

# INDOLOGICA TAURINENSIA

I

ATTI DEL CONVEGNO  
INTERNAZIONALE  
DI STUDI INDOLOGICI

TORINO, 26-29 aprile 1971

1973

ISTITUTO DI INDOLOGIA - TORINO



JOHN BROUGH

PROBLEMS OF THE « SOMA-MUSHROOM » THEORY

Two years ago (1969) Mr. R. Gordon Wasson published a detailed and scholarly book, *Soma, divine mushroom of immortality*, the chief purpose of which was to establish a novel theory that the Soma-plant of the Rigveda was "the brilliant red mushroom with white spots", *Amanita muscaria*, commonly called in English "fly-agaric", in Italian "moscario", in German "Fliegenpilz", in French "tue-mouche" or "fausse orange". Naturally, a theory so unexpected has aroused great interest among Indologists, and it was the subject of a discussion at the International Congress of Orientalists held in Canberra in January 1971. I was not myself present, but I have been told by colleagues that the discussion was "inconclusive", and that several Vedic scholars expressed disagreement. Mr. Wasson himself expected this. One of his most important arguments is that the fly-agaric is an inebriant in "Two Forms", first, the fresh juice, and second, the inebriating substance excreted in the urine of one who has taken the "First Form", and then consumed with comparable inebriating results. He thought that readers might "perhaps be revolted by the dual forms of Soma and... even experience a visceral resistance to this solution of the enigma" (p. 67). Being unaware of any such visceral resistance in myself, my only concern has been to consider whether or not Wasson has produced convincing evidence of "Soma-urine" in the RV. If the evidence leads to the conclusion, we must accept it in a proper scientific spirit. His arguments here and in other points fail to convince me.

So far, I have seen only two reviews by Indologists, by André

Bureau<sup>1</sup> and by F. B. J. Kuiper.<sup>2</sup> The former, while not yet entirely persuaded, considered that the arguments "avec lesquels M. Wasson étaie sa thèse rendent celle-ci extrêmement séduisante". Professor Kuiper, while admitting the possibility of a fly-agaric cult in a remote pre-Indo-Iranian period, did not accept the fly-agaric as the Soma/Haoma of the Indo-Iranians in the RV and Avesta. For my part, I have written an article examining the Rigvedic aspects of Mr. Wasson's book, and concluding that the evidence was entirely inadequate to prove his case for the Vedic Soma.<sup>3</sup>

It is not my purpose to repeat here the detailed arguments of my earlier article; but it may be useful to give very briefly a few of my reasons for rejecting Wasson's very persuasive hypothesis as unproven.

The principal general argument is that the Vedic priests were concentrating on the ritual situation, and on the plant, presumably in a dried state, at the time of the ritual pressing. It is thus improbable that the Vedic "epithets and tropes" which Wasson believed reflected aspects of the striking beauty of the living plant were inspired in this way. Subsequently, at the Canberra Congress, Wasson,<sup>4</sup> chiefly on the basis of later pharmacological information, showed that only after drying, preferably slow drying in the sun, did the fly-agaric undergo the chemical changes which give it its powerful hallucinogenic properties. Thus, from another direction, the point is reinforced that the priests at the ritual were unlikely to describe a living mushroom. By this adjustment in his position, Wasson has correspondingly greatly weakened most of those arguments in the original book which assume that the Vedic poets were describing the living plant.

The frequent term *hári* applied to Soma in the RV is thought by Wasson (p. 36) to describe the blazing scarlet colour of the fly-agaric. This is a mistake. Curiously, he himself quotes several of the Indo-European cognates of the word: Sanskrit *hiranya*, Greek *χόλος*, *χλωρός*, English *gall*, *yellow*. The evidence here is decisive: in Indo-Iranian, *hári* and its cognates and derivatives mean "golden", "yellow",

---

1. Journal Asiatique, tome 257, 1969, pp. 173-176.

2. Indo-Iranian Journal. xii, 4, 1970, pp. 279-285.

3. BSOAS, 34, 2, 1971, pp. 331-362.

4. I am very grateful to Mr. Wasson for his kindness in sending me a summary of the Canberra seminar, as well as additional materials on the chemistry of *Amanita muscaria*.

