaps heightened, for there is reason to think that certain nauseating ingredients in the original mushroom are filtered out in passing through the human organism. This use of the urine can be repeated over and over again, it is said, until it has passed through five human bodies, when at last it loses its virtue.

I know that Vedic scholars are not agreed on the meaning of IX 74^{4d}. I have followed Renou and Geldner, and the argument lies between them on the one hand and those who put a different construction on the verse. As I am no Vedic scholar, I will remain on the sidelines. But there are two other verses that seem to me to show a knowledge of this unique property of Soma-urine. In VIII 4¹⁰ the poet says this:

Like a thirsty stag, come here to drink;

Drink Soma, as much as you wish.

Pissing it out day by day, O generous one, you have assumed your most mighty force.

(Translation by Daniel H. H. Ingalls)

Indra drinks Soma and he pisses it out every day. In II 34¹³ the Rudras in the shape of horses seem to have pissed Soma likewise. When one drinks tea or coffee or milk or beer, one later urinates, not tea or coffee or milk or beer, but urine. Why does Indra, why possibly do the Rudras, urinate Soma? How did the Vedic priests learn that Soma-urine was also Soma, unless they had drunk it? I put the question and will await with lively interest the answer. Even if Geldner and Renou were both wrong in their translation of IX 74^{4d}, there remains Indra who *daily pisses Soma*.

We should not expect a lengthy discussion of this question of Soma-urine in the Vedic hymns. It was a Mystery of their religion, familiar to all the poets, but like all religious Mysteries to be discussed only with awe in the voice and in a whisper.

Though there are only these two or three references to the drinking of Soma-urine in the Vedic hymns (apart from the allusions to Soma passing through the belly and entrails of Indra), we find supporting evidence elsewhere and precisely where we should find it in the circumstances, given the general acceptance and sacred nature of the Mystery. It occurs casually, incidentally, like an accidental disclosure in a conversation of a secret known to all. Thus in the Avesta, Yasna 48.10, Zarathustra angrily excoriates those who use inebriating urine in the sacrifice: 'When wilt thou do away with the urine of drunkenness with which the priests evilly delude the people?' The Parsis, descendants of the Zoroastrians, to this day consume urine in their religious devotions. though only in symbolic amounts and only bull's urine.⁴ The Manichaeans, whose religion was an off-shoot of Zoroastrianism, exercised considerable influence in China for some centuries and from a late date in Fukien Province there survive two reports by a high civil servant to his superiors of the Chinese Establishment criticizing the religious activities of those Manichaean sectarians. In their devotions, he said, they consume too many red mushrooms and moreover they were making use of urine, apparently human urine.⁵ According to a well known Brāhmaņa story⁶ Indra drinks so much Soma that it flowed from all the orifices of his body as well as from his bladder. As a final citation,

⁴J. J. Modi: The Religious Ceremonies and Customs of the Parsees, Bombay, 1923; 2nd edition 1937. In 2nd ed. p. 93 and index entries under 'gaomez', 'nirang', and nirangdin'.

⁵ Un Traité manichéen Retrouvé en Chine, traduit et annoté par Ed. Chavannes et P. Pelliot, Paris, 1912, pp. 292-340, especially pp. 302-305 and 310-314.

⁶ Taittirīya Samhitā 2.3.2.5-6, Šatapatha Brāhmaņa 5.5.4.8-9 and in most detail 12.7.1.1-9.

in the Mahābhārata we find a quaint apologue, interpolated late into the text, telling how a $m\bar{a}tanga$ (the lowest of the low) invited the holy man Uttanka to drink his urine to quench his (Uttanka's) thirst and how Uttanka, feeling insulted and indignant, refused the proffered beverage, only to learn later that the $m\bar{a}tanga$ was Krishna in disguise who had been offering him Soma-urine! Uttanka thus lost forever the chance to join the immortals.⁷

