

---

---

THE JOURNAL OF  
PHILOSOPHICAL STUDIES

NO. 580

---

---

On the Origin of the *Leśyās*

by

Muneo TOKUNAGA

Professor of Sanskrit  
Graduate School of Letters  
Kyoto University

From a relatively early period the Jains advanced an interesting theory of Karmans ('actions') which holds that the soul changes its color or *leśyā* in six ways according to the purity of its state of being.<sup>1)</sup> For this theory, we may quote the following verse in Chapter 34 of the Uttarādhyaṇasūtra.<sup>2)</sup>

“Black, dark-blue, grey, red, lotus, and shining Leśyā, as the sixth, are the names [of Leśyās] in order.”

*kiṇhā nīlā ya kāū ya teū paṃhā taheva ya /  
sukkalesā ya chaṭṭhā u nāmāiṃ tu jahakkamaṃ //* (Uttar. (JAS) 34.  
3)<sup>3)</sup>

For further Jain evidence, see Samav. (JAS) 6 [1] *challesāto paṇṇattāto ta-  
ṃjahā*<sup>4)</sup> — *kaṇhalesā nīlalesā kāulesā teulesā paṃhalesā sukkalesā*; Pra-  
jñāpanā (JAS) 1156 *challesāo paṇṇattāo, taṃjahā — kaṇhalesā nīlalessā  
kāulesā teulesā paṃhalesā sukkalessā*; also Bhagavati (JAS) 3.4.12, 14, 6.  
4.10, 7.3.6-9, [41.9-28, 29-56].

This theory is found also, with some variation, in the Pali canon and the

Mahābhārata. First, let us see the evidence in the Pali canon. The early Buddhist text tells us that Pūraṇa Kassapa, one of the Buddhists' "six heretics" who was close to Makkhali in doctrinal standpoint (cf. Basham, *op. cit.*, p. 84), distinguished six kinds of Abhijātis for the souls. This doctrine, by the way, is attributed to Makkhali Gosāla himself in the *Dīghanikāya* Vol. I, p. 54 (SPHS).

"Sirs, Pūrana Kassapa taught six Abhijātis; he taught black Abhijāti, dark-blue Abhijāti, red Abhijāti, turmeric Abhijāti, shining Abhijāti, and the most shining Abhijāti."

*pūraṇena bhante kassapena chaḷābhijātiyo paññattā: kaṇhābhijāti paññattā, nilābhijāti paññattā, lohitaḥbhijāti paññattā, haliddābhijāti paññattā, sukkābhijāti paññattā, paramasukkābhijāti paññattā.* (AN, Vol. III, p. 383)

According to Buddhaghosa's note on this passage (SuVi I, p. 162), each color corresponds to one of the six classes of social hierarchy: *kaṇhābhijāti* to hunters, fowlers, fishermen, thieves, gaolers, and others; *nilābhijāti* to monks who live as thieves, together with others who believe in the efficiency of works; *lohitaḥbhijāti* to the *nigaṇṭhas* who wear single garments; *haliddābhijāti* to the lay disciples of *acelakas*; *sukkābhijāti* to the Ājīvika ascetics of both sexes; and *paramasukkābhijāti* to Nanda Vaccha, Kisa Saṅkicca, Makkhali Gosāla (see Basham's translation).<sup>5)</sup>

The next one is the version of the six color theory in the Mokṣadharmaparvan of the Mahābhārata. Being asked by Uśanas, Sanatkumāra instructs Vṛtra on the theory of the six colors of souls.<sup>6)</sup>

"The best criterion of judgment is the six colors of souls: the black [and] smoky [colors]. Now, the dark-blue is in the middle of this [group]. Further, the red is easier to bear with. Happy is the turmeric color. And much happy is the shining [color]."

*śadjīvavarṇāḥ paramaṃ pramāṇaṃ kṛṣṇo dhūmro nīlam athāsya madhyam/raktaṃ punaḥ sahyataraṃ sukhaṃ tu hāridravaraṇaṃ susukhaṃ*

ca *śuklam*// (MBh 12. 271. 33)<sup>7)</sup>

We have seen three versions of the six color theory in the ancient Indian literature. The following table shows how colors correspond to each other in three versions of the different religious groups.