“green”<sup>5</sup>; and throughout Indo-European the related words show senses ranging for the most part from yellow to green and beyond, but never tending towards the orange, still less as far as the red part of the spectrum. The *hári* Soma is golden, and mythologically possibly a golden horse, if we accept the views of modern translators. *Hári* cannot describe the colour of the fly-agaric.

Very “séduisant” is Wasson’s argument (p. 40) from RV 9.70.7d, *gavyáyī tvág bhavati nirñig avyáyī* “the hide is of bull, the dress of sheep”. This he illustrates by a photograph of a red fly-agaric spotted with wool-like tufts. But other verses show that the reference is not to the plant at all, but to the pressing-ritual. The Soma is here on the bull-skin used at the pressing, the *adhiṣavana-carma*: for example, 9.65.25 *pávate ... gór ádhi tvací* “He purifies himself on the bull-skin”. And the *nirñij-* (Renou, “robe-d’apparat”), which is more frequently the mixing-milk, is here the woollen filter, as is shown by 9.99.1, where the priests weave for Soma a white festal-garment at the beginning of the consecrating hymns: *śukráṃ vayanty ásurāya nirñijam vipám ágre*<sup>6</sup>. The argument thus fails.

In his review<sup>7</sup>, Professor Kuiper considers that the strongest argument in favour of the fly-agaric (though he does not in fact accept the theory) “would be the frequent statement of the poets that Soma is the cosmic pillar which supports the sky”. But, as he remarks, the same is said of Agni; and also, I would add, of other great gods — Varuṇa, Mitra, Viṣṇu, Indra<sup>8</sup>. It is easy to understand that Soma, as a great god, should share this cosmic function: but it is impossible to believe that the idea was *first* suggested by a mushroom-stalk, and only later transferred to the other great gods.

At the beginning of this paper, I mentioned the point which Wasson himself considers as crucial to his theory, namely, the inebriating property of the urine of a person who has ingested the

5. For a summary of the Indo-Iranian evidence, see BSOAS, *loc. cit.*, p. 349; for other Indo-European cognates, J. POKORNY, *Indogermanisches etymologisches Wörterbuch*, p. 429 ff.

6. For a fuller discussion of this, and also of the mixing-milk — which again is simply an ingredient of the sacrifice, and not, as Wasson thought, also a reference to the milky-coloured tufts of the fly-agaric, see BSOAS, *loc. cit.*, p. 353 ff.

7. IJ, *loc. cit.*, p. 283.

8. For discussion and citations of relevant RV verses, BSOAS, *loc. cit.*, p. 357.

fly-agaric. He believes that the RV provides evidence for "Soma-urine"; and it may be thought that if this belief is mistaken, the principal support of the mushroom-theory disappears. For clarity, I quote briefly from my earlier article<sup>9</sup>: "Wasson's evidence consists of only two verses from the RV, verses which have nothing in common except that they occur in Soma-hymns: 9.66.2 appears to mention 'two forms' of Soma (but gives not even a hint that one of the 'forms' might be urine); while 9.74.4 apparently states that the priests urinate the *soma* (but gives no indication that there was any question of drinking the urine). Apart from doubts about the interpretation of these two verses ... it seems to me incredibly weak as an argument to link these two unconnected passages, and to proceed to the deduction that urine was Soma's 'Second Form'". For my detailed discussion of this, I must refer to the article in question.

The "Two Forms" of 9.66.2 are the *dhāmanī*, where, following the lead of Professor Gonda<sup>10</sup>, I should prefer a translation such as "two places of Soma's divine manifestation". Soma has many *dhāmans*, but in the verse in question Wasson considers that the two mentioned are the two vessels (*camū*) which receive the filtered *soma*-juice. One of these, he conjectures, contained the filtered juice, presumably mixed with milk, the other "Soma-urine". The latter is not merely conjectural: it is wrong, since 9.86.47 and 9.96.20 show that both vessels contained only *soma*-juice mixed with milk.

