

Soma siddhas and alchemical enlightenment: psychedelic mushrooms in Buddhist tradition

Scott Hajicek-Dobberstein

3322 16th Street, San Francisco, CA 94114, USA

Received 6 November 1993; revision received 7 February 1994; accepted 16 February 1995

Abstract

In the legendary biographies of some Buddhist adepts from the 2nd- and 9th-centuries there are some clues which can be interpreted to reveal that the adepts were consuming psychedelic *Amanita muscaria*, 'fly agaric', mushrooms to achieve enlightenment. This secret ingredient in the alchemical elixir they used to attain 'realization' was, of course, unnamed, in keeping with their vows to maintain the secrecy of their practices. Its identity was concealed behind a set of symbols, some of which appeared in the Soma symbol system of the Rg Veda, some other symbols possibly passed down from a time of earlier shamanic use of the mushroom in the forests of Northern Eurasia, and some symbols that may be unique to these Buddhist legends. The congruity of these sets of symbols from Northern and Southern Asian traditions will be shown to be reflected in the Germanic tradition in some characteristics of the Oldest God, Odin.

Keywords: *Amanita muscaria*; Soma; Buddhism; Psychedelic drugs; Odin

1. Introduction

It has been put forth by various theorists and to different degrees of acceptance that the psychedelic mushroom *Amanita muscaria* (L.ex Fr.) Hooker var. *muscaria*, the fly agaric, is the real entity behind such myths and legends as Soma, both god and sacred beverage (Wasson, 1968), the apple in the Garden of Eden (Wasson, 1968) and the apples of Hesperides (Ruck in Wasson, 1986, p.171), the Golden Fleece (Allegro, 1970, p.118; Ruck in Wasson, 1986, p.171) and the fire of Prometheus (Ruck in Wasson, 1986, p.169),

Kakulja hurakan 'Lightening bolt One-leg' of the Mayans (Lowry in Wasson, 1986, pp.47–51) and the Huitzilapochtli aspect of Tezcatlipoca of the Aztecs (Wasson, 1986, p.53), and even Jesus Christ (Allegro, 1970) and Santa Claus (Ott, 1976, p. 97).

The fly agaric seems to be more liberal regarding the varieties of mythological traditions it appears in than the few specific habitats it prefers in nature. I have recently found it appearing in the pages of some hagiographies of Buddhist *siddhas*, 'adepts, attainers' or, very loosely, 'saints'. No direct connection of any psychedelic mushroom to any Buddhist tradition has yet been demonstrated, but I present evidence here which shows that in a Buddhist alchemical tradition, probably a continuation of the Vedic soma use, *Amanita muscaria*

* Corresponding author.

was taken under certain conditions to achieve enlightenment.

According to Wasson (1968, p. 168), religious use of *Amanita muscaria* began some time after the last Ice Age in the northern Eurasian forest belt which spread north following the retreating polar ice cap, approximately 9000 B.C.E. There, probably beneath a birch tree, its preferred symbiont, early human foragers found and ate the magnificent red- and-white fly agaric, possibly after observing the effect it had on reindeer who had eaten it. Thus began the religious and recreational use of this psychedelic mushroom which continues to the present time in several regions of the world.

At some undetermined time, early Indo-European speaking tribes lived in close proximity to the ancestors of the Finno-Ugrians with whom they shared the use of fly agaric, along with a vocabulary pertaining to its use (for examination of the linguistic evidence of contact between these tribes, see Burrows, 1973, pp.23–27; Collinder, 1955, pp. xiii, 46, 128–141). Centuries later, priests of the Vedic culture sang hymns in praise of Soma the god, the sacred plant and the sacred drink pressed from the plant. For reasons that remain uncertain, fly agaric was later replaced in Vedic Soma ceremonies by non-psychedelic substitutes, and its true identity became a mystery even to the previous keepers of this secret, the Vedic priests.

After that point, there seem to be no references recorded in Indian literature by those who had practical knowledge of the true identity of Soma, or by those possibly consuming fly agaric under another name. The references to Soma in post-Vedic sources are discussed by O'Flaherty (Wasson, 1968, pp. 95–147).

2. Materials

2.1. The hagiographies of Buddhist siddhas

Yet, such references to practitioners of religious rituals actually using the psychedelic mushroom do exist. I have found them in *The Stories of the Eighty-Four Siddhas* (Skt. *Caturasiti-siddha-pravrtti*, Tib. *Grub thob brgyad cu rtsa bzhi'i lo rgyus*) which was translated into Tibetan and written down in the late 11th- or early 12th-century C.E. by the monk Smon-grub-shes-rab, as nar-

rated to him in Sanskrit by Abhayadatta. The attribution of author, translator and origin of the text given in its colophon does not mention an original Sanskrit text as a source. This conspicuous omission may suggest derivation from oral tradition. A discussion of the identities of the purported author and translator can be found in Dowman (1985, pp. 384–88).

The most likely sources of the eighty-four thumb-nail biographies that make up this work were the legends of each of the *siddhas* which were passed down as oral hagiography by his or her disciples and later compiled, possibly by Abhayadatta who did not include a record of his sources.

There are two English translations of this work, Robinson (1979) and Dowman (1985). Both translators worked under the guidance of Tibetan lama advisors. Robinson's translation is very close to the Tibetan text, but Dowman presents a self-described adaption 'from the stilted mnemonic style of the Tibetan manuscript to give a fluent idiomatic rendering into English while maintaining fidelity to the original meaning' (Dowman, 1985, p. xii). At least in the story of the *siddha* Karnaripa, Dowman and his lama advisors completely missed the 'original meaning'. This story, which reveals the identity of the secret ingredient of the alchemical elixir which brings enlightenment, is interpreted by Dowman simply as a parable of the *siddha's* humility and modesty! Robinson also fails to reveal the real meaning of the story of Karnaripa, which is not explicitly expressed in the story, but he does not obscure the real meaning with imperceptive, misinformed impressions. I present my own translation of the story of the *siddha* Karnaripa below. I have tried to keep my translation as close as possible to the literal content of the Tibetan text, so that those who do not read Tibetan can interpret for themselves the imagery and symbolic elements of the story.

3. Method

3.1. Interpretation of the secret meaning

There are at least three levels of information contained in the eighty-four stories. Firstly, there are the historical, biographical facts: the castes

into which the *siddhas* were born, their occupations, the locations they lived in, the names of their gurus and the tantras they practised. The validity of these facts is, in many cases, uncertain.

The second level of meaning in these stories is the didactic. For instance, Karnaripa is told by his guru that he should not receive tasty food as his alms; he should only accept as much food as will fit on the point of a needle. The lesson for Karnaripa and for readers of his story is that tantric disciples should practice austerities. This level of meaning is carried in the stories by the overt meaning of the words and symbols.

In many stories, I cannot say how many, there is embedded a deeper level of meaning which is expressed in *sandhabhasa*, 'intentional language' or 'enigmatic language', which is used to obscure the true meaning for the uninitiated while declaring it for the initiates. Such symbols in the stories seem to mean one thing, but they really mean something else. After receiving Nagarjuna's dietary advice, Karnaripa returns from begging with a pancake piled with sweets on the tip of his needle. This seems to be an ironic joke played on his guru by his benefactors. However, at a deeper level which I will attempt to interpret below, the pancake on a needle is a symbol representing the fly agaric mushroom. After all, we should not expect practitioners of tantra or alchemy, known for their vows of secrecy, to relate a story of the wonderful alchemical elixir which grants enlightenment, while plainly and openly stating the identity of the secret essential ingredient.

It would be difficult to determine the degree to which these legends accurately report the events in the lives of the *siddhas*. It could be said that this collection was intended as a didactic paradigm of the variety of paths on which human beings wander in *samsara* and the corresponding paths which lead them to enlightenment. Karnaripa was also known as Aryadeva. The events in his life as told by Abhayadatta are very similar to those details given by the Tibetan historians Bu-ston and Taranatha, but all of these authors are also unanimous in their error of conflating the biographies of two Aryadevas, who lived five centuries apart.

As I have no explanation myself, I would love to

know why the religious use of a psychedelic mushroom is, according to my interpretations, attributed to two Buddhist saints, one a 2nd-century Madhyamika dialectician and the other a 7th-century Vajrayana adept, both having the same name. The legend of Karnaripa was obviously composed by a practitioner, probably an accomplished practitioner, of *Amanita* alchemy, but, unless the legends are true, the reasons for connection of that tradition with the lives of the Aryadevas are not so obvious.

I realize that I cannot, based on the hagiographies by Abhayadatta, Bu-ston and Taranatha, prove that *Amanita* alchemy was practised by the specific persons named Aryadeva. However, even if it were true that these stories are allegorical paradigms having no other historical value, what would remain would be a record of anonymous Vajrayana Buddhist tantric adepts using psychedelic mushrooms, under certain circumstances, to become enlightened.

3.2. *Siddha* tradition

The *siddha* tradition flourished in India from the 8th- to the 12th-century. In place of intellectual and academic efforts, it emphasized the dedicated practice of Tantric meditation under the guidance of an accomplished guru which would result in the practitioner's attainment of the Great Seal (Skt. *mahamudra-siddhi*, Tib. *phyag rgya chen po'i dngos sgrub pa*). This was the expression used to refer to the state of enlightenment they attained through their varieties of tantric meditation.

Ten of the *siddhas* were monks or yogins who had not found realization through monastic and scholastic endeavors. Others lacked concern for realization of the Dharma until each of them reached a crisis in his or her life. They found gurus who showed them the means to free themselves from the snares of *samsara*, i.e. 'to obtain the *siddhi* of *Mahamudra*'. These means were the practices of tantric meditation, often specifically adapted by their gurus to match the specific problems of their life crises. However, in the case of Karnaripa/Aryadeva, it seems that many initiations by various masters could not bring realization to him, in spite of his auspicious birth and his excellence in Buddhist academic studies. He need-

ed to drink an alchemical elixir to allow realization to arise in him.