Leśyās (Jaina):	<i>kiṅha/kaṅha</i>	<i>nīla</i>	<i>kāu</i>	<i>teu</i>	<i>ṣamha</i>	<i>sukka</i>
Abhijātis (Ājivika):	<i>kaṅha</i>	<i>nīla</i>		<i>lohita</i>	<i>halidda</i>	<i>sukka</i> <i>paramasukka</i>
Varṇas (MBh):	<i>kṛṣṇa</i>	<i>dhātvara</i>	<i>nīla</i>	<i>rakta</i>	<i>hāridra</i>	<i>śukla</i>

We note that, in the Epic version of the theory (Critical Edition), *dhūmra* comes before *nīla* probably due to the scribal mistake in textual transmission. This mistake is corrected in the Southern Mss: T<sub>1-2</sub>, G<sub>1-3</sub> *kṛṣṇam nīla ṃ dhūmram*.

After the passage quoted above (12.271.33), the Epic describes in detail the transmigration of souls with one of the six colors; first, after the worst color 'black' (vs. 37) comes 'green' or 'tawny' (38 *harita*), 'red' (39 *lohita*), 'dark-blue' (39 *nīla*), and 'yellow' color (40 *hāridra*). Living in the world of the gods, the soul comes down to the world of men, and then attains immortality (43). But he falls again from that place to the worst 'black' stage (44). Then the text refers to the 'red', 'turmeric' and 'shining' colors (45). Born again as a human being in the world of men after the sixth color (48), the soul goes up to the world of the Siddhas and finally to the eternal stage of Viṣṇu and Brahman (50). As is often the case with philosophical passages of the Mahābhārata, the description in this passage is not free from inconsistency and additional elements. Hence we cannot place much trust in the version of the Mahābhārata, which, in any case, is not a philosophical text in the strict sense. The author of this passage must have borrowed the six color theory from an outside source to explain the transmigration of souls in the didactic portion of the Mahābhārata. I can hardly go along with Bedekar's opinion (*op. cit.*, p.338) that the Epic version is older than the others.<sup>8)</sup>

It seems also unlikely that the Ājivika version represents the original form of the six color theory because their list does not contain six different colors. *Sukka* and *paramasukka* are not different colors; they only show the difference in the degree of 'brightness' (*śuklatva*).<sup>9)</sup> The Ājivikas omitted

grey color (*kāu* or *dhūmra*) from the list, and added instead *paramasukka* probably in order to emphasize the prominence of their own leaders in the hierarchy of all souls. Thus this is a sectarian version. Since questions remain both in the Epic and in the Ājīvika version, it appears most reasonable to assume that Jain Leśyās preserve the earliest form of the six color theory.

Now, let us discuss the Jain version and investigate the origin of the names of Leśyās. Before our investigation, it may be worthwhile to note the following verses in the Mokṣadharmaparvan.

“Just as wind with *galena* or dust of *realgar* enters and dyes space [lead-grey or orange-red], so the colorless soul obtains a color and wanders among bodies, being colored by the products of its own actions and covered by darkness.”

*yathāñjanamayo vāyuh punar mānaḥsilam rajaḥ, anupraviṣya tadvarṇo dr̥ṣyate rañjayan diśaḥ, tathā karmaphalair dehī rañjitas tamasāvṛtaḥ, vivarṇo varṇam āsṛitya deheṣu parivartate* (12.270.9-10)

“Just as a goldsmith makes his own extreme efforts in refining silver [ore] in fire many times, so the soul is purified by a small [amount of] action through hundreds of births, or by a large [amount of] action [just] in one birth.”

*yathā hiraṇyakartā vai rūpyam agnau viśodhayet, bahuṣo 'tiprayatnena mahatātmakṛtena ha. tadvaj jātiśatair jivaḥ sudhyate 'lpena karmanā, yatnena mahatā caivāpy ekajātau viśudhyate* (12.271.11-12).