In 9.74.4 *nāro hitām āva mehanti pēravah*, Wasson follows Geldner and Renou, and translates, "The swollen men piss the flowing Soma". Both Geldner and Renou saw here a reference (which Wasson denies) to the Maruts who pour down the fertilising rain, a concept which appears in 2.34.13 (*niméghamāna ātyena*), the rain being considered as the urine of the heavenly horses. I refer back to my earlier article for a more detailed discussion of some of the problems of the root *mih*-<sup>11</sup>. For Indo-Iranian, some forms imply IE \**meigh-*, with velar: Sk. *megha-*, Av. *maēya*; others IE \**meiḡh-*, with palatal: Sk. *mīdha-*, Av. *maēzaiti*. But it is impossible to disentangle the derivatives in any consistent manner which would allow us to attribute

9. *Loc. cit.*, 343 ff.

10. J. GONDA, *The meaning of the Sanskrit term dhāman-*, Amsterdam, 1967.

11. *Loc. cit.*, p. 346 ff.

the meaning "to rain" to the one, and the meaning "to urinate" to the other. I should now therefore reject the idea, which I earlier accepted from Renou<sup>12</sup>, that *mih-* in the RV is normally used "figuratively" for rain. Rather, we should postulate a single IE root, with the general sense of "to pour down water, to sprinkle with liquid". The velar and palatal forms of Indo-Iranian might then be no more than dialectical variants within Indo-Iranian itself. In RV 9.74.4, therefore, there is no reason to see anything more than the Maruts pouring down rain, with the words applying also, as a double meaning, to the priests pouring forth the pressed juice into the *soma*-vessels. Certainly, there is no drinking of "Soma-urine".

It is important to comment on this last expression, the more so since Wasson has now repeated it, as if it were something real and definitely established. In his rejoinder to Kuiper's review, he writes<sup>13</sup> "I postulate the drinking of Soma-urine in the *RgVeda*, analogous to the drinking of Soma-urine [strictly, read 'fly-agaric-urine' here] by the tribesmen of the Chukotka and Kamchatka in our own time. ... Is there anywhere a culture in which urine is designated by the drink that leads to it? When one drinks coffee, one does not piss 'coffee-urine'. Only with Soma is there Soma-urine and how did the priests learn this other than by drinking the urine?"

In the original book, the term "Soma urine" seemed to be employed only as a convenient abbreviation, and I passed it by with only the comment that in 7.74.4 there was no suggestion at all that the priests actually drank urine. But now "Soma-urine" appears to have been taken as a reality in its own right, and on this fictitious entity a specious argument is based. It can be said with confidence that no Vedic expression exists which could be translated as "Soma-urine". I make no claim to have read the whole of the vast literature of the Vedas: but it is certain that if any mention of "Soma-urine" were to be found there, one or other among numerous Vedic scholars more competent would by now have discovered it, and would have published such a remarkable discovery.

In the same place, Wasson tells us that Professor D. H. H. Ingalls accepted the identification of Soma as the fly-agaric, although objecting

12. *Études védiques et pāṇinéennes*, ix, p. 86.

13. IJ, xiii, 4, 1970 pp. 291-2.

to the translation of 9.74.4d. Ingalls also supplied additional citations, 8.4.10, "where Indra pisses out Soma-urine day by day", and 2.34.13. We have already mentioned the latter passage, where the senses of "raining" and "urinating" are both present, although from the Vedic point of view the single sense of "pouring down water" covers both. There is no mention of Soma in this verse, although admittedly in verse 5 of the same hymn the Maruts are invited to drink *soma*, and in verse 6 to come to the pressing rituals (*sávanāni*). It is a hazardous implication which thus deduces that the "rain/urine" of verse 13 is "Soma-urine". In 8.4.10 "Soma-urine" is an illicit deduction from Geldner's translation:

*ṛśyo ná tṛśyann avapānam á gabi  
pibā sómam vāsāṃ ánu:  
niméghamāno maghavan divé-diva  
ójṣṭham dadhiṣe sáhab.*