3.3. The story of the *siddha* Karnaripa

This *Mahasiddha* Karnaripa, whose story is number eighteen in the *Stories of the Eighty-Four Siddhas*, is actually two different persons whose biographies are conflated and undifferentiated in Tibetan sources. No distinction is made in works attributed to Aryadeva in the Tibetan canon, although the subject of any of the works usually falls into the area of study of one or the other Aryadeva.

The Sanskrit name Aryadeva appears as 'Phags-pa-lha in Tibetan; Cheng t'ien (translated) or T'i po (transliterated) in Chinese; and as Shoten (translated) or Daiba (for Deva) in Japanese. These are usually translated as 'Sublime god' (Malalasekera, 1966, p.109). I will offer an alternative translation below. For reasons which are given in his biographies, overtly as a cover story and covertly as encrypted tantric secrets, he is also known as Karnaripa or Kaneripa. Alternative renderings are most likely due to scribal errors. In the text of the story of Karnaripa which I have translated, his name is given as 'Kartaripa' in the first two references, there after being given as 'Karnaripa' seven times, 'Aryadeva' also being used four times, and 'Mig-gcig-pa' being used one time. Fig. 1 is a reproduction of the text which appears on ff. 96–102 of *Grub thob brgyad bcu rtsa bzhi'i chos skor*, (Chophel Legdan, 1973) also reproduced in Robinson (1979, pp. 335–337).

The '-pa' suffix to the Sanskrit is an abbreviation for '-pada', an honorific affix. The 'Karnari-' part of his name has been considered to be of uncertain translation, although it must derive from 'kana' (Monier-Williams, 1899, p. 269) which is the Sanskrit equivalent of his Tibetan name Mig-gcig-pa, 'One-eyed'.

The first Aryadeva was the most eminent disciple of Nagarjuna, the founder of the Madhyamika school of Buddhism. He lived in India in the 2nd century C.E.

The second Aryadeva was the disciple of the Vajrayanist *Mahasiddha* Nagarjuna who had several disciples counted among the eighty-four *siddhas*. Aryadeva II lived in India in the 7th- or 8th-century C.E.

A detailed examination of the conflated biographies and the canonical works attributed to 'Aryadeva' appears in Malalasekera (1966, pp. 109–116) (This source does not refer to *The Stories of the Eighty-Four Siddhas*). I have begun an examination of the works of both Arydevas, their gurus and fellow disciples, in search of further references to their use of psychedelic mushrooms. However, as of this writing, I have been limited to finding such references in their Tibetan hagiographies and have been surprised to find evidence linking both of the Arydevas and the later Nagarjuna and some of his tantric disciples to the use of psychedelic mushrooms.

What follows is my translation of the story of Arydeva from *The Stories of the Eighty-Four Siddhas*, with my interposed interpretations of the *sandhabhasa*. The reader might enjoy a preliminary reading of the story itself by skipping over the interpretive sections.

3.4. Karnaripa's miraculous birth

In order to avoid interrupting the story after the very first line, I shall do so even before the story begins. In the Buddhist view, there are four kinds of births (or rebirths) which result in existence in the world of living beings. These are birth through heat and moisture for plants and lower life forms, birth from egg for oviparous life forms, birth from womb for viviparous life forms and miraculous birth for beings from higher realms who appear in the world of living beings in human form in the center of a lotus blossom, uncontaminated by passage through a womb. Karnaripa and two other *siddhas*, Pankaja and Sakara, are described as being miraculously born. The story of Sakara contains some symbols that may be references to *Amanita muscaria* and these will be discussed below.

In many cultures, mushrooms themselves were considered to be miraculously born, due to their mysterious, apparently seedless generation. Wasson (1971, p. 184) explains the significance of the name of the deity Aja Ekpad who appears in the Rg Veda closely associated with Soma. Aja 'un-born' and Ekpad 'single foot' refer to the mushroom's miraculous birth and the monopod stem upon which it stands. Karnaripa's miraculous birth is one of several clues to his connection

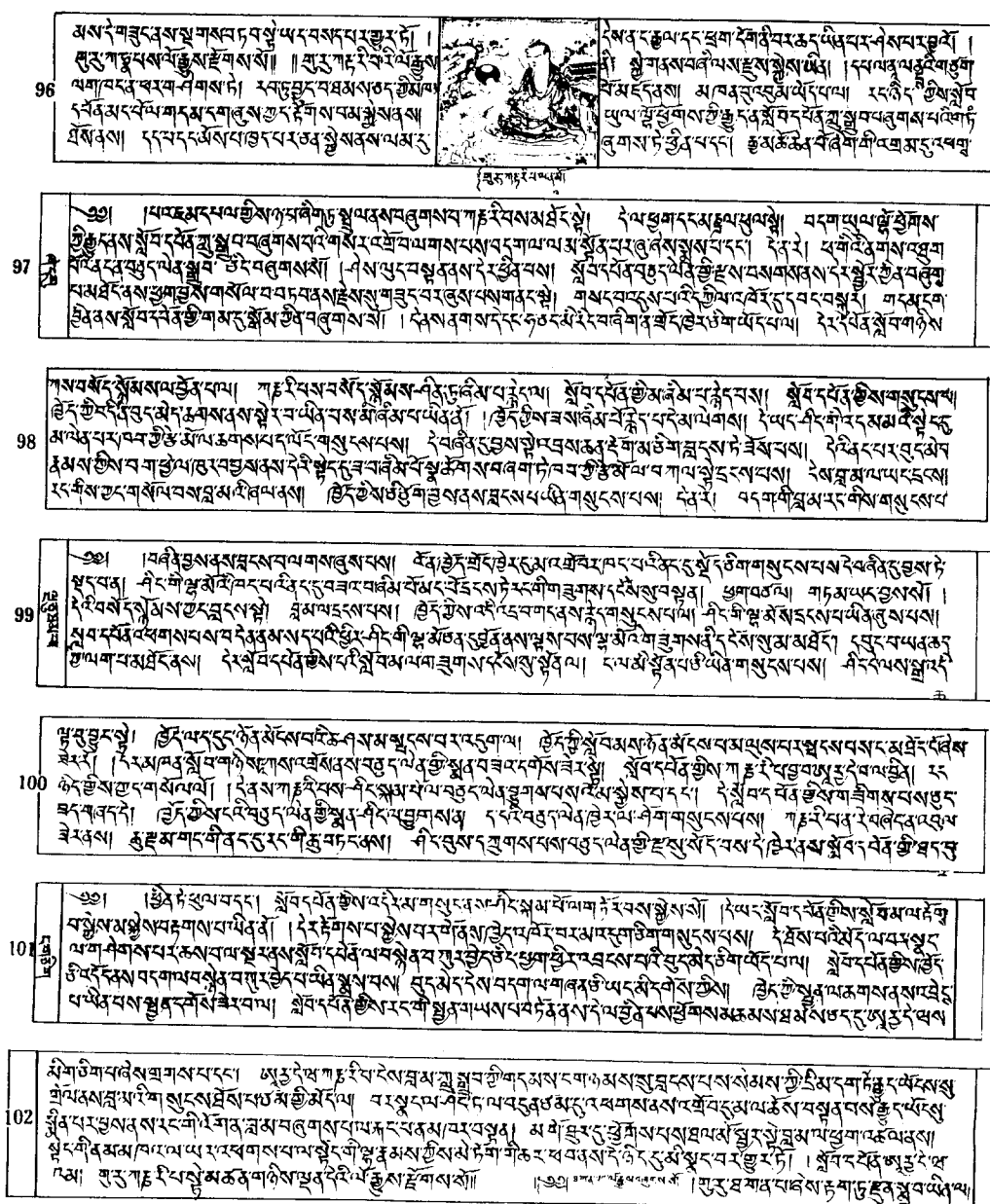


Fig. 1. The Story of the Siddha Karnaripa from The Stories of the Eighty-four Siddhas by Abhayadatta (ca. 1100 C.E.). Courtesy of Dharma Publishing.

with the mushroom, though not the most persuasive.

3.5. The story of Mahasiidha Karnaripa

Of the four ways of birth, his was miraculous. He went away to glorious Nalanda college. He became principal of all monks. There were one hundred-thousand scholars. Al-

though he requested instruction from many masters, realization did not arise. He heard report that Master Nagarjuna resided around the southern regions. Special faith and adherence arose in him. He entered on the road and went.

At the shore of a great ocean, Sublime Manjusri had transformed himself into a fisherman living there. Karnaripa saw him, bowed and offered him a *mandala* and said,

'Because it is reported that Master Nagarjuna lived around the southern regions, Oh Honored One, please show me the road'. The fisherman said, 'He resides inside that thick forest over there practising alchemy'. Having been instructed thus, Karnaripa went there. He saw the master dwelling there, collecting alchemical materials and preparing them. Karnaripa bowed, made a prayer, respectfully asked to be accepted as a student; his request was granted. He was given initiation and instruction in the *mandala* of *Guhyasamaja* and sat in meditation before the master.

Not very far from that forest was a city. Both master and pupil went there for alms. Karnaripa received very delicious alms, while the master received alms that were not delicious. The master said, 'Because this food of yours was given by lustful women, it is not delicious. This obtaining of delicious food by you is not good, so do not collect it on a tree leaf, but receive it on the point of a needle'. Doing so, Karnaripa took a single piece of rice pulp and ate it.

In the morning, women made wheat cakes, put various kinds of delicious food on a cake, put it on the point of a needle, and brought it to Karnaripa, who brought it to his lama. Nagarjuna ate it and said, 'What did you do to receive this?'

Karnaripa said, 'Doing just as my lama said, your worship, I received this'.

'Well then do not go to the city; stay at home'. Nagarjuna said.

3.6. Delicious food, pancake on a needle

A common epithet for Soma in the Rg Veda is *madhu*, 'honey, sweetness, delicious, intoxicating'. *Amṛta*, or Nectar of the gods, is idealized as the most delicious food and drink. The 'very delicious alms' that Karnaripa received might be a reference to this ambrosia. The image of the wheat cake on the tip of a needle with delicious food on top represents the flattened cap of the mushroom on the top of its stalk, flecked with white remnants of its 'universal veil'.