*Añjana* (*galena*) is the chief ore mineral of lead and is used for eye shadow and eye lotion. *Manahsilā* is probably the orange-red *realgar* (As<sub>4</sub>S<sub>4</sub>) or yellow orpiment (As<sub>2</sub>S<sub>3</sub>). The latter mineral was used for Tilaka ointment, and was inhaled to cure headache (*mūrdhāvirecana*) according to the Carakasamhitā 1.5.26. *Hiraṇyakartṛ* ‘goldsmith’, who refines metal ore in fire, is a good simile for the soul that purifies itself by a larger or a smaller amount of action in a shorter or a longer period of transmigration.<sup>10</sup> The

above verses give us an impression that the Leśyās have some connection with the mineral ores of ancient India. Upon this hypothesis we may try to identify the names of Leśyās from a metallurgical point of view.

Our investigation requires a preliminary knowledge of the metals and mineral ores in ancient India. As to the metals of the Saṃhitā period, H. Zimmer's *Altindisches Leben, Die Cultur der vedischen Arier nach den Saṃhitā dargestellt* (Berlin 1879) is still quite useful. For the Brāhmaṇa period, our knowledge of metals has been considerably improved by W. Rau's works such as *Staat und Gesellschaft im alten Indien* (Wiesbaden 1957). In the post-Vedic period, Kauṭilya's Arthaśāstra is by far the most important source for our investigation. Also, medical texts provide valuable information on the mineral ores of ancient India.

Let us see Zimmer's work (*op. cit.*, pp. 51-53) first for the information of metals in the Saṃhitās. He attests the following metals and metal alloys in the early Vedic texts: *hiranya* 'gold' (RV+), *ayas* 'Erz?' (RV+)<sup>11</sup>); *śyāmam ayaḥ* 'iron' (AV+), *lohitam* 'copper (or Erz)' (AV+), *rajata* 'silver' only once as the adjective in RV; similarly as the adjective in TS 1.5.1.2 (*rajatam hiranyam* "weissliches Gold") and VS 23.37, TS 5.2.11.1 (*rajatā hariṇīḥ* "silberfärbige Gazellenweibchen"). *Rajata*, as the substantive, occurs in AV 5.28.1 together with *harita* und *ayas*. *Sīsa* 'lead' is not attested in RV but seems to appear from AV. *Trapu* 'tin' is found only in VS and AV.<sup>12</sup>

W. Rau says (*op. cit.*, p. 19) that ancient Indians knew gold, iron, copper, bronze or Erz, bell-metal (another type of alloy of copper and tin), tin, lead, silver, and gold in the Brāhmaṇa period.<sup>13</sup> For 'brass', an alloy of copper and zinc, we must wait until the post-Vedic period.

Mineral ores increase in variety in Kauṭilya's Arthaśāstra, which attests the following *dhātus*: *svarṇa* gold, *rūpya* silver, *tāmra* copper, *sīsa* lead, *trapu* tin, *tikṣṇa* steel, *vaikṛntaka*, and *maṇi* (KAŚ 2.12.5-17). Again, Kauṭilya enumerates, in 2.17.14, various types of *lohas*: *kālāyasa* iron, *tāmra* copper, *vṛtta*<sup>14</sup>), *kaṃsa* bronze, *sīsa* lead, *trapu* tin, *vaikṛntaka*, and *ārakūṭa* brass (?). See further 2.12.23: *lohādhyakṣas tāmrasīsatraṇuṇvaikṛntakārakūṭa-vṛttakamsatālalohakarmāntān kārayet*. According to Kangle this passage means: "The Director of Metals should establish factories for copper, lead, tin, *vaikṛntaka*, brass, steel, bronze, bell-metal and iron."

Based on the above information, we can find a fairly good parallelism

between the names of Leśyās and the metals and metal alloys of ancient India. Except for *paṃha* (Skt. *padma*, 'lotus flower'), not much problem exists in the identification of the names from the viewpoint of color: *kiṅha/kaṅha*, *nīla*, *kāu*, *teu*, *sukka* correspond to *kṛṣṇāyas*, *kaṃsa*, *sīsa*, *lohitāyas*, *rajata* respectively.