"Wie ein dürstender Antilopenbock zur Tränke so komme her! Trinke nach Wunsch den Soma; ihn Tag für Tag herabharnend hast du dir die stärkste Kraft zugelegt, o Gabenreicher". There is no justification in the original text for Geldner's "ihn", and it is entirely because of this added pronoun that "Soma-urine" has now been read into the verse. It would be better to translate: "... drink *soma* according to your desire. O Indra, pouring down rain day by day ...". Although the participle *niméghamāna-* occurs in the RV only in these two verses, it is one of Indra's chief functions to bring the rain, and he drinks the *soma* in order to gain the strength to accomplish this and his other heroic tasks. But this does not imply that the resulting rain is the *soma* itself poured forth again in the form of heavenly urine; and I have been unable to find that the RV even hints at such an idea.

Entirely different in character is the other citation which Ingalls gave to Wasson (loc. cit.), namely "the well known Brahmana story where Indra drinks Soma so heavily that he exudes Soma-urine from his ears as well as his bladder". Unfortunately, no reference is given; but the story, or a version of it, occurs in *Śatapatha-brāhmaṇa* 5.5.4.8. ff.<sup>14</sup>:

14. Also SB 1.6.3.7, but without the material of 5.5.4.9. and 10.

8. *índro ... ánuṣāhūta evá yó droṇakalāśé śukrá āśa tám bhakṣayām cakāra sá hainam jihimsa sò 'sya vísvanñ evá prānébhyo dudrāva múkhād dhaiṣya ná dudrāva ...* 9. *catváro vai varṇāḥ / brāhmaṇó rājanyò vaiśyaḥ sūdró ná haitéṣām ékaścaná bhavati yāḥ sómam vámati ...* 10. *sá yán nastó 'dravat / tátaḥ simbhāḥ sámabhavad átha yát kárṇābhyām ádravat táto vṛkaḥ sámabhavad átha yád ávacaḥ prānād ádravat tátaḥ śārdūlāyēṣṭhāḥ śvāpadāḥ sámabhavann átha yád úttarāt prānād ádravat sá parisrút.*

“8. Indra, even though uninvited, consumed the bright (*soma*) which was in the jar. It did him harm. It flowed in all directions from his Vital Airs (i.e., his bodily orifices); but from his mouth it did not flow ... 9. There are four *varṇas*, the Brahman, the Rājanya, the Vaiśya, the Sūdra. There is not one of these who vomits *soma* ... 10. From that which flowed from his nose there came into being a lion; from that which flowed from his ears, a wolf; from that which flowed from his lower Vital Air, wild beasts headed by the tiger; from that which flowed from his upper Vital Air, the *parisrut-liquor*”.

Here there is no mention of Indra's drinking *soma* in excess: clearly, the reason why it harmed him in this way is that he came to the sacrifice uninvited (*ánuṣāhūta*). Relevant here is RV 7.26.1 *ná sóma índram ásuto mamāda nábrahmāṇo maghāvānam sutāśaḥ* “Soma unpressed has never intoxicated Indra, nor the unpressed juices *unaccompanied by sacred hymns*”. Neither is there any mention of Indra's bladder; and although the *soma* flowed from him, it is not designated as urine. It is of interest that *soma* does not cause either Indra or human beings to vomit. Hence it was not the fresh juice of the fly-agaric, which tends to cause just this effect. In his book (p. 55) Wasson considers that Indra and Vāyu — or rather, priests representing these gods in a ritual drama — filter the *soma* in their bodies, and send it forth as sparkling urine “retaining its inebriating virtue but having been purged of its nauseating properties”. Is Indra then here drinking “Soma-urine”? And if so, had he himself previously “purged it of its nauseating properties”? Or is the story, where emphasis is laid on the fact that no vomiting occurs, merely a late imaginative legend without any relevance to the problem in hand?