At this point in the story Nagarjuna thinks that this 'delicious food' (on the didactic or *sandhabasa* level?) is not good for Karnaripa, who eats instead 'a single piece of rice pulp' (Tib. *bras chan*). In Monier-Williams (1899, p. 1249) under *soma*, after the primary definitions of god, plant and drink, we find '*somam*-rice pulp'. Here the true name of the elixir Soma may be encrypted in a Tibetan-Sanskrit pun.

Having been advised by Nagarjuna to stay home:

Karnaripa did so, but when he stayed, a tree goddess brought much delicious food into the house and actually showed him her form. She bowed and conversed with him.

He received her alms and brought them to his lama who said, 'Where did you obtain things like this?'

Karnaripa said, 'It was brought by a tree goddess'.

In order to test if this were true, the sublime master went to the tree possessed of the goddess, looked at it but did not actually see the form of the goddess. He saw her arm up to the shoulder.

3.7. The tree goddess

Although the exalted, sacred status of the birch tree and the central roles it played in the cosmology and shamanic rites of the Siberian and Altaic cultures were well documented in many examples compiled by Holmberg (1927) and Eliade (1964), the reason why the birch is thus regarded as the Tree of Life is not given by either author. It is given by Wasson (1968, pp. 216–218).

The birch tree (*Betula* sp.) is the preferred mycorrhizal symbiont of the psychedelic mushroom *Amanita muscaria*, and the preferred host of the shelf fungus *Fomes fomentarius*, which was boiled and dried to form perfect tinder to catch a spark for making fires. These two magic substances were found growing on or below the birch tree which was therefore the most important tree in the cosmos. Holmberg (1927, p. 350) gives a Mordvin tale of a giant birch tree growing on a hill in the depths of the forest, a tree with giant leaves and buds, roots which ring round the earth, and branches which surround heaven. At the root of this birch is a spring, roofed over with carved boards and white sheets, on its edge a red wooden can containing a sweet honey drink. The can has a silver ladle decorated on the bottom with the sun and the moon, the handle with smaller stars. As the sun moves in the heavens, the handle of the ladle turns with it.

The 'red can' can be interpreted as the red *Amanita* and the 'sweet honey drink' as the psychedelic essence. The 'ladle' is also the mushroom; its cap is a red solar disk by day and shines silver like a lunar disk in moonlight. Before the white flecks — remnants of the universal veil — are washed off the cap, they are the stars in the sky that turn as the stem is turned. Similar substance forms the ring around the stem.

Holmberg (1927, p. 351) also retells several Yakut legends of the Tree of Life. In one tale, 'the First Man' approached the magnificent tree to ask

why he had been created. From an opening in the trunk there appeared a female, visible only to the waist, who told him he had been created to be the father of the human race. In a variant of this story, 'the White Youth' prayed to the 'Honored High Mistress', the spirit of the Tree of Life, to be granted the companionship of a wife and other human beings. The tree creaked and from under its roots the tree spirit arose up to her waist. She appeared as a middle-aged woman with grave eyes, flowing locks and naked, swelling breasts which she offered to the Youth. He drank her milk and felt his powers grow a hundredfold.

Wasson (1968, p. 214) sees the tree goddess who appeared from under the roots as the *Amanita muscaria*; her swelling breasts he sees as the mushroom, her milk as the psychedelic essence.

In another Yakut tale, the tree goddess is called Kibai-Khotun, the goddess of Birth and Fate. The Yukaghir call the mushrooms *can-pai*, 'tree girl' (Wasson, 1968, p. 272). Common elements of these Siberian stories are: a sacred tree, a goddess of the tree who appears only up to her waist from the tree or its roots, the swelling breasts of the goddess and her milk of knowledge and strength, and a lake or spring under the tree.

This tree goddess from Siberian legends appears in the story of Karnaripa in South-East India. She does not appear to him as a legendary figure from a far away land, she appears to him in person. She shows to him her true form and brings him 'much delicious food'. Nagarjuna could only see her arm up to the shoulder; he saw the mushroom sticking out of the ground but not the goddess.

Wasson observes (1968, p. 218) that the sacred tree and the tree goddess were apparently absent from the Vedic Soma symbol system. This absence suggests that the *Amanita* alchemy tradition which Nagarjuna and Karnaripa practised was separate from the Vedic Soma tradition, or that such a separate tradition was synthesized with the Soma tradition by the Buddhist alchemists. Nebesky-Wojkowitz (1956, pp. 539–553) gives examples of the many similarities between Siberian shamanism and 'traditions and rites that appear to be survivals of an early Tibetan shamanism.' If, in the distant past, some exchange of shamanic practices did occur between Siberian, Mongolian and

Tibetan people, it is unlikely that an element as important as the *Amanita muscaria* would not be a part of that exchange. I will discuss below a certain goddess who will be linked with the fly agaric, who seems to appear in the Siberian and Tibetan pantheons, but not in Indian tradition.

There is evidence that the birch as the Sacred Tree was not overlooked in India. In Monier-Williams (1976, p. 51) we find, among the synonyms for 'birch', *mahausadham* 'great drug'. Although the birch is regarded in some systems of herbal medicine to have some minor useful properties, these would by no means qualify the birch tree itself as a 'great drug'. It seems more likely that the great drug was the *Amanita muscaria*, the symbiont of the birch.

Coomaraswamy (1971, pp. 32–33) agrees that trees and tree deities played an insignificant part in the Rg Veda and Atharva Veda, but he says, 'There is no motif more fundamentally characteristic of Indian art from first to last than is that of the Woman and Tree'. Some of his examples even include a half-seen figure in the tree. I note the similarity to such figures from the Siberian myths and from Karnaripa's story, but I could find no other images from the fly agaric symbol set in any of Coomaraswamy's examples. A genealogy of these mythologies is needed. The goddess who appeared to the Buddha beneath the Tree of Enlightenment is worth investigating for any possible connection with the *Amanita* birch goddess.

As we return to the story of Karnaripa, Nagarjuna is trying to confront the tree goddess.

The master said to her, 'You actually showed your form to my student, why do you not show it to me?'

From the tree arose a voice like this, 'Obviously you have not abandoned a portion of your defilement; your student has entirely abandoned his defilement, so he saw me'. Thus she spoke.

At that, the master and student conferred. They said, 'We need to eat the alchemical medicine'. The master gave it to Aryadeva who was called Karnaripa. He himself also ate it.

3.8. Karnaripa Aryadeva

There is no explanation given for Karnaripa having another name 'Aryadeva', which first arises

in this story at the point of the drinking of the alchemical elixir. 'Aryadeva' and its Tibetan equivalent 'Phags-pa-lha' are usually translated as 'Sublime god'. However, the initial elements of these names may be implied genitives (for Aryanam deva and 'Phags-pa'i-lha) which would translate as 'God of the Aryans', a perfect epithet for Soma who was, of course, a god of the Aryans. The meaning of 'Karnaripa', as will be shown below, is more definitely connected with Soma.

Then Karnaripa smeared the elixir on a dead tree, causing leaves to grow. The master saw that, laughed a little, and said, 'Since you smear my elixir on the tree, bring my elixir, come!' So Karnaripa said, 'If you wish, I will give it'.

He put his own water [i.e., he urinated] into the full water pot and stirred it with a stick so that it became a pot of elixir. He went straight to his master and offered it. The master said nothing to this. He sprinkled it on a dead tree which grew leaves. Thereupon the master examined whether or not realization had arisen in his student.

3.9. Magic urine elixir

Of all the plants in the world used by humans to alter their minds (I include not just the psychedelics but also the stimulants, cognodispletics, narcotics, etc.), *Amanita muscaria* is the only such plant known to have the following characteristic: its active constituent, muscimol, is passed through the human body with only a small part of the dose destructively metabolized, so that the urine of the mushroom eater contains enough muscimol to be effectively recycled for up to five more intoxications. This quality of the fly agaric was known to its users in Siberia (Wasson, 1968, p. 25) and to some Indians of North America (Keewaydinoquay, 1979, pp. 29–31). Wasson (1968, pp. 25–34) claims to have discovered evidence in the Rg Veda that the Vedic priests were aware of the potency of the Soma-drinker's urine. This potency of the urine of the fly agaric eater is the property that will identify any unidentified drug which also has this characteristic.

The potency of Karnaripa's urine is demonstrated by its revitalization of the dead tree on which Nagarjuna sprinkled the urine. This was the same effect produced when Karnaripa smeared Nagarjuna's alchemical elixir on a dead tree. Also, in the words of the story, 'He put his own water

into a full pot... so that it became a pot of elixir'. The urine does not merely share similar characteristics with the elixir, it is the elixir.

And then, by observing the single fact that Karnaripa's urine had the same effect on the dead tree as his alchemical medicine, Nagarjuna determined that realization had arisen in his student. This is an unusual method for a Tantric Buddhist master to test the attainment of his student.

These references to the potent urine of the drinker of the alchemical medicine are very strong evidence that the fly agaric was an essential ingredient in the elixir.

The story does say that Karnaripa urinated 'into a full water pot (*chu rdzam gang gi nang du rang gi chu btang*)'. It seems necessary to ask, why does he urinate 'into a full water pot'? The 'full water pot' might be a reference to the 'full vessel' or 'brimming vessel' (*purna ghata*), 'the commonest of all Indian symbols of plenty' (Coomaraswamy, 1971, p. 40). And also 'when soma is represented in art, it is as a full vessel' (Coomaraswamy, 1979, p. 40). Is Karnaripa's urination into the full water pot another Tibetan-Sanskrit play on words which refer to Soma or is this just a meaningless coincidence?

3.10. Laughter

I must discuss the occurrence of Nagarjuna's laughter in the story, occurring after they drink the elixir. His laughter might suggest the elixir has exhilarating effects, in addition to its rejuvenating effects and its unexplained powers to cause 'realization' to arise. This occurrence of laughter is one of only four occurrences of laughter in all eighty-four biographies, and possibly the only one of its kind, i.e. euphoric, exhilarated laughter.

In his own legend, *Siddha* Virupa laughs 'twelve wrathful laughs' to subdue a legion of witches who were trying to kill him. This is laughter of a different sort. In the story of *Siddha* Bhusuku, the king and the people laugh at Bhusuku because he had been a lazy bum and yet stood before them to lecture them. This is clearly derisive laughter.