In his "Lotusblumen," *Asiatica* (Festschrift Friedrich Weller) (1954) pp. 505-13, Rau says that *padma* is the flower *Nelumbo nucifera* Gaertn. Syn.; *Nelumbium speciosum* Willd. Further he remarks, "Normalerweise blüht N. N. weiss-rötlich ('white-reddish'); es finden sich aber eine reinweisse und eine stärker rötliche Spielart" (p.512) (information of Dr. Knobl). From this color we have an image of brass, i. e., an alloy of copper and zinc that changes color from copper-red to yellow with a larger amount of zinc. The assumption that the *paṃha* Leśyā corresponds to brass seems further supported by the description of *paṃha* in Uttar. 34.8a: *hariyālabheyasaṃkāsā* ("resembling a kind of yellow orpiment"). Thus we can associate all the six Leśyās with the metals and metal alloys of ancient India in the following way, provided *āraḱūṭa* means 'brass' in the strict sense of the word, namely, an alloy of copper and zinc.

Leśyā (Uttar.):	<i>kiṅha/kaṅha</i>	<i>nīla</i>	<i>kāu</i>	<i>teu</i>	<i>paṃha</i>	<i>sukka</i>
	<i>kṛṣṇāyas</i>	<i>kaṃsa</i>	<i>sīsa</i>	<i>lohitāyas</i>	( <i>āraḱūṭa</i> )	<i>rajata</i>
	iron	bronze	lead	copper	brass	silver

Kangle renders *āraḱūṭa* into 'brass', but 'brass' is an ambiguous word, as shown in his own note on 2.12.23 (Part 2, p. 108), "*āraḱūṭa*, *kaṃsa* and *tāla* are alloys of copper with tin or zinc in various proportions." 'Brass' meant bronze, too, in the past (Ency. Brit. s.v. 'brass'). In our table we need brass in the strict sense of the word, that is, an alloy of copper and zinc with a color of white-reddish lotus flower. Such copper alloy can only be **calamine brass**, which was produced in ancient times by the process of "downward distillation." The Encyclopaedia Britannica says, this brass is "alloy of copper with zinc, produced by heating fragments of copper with charcoal and a zinc ore, calamine or smithsonite, in a closed crucible to red heat (about 1,300°C, or 2,400°F). The ore is reduced to a zinc vapour that diffuses into the copper. Apparently invented in Asia Minor, this method of brass manufacture was common from the 1st millennium B.C."

Our assumption of ‘calamine brass’ finds corroboration in Pali commentaries, which express “diffusion of zinc vapour into copper” by the words [pakati] *rasatambe missetvā* or *rasakatambe missetvā* (CPD, s.v. *ārakūṭa*). Further, we can find evidence for ‘calamine brass’ in the Greek source. The lost *Philippica* of Theopompus (4th century B.C.), quoted in Strabo’s *Geography* (XIII, 56), says, “There is a stone near Andreida (northwest Anatolia) which yields iron when burnt. After being treated in a furnace with a certain earth, it yields droplets of false silver. This added to copper, forms the so-called mixture, which some call ‘oreichalkos’ [ὄρει-χαλκος]” (quoted from Peter van der Krogt, *Zincum Zinc* on <http://www.vanderkrogt.net/elements/elem/zn.html>); cf. also Liddell, Scott, *et. al.*, *Greek English Lexicon*, *ὄρει-χαλκος* “mountain-copper, i. e., yellow copper ore, copper or brass made from it.”). The process of production described here is exactly that of ‘calamine brass’. *Ārakūṭa*, of which the Sanskrit etymology is not clear, therefore must have been borrowed from Greek *ὄρει-χαλκος*. My colleague of Classics at Kyoto University looked up relevant passages for the word and told me that the color of *ὄρει-χαλκος* may not be white but rather fiery, yellow, or orange. This information agrees with the ‘white-reddish’ or ‘yellow’ color of the *paṃha* Leśyā.

There still remains an important question about our investigation of the names of Leśyās from a metallurgical point of view: why is gold absent in the Leśyās? I was puzzled by this question until I came across the following passage in the Pali canon.