To return now to the root *mib-* in the RV, it should be added

that, although the sense of the “quasi-infinitive” *mihé* in 1.64.6 is certainly “rain/urine”, elsewhere in the RV the noun *mih* regularly means “rain, mist, drizzle”, with no implication at all of urine. For example, 1.32.13, in Indra’s battle with Vṛtra:

*násmai vidyún ná tanyatúḥ śiṣedha  
ná yám mīham ákirad dhrādúnim ca:*

“Neither lightning nor thunder were of any avail to him (Vṛtra), nor the rain and the hail which he scattered”. In this regular use of the noun *mih*, the idea of “urine” could hardly have been present in the minds of the poets, and it is difficult to see here a “figurative” employment.

There has been much controversy concerning the verb *mimikṣati*, which Grassmann described as desiderative of *mih-*, while at the same time attributing some occurrences of perfect forms (*mimikṣuh*, *mimikṣire*) to *myakṣ-*, *mimyakṣ-*. On the meaning of the latter no agreement has yet been reached. Geldner and Renou (EVP 17, 89) were doubtless right in translating the only example of an adjectival form as if it were an *-s* extension of *miś-* “to mix” — although in an earlier publication<sup>15</sup> Renou connected it with *myakṣ-*, writing that “*mimikṣú* ... est simplement l’épithète du soma ‘ayant pour attribut’ le lait (instr. *góbbih*)”: RV 3.50.3 *góbbhir mimikṣúm dadhire* “(Les prêtres) ont obtenu un soma mélangé avec les laits”. But for the verb, after making allowance for some examples which belong to *myakṣ-*, there remain a considerable number of others where it is difficult to deny that the word is derived from *mih-*, although the sense is not desiderative, but simply “bedew, besprinkle”. Geldner normally translates as “würzen”. In many of such verses the substance involved is *madhu*, which may often imply or denote *soma*. Renou in his earlier translation followed Geldner: for example 9.107.6 *mádhvā yajñām mimikṣa naḥ* “(ô soma) ... assaisonne notre sacrifice avec le miel (sômique)!”. But it makes acceptable sense to translate, “(O god Soma) ... besprinkle our sacrifice with *madhu* (*soma*-juice)”. And this connexion of *mimikṣ-*, *madhu* and *yajña* constitutes a recurring formula: for example, 1.47.4; 1.142.3; 6.70.5, and elsewhere. Note in particular 1.34.3, to the Aśvins, *trīr adyá*

15. L. RENO, *Études sur le vocabulaire du Rgveda*, 1958, pp. 32-4.

*yaññám mádhunā mimikṣatam* “Thrice today besprinkle the sacrifice with *madhu*”. The number three is frequently associated with the Ásvins in different ways<sup>16</sup>; but in the present context there must be a reference to the three *soma*-pressings of the ritual. Subsequently, Renou (EVP 15, 122) acceded to Lüders’ rendering of *mimikṣ-* as “träufeln, besprengen, benetzen”<sup>17</sup>: RV 6.70.5 *mádhunā no dyāvāprthiví mimikṣatām* “Que le Ciel et la Terre nous arrosent (du) doux (breuvage)”.

The semantic situation “rain/urine” in the root *mih-* can be compared with “rain, sprinkle / besprinkle > impregnate, male” in the roots *ukṣ-* and *vṛṣ-*, as has long been recognised. Thus, Sk. *ukṣāti*, Av. *uxš-*, *vaxš-* “sprinkle, moisten”, beside Sk. *ukṣán-*, Av. *uxšan-* “bull”; and Sk. *varṣati* “rains”, *varṣa-*, *vṛṣṭi-* “rain”, Gk. ἔερα (ἐφέρα) “dew”, beside Sk. *vṛṣan-* “bull male”, *vṛṣabha-* “bull,” Av. *varəšna-* “male”, Sk. *vṛṣṇi-*, Av. *varšni-* “ram”, Lat. *verres* “boar”; Gk. οὐρέω (\**uorsejō*) “urinate”; and without the *-s* extension of the root, Lat. *ūrīna*; Old Norse *ūr* “drizzle”<sup>18</sup>. It is possible that RV 1.157.2 shows an intentional play on the meaning of the words by associating in the same sentence the two roots *vṛṣ-* and *ukṣ-*:

*yád yuñjāthe vṛṣanam ásvinā rábham  
gbrtēna no mádhunā kṣatrám ukṣatam:*

“When, O Ásvins, you yoke your bull-chariot (stallion-chariot?), besprinkle our dominion with melted butter”, where *vṛṣanam* may evoke as an overtone the idea of *varṣa-* “rain”.