If my interpretation of the Rig Veda in the matter of Soma-urine meets with resistance in the West, in India in some quarters it has proved acceptable, even illuminating. A lady of English origin writes me that she was in a circle of Indian ladies and one of them, a ranee, was expatiating on the infatuation of her husband, the rajah, for a certain sādhu. Why, he even wished to drink the sādhu's urine, she said. The Indian ladies accepted this calmly, as though not surprised, and my correspondent therefore remained silent. Again, an Indian intellectual says that the present-day $s \bar{a} dh u$ conveys his spiritual powers to his disciples in any one of four ways: (1) by a 'laying-on' of hands, precisely as in our Church; (2) by having his disciple repeat incessantly for long periods a certain mantra; (3) by having him fix his gaze undeviatingly on the *sādhu*'s countenance for long periods; and finally (4) by giving his favored disciples the privilege of drinking his urine. These instances of contemporary urine-drinking may come down from the time when urine was still impregnated with the essence of Soma.

I do not assert that the Vedic priests drank Soma-urine. But the case for the practice is so strong that it deserves most careful consideration. The intense repugnance in the West for urine drinking is only an anthropological trait of Westerners, and we must be on our guard against being swayed by our tribal traits.

III. The Quest for Soma

Some of you are doubtless asking how it comes about that the identity of Soma is being discovered now, and by one who knows no Vedic. The Indo-Iranians coming down from the North exalted a plant in terms breathtaking for us. But for three millennia Soma, the exalted plant, has been absent. The Hindus, strangely for us, disclosed no curiosity about it, and as for the West, our speculations in recent times have been only blind guesses, convincing no one, often not even those who propounded them. Of late I find more and more scholars receptive to the idea that Soma for the poets was already a shadowy non-Plant. Nature abhors a vacuum and in the absence of the genuine plant, our scholars seem prepared to weave for the poets a myth that the poets never knew,—weaving a myth for the ancients, to fill the vacuum in our own knowledge.

For me, the trouble is clear and simple. The Vedists have allowed themselves to be miscast. When you seek the identity of a plant you go to a botanist, not to a Vedist. But then why have not the botanists discovered it?

The answer lies in the inaccessibility of the Rig Veda. Cultivated circles in the West were first alerted to the existence of the Rig Veda in the second half of the last century. The Rig Veda could be read only by the Vedists, a generation of scholars of the highest eminence tilling a field remote from the main thoroughfares of western studies. The botanists had no direct access to the hymns, but, what was worse, they thought they had. A number of translations tumbled from the presses, and botanists working in the Indian field read them. But the translations of the period-Wilson and Cowell's, Griffith's, Langlois'-were not intended for scholars or scientists. They were an effort to convey to the reading public in the West the treasure-house of early religious poetry that had just been uncovered in India, composed in a language related to our Western languages. The translators were not in the forefront of Vedists. Their translations sound like what cultivated circles enjoyed reading in the Victorian age. They were 'poetical' in the vein of the Idylls of the King but without Tennyson's power of versification. They were flowery, rotund, some might say flatulent, giving a pseudo-sense to all passages that neither translators nor Vedists understood, bowdlerizing the text to caress the prudish Victorian

⁷ Aśvamedha Parvan, 14.54.12-35.

ear. Small wonder that George Watt, the foremost botanist of the British $r\bar{a}j$ but who knew no Sanskrit much less Vedic, is quoted as saying, '... the vague and poetical descriptions given of the Soma make any scientific identification impossible.'⁸

And so the Vedists were left with the Soma problem. Unhappily they did not demur: they accepted the role of botanists, for which their qualifications were not readily apparent. The world has ever since looked to them for an identification that they could not supply, could not be expected to supply. Speaking for the Vedists, Professor Kuiper is a thousand times right in saying that 'the complexities of the problem should not, indeed, be underestimated.' The identification of Soma must take the seeker far beyond the confines of Indo-Iranian studies proper, as Professor Kuiper adds. There is where I have come from.

But we discover a further difficulty. British botanists in India performed a Herculean task in mapping the vegetation of that vast land in a long series of specialized monographs culminating in an admirable encyclopaedic work, *Dictionary of the Economic Plants of India*, edited and partly written by George Watt. They confined themselves, however, to the phanerogams—the seedbearing plants—and they neglected the fungal flora. No one seems to have thought of a mushroom in the rôle of Soma. The English people, mycophobes to the core, ignored the 'toadstools' of India.