“O monks, these are stains for gold ore, stained by which gold ore does not become soft, processible, luminous, crushable, and well-suited for a [proper] job. What are the stains? They are copper (or bronze), iron, tin, lead, silver. O monks, these are indeed five stains for gold ore, stained by which gold ore does not become soft, processible, luminous, crushable, and well-suited for a [proper] job.”

*pañc’ ime bhikkhave jātarūpassa upakkilesā yehi upakkilesehi upakkiliṭṭhaṃ jātarūpaṃ na c’ eva mudu hoti na ca kammaniyaṃ na ca pabhassaraṃ pabhaṅgu ca na ca sammā upeti kammāya. katame pañca? ayo, lohamaṃ, tipu, sisamaṃ, sajjhamaṃ. ime kho bhikkhave pañca jātarūpassa*

*upakkilesā yehi upakkilesehi upakkiliṭṭham jātarūpaṃ na c' eva mudu hoti na ca kammaniyaṃ na ca pabhassaraṃ pabhaṅgu ca na ca sammā upeti kammāya. (AN, III, p.16)<sup>15)</sup>*

Here is an answer to our question. Gold is not included in the Leśyās because Leśyās are all stains for the soul. Gold is not a stain but is stained by the other metals. In this respect, mention should be made of the Caraka-saṃhitā (final form in 500 A.D.) which distinguishes gold as pure metal from base metals: *suvarṇam samalāḥ pañca lohāḥ* (CS 1.1.70ab). Cakrapānidatta (11c) remarks: *pañca lohā iti tāmra (copper) rajata (silver) traṇu (tin) sīsa (lead) kṛṣṇa (iron) lohānām grahaṇam. samalā iti malaśabdena Silājatūni lohamalarūpāṇi grhyante*. Since gold is the best metal, it cannot be a Leśyā, i. e., stain (*mala*) for the soul in transmigration. Further we find the following passages in the Mahābhārata: *suvarṇasya malaṃ rūpyaṃ rūpyasyāpi malaṃ traṇu, jñeyaṃ traṇumalaṃ sīsaṃ sīstasyāpi malaṃ malam* (MBh 5.65, v. l., *āyasaṃ malam*). Similarly Manu says that one should burn *doṣas* of the sense-organs by controlling his *prāṇa* just as fire burns stains of mineral ores, which are blown [with a bellows]: *dahyante dharmāyamānānām dhātūnām hi yathā malāḥ, tathendriyānām dahyante doṣāḥ prāṇasya nigrahāt* (6. 71). Absence of gold in the list thus provides a strong support to our metallurgical interpretation of the names of Leśyās. We have good reason to believe that the Jains borrowed the names of Leśyās from metalworking industry that made a rapid progress in the mid-Gangetic region several centuries B.C. Strange names such as *kāu, teu, pamha* also make sense as business jargons of that industry in ancient India.<sup>16)</sup>

---

1) Colors are five in number in traditional India. This number corresponds to the theory of *pañca gatis*, mentioned already in the Nikāya as the five courses or worlds for the soul in transmigration. There is also the theory of *ṣaḍ gatis*, which presumably lies behind the six color theory in question. Both theories of the *gatis* probably existed in the Pali canons before the beginning of the Common Era although the Buddhists preferred the *pañca gati* theory (information of Mr. Kensuke Okamoto of Ryukoku University).

2) Acc. to W. Schubring the Leśyā theory is of secondary importance in the Jain doctrine. Cf. *Die Lehre der Jainas*, Berlin/Leipzig 1935, p. 127. Kristi L. Wiley makes an objection to this view, discussing the Leśyās of post-canonical period in her "Colors of the Soul: By-products of activity or passions," *Philosophy East and West*,