Beside this group of words, Sk. *vṛṣ-*, etc., a second group has been recognised without the initial *v-*: Sk. *árṣati* “flows”; *ṛṣabha-* “bull”; Av. *aršan-* “male”; Gk. ἄραρον<sup>19</sup> “male;” also with fair pro-

16. A. BERRIEDALE KEITH, *Religion and philosophy of the Veda* (Harvard Oriental Series), p. 114.

17. H. LÜDERS, *Varuṇa*, ii, 1959, pp. 339 ff. (on *mádhunā*), and in particular Alsdorf’s note on *mimikṣ-*, *ibid.*, p. 347.

18. POKORNY, *op. cit.*, pp. 80-81.

19. Metrical evidence for the absence of *v-*: *Iliad* 8, 7 μήτε τις ἄραρον, 23, 377 Διομήδεος ἄραρονες ἵπποι. Although such evidence is not always conclusive (on this, see most recently G. P. EDWARDS, *The language of Hesiod in its traditional context*, Oxford, 1971, pp. 132 ff.), the case is proved by Ionic, Aeolic and Cretan ἄραρον, quoted by POKORNY, *op. cit.*, p. 336, without references. A good example is provided by the “Laws of Gortyn”, where the inscription abounds with such forms as Φικατι, Φοικα, Φελποντι, but in X. 51, εραρονες.

bability, Lat. *rōs* "dew", and Sk. *rasa-* "sap of plants, fluid, bodily fluid".

An etymological connexion between these two groups has been denied<sup>20</sup>, and most emphatically by Benveniste<sup>21</sup>, who also separates *arṣati* from *rṣabha-*, considering that the verb means only "se mouvoir vivement". It is difficult to be dogmatic about the "fundamental" sense of a word, just as it is all too easy to imagine semantic shifts which may be plausible but untrue. Nevertheless, in the RV, *arṣati* is most frequently used of the *soma*-juice flowing at the pressing-ritual. Even if the word is not etymologically connected, it would still seem probable that its rhyming with *varṣa* "rain" and *vṛṣan* "bull" could have played some part in the mythological connexion of Soma and Indra with the rain and the designation of both gods as "bulls". Benveniste wrote, "Il faut donc distinguer deux termes de signification précise: 1° un nom générique du 'male', attesté par gr. ἄρσῆν; 2° un nom spécifique de l'animal reproducteur: av. *varəšni-*... qu'on peut expliquer comme l'impregnateur', et relier à *varṣati* ... Il n'y a plus lieu de chercher une relation préhistorique entre les formes de deux radicaux que leur sens seul, une fois reconnu, devrait déjà séparer". Yet even if linguistic usage in Avestan, for example, tended to differentiate the applications of *aršan* and *varəšan*, this could well be a secondary development. And it seems somewhat difficult to insist too strongly on a distinction between "male as opposed to female" and "male as impregnator". I suspect that Benveniste's chief objection was based on the fact that "on s'est appliqué à justifier la discordance morphologique par une alternance \*w-/0 à l'initiale de la racine. Ce procédé a causé chez les comparistes une gêne compréhensible. Il n'y a pas d'autre exemple de cette 'alternance'".

But in fact the alternation *v-/zero* is not quite so isolated. In Sanskrit it has been seen in *vañcati* "waver, go crookedly": *añcati* "bend, curve"<sup>22</sup>; and other possible instances are *vṛddhi-* "increase, growth": *rddhi-* "prosperity, success"; *varcas-* "brilliance, lustre": *arci-*, *arcis-* "ray, flame, lustre".