Finally, in the story of *Siddha* Nagabodhi, his teacher Nagarjuna (again!) laughs at him when he sees Nagabodhi has produced horn on his head by the power of meditation. This laughter could be seen as mildly derisive or amused, or laughter of

satisfaction, but not of exhilaration. In any case, it also occurs in the context of a story with *sandhabhasa* elements referring to the use of *Amanita muscaria*. I will return to a discussion of the story of Nagabodhi below, after the material on Karnaripa-Aryadeva.

Having understood that realization had arisen in his student he said, 'Do not stay in *samsara*'. At the instant of hearing that, Karnaripa prepared to depart to the sky. There was a woman from among those mentioned before who paid her respects to the master and followed as attendant.

The master said, 'What do you desire that makes you one who pays her respects to me?'

The woman said, 'Because I do not need anything else at all, because I am a follower from attachment to your eye, I need your eye'.

The master plucked out his right eye, gave it to her and thereby became known in all directions as Aryadeva, the One-eyed.

3.11. The single eye

One of the many descriptions and epithets of Soma that Wasson interpreted as derived from the characteristics of the *Amanita muscaria* was 'the Single Eye'. The mushroom, at one stage of development, looks something like a bloody human eye-ball plucked from the socket and thrown on the ground. Wasson (1968, p. 46) cited five different lines of the Rg Veda connecting Soma with the image of 'the Single Eye'.

Working with Ruck, Wasson (1986, pp. 60–67) explained both the myth of the 'Shade-foot' people (Gr. *Sciopedes*) or 'One-leg' people (Gr. *Monocoli*) (who were said to leap about on a single, powerful leg when not resting on their back in the shade of their single foot), and the myth of the *Cyclopes*, the one-eyed people, as legends derived from characteristics of the *Amanita muscaria*. The Vedic Aja Ekapad, 'Unborn Single-foot' referred to above reflects the same characteristics.

Nebesky-Wojkowitz (1956, p. 122) provides a list of several one-eyed, one-legged, one-winged deities who have 'a physical anomaly typical of many of the ancient Tibetan divinities'. Included is the goddess Ral-gcig-ma (Skt. Ekajati or Ekajata) who has but one foot, one breast, one tooth, one tuft of hair and one eye with which she surveys the past, the present and the future, i.e. 'the three

times' (1956, p. 34). Also given for comparison (1956, p. 539) are the similar Siberian demons: Anakhai, a one-eyed demon of the Buriats; Arsari of the Chuvashes, who has only one hand, leg and eye; and the initiatory demon of the Yakut shamans who has only one arm, leg and eye.

According to Dowman (1985, p. 121), Ekajata is not documented as an indigenous Indian deity. Bharati (1975, p. 38) suggests that Ekajata was a Tibetan import or reimported to India, citing Bhattacharya's translation of the colophon of *Sadhanamala* no. 141, which describes an Ekajata *sadhana*: 'restored from Tibet by Arya Nagarjuna' (Bharati, 1975, p. 74). He is probably referring to the *Ral pa gcig ma'i sgrub thabs* by Nagajuna, which has such a colophon (*bsTan 'gyur*, Peking #4340, vol. 81, pp. 9–10). It would be interesting to discover why this single-eyed goddess/demon seems to be shared by Siberians and Tibetans, but not Indians.

According to the legends, Karnaripa had but one eye because he gave one away. Although the recipient of the eye varies in different sources (compared below), in each version Karnaripa just plucked out his own eye to give away. This event is not worked smoothly into the story lines — it just happens abruptly — and there is no elaboration of the reasons why his eye was needed.

On the historical level, these legends might be the folk-history generated to explain the attributed lack of an eye by both the *Mahasiddha* Aryadeva II and also by his predecessor Aryadeva I. Material in a Chinese source (Nanjio, 1883, no. 1462), recorded by Kumarajiva in the 5th century before the time of Aryadeva II, makes it clear that his predecessor also was described as having only one eye (Malalasekera, 1966, p. 111).

What could the didactic significance of this part of the story be? I asked a Tibetan lama informant what the meaning of the eye plucking could be. He said that Karnaripa was practising the *paramita* of giving or generosity. Thus, it must seem to one who must guess without the benefit of other clues from the symbol system of *Amanita muscaria* use in Siberian shamanic, Vedic, Buddhist and Germanic (see below) traditions.

'The Single Eye' is both an epithet of Soma and of Karnaripa, who is not merely connected with

the mushroom; he shares the name of the mushroom, he is equated with the mushroom. The deeper meaning of his having the mushroom's name and the gift of his eye is, as yet, unknown to me.

In the *sMan dpyad yan lag brgyad pa'i snying po'i 'grel pa las sman gyi ming gi rnam grangs*, translated and edited by Dash (1987, p. 353), there is listed an herbal medicine of unknown botanical identity called *somaksi*, 'eye of soma' (these translations are mine). Synonyms of this medicine are given as *maha gulma*, 'great cluster of trees' or 'great tumor' or possibly 'great myrobalan', or in Monier-Williams (1899, p. 795) *maha gulma* is given as 'the Soma plant'; also *maha gara*, 'great drink' or 'great poison'; also *candra taru*, 'moon tree' or 'bright tree' ('bright' is the meaning of the Proto-Indo-European birch word **bherH-g-o-*) (Friedrich, 1970, pp. 27–29); and *dvija priya*, given in Monier-Williams (1989, p. 506) as 'dear to a Brahman, Aryan, the soma plant'. This list of synonyms for the unidentified drug *somaksi* provides, at least, another connection between Soma and 'the Single Eye'.

Candranandana, who compiled this pharmacopoeia, was a Kashmiri scholar (Dash, 1987, p. viii) who belonged to a period prior to 1013 C.E. when Rin-chen-bzang-po translated his works into Tibetan. It is impossible to say how many, if any, of the Kashmiri or Tibetan physicians who read these references to the drug *somaksi* actually understood the meaning of its names and really knew what it was. If the lineage of this secret knowledge were broken, then the tradition would be passed down like a riddle that no one knew the answer to, like the story of *Siddha Karnaripa*.

Aryadeva Karnaripa practised the instructions of Lama Nagarjuna so the stains of his mind were cleansed and his mental continuum was liberated. At the instant of merely hearing the words of his lama, he levitated to the height of seven palm trees into the sky. He taught the Dharma to many beings so their mental continuums were made completely mature.

While the lama sat below him, he pointed his feet into the sky. By facing down, he folded his hands and bowed down to his lama. He levitated up into the sky and the gods above caused a rain of flowers. He disappeared into suchness.

The End

3.12. Lustful women-sky journey-anointing

There was some imagery in Karnaripa's story that I examined with inconclusive results. I was curious about the 'lustful women' (*bud med chags*) who gave Karnaripa the 'delicious alms'. They may be related to the dryad or tree goddess of fertility (Skt. *vrksaka*) who appears as a voluptuous beauty, scantily clothed, embracing the tree tightly, amorously wrapping one leg around the tree trunk like a vine or *lata*, 'both 'creeper' or 'vine', and 'woman' (Coomaraswamy, 1971, p. 32). Soma was referred to as a *lata* (Wasson, 1968, pp. 97, 98, 103 ff., 106–108, 110, 123, 125). Also, in Sanskrit as in English, the term 'horny' relates the image of the horn '*srnga*' to the erotic sentiment '*srngara*' (Monier-Williams, 1899, p. 1087). I will discuss below the connection of the horn with the *Amanita muscaria*.

I was also curious about Karnaripa's aerobic manoeuvres at the conclusion of his story. Such 'sky-going' is not unusual for Indian yogins, including tantric *siddhas*. It is also common behavior for shamans, including those of Siberian traditions. Karnaripa's ascension to the height of 'seven palm trees' is a close parallel to the Siberian shaman's journey through the seven heavens as he climbs up the seven notched steps in the birch pole representing the seven-branched World Tree (Eliade, 1964, pp. 264, 270–279). 'Ostyak and Lapp shamans eat mushrooms with seven spots to enter into trance; the Lapp shaman is given a mushroom with seven spots by his master' (1964, p. 278). I intend to do further research comparing Buddhist tantric celestial journeys with shamanic celestial journeys with special attention to numerical or arboreal references.

Finally, I wondered about the 'dead tree' on which Karnaripa 'smeared' or 'anointed' (Tib. *byugs*, Das, 1902, p. 924) the alchemical medicine. I think the dead tree could be the neurological network that has not experienced revitalization and realization, by one means or another. The use of the specific verb '*byug*' instead of a more common, general verb like 'put' (Tib. *rgyab*) could be significant. According to Allegro (1970, p. 56) the slimy, slippery mushroom thrusting up through the earth was seen as the erect penis of the Father God which had been anointed or 'christened' with semen and sexual fluids, becoming 'Christos' the

Anointed One. For a Sanskrit synonym, Monier-Williams (1899, p. 11) gives '*anji*,... ointment... unctuous, smooth, sleek (*membrum virile*)'. Another Sanskrit synonym for 'smear, anoint', *lip* (1899, p. 902) gives us *limpata*, 'libidinous, lustful' (1899, p. 902), possibly meaning 'anointed with perfumed oils'. According to Tucker (1931, p. 13), the original ambrosia was neither food nor drink of the gods. It was 'unguent' of the gods, body fluids which worshippers smeared onto the fetish-stone (Gr. *baetulos*) (Tucker, 1931, p. 34). Allegro (1970, pp. 265–66) suggested a derivation of *betula*, 'birch', from *baetulos*. The role of 'Anointing' in the earliest religions needs research.

4. Results of the interpretation of the secret meaning

I am sure that a number of apparent connections I have suggested between the images in the story of Aryadeva and the *Amanita muscaria* may be coincidental and meaningless overlappings of symbols and epithets. A few of these meaningless coincidences are probable. However, a set of such coincidences would be improbable. The congruity of the set of symbols in the legend of Aryadeva and the sets of symbols in the mythology of *Amanita muscaria* from Siberian and Vedic traditions is too strong to be a coincidence. It seems that there is enough evidence to conclude that the alchemical elixir of these *siddhas* contained the psychedelic mushroom *Amanita muscaria*: the references to a potion which provides both wisdom and magically potent urine, the references to the Single Eye, the references to the partial appearance of the goddess from the tree. These references must refer to the *Amanita muscaria*, as they do in other traditions.