One more consideration: from a botanist's point of view the distinctive feature of Soma is that it belongs to the world that Louis Lewin, the pharmacologist, first called *Phantastica*, that today is usually named the plant 'hallucinogens', that the chemist and pharmacologist designate as the psychotropic or psychotomimetic plants. This restricts the area of inquiry. The specialized study of the natural hallucinogens is only a few decades old: before then there were only the old travel books and the field notes of anthropologists, difficult to come by and to collate.

Many have observed that discoveries in the realms of geographical or intellectual exploration arrive in a measured sequence, when the days are fulfilled that they should be made, and only in recent years, after the translations of Geldner and Renou became available, could the world approach the Soma problem with hope of finding the answer. The fortunate person who makes the discovery is an accident of history, arriving as he does at precisely the right moment and happily possessed of the needed information derived from diverse disciplines hitherto not associated together. I am certainly one of the first persons with any botanical background to study the recent scholarly translations of the Rig Veda concentrating on the Soma question. My late wife and I had been concerned with ethno-mycological problems for decades. On the strength of the folklore of Europe and the etymologies of the fungal words in the languages of Europe, we had advanced in the 1940's the daring idea that a mushroom had once figured in the religious life of our remote ancestors. When we later learned of the rôle played by the fly-agaric down to recent times in the shamanic rites of Siberian tribesmen, we were overjoyed, thinking that the Siberian usage vindicated our previous hunch. Little did we imagine that we were on the road to what was to be a discovery of larger scope.

In 1953 we were diverted to Mexico, where we later revealed to the world the part played by hallucinogenic mushrooms in the religious life of the Indians of southern Mexico, and, thanks to the indispensable aid of Professor Roger Heim, then Director of the Muséum National d'Histoire Naturelle, upwards of a dozen hallucinogenic species received scientific identities for the first time. We took advantage of our Mexican explorations to extend our acquaintance to the phanerogamic hallucinogens.

Certain English scholars have lately dwelt on the divorce that has taken place in our own generation between the two faces of our culture, the scientific and the humane. But for the ethnobotanist (including the ethno-mycologist) these

⁸ Quoted from Max Müller, *Collected Works*, London, Vol. X, 1888, p. 223. I have not found the observations attributed by Müller to Watt in Watt's published statements.

two faces are still joined in matrimony. As a scientist he knows his plants; as a student of human cultures, he knows the rôle they play in man's daily life. When I read the Rig Veda as poetry, it is self-evident that the poets are deifying, in lyrical language of breathtaking poignancy, the hallucinogenic fly-agaric of the Siberian taiga, *Amanita muscaria*, in pre-history the divine inebriant of all Eurasia.

What is this discovery that I think I have made? Have I done more than identify some plant or other that happened to be named in hymns composed millennia ago? When the Vedic poet sang that most famous of all the verses of the Rig Veda,

We have drunk the Soma, we are become Immortals, We are arrived at the Light, we have found the Gods. What now means hostility to us, what the malice of mortal, O Immortal Soma! (VIII 48³)

he was giving utterance to an epitomé of the whole collection. What are we to make of it?

The poet throughout the ages has pursued a serious calling intimately associated with prophecy. In this verse we feel the potent afflatus of Soma, the ecstasy inspired by the Divine Hallucinogen. The poet is certainly not performing an arid exercise in versification and vocal music about a plant that he had never seen. Nor are we discussing merely an 'invigorating' inebriant analogous to alcohol. We are dealing here with the 'enthusiasm' of the Poet, in the original and now obsolete sense of that word, its etymological meaning of divine possession, poetic phrenzy, supernatural inspiration. The engine behind the myth and ritual of the Rig Veda is this 'enthusiasm'. If I am right, here is where are arrived, this is the secret of our discovery. We have identified a plant considered understandably as miraculous, divine, by the Aryans of long ago. For them, in their stage of cultural evolution, the fly-agaric threw open the portals to ecstasy.

Here I must point out, and emphasize, that my identification of Soma is not necessarily incompatible with the superstructure of ritualistic and mythological thinking elaborated by post-Vedic exegetes. To this plant the poets anchored their poetic fancy, and by welcoming this identification we do not need to discard such thinking. It supplements and controls our understanding of the ritual and mythology.