20. POKORNY, *op. cit.*, citing Petsson, Beitr. 604 f., 845

21. BSL 45, 1949, pp. 100-103.

22. See M. MAYRHOFER, *Kurzgefasstes etymologisches Wörterbuch des Altindischen*, s. v. *añcati*, for bibliographical references.

There remains the pair *vṛṣṭi-* “rain”: *ṛṣṭi-*, which I cite with some hesitation, since *ṛṣṭi-*, Av. *arṣti*<sup>23</sup> is thoroughly established in the sense of “spear”. If there is a semantic connexion, it must therefore be by a different route from that of the examples previously discussed. In the RV, *ṛṣṭi-* is definitely “spear” in many places, for example 5.57.2, where the Maruts have axes, spears, bow, arrows, quivers: *vāśīmanta ṛṣṭimānto manīṣīnaḥ sudhānvāna iṣumanto niṣan-gīnaḥ*; and 5.57.6 and 5.54.11, where they have *ṛṣṭāyaḥ* “spears” on their shoulders. On the other hand, the Maruts are pre-eminently connected with rain and the thunderstorm. Frequently their spears are mentioned together with the lightning, and may intend the sense of lightning: 1.85.4 *vī yé bhrājante ... ṛṣṭībhiḥ ... vṛṣavrātāsaḥ* “(The Maruts) who blaze forth by means of their spears, the troops of males”. Juxtaposition of the type *ṛṣṭi-*, *vṛṣa-* recur in other hymns, and are obviously intentional. The spears of the Maruts “shine forth as lightning” in 8.20.11, *dāvidyutaty ṛṣṭāyaḥ*, and in 1.168.5 and 5.52.13 the Maruts are *ṛṣṭividyutah* “having lightning as their spears”. In other verses, the lightning appears to be other than the spears, and the latter may then be interpreted as the rain, falling like a shower of spears in the tropical thunderstorm: 5.52.6 *nāra ṛṣvā ṛṣṭīr asṛṣata: ānv enām āha vidyūto marūtaḥ* “The heroes have sent forth spears (rains): the lightning follows these Maruts”. In 1.88.1 their chariots are equipped with both lightning and *ṛṣṭi-*:

*ā vidyūnmadbhir marutaḥ svarkaī  
rāthebbhir yāta ṛṣṭimādbhir āsvaparṇaiḥ:  
ā vārṣiṣṭhaya na iṣā vāyo nā paptatā sumāyāḥ.*

“Come, O Maruts, with chariots which have lightning, chariots having good praises (good brilliance), possessing spears (?rains), with horses for wings: O you of good magic, fly hither like birds, with excellent sacrificial food for us”. Here there is also additional verbal play on the sound of *varṣiṣṭha-*, bringing to mind *varṣa-* “rain”. In 2.34.2 *vṛṣṭi-* is used of the Maruts: *vy ābhriyā nā dyutayanta vṛṣṭāyaḥ* “The cloud-rains, as it were, sent forth lightning”; and in

23. On the Indo-Iranian forms, see H. W. BAILEY, *Khotanese Texts*, vi, p. 416, s. v. *hālṣtā*.

verse 5 of the same hymn they are *brājadṛṣṭayah* "of shining *ṛṣṭis*". See also Geldner's notes on *ṛṣṭi-* in 1.169.3 and *svāvṛṣṭi-* in 1.52.5, and 14, where however he suggested the sense of "greatness" for both words.

If the *v-/zero* alternation is accepted, it is possible that a homophone *ṛṣṭi-* "rain" co-existed with *ṛṣṭi-* "spear", and that the latter gradually ousted the former. In any case, there can be no doubt that the poets deliberately played on the rhyme-words *vṛṣṭi-* and *ṛṣṭi-*.

In his book (p. 30) Wasson thought it odd that in the RV "the storm-clouds fecundate the earth with their urine", and considered this as a curious reversal of values, since "urine is normally something to cast away and turn from". To explain what seemed to him a paradox, he suggested that the poets were thinking of urine as the "Divine Inebriant". As we have seen, the "rain-urine-semen-male" situation reflects clearly a well established Indo-European complex of semantic links. The fictitious "Soma-urine" need not be invoked to account for it.