The other references to the 'miraculous birth', to the 'delicious alms', to the 'wheat cake on the tip of a needle', to the 'rice pulp' *somam*, to the 'God of the Aryans', to the 'full vessel', probably refer to the mushroom, especially when considered in addition to the first set of definite references. The meaning of the secret language is obvious if one has guessed the secret.

Not so obvious is the information at the historical and didactic levels of the *sandhabhasa*. In these areas the legend presents many more questions than answers: what is the exact connection between the psychedelic mushroom and the histori-

cal (?) persons Aryadeva (2nd cent.) and Karnaripa (8th cent.)? Why do they have an epithet of the mushroom as their proper names? What is the connection of the mushroom to the two Nagarjunas? If this alchemical practice really existed, what was its source and its lineage of transmission? How long did the tradition remain unbroken? When was the last time the story of Karnaripa was read by someone who understood its secrets? What, if any, is the connection of the mushroom with the *Guhyasamaja* tantra into which Karnaripa was initiated by Nagarjuna? In the legend, the realization through alchemy seemed to be completely unrelated to the tantra.

And in regard to considerations of didactic content: Who should attempt to attain this alchemical *siddhi*? And who should not? What is the nature of the practice and process? What results should one expect? What are the signs of development and attainment? What does one need to know to practice this alchemy and where can one learn this? What is the meaning of the gift of the eye? In Karnaripa's story there is some obvious didactic intent in the *sandhabhasa* and I present my interpretation here.

At the beginning of the legend, Karnaripa is described simply as the principal of one hundred thousand monks at Nalanda college. His high degree of intellectual attainment and the instructions he received from many masters were not sufficient for him to experience realization. When Manjusri, the God of Wisdom, appeared to him as a lowly fisherman, Karnaripa's undefiled vision allowed him to see through the god's appearance and recognize him. This same undefiled vision allowed Karnaripa to see the tree goddess in her true form, although he did not realize the true nature of her gifts of alms, i.e. the potential value of the psychedelic mushroom. In contrast we have Nagarjuna who recognized her alms as the essential alchemical elixir, but could not see the true form of the tree goddess.

The meaning of this seems to be that, to obtain the *siddhi*, one needs both to have entirely abandoned one's defilements (evidenced by Karnaripa's miraculous birth, scholastic attainments and his instant recognition of Manjusri and the tree goddess) and also to have knowledge of the identity and the potential virtues of the alchemical

elixir (evidenced by Nagarjuna's recognition of the gifts of alms, and his knowledge of its manner of preparation, consumption and of its effects). This interpretation seems to conform smoothly to Karnaripa's spiritual development in the story, but an evaluation of Nagarjuna's role presents some questions.

Is his recognition of the signs of attainment due to his personal experience or to teachings he had received? How has his failure to abandon entirely his defilements affected his ability to obtain this *siddhi*? How has he deserved the title of 'Master' while retaining these defilements? The substance of the dialogue between Karnaripa and Nagarjuna on questions like these would be most interesting to read; however, we have only their simple conclusion: 'We need to eat the alchemical medicine'.

By testing the magic power of Karnaripa's urine after they drink the elixir Nagarjuna determines that realization has arisen in his student. He knows that Karnaripa, through the intuitive insight he has experienced, needs only to hear his teacher's words in order to leave *samsara* behind.

The legend adds that Karnaripa then practised the instructions of his teacher so that the stains of his mind became pure and his mental continuum was liberated, this happening after he had already entirely abandoned his defilements and after realization had arisen. These may be references to different, specific stages of attainment. Karnaripa's further practice of his teacher's instruction and the rest of the story might be an addition to the original legend added by the compiler in his stylistic homogenization of the conclusions of the legends.

4.1. Aryadeva's legend by Bu-ston and Taranatha

Two other sources of 'biographical' material on Aryadeva and Nagarjuna are the works of Bu-ston (14th century) and Taranatha (1608). I made my own translations of some of this material which I will summarize and analyze.

Bu-ston's account of 'the teacher Aryadeva' begins with his miraculous birth from a lotus flower in Simhala (Sri Lanka) where he was adopted by the king. When he grew up he became a student of Nagarjuna and became learned in all branches of science and all Buddhist and non-Buddhist philosophical systems.

After this brief introduction, Bu-ston seems to begin to focus on the main event in his account, Aryadeva's defeat of the heretic. A non-Buddhist (Sivaite) teacher named Matrceta, who had done much damage to the Dharma, came to Nalanda to contest the Buddhists there. They sent a message to summon Nagarjuna, but Aryadeva came instead to convert Matrceta. This seems to set the stage for the great contest, but that event is barely mentioned in the rest of the story, which I translate unabridged:

When Aryadeva was coming, a tree goddess begged for one of his eyes, and he gave her one eye. Then, when he had defeated the heretic, it was said, 'This one-eyed one, what sort is he?' [Aryadeva] said,

'Siva has three eyes yet he cannot see reality.

Indra has one thousand eyes but he cannot see reality.

Aryadeva has only one eye; whatever he is,

He sees the reality of all the three worlds'.

(Bu-ston, 1971, f. 834, l. 3–5)

It is added that Matrceta converted to Buddhism and became a great *pandit*.

Bu-ston then gives a list of the works written by Aryadeva, drawing no distinction between Aryadevas I and II.

Again, it is uncertain whether the attribute of miraculous birth in Bu-ston's retelling was intended by the original composer of that element of the legend to be taken as a hagiographic detail or more specifically as a *sandhabhasa* reference to the *Amanita muscaria*.

Bu-ston has Aryadeva giving his eye to a tree goddess. It is uncertain whether this detail of the story, i.e. the tree goddess, originated in the legend of the second century Aryadeva or the eighth century Aryadeva. It may be impossible to decide which symbols referring to the mushroom were contributed to the conflated legend in reference to Aryadeva I or Aryadeva II, or which symbols were originally and intentionally shared by both legends.

The Single Eye was shared by both Aryadevas. A Chinese source (Nanjio, 1883, no. 1462) explains Aryadeva's epithet of Kanadeva, 'One-eyed God' saying he gave his eye to Mahesvara, after the previous day plucking an eye from a golden statue of the god (Malalasekera, 1966, p. 111). This reference preceded the time of Aryadeva II who was

also famous as Karnaripa, Mig-gcig-pa, 'the One-eyed'. Even if this symbol in the conflated biography belongs only to the legend of Aryadeva I, then other symbols suffice to link Aryadeva II as well to the *Amanita muscaria*.

Bu-ston's short account does manage to include three images from the *Amanita* symbol set: the miraculous birth, the gift of the single eye, and the tree goddess. He also provides us with Aryadeva's own answer (he writes) to the question, 'Who or what is this one-eyed Aryadeva?' The actual interrogative in the Tibetan text is not simply 'who' (*su*) or 'what' (*ci*) but *ci'dra* meaning 'like what?' or 'what sort?' (Das, 1902, p. 695).

Aryadeva's reply is both informative and evasive. He says that, whatever he may be, his single eye sees all of reality, the reality unglimped by the three eyes of Siva or the thousand eyes of Indra. He seems to be saying that his own identity is unimportant, except for his Single Eye of omniscient vision. If my interpretation of this *sandhabhasa* is correct, Aryadeva says that the vision provided by the psychedelic mushroom is far superior to the vision of the supreme deities of heretical religions (he did not compare himself with the Buddha).

I have the feeling that many scholars of Buddhism will find it easier to believe in psychedelic drug use by the Tantric Aryadeva and Nagarjuna than by their Madhyamika predecessors. It must be remembered, though, that besides being the founders of the Madhyamika tradition, both Nagarjuna I and Aryadeva I were credited with being masters of all branches of science and all forms of orthodox and heterodox philosophical systems which should have included alchemy.

Taranatha's account of Aryadeva begins with a discussion of the circumstances of his birth, relating the royalty of his birth as verified by other sources, but discounting the miraculous form of the birth, which he seems to attribute to the Tibetan people's fondness for rumours. He continues with a short history of Aryadeva's spiritual career, mentioning Nagarjuna's initiation of Aryadeva into alchemy. Then comes the main event of the legend, the debate with Matrceta. The monks of Nalanda wrote a letter to summon Aryadeva to the debate and tied it to the neck of a raven (*bya rog*, also 'crow', both birds sharing

synonyms in Tibetan and Sanskrit) which had come out from the heart of a self-arisen stone image of Mahakala.

Although the raven or crow has not yet been recognized as an element of the *Amanita* symbol system, I could not dismiss that possibility without further investigation.

The first connection I have found between the raven and the *Amanita muscaria* is in some Siberian (Koryak) folk tales (Wasson, 1968, pp. 294–301) in which the hero 'Raven-man' shows his love for eating fly agaric. Another Koryak story (Wasson, 1968, p. 268) connects the hero 'Big Raven' with the origin of the fly agaric. Big Raven was unable to lift the provision bag of a whale to help it escape when it had run aground. The Supreme Being spat on the ground and the fly agaric appeared there from his saliva. Big Raven ate the mushrooms, began to feel gay, to dance and he helped the whale escape. Fly-agaric showed him how the whale returned to his comrades, so Big Raven said, 'Let the *wa'paq* [*Amanita muscaria*] remain on earth, and let my children see what it will show them'.

Another connection of the raven and the fly agaric comes from the Hindu Kush in the extreme north-east region of Afghanistan. In regard to modern use of the mushroom there, Wasson (1982, p. 601) cited an article from the *Afghanistan Journal* 6 [2], 1979 in which three old mountain-men referred to their fly agaric as 'raven's bread'. This epithet, apparently unexplained in the article, received no further attention from Wasson.