IV. The Vanishing Act

If Soma was the fly-agaric—and I am confident that it was—why was it abandoned? How was it possible for the identity of the Divine Plant to be forgotten? Why, when the priests came to use surrogates, did they not choose another mushroom? Since the Aryan culture flourished in Vedic times chiefly in the hot, low-lying Indus plains, how do we explain the figures of speech in the hymns that so truly and vividly describe the living plant growing in the mountains?

These questions are natural and have been put to me many times, occasionally in a challenging, abrasive tone, the questioner not staying for the answers. But I would point out that they bear not at all on my identification of Soma. This rests four-square on the words of the Rig Veda. If the Rig Veda speaks in unmistakable terms about the fly-agaric as Soma, if the door with a combination lock has finally sprung open in response to a wide assortment of Vedic evidence now for the first time viewed as an harmonious ensemble, that settles the problem. I am concerned with Vedic times. It is not incumbent on me to face the problems of post-Vedic history, an area where botany has only a minor role to play. When the Indologists concern themselves with Soma in post-Vedic times, I would suggest they keep in mind one fact pertaining to mycology: the fly-agaric, like most fungi. does not lend itself to cultivation and the yield, always a finite quantity, each year may vary widely, especially in areas where the rainfall is not dependable. In years of drought there would be virtually none. The crop also hinges on the warmth of the summer, apparently on the amount of sunlight, and even on the nature of the rainfall, which should be a gentle, steady rain rather than the violent rain of thunderstorms. In northwest India there may have been times when access to the source of supply, high in the mountains, would be cut off by hostile elements in the native population. But it must be emphasized that the fly-agaric is normally one of the commonest mushrooms and

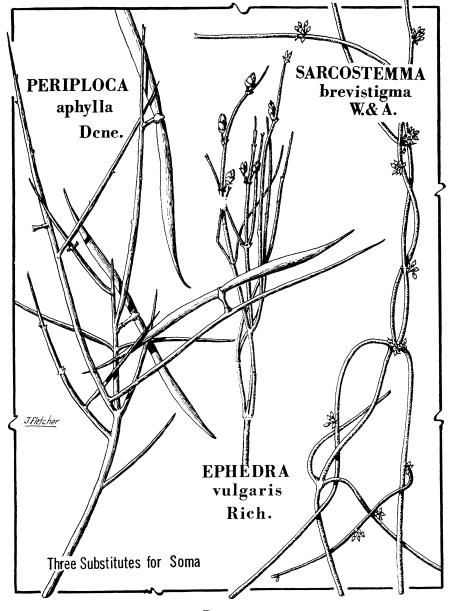


PLATE IX

in ordinary times abounds among birch trees, and is found also among conifers.

Only one thing is certain: the priests must have been chronically bedeviled by questions of procurement.⁹ Since a well-organized priestly hierarchy would hardly allow the cult to falter for want of the Holy Plant, from the outset there must have been an official surrogate to use in emergencies. Was that surrogate perhaps rhubarb?¹⁰ Rhubarb would be an ideal surrogate, with red fleshy stems, easily stripped of its leaves, a small plant yielding a juice that if generously mixed with honey or milk became not only palatable but pleasant. Of course the juice of unfermented rhubarb has no inebriating properties.

As the conquest of India by the Aryans progressed the problems of procurement must soon have become insuperable. The Soma sacrifice, it

¹⁰ I derive this suggestion from the discovery by the eminent Norwegian scholar Georg Morgenstierne of names for rhubarb in archaic languages still being spoken in Afghanistan, Katei of the Kafir group and Khovar of the Dardic family, that point to an etymon in Vedic, *svātara, which is used in the Rig Veda as a term of enhancement for Soma. A cognate term for rhubarb may also exist in Prasun, another Kafir tongue. Entry 12762 in R. L. Turner's Comparative Dictionary of the Indo-Aryan Languages.