Again we find possible connections between the crow and the fly agaric in Monier-Williams (1899) where we find these entries: under *kana*, 'one-eyed... *kanas*, a crow' (p. 269); *ekaksha* [*eka* 'one' *akshi* 'eye'], 'one-eyed... *ekakshas*, a crow' (p. 267). It is added that crows are supposed to only have one eye which they move from one side to the other as required.

Also given under *drona*, 'a wooden vessel, bucket,...; a Soma vessel; a raven or crow; *dronakaka* a raven' (Monier-Williams, 1899, p. 503). It is uncertain if this reference connects the raven specifically to the Soma bucket or merely to any kind of bucket.

Unless these examples are coincidences, it seems there has been some relationship between the

raven/crow and the fly agaric across much space and time. As for the details of this relationship, I have none. The raven, a carrion feeder with color vision, would have noticed the bright-red *Amanita* long ago and it would be known by now if they enjoyed their 'raven's bread'.

According to Taranatha, after he received the message tied to the raven, Aryadeva went to Nalanda with the aid of the object of swift transport (*rkang mgyogs kyi rdzas*). On the way, he met a woman of a non-Buddhist sect who needed the eye of a learned *bhikṣu* as a ritual implement to attain her siddhi; so he gave her one of his eyes.

'There he subdued the allies of the heretic [Matrceta] — the sister *pandita*, the parrot, and the chalk — by means of a shameless monk, a cat and a jar of black oil' (my trans.) (Taranatha, n.d., p. 81). Some details of this tantric contest are added in a version from oral tradition given by Geshe Wangyal (1973, pp. 49–50) in which Mahesvara aided Matrceta in the debate by entering his body and empowering him to shoot all-destroying flames from his forehead. Sarasvati (in place of the 'sister *pandita*') aided him with beautiful and wise phrases. A *pandit* in the form of the parrot would whisper advice in his ear. Siva wrote advice in the sky with the chalk (another version has the writing on a chalk board). Aryadeva countered by bringing a naked man (in place of the shameless monk) which caused Sarasvati to turn away, a cat which jumped up and killed the parrot, and by spreading vanishing oil in the sky (or on the chalk board) to erase the writing. He also brought a dirty boot which drove away Mahesvara.

As Taranatha continues, Aryadeva defeated Matrceta three times and caught him when he tried to escape by flying away. Matrceta was later converted to Buddhism.

I could find no connection between the fly agaric and the allies of Matrceta, nor to the jar of black oil. Aided by Sanskrit glosses offered by Lama Chimpa (1970, p. 125) I immediately came upon two Sanskrit-Tibetan puns which connect the mushroom with the shameless monk and the cat.

In the Tibetan text, the *dge bsn̄yen* (Skt. *upasaka*, 'Buddhist lay worshipper') is described as *spyi brtol can*, given in Das (1902, p. 807) as 'impudent, shameless, daring' or 'scurrilous, foul-

mouthed' deriving from *gtol*, 'to disclose' or *rdol* 'to come out' and *spyi* 'general, public'. Lama Chimpa offered as Sanskrit synonyms *kakola*, probably drawing on *Mahavyutpatti* #4863, '*spyi rtol, kakola*', which is given in Monier-Williams (1899, p. 268) as a 'raven'. Evidently the 'wild, wary and suspicious Tibet Raven becomes bold when scavenging around villages....' (Wilmore, 1979, p. 156). This characteristic provides a pun which invokes the shameless /raven/Single eye/*Amanita muscaria* symbol set.

Aryadeva's cat, Tib. *byi la*, is another point in the same equation. Sanskrit synonyms are *vidala* (Das, 1902, p. 888) and the same by Lama Chimpa, found in Monier-Williams (1899, p. 731) under *bidala* (= *vidala*) as 'a cat,... the eyeball'. This invokes the cat/Single eye/*Amanita muscaria* symbol set.

4.2. The siddha Nagabodhi

Taranatha follows his story of Aryadeva with those of three other disciples of Nagarjuna: Nagavyaha, Nagabodhi and Shingkipa, all receiving shorter entries than Aryadeva. It is mentioned that Nagabodhi attained the *siddhi* of alchemy (*bcud len gyi dngos grub*).

The story of Nagabodhi given by Abhayadatta (Robinson, 1979, pp. 233–235) does not mention alchemy (openly). In his version, the story opens with Nagabodhi, a thief, looking through a door at Nagarjuna who is eating delicious food from a golden bowl.

I see the reference to this meal as a possible expression of the 'delicious food'/ambrosia/soma/*Amanita* set. Although I am unaware of a precedent, the 'golden bowl' would be a good description of the partially opened mushroom cap, which can vary in color from deep red to light yellow through all shades of golden-orange.

Nagarjuna, reading in Nagabodhi's mind his intention to steal, throws the bowl of food out of the room at him, saying objects of desire, like all things, are transitory phantoms of the mind, able to be produced and destroyed by mental concentration. He instructs Nagabodhi to create, in place of his desires, horns on his head, and by meditating he does so. Realizing the emptiness of all things, he attains *siddhi*.

In Taranatha's version, elements of this story of

Nagabodhi appear in the story of the *mahasiddha* Shingkhpa, who is described as ‘dull witted’ (*blortul ba*), so dull witted he could not memorize even one verse after many days. Nagarjuna instructed him to create horns on his head by meditating and later, to remove the horns by meditating. After instruction in the Stages of Completion, Shingkhpa attained the *Mahamudra siddhi*. Although it did not seem a likelihood to me, I investigated the possibility that the image of a horn, or horns, was an expression of *Amanita* symbolism.

Wendy Doniger O’Flaherty (1981, p. 263) refers to ‘the sharp-horned bull’ as ‘a common metaphor for Soma’. Here, emphasis seems to be placed on the horns. Furthermore, in Monier-Williams (1976, p. 51) as a synonym for ‘birch’ we find *srngi*, and under *srngaka* we find (Monier-Williams, 1899, p. 1008) ‘a kind of Betula or birch tree’. What is this connection between birch trees and horns (Skt. *srnga*)? It has been pointed out (Lama Chimpa, 1970, p. 127) that the name Shingkhpa is certainly derived from *srngin*, attested by its Tibetan translation *rwa can* ‘the horned one’.

In Dowman’s version (1985, p. 350) the horns produced by Nagabodhi are red horns; no reason is given for this coloration which matches the fly agaric. These red horns may link Nagabodhi/Shingkhpa to the birch tree and to the *Amanita muscaria*. An even weaker clue was the ‘delicious food’ in the ‘golden bowl’ on which Nagarjuna dined. I would not even mention these as possible mushroom references, except that they are followed by an almost certain reference to the *Amanita muscaria* in an otherwise enigmatic addendum to the story of Shingkhpa by Taranatha. Here is my translation:

Then the master, together with his retinue, practised mercurial alchemy for 6 months. After success was attained, when the pills were being dispensed to each of the disciples, he [Shingkhpa] touched his head to the pill, put it down and turned away. So when the master asked the reason, he said, ‘I have no need of this. If the master himself wishes something like this, prepare vessels filled with water’.

Accordingly, one thousand great wine vessels were filled and the forest appeared filled with them. He poured a drop of his urine into each of the jars so that all of them became the resultant nectar, the transmutative juice. Master Nagarjuna hid all of them in an inaccessible cave of one side of that mountain. He offered a prayer to benefit all future sen-

tient beings. This dull witted one who attained *siddhi* was called Shingkhpa, ‘the horned one’. (Taranatha, n.d., p. 83)

This reference, which equates the magically potent urine of the *siddha* with the alchemical elixir, may be taken as a reference to the use of *Amanita muscaria* for reasons explained above in connection with Aryadeva. Again, the didactic content of the story is not so obvious. It is uncertain how much of that information was intentionally obscure, and how much detail has been lost due to the entropic process of oral tradition. There seems to be a parable regarding fly agaric use in the story of the Horned-one, but my analysis of the story gives more questions than answers.

If the golden bowl of delicious food is a mushroom reference, then Nagarjuna appears to be telling Nagabodhi that he does not need this material, he only needs the power of meditation. If the horns on the head are a mushroom reference, when he advises his disciple to create them, is Nagarjuna advising the use of mushrooms or the use of meditation in place of mushrooms? His potent urine is proof that the Horned-one had consumed the fly agaric. When Shingkhpa does not accept his masters gift of the magic pills of mercurial alchemy and offers, in return, his magic urine, is he saying that he doesn’t need it because he can now dispense it, or that mushroom alchemy is superior to mercurial alchemy, or that meditation can create potent urine?

Although I have tried to find other examples of such magic urine in Buddhist literature, the only two examples I now have are in Abhayadatta’s story of Karnaripa and Taranatha’s story of the Horned-one, both students of Nagarjuna II.

4.3. Sakara and Padmasambhava

I have mentioned above two others of the eighty-four *siddhas* who are described as lotus-born. The *siddha* Pankaja was also born of a lotus blossom and was also a disciple of Nagarjuna II, but his legend has no obvious symbols in common with the mushroom traditions. The ‘real’ identities of the *siddhas* Pankaja and Sakara are even more complicated to determine than the identities of the Aryadevas and Nagarjunas. These matters are discussed by Dowman (1985, p. 266 and pp. 344–346). I will limit my discussion to the

similarities of the stories of Sakara by Abhayadatta (Robinson, 1979, pp. 227–230, ff. 276–283, pp. 380–382) and of Padmasambhava (Evans-Wentz, 1954).

According to the legends, both individuals were born to heirless kings who had prayed for sons; both were born in lotus blossoms after their births were foretold in dreams; both abdicated to seek the Dharma. In the remainder of the story of Sakara, aside from a reference to rice pulp (*'bras chan, somam'*), I have found no symbolic references to the mushroom but some familiar images appear in the legend of Padmasambhava.

To end the famine in his land, King Indrabhuti, who was blind, descended to the world of the *nagas*, to obtain from them the wish-granting gem. When it was given to him by the princess of the *nagas*, he wished for sight in one of his eyes and it was granted. When he returned to his kingdom he found the miraculously born Padmasambhava seated in a giant lotus blossom, 'a fair, rosy-cheeked little boy' encircled by an aura, his face beaded with perspiration. Upon hearing Padmasambhava's first words, the king was no longer blind in his other eye (Evans-Wentz, 1954, pp. 105–109).

Later in the story, Padmasambhava was sent into exile and the king gave him the wish-granting gem, but Padmasambhava returned it saying, 'Whatever I behold is my wish-granting gem'. When the king extended his open hand to receive it, Padmasambhava spat in the king's hand and the spittle instantly became another wish-granting gem (Evans-Wentz, 1954, pp. 117–118). Here we have two 'Single eye' stories united, one eye cured by the wish-granting gem and the other eye cured by the words of Padmasambhava.

In Taranatha's story, the Horned-one returned the alchemical pills to Nagarjuna and offered his urine as the equivalent. In this story, Padmasambhava returned the wish-granting gem to the king and offered his spittle as the equivalent. The possible connection of the psychedelic mushroom with the wish-granting gem is worthy of further examination. Recall the Koryak tale cited above regarding the origin of *Amanita muscaria* from the spittle of the Supreme Being. I will give below another example of spittle which produces *Amanita muscaria*.

The birth of Aryadeva is also mentioned in the legend of Padmasambhava (Evans-Wentz, 1954, p. 156), who was said to be present when Aryadeva appeared in a lotus blossom as a beautiful eight-year-old child with a perspiring face. I am not sure if this detail of a face beaded with perspiration is an intentional reference to the mushroom or a reference to something else added by a later redactor. Possible referents of the beads of perspiration on the face are the white spots of the universal veil on the red ('rosy-cheeked') mushroom cap, or the strong diaphoretic quality of the mushroom.

Once again, in these legends of lotus-born ones, we are given symbols which seem to be commonly held with the fly agaric symbol set, but the deeper didactic content of these symbols is unclear. This opacity maybe the result of missing, mis-emphasized or rearranged details due to transmission of the legends by uninformed non-practitioners, as in the interpretation of the story of Karnaripa by Dowman and his lama informants. Once the informed lineage was broken, those who passed down the legends of these Buddhist adepts could not correct erroneous variances, lacking practical knowledge of the real meaning of these legends.

4.4. Aryadeva and Odin

In what at first must seem like a whopping non-sequitur, I will compare the Tibetan legends of these Buddhists with the legend of the chief god of the Germanic pantheon, Odin.

In the prose introduction to the Eddic *Lay of Grímnir* (also in the *Gylfaginning* of Snorri Sturluson), Odin is described as sitting in his high seat in Asgard, from where, with his single eye of omniscient vision, he can see everything that happens in all the three worlds of the Germanic universe. I think it is no mere coincidence that this description of Odin is the same as Aryadeva's self-description in Taranatha. Among Odin's many names and attributes are Har and Bileyg, both 'the One-Eyed'. Odin had but one eye because he traded his other eye to Mimir, the owner of the well of wisdom and understanding beneath the tree Mimameith, 'Mimir's tree', often taken to be Askir Yggdrasils, 'Ash of Odin's Steed', the World Tree.

Mimir was the wisest of the Aesir, the race of gods to which Odin and Thor belong, because he

drank every day from his well of wisdom. He drank from the Gjallarhorn until Odin, in order to receive a single drink from the well, pledged one of his eyes in return. After that, Mimir drank each day from 'Odin's pledge'. This imagery has perplexed scholars of Eddic mythology who were unaware of the 'kenning' of *Amanita muscaria* as the Single Eye in other traditions.

Mimir was taken hostage by the Aesirs' foes, the Vanir, who cut off his head. Odin smeared it with wort to preserve it and it could speak words of wisdom in answer to his questions. In the *Sigrdrifumal* v. 14–15, the Valkyrie Sigrdrifa speaks of 'mind runes' which Hropt (Odin) devised from the 'sap which seeped in drops out of Heithdraupnir's head, out of Hoddrofnir's horn', evidently referring to Mimir's head and horn (trans. by Hollander, 1962, p. 236 (who points out an intriguing lacuna in these verses)). 'Mimir' apparently means 'the Thinking One'. What is this sap which drips from his head or his horn to form 'mind runes'?

Another of Odin's names is Hrafna (Raven)-god. This name has been believed to relate his role as War god to the ravens that haunt battlefields feasting on the dead. It might also reflect the role of Odin as Great Seer. Odin had two ravens Hugin and Munin, 'Thought' and 'Remembrance', which flew over the world, telling him all they saw. I am unaware of any connection of the raven and the Single Eye in Germanic mythology, but Odin's two ravens might be his own two eyes sent forth in shamanic vision quest.

Odin gives a long list of some of his names and attributes in the *Grimnismal*, of which many could possibly be seen as expressions of *Amanita muscaria* symbolism, for instance, Odin's name Sithhott, 'Long-Hood' (Hollander, 1962, p. 63) or Sidhhottr, 'With Broad Hat' (MacCulloch, 1930, p. 43). Other than 'Bileyg', it is likely that most of these names refer to something other than the mushroom, although Odin's characteristic broad-rimmed hat is worthy of further consideration.

We have then, in the myth of Odin, at least six symbols which also appear in the fly agaric symbol systems of other traditions: the Single Eye, the sacred tree, the deity beneath the tree, the well of wisdom beneath the tree, the elixir of wisdom, and the raven. Odin also bears a name of the mush-

room as one of his own names, as does Aryadeva/Karnaripa: One-Eyed. If my interpretation is correct, then the legend says that Odin, the Oldest God, attained his omniscient vision by consuming *Amanita muscaria*.

As in the Buddhist legends, it is very difficult to determine exactly how, when, why or where this connection to the mushroom became part of Odin's legend. I intend to follow up with further research in this area.

4.5. The Celtic version

One variation in this tradition is that the World Tree of the Germanic universe is not the birch, but the ash (*Fraxinus* sp., or more likely *Sorbus aucuparica*) which is not a symbiont of the *Amanita muscaria*. In the Celtic myths, the sacred tree is the rowan or quicken tree, the mountain ash, *Sorbus aucuparica*, not a true ash but so named for its many ash-like physical characteristics.

Unlike the true ash which bears samaras, the rowan bears as fruit small red pomes or rowanberries. These were considered to be the ambrosia of the gods which cured all diseases, and brought exhilaration and rejuvenation. These red berries appear in one episode in the legend of the Pursuit of Diarmait O'Duibhne and Grainne.

The Tuatha De Danann, gods of the Gaels, brought these berries from the Land of Promise, but when one fell to earth, from it grew the rowan tree. When the gods found that they had carelessly endowed mortals with their ambrosial berries, they sent a savage one-eyed giant, Searbhan (Sharvan) the Surly, to kill any mortals who tried to eat the berries. This one-eyed giant was later killed by Diarmait when Grainne wished for some of the berries. Then they hid in the dead giant's hut in the tree until their pursuers found them and they fled again.

Several of the *Amanita muscaria* symbols appear in this legend, but in an altered form. In this case, the ambrosial food is a red pome, the Cosmic Birch Tree is a Celestial Ash Tree, and the One-eyed God who attains wisdom is a Surly, One-eyed Giant who kills wisdom seekers. I don't know if these alterations are intentional didactic changes in the Ur-legend of the mushroom, or whether they are unintentional degenerations due to retell-

ing of the legend after the knowledge of its true meaning was lost.

Although the ambrosial rowanberries were so strongly desired by Grainne, the story never mentions her eating them, nor any change in her due to possession of the berries. This would have been an important element to include in any legend intended to teach the real importance of the psychedelic 'berries'. In the legend of Finn mac Coul there are nine magic hazel trees which bore crimson nuts that gave universal wisdom to anyone who ate them. They fell off the trees into a well below, where lived the divine 'Salmons of Knowledge', the only class of creatures privileged to eat the crimson nuts. Finn attained knowledge by eating one of the salmon.

Although the shift of sacred tree in Celtic myth from birch to ash was not accompanied by a linguistic shift, the linguistic shift occurs in Italic (Latin) where the cognate of **bherH-g-o-* (birch) is *fraxinus*, which names the ash. Of all the western stocks of Indo-European, only Celtic lacks a birch cognate (Friedrich, 1970, p. 173). The Latin name of the mountain ash was *Sorbus*, possibly derived from Proto-Indo-European **sor-dho-s* which referred to some bush or tree that bore red or black berries (Friedrich, 1970, p. 150). The Latin name of the birch was *betula*, a word of unknown derivation, possibly coming from Celtic (Tucker, 1931, p. 34). When the names and the meanings of the names of the sacred trees of these traditions have been sorted out accurately, the history of the religious use of fly agaric will be easier to trace.

In a rare 'non-finding' of fly agaric in a tradition in which they were said to appear, Wasson (1968, pp. 177–178) denied that the *Amanita muscaria* was in any way connected to the Viking berserkers, who were believed to eat the mushroom to 'go berserk' in a murderous frenzy. I do not wish to argue that the berserkers did eat the mushroom, but I will point out that there is evidence against both of Wasson's reasons for his denial. His second reason was that the 'symptoms of fly agaric intoxication were the opposite of berserk-raging' (Wasson, 1968, p. 178). Although I have a longer argument that is beyond the scope of this paper, I will say that evidence against this point exists in the pages of *Soma* (Wasson, 1968)

in several anecdotal descriptions of the mushroom's effects.

Wasson's first reason for his denial was that 'fly agaric is never mentioned in the Sagas or Eddas'. I am sure that if someone had used a similar argument against his identification of Soma, he would have considered the argument ludicrous. He certainly knew that, to find a reference to *Amanita muscaria* use, one should not look under 'fly agaric', nor even 'mushroom' in an index to the Eddas; one should start by looking for imagery that is known to appear elsewhere in reference to the mushroom, for instance the one-eyed demons of the Siberian tribes, the Single Eye Soma of the Aryans, or the Kanadeva/Mig-gcig-pa of the Buddhists. Even if Wasson had not been looking specifically for this imagery, he could not have read the story of Odin's single eye without recognizing it. Furthermore, this attribute of Odin is certainly not arcane. One cannot read the Eddas, nor even the most general account of Norse mythology, without finding a description of Odin and his single eye.