Rhubarb had been suggested as the genuine Soma, though without conviction, first in 1884 by Albert Regel, a botanist in the employ of the Russian government, then by Rudolph von Roth, and more recently by Sir Aurel Stein, Karl Hummell, and R. C. Zaehner. See our SOMA Divine Mushroom of Immortality, pp. 114, 132, 140, 143. Morgenstierne's suggestion derives from linguistic evidence while their guesses are based on the presence of rhubarb in the area. seems to me, must have been performed almost always with surrogates, until finally most priests lived out their lives without having seen the genuine plant. They appear to have turned in the end to various species of climbers, $vall\bar{i}$, in the absence of Soma, all these plants yielding juices with a vile taste and no hallucinogenic properties and all of them being widely recognized among Brahmans as substitutes. (Plate IX)

How different from the early days in Kashmir, when the sacrifice itself took place, we are told, on the mountain tops and the priests doubtless saw the glorious plant growing wild in its natural habitat! But with the passing of time all this changed. In the last batch of hymns to be accepted into the canon of the Rig Veda, the poet says:

One thinks one drinks Soma because a plant is crushed. The Soma that the Brahmans know, that no one drinks. $(X 85^3)$

These later hymns reveal a sharp deterioration in religious tone and marked linguistic changes. This verse may have expressed the turning point. When it was composed I suggest that the flyagaric, Soma, had lately been abandoned, but at that moment the Brahmans, including the composer of this hymn, though they were not telling, still remembered what Soma was.

V. Soma = Fly-Agaric: Some Implications

Daniel H. H. Ingalls, Wales Professor of Sanskrit at Harvard, has recently endorsed my identification of Soma,¹¹ though with serious reservations as to my theory of Soma-urine drinking, and he added:

The greatness of a discovery lies in the further discoveries that it may render possible. To my mind the identification of the soma with an hallucinogenic mushroom is more than the solution of an ancient puzzle. I can imagine numerous roads of inquiry on which, with this new knowledge in hand, one may set out.

Having said this, Professor Ingalls proceeded to

⁹ Did the priests initially have recourse to porters who traveled to the far north, to the forest belt of Eurasia, to assure their supplies of the Divine Plant? Two such porters could have carried loads of dried flyagaric to last perhaps a whole year. Almost a millennium later Herodotus (IV 33) tells us of an ancient trade route, originating long before his time, serving the Temple of Delos: from the Hyperboreans (whoever they were), sacred elements wrapped in wheaten straw were carried each year to Greece, the nature of the elements being withheld from us. The bearers, who were originally two maidens accompanied by a band of male escorts, enjoyed freedom of passage as they were passed from tribe to tribe with their holy charge.

¹¹ An earlier version of this paper was read at the annual meeting of the American Oriental Society in Baltimore, April 15, 1970.

outline one such 'road of inquiry'. In truth, if I am right in identifying Soma with the fly-agaric, the opportunities ahead are many, at every level. I have already suggested that *nirnij* carries a double meaning not hitherto suspected. I have called attention to the 'single eye' of Soma and asked whether the 'eye of the sun' has been fully explored as a metaphorical designation for Soma. If I am right, this trope may have left a legacy in the folklore and religion and art of Eurasia that runs far beyond the scope of our paper.¹² The whole of the Rig Veda will have to be studied afresh for allusions pertinent to the fly-agaric¹³ and hitherto misread or unread.

In the fly-agaric we find at last the explanation for the name of the divinity Aja Ekapād. Abel Bergaigne with extraordinary prescience arrived at the correct etymology of the name but stopped short of the identification. He said that Aja Ekapād is the Non-né Unipède, the 'Not-born Uniped'.¹⁴ The fly-agaric has only one 'foot', and he is aja, 'not-born', as he comes into existence miraculously, without seed, child of the lightning and the waters. (Curiously, in Mexico among the Mazatec Indians the hallucinogenic mushrooms bear a name that seems to express the same figure of speech, 'that which springs forth' miraculously, not from seed like all other creatures.) In the Rig Veda the full name Aja Ekapād is cited six times, always in hymns to the Viśvadevas, and accompanied in five of the citations by another divinity, Ahi Budhnya, the serpent of the depths, a chthonic being who invariably guards the holy plant throughout Eurasia. That Aja Ekapād is another name for Soma, perhaps already archaic in Vedic times, finds support in RV X 65^{13} , where the epithet proper to Soma, 'Mainstay of the Sky', is applied to him. Pliny¹⁵ tells us of a single-legged folk (monocoli) said to live in India who take their siesta in the shadow of their own single foot. Is not this the Vedic personification of Soma, Ekapād, which by the time it reached the Mediterranean 1000 years later had become confused with a genuine people, and is not this fabulous folk revealingly linked in Pliny's text to a parasol mushroom? In RV X 82^6 aja used separately is linked to the navel, nábhi, and thus two seemingly disparate metaphors are intelligently reconciled in the divine mushroom. Even more exciting, at the far end of Eurasia, is the myth of the Chukchi to explain thunder. The Chukchi live in the Peninsula known as the Chukotka, opposite Alaska. They are linguistically related to the Korvak and the Kamchadal. The Russian anthropologist V. G. Bogoraz¹⁶ reports that thunder is

¹² For example, I refer to Herodotus IV 27. The personification of the fly-agaric as a race of little people, of elves or sprites, is familiar in Siberia. The Issedonians lived beyond the Scythians and on the limits of Herodotus' personal knowledge, and from them he heard tell of a race of one-eyed people ('Arimaspi') living deeper in Asia. Is it not possible that hearsay reports of this 'race', transmuted through time and distance, had their origin in the personification of the one-eyed fly-agaric 'race'? . . . In the new World those who adore the hallucinogenic mushrooms speak of them, in Spanish, as *duendes* (elves, sprites). If brought over from Asia, this belief ascends deep into pre-history and establishes the antiquity of the traditions of mushroom worship.

¹⁸ Take, for instance, that curious phrase, frequently arresting the attention of commentators, *pari math*, describing the twisting, rotating grasp with which the plant is seized, these words re-enforcing each other. What is this but the characteristic twisting motion of the wrist with which the countryman gathering wild mushrooms ordinarily seizes the plant? RV I 93⁶, IX 77². (For this comment I am indebted to Dr. Heinrich von Stietencron of Heidelberg.)

¹⁴ La Religion Védique, Vol. III, pp. 20-25.

¹⁵ Quoting Ctesias: Hist. Nat. VII ii 23 (Loeb translation, Vol. II, p. 521) Cf. supra, fn. 12, the people with a single eye reported by Herodotus. Ctesias derived his information from Megasthenes. See J. W. McCrindle: Ancient India as described by Megasthenes and Arrian; 1877; p. 76.

¹⁶ Bogoras, Waldemar: The Chukchee, Memoir of the Amer. Museum of Nat. Hist. Jesup North Pole Expedition. 1904–1909, pp. 322–323. In the English translation 'one-sided' is confusing. The Chukchi original of this as well as Bogoraz's Russian translation do not appear in the Russian publications of Bogoraz. In an analogous context, however, 'one-sided' appears in the Russian text as *ljudi-polovinki* rather than odnobokij, as one might have expected, and this would seem to mean a race of people equipped with only half of man's attributes, a human organism split down perpendicularly in the middle. This would fit the personification of the fly-agaric as a tribe of people having only one pedal extremity, only a single eye, etc. The Siberian tribes

the rattling noise made by girls [the 'fly-agaric girls' of Chukchi parlance] playing on a spread sealskin. Rain is the urine of one of the girls. In one tale the lightning is described as a one-sided man [a 'Uniped', monocolus] who drags his one-sided sister along by her foot. She is intoxicated with the fly-agaric. The noise caused by her back as it strikes the floor of heaven is thunder, her urine is the rain.

In this myth we find the same forest-belt themes as in the Vedic hymns—Ekapād (he of the single foot), the fly-agaric inebriant, and the thunderstorm complex.