How could Wasson have made such a glaring, uncharacteristic oversight? The only answer I can conceive of is that he did not want to find any evidence that could connect his wonderful, noble, 'entheogenic' mushroom with the war party drug-of-choice of those Hell's Angels in longships.

The berserker question is certainly an insignificant sidebar to the possible connections of the fly agaric with Odin. My suggestion that such evidence exists is not without precedent. Morgan (1986, p. 45) in some references linking Santa Claus to the fly agaric reports a belief of the people in Kocevja in southern (former) Yugoslavia, that on Christmas night, Wotan the king of the gods rides through the woods on a white horse, pursued by devils. Wherever the red-and-white flecks of foam from the horse's mouth fall to the ground, they grow into next year's crop of fly agaric. Besides linking the *Amanita muscaria* to Odin and to Santa Claus, this legend is the third example I have given linking the origin of fly agaric to spittle (see also Allegro, 1970, p. 56).

The theory linking Santa Claus to the *Amanita muscaria* has been attributed to Ott (1976, p. 97) wherein he credits (n. 146, p. 154) 'Roderick, B.

personal comm.'. Santa is seen as a Siberian shaman ('lives at the North Pole') who performs a winter solstice (Christmas) ritual. In typical shamanic behavior, he flies through the sky (with his reindeer, which are known to be very fond of fly agaric). He enters and leaves the yurt through the smokehole at the top ('up the chimney he rose') (Eliade, 1964, p. 262), climbing down and up the birch pole (Christmas tree) which supports the roof. The colors of the mushroom are red and fuzzy white, as is Santa's costume. If Santa Claus had but one eye, or if magic urine had been a part of his legend, his connection to the *Amanita muscaria* would be much easier to believe.

5. Conclusions

In suggesting the connections between the symbols in these legends and the *Amanita muscaria*, it is certainly not my intention to pound a square peg into a round hole. If any of my suggested interpretations can be shown to be incorrect, this will trim the deadwood, and my case will stand on the points that remain. I hope the few loose ends left above will not detract from the fabric of my argument regarding Abhayadatta's legend of Karanaripa. I hope my efforts to examine every possible clue will not be mistaken for Wassonian 'monomaniacal... paranoid... mycocentricity' (Weil, 1988, pp. 489–490).

The suggestion that some Buddhist *siddhas* used a psychedelic drug will be dismissed out of hand by many. The use of 'intoxicants' is against the contemporary orthodox Buddhist ethic. In a footnote to his interpretation of a beer-brewing recipe as a metaphor for the process of enlightenment, Ardussi (1977, n. 37, pp. 123–124) denies 'that Vasubandhu's reference to magical powers deriving from the use of herbs (*Abhidharmakosa* VII. 53) suggests a type of mystical experience comparable to, or contributing to the better understanding of experiences obtained otherwise through meditation'. I believe I have demonstrated that some contemporary nonorthodox Buddhist 'alchemists' find precedents in the *Mahasiddhas* Nagarjuna and Aryadeva, who agreed, 'We need to eat the alchemical medicine'.

Perhaps my analysis of these legends and sym-

bols can provide a basis for new research by scholars of Buddhism, Tantra, alchemy, Soma studies, Eddic studies, ethnopharmacology, comparative mythology, transpersonal psychology, shamanism and history of religion.

The relationship of a drug-induced psychedelic experience to 'genuine' mystical experience or to Buddhist enlightenment is debated today (Ratsch, 1989; Tart, 1991) as earnestly and as inconclusively as it was in the early years of wide-spread use of psychedelic drugs. I believe my identification of *Amanita muscaria* as the alchemical agent which brought 'realization' to these Buddhist adepts can help determine the value of the psychedelic experience in Buddhist tradition. Orthodox scholars may object but they can no longer 'Just say No'.

Acknowledgements

For my line of research into the Germanic myths I am indebted to my good friend Birrell Walsh, who informed me of Odin's monocularity when he heard I had an eye out for that kind of imagery.

References

- Allegro, J.M. (1970) *The Sacred Mushroom and the Cross*. Doubleday and Co., Inc., New York, pp. 349.
- Ardussi, J.A. (1977) The Doha Tradition in Tibet. *Journal of the American Oriental Society* 97 (2), 115–124.
- Bharati, A. (1975) *The Tantric Tradition*. Samuel Weisner Inc., New York, pp. 348.
- Burrows, T. (1973) *The Sanskrit Language*. Faber & Faber, London, pp. 23–27.
- Chimpa, L. and Chattopadhyaya, A. trans. (1970) *Taranatha, a History of Buddhism*. Indian Institute of Advanced Studies, Simla, pp. 493.
- Collinder, B. (1955) *Fenno-ugric Vocabulary a Etymological Dictionary of the Uralic Languages*. Almqvist and Wiksell, Stockholm, pp. xiii, 46, 128–141.
- Coomaraswamy, A.K. (1971) *Yaksas*. Munishiram Monoharlal, New Delhi. pp. 32–33, p. 40.
- Das, S.C. (1902) *A Tibetan-English Dictionary with Sanskrit Synonyms*. The Bengal Secretariat Book Depot, Calcutta, pp. 1353.
- Dash, V.B. (1987) *Illustrated Materia Medica of Indo-Tibetan Medicine*. Classics India Publication, Delhi, pp. 647.
- Dowman, K. (1985) *Masters of Mahamudra*. State University of New York Press, Albany, pp. 454.
- Eliade, M. (1964) *Shamanism: Archaic Techniques of Ecstasy*. Bollingen Series, no. 76. Princeton University Press, Princeton, pp. 610.

- Evans-Wentz, W.Y. (1954) *The Tibetan Book of the Great Liberation*. Oxford University Press, London, pp. 261.
- Friedrich, P. (1970) *Proto-Indo-European Trees*. University of Chicago Press, Chicago, pp. 188.
- Hollander, L.M. trans. (1962) *The Poetic Edda*. University of Texas Press, Austin, pp. 343.
- Holmberg, U. (1927) Finno-Ugrian, Siberian. In: J.A. MacCulloch, (Ed.), *The Mythology of All Races*. vol. IV. Archaeological Institute of America, Boston, pp. 350–351.
- Keewaydinoquay. (1979) The Legend of Miskwedo. *Journal of Psychedelic Drugs* 11 (1–2), 29–31.
- MacCulloch, J.A. (1930) Eddic In: J.A. MacCulloch, (Ed.), *The Mythology of All Races*. vol. II. Archaeological Institute of America, Boston, p. 43.
- Malalasekera, G.P. ed (1966) *Encyclopedia of Buddhism* vol. II. Government Press, Ceylon, pp. 109–116.
- Morgan, A. (1987) Who put the toad in toadstool? *New Scientist*. Dec 25/Jan 1, pp. 44–47.
- Monier-Williams, M. (1899) *A Sanskrit-English Dictionary*. Oxford University Press, Oxford, pp. 1333.
- Monier-Williams, M (1976) *English-Sanskrit Dictionary*. Munshiram Manoharlal Publishers Pvt. Ltd., New Delhi, pp. 859.
- Nanjio, B. (1983) *A Catalogue of Chinese Translation of the Buddhist Tripitaka, the Sacred Canon of the Buddhists in China and Japan*. Oxford, no. 1462.
- Nebesky-Wojkowitz, R. de (1956) *Oracles and Demons of Tibet*. Mouton and Co., The Hague, pp. 666.
- O'Flaherty, W.D. trans. (1981) *The Rg Veda*. Penguin Books Ltd., London, pp. 343.
- Ott, J. (1976) *Hallucinogenic Plants of North America*. Wingbow Press, Berkeley, pp. 161.
- Ratsch, C. ed. (1989) *Gateway to Inner Space Sacred Plants, Mysticism and Psychotherapy*. Avery Publishing Group, Inc., Garden City Park, pp. 258.
- Robinson, J.B. (1979) *Buddha's Lions*. Dharma Publishing, Berkeley, pp. 404.
- Tart, C.T. (1991) Influences of Previous Psychedelic Drug Experiences on Students of Tibetan Buddhism: a Preliminary Exploration. *The Journal of Transpersonal Psychology* 23 (2), 139–173.
- Tucker T.C. (1931) *A Concise Etymological Dictionary of Latin*. M. Niemayer, Halle, p. 13, p.34.
- Wangyal, Geshe. (1973) *The Door of Liberation*. Girodias Assoc. Inc., New York, pp. 49–50.
- Wasson, R.G. (1968) *Soma: Divine Mushroom of Immortality*. Harcourt, Brace, Jovanovich, New York, pp. 381.
- Wasson, R.G. (1971) The Soma of the Rig Veda: what was it? *Journal of the American Oriental Society* 91 (2) 169–187.
- Wasson, R.G. (1982) The Last Meal of the Buddha. *Journal of the American Oriental Society* 102 (4) 591–603.
- Wasson, R.G. (1986) *Persephone's Quest: Entheogens and the Origins of Religion*. Yale University Press, New Haven, pp. 257.
- Weil, A. (1988) Review of Wasson (1986). *Journal of Psychoactive Drugs* 20 (4), 489–490.
- Wilmore, S.B. (1979) *Crows, Jays, Ravens and Their Relatives*. T.F.H. Publications, Inc., Ltd., Hong Kong, p. 156.

Tibetan references

- Abhayadatta. (1973) *Grub thob brgyad bcu rtsa bzhi'i chos skor*. Chopel Legdan, New Delhi, ff. 318.
- Abhayadatta. (nd.) *Grub thob rgyad bcu rtsa bshi'i lo rgyus, bsTan 'gyur*. Peking #5091, vol 87, pp. 183–184.
- Bu-ston. (1971) Chos 'Byung, in *The Collected Works of Bu-ston*, part 24 (ya). International Academy of Indian Culture, New Delhi, f. 834.
- Nagarjuna. (nd.) *Ral pa gcig ma'i sgrub thabs. bsTan 'gyur*. Peking #4340, vol 81, pp. 9–10.
- Taranatha. (n.d.) *Dam pa'i chos rin po che 'phags pa'i yul du ji ltar dar ba'i tshul gsal bar ston pa dgos 'dod kun 'byung*. Tibetan Institute, Sarnath, pp. 79–83.