But let us go further into Siberia. The fly-agaric complex of the forest-belt is of absorbing interest from many points of view. That the use of Soma, the inebriating mushroom, has survived there until recently, even if only in a degenerate state and restricted to two shrinking areas, is a remarkable fact. In our own time the use of the flyagaric has been described, not only in the Chukotka, and also far to the West, in the valleys of the Ob and the Yenisei. The words used for the fly-agaric in the various tribes, the associated meanings of these words and their etymologies, the part played by reindeer in the urine-drinking of the natives, the personification of the fly-agaric mushrooms as dwarfs or sprites, the petroglyphs dating from long ago-all these aspects of the fly-agaric cult deserve our attention. But I will pass over these to the point of my story. (Plate X)

Many students of the customs and folklore of the forest-belt of Siberia have remarked on the reverence shown everywhere for the Siberian birch, a tree that is much taller and straighter than our birches. The birch is preeminently the tree of the shaman. He builds his yurt around the bole of a birch, and in trance he climbs up the trunk to go on his travels to the land of departed spirits. The folklore of Siberia is saturated with the birch, even where the cult of the fly-agaric has been given up. Why the birch? Every student of the Siberian forest peoples has asked this question but no one seems to have found an answer. There have been a number of guesses, advanced without conviction.

For me the answer is clear. The birch is reverenced wherever it grows in Siberia because it is the preferred host to the fly-agaric. This mushroom grows in mycorrhizal relationship with certain trees, and the tree that it prefers is the birch. It also grows at the foot of conifers, and I hold it to be no accident that the larch occupies a place second only to the birch as a cult focus for the forest tribesmen of Siberia. The relationship between birch and fly-agaric has been known to mycologists only since 1885, but the natives of the Siberian forests have sensed it from time immemorial. If inquirers have not discovered why the birch is a cult object, I think this is because they have not asked the right questions. The natives of the Chukotka, of the Valleys of the Ob and Yenisei, have not volunteered information that they regard as self-evident: in their world, any cretin would know why the birch is venerated. As for the mycologists, who now certainly know the birch—fly-agaric relationship, they talk only to one another, and never to anthropologists.

Uno Holmberg in the *Mythology of All Races* has summarized for us the folk beliefs that surround the birch. The spirit of the birch is a middle-aged woman who sometimes appears from the roots or trunk of the tree in response to the prayer of her devotee. She emerges to the waist, eyes grave, locks flowing, bosom bare, breasts swelling. She offers milk to the suppliant. He drinks and his strength forthwith grows a hundred-fold. The tale, repeated in myriad variations, clearly refers to the birch and the fly-agaric, but none of Holmberg's sources have called this to his attention. What is the breast but the udder of the RigVeda,

under tabu influences devise many fanciful names for the fly-agaric, of which this seems to be one. Pliny's monocoli is derived from the Greek μονόκωλος, for which 'one-sided' is given as a meaning by Liddell & Scott. A. P. Okladnikov in Yakutia before its Incorporation into the Russian State (McGill-Queen's University Press. 1970, p. 446) reports on the wide dissemination of tales about one-sided folk among the primitive tribes of the tundra and the northern taiga of Siberia. If I am right, we hear distant echoes of these fabulous beings, evoked by the fly-agaric working on the stone-age imagination in the Far North, in the 'Arimaspi' of Herodotus and the 'single-eye' of Soma, and also in Pliny's 'monocoli'; and the conception finds full expression in the 'Aja Ekapād' of the Rig Veda, now solidly anchored to the fly-agaric of the taiga.

the swelling cap or *pileus* of the full-blown flyagaric? In another version the tree yields 'heavenly yellow liquor'. What is this but the 'tawny yellow pávamāna' of the Rig Veda? Repeatedly we hear of the Food of Life, the Water of Life, the Lake of Milk that lies hidden, ready to be tapped, near the roots of the Tree of Life. There where the Tree grows is the Navel of the Earth, the Axis Mundi, the Cosmic Tree, the Pillar of the World. What is this but the Mainstay-of-the-Sky that we find in the Rig Veda? The imagery is rich in synonyms and doublets. The Pool of 'heavenly yellow liquor' is often guarded by the chthonic spirit, a Serpent, and surmounting the tree we hear of a spectacular bird, capable of soaring to the heights where the gods meet in conclave. Who is the Serpent, if not Ahi Budhnya of Vedic mythology, and what is the spectacular bird but the eagle that soars to the sky to twist the divine Soma loose and bring it down to earth?

In brief I submit that the legends of the Tree of Life and of the Marvelous Herb had their genesis in the Forest Belt of Eurasia, the Tree being the towering Siberian birch, and the Herb being the fly-agaric, Soma, the pongo of the Ugrian tribesmen. True, we are familiar with this legend from the cuneiform inscriptions of Sumeria and the countries lying to the west thereof. There the birch had become only a memory and it is a question how much even their most learned priests knew of the Marvelous Herb. But the legends were powerful, speaking for the power of the original Soma, and they survive in paintings, sculpture, and writings on clay. We must not forget that the Sumerians, the shadowy Subarians, the Hittites, the Mitannians, and yet others, known to us and unknown, all hailed from the North, and in their original homelands either they knew the Marvelous Herb by personal experience or their neigh-

bors knew it. They brought down with them in their baggage all the tales that they proceeded to write out in clay as soon as they had devised and mastered the art of writing. It is a mistake to attribute the genesis of these ancient tales to Mesopotamia and the Near East merely because these lands furnished the clay on which they are first inscribed. Gilgamesh, our earliest epic hero. dates from a recension written in the third millennium in Sumeria, but he was already a legendary hero then. He went out to seek the Marvelous Herb and he found it in a watery place, only to have it filched from him, as he slept, by the Serpent, its chthonic guardian-Ahi Budhnya?-more subtle than any beast of the field. The Semites at Mari and elsewhere lived in intimacy with the Sumerians and borrowed their stories. as is well known, sometimes giving the stories a new twist. In Genesis is not the Serpent the selfsame chthonic spirit that we know from Siberia. Ahi Budhnya of the Aryans, and the Tree of Life, is it not the legendary Birch Tree, and the Forbidden Fruit of the Tree of Life, what else is it but the Soma, the fly-agaric, the pongo of the Ugrian tribesmen? The Indo-Iranians were latecomers on the stage of history, but they brought down with them the Miraculous Herb itself and they bequeathed to us the strange, the breathtaking poems known as the Rig Veda.

Hitherto the Soma-Haoma of the Indo-Iranians has been regarded as without parents or siblings. If my reconstruction of the legends holds good, the Soma of the Rig Veda becomes incorporated into the religious history of Eurasia, its parentage well established, its siblings numerous. We have here a web of interrelated beliefs that give to us a united field in a major area of primitive Eurasian religion.

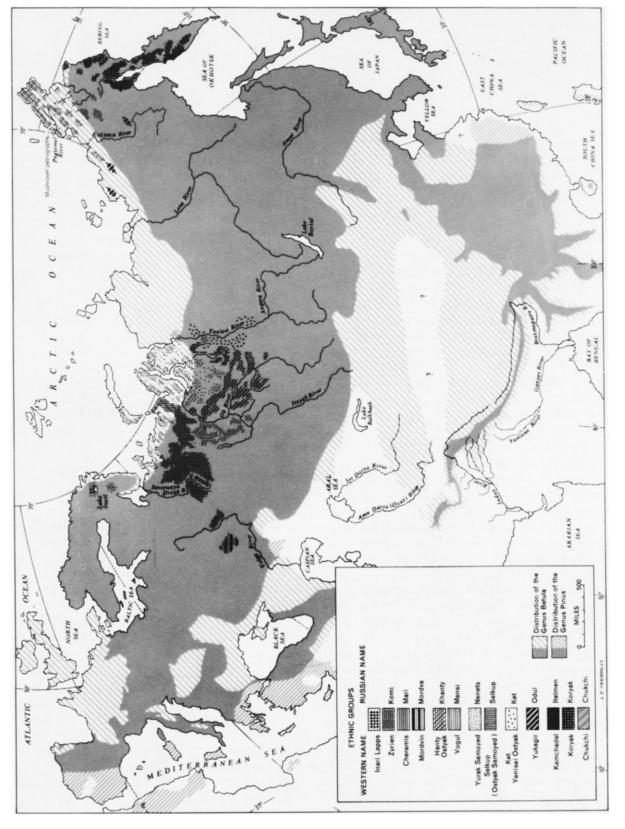


PLATE X