- 50-3 (2000), p.348f. On the evolution of this theory, esp. in Bhagavatī and Prajñāpanā, see S. Ohira, *A Study of the Bhagavatisūtra: A chronological analysis*, Prakrit Text Series, Vol. XXVIII, Ahmedabad 1994, pp.125-30. — A similar idea of classifying men or races according to metals is found in *Works and Days* of Hesiodos (700 B.C.), ed. with comm. by M. L. West, Oxford 1978, p.173 (comm. on 106-201): “The story is that there have been five distinct γένη of men, races or species, successive in time: Golden race, Silver race, Bronze race, the fourth race, and Iron race.” (information of Prof. Nakatsukasa)
- 3) *Kiṇha* ‘dark, black’. This is also called *kaṇha* in the Jain canon. The derivation of *kāu-* from *kāpota-* (‘dull white, grey’) is not clear. *Kapota* means ‘grey color’ in the Suśrutasaṃhitā (3c-4c) 2.6.26, too. *Pamha-lesā* appears like a kind of orpiment (As<sub>2</sub>S<sub>3</sub>). Cf. Uttar. 34. 8a *hariyālabheyasaṃkāsā*. As to *pamha*, see below in the main text. *Sukka* is described in Uttar. (JAS) 34. 9c as *rayayahārasaṃkāsā*. — S. Ohira says, *op. cit.*, p. 125, that the Uttar. belongs to the fifth canonical stage, i. e., 4c. A. D. However, Dundas (*The Jains, Second Edition*, London & New York: Routledge 2002, p.100) recognizes in this Sūtra “a cluster of old *Sloka* verses amplified by twice as many verses in the later *āryā* metre,” presumably based on Alsdorf, *Les études jaina*, Paris 1965, p. 51f. and his *The Āryā Stanzas of the Uttarajjhāyā*, 1966, p.157f.; cf. also K. Tsuchihashi, “Leśyā in the Uttarajjhāyā, Chapter 34” (in Japanese), *Journal of Indian and Buddhist Studies*, 21-2 (42), Tokyo 1973, pp.110 (953)-15(948).
- 4) It reads *cha lesāo paṇṇattā taṃjahā* in the version of the LSJ Āgamagranthamālā Series (Delhi 1985).
- 5) See A. L. Basham, *History and Doctrines of the Ājīvikas* (1951), pp. 243-44; also Shin’ya Takahashi, “On the Karma-theory of the Ājīvikas (I)” (in Japanese), *JIBS* 21-2 (42), 1973, pp.140-41; “ditto (II)” (in Japanese), *JIBS* 22-2 (44), 1974, pp. 432-436.
- 6) The Epic version is treated by V. M. Bedekar from the viewpoint of Leśyās in his “The Doctrine of the Colours of Souls in the Mahābhārata,” *Annals of the Bhandarkar Oriental Research Institute*, Vols.48-49 (1968), pp.329-38.
- 7) ‘*Harita*’ for ‘*dhūmra*’ in 12. 271. 38, and ‘*lohita*’ for ‘*rakta*’ in 39.
- 8) There are much younger forms of the six color theory in Tamil classics but we will not enter into the detail in this paper. Tamil texts show further confusion in the order of enumeration: the colors of births (*pirappu*) in Manimekalai, xxvii, 150-5 are: ‘black’ *karu*, ‘dark blue’ *karu-nīla*, ‘green’ *pacu*, ‘red’ *cem*, ‘golden’ *poṇ*, ‘white’ *ven*, while, in the Civañāṇacittiyār, p.263, v.8, ‘white’ *veṇmai*, ‘golden’ *poṇmai*, ‘red’ *cemmai*, ‘blue’ *nīl*, ‘pure white’ *kaḷi-venmai*, and ‘green’ *paccai*. (Basham, *op. cit.*, p.244). An influence of the Ājīvika version is observed in the latter list. Acc. to Basham (p.185) the Ājīvikas maintained themselves until the fourteenth century against discriminatory taxations.

- 9) Dundas refers to an opinion which holds that Jainism imported the theory from the Ājīvikas. However, he is careful not to give his own conclusion. Cf. Dundas, *op. cit.*, pp.100-101. Acc. to H. Zimmer (*Philosophies of India*, ed. by J. Campbell, London 1951, p.251), the idea was “part of the general pre-Aryan inheritance.” Basham’s idea is that “two systems of colour classification are derived from a common body of ideas which were widespread among ascetic groups in the days of the Buddha (*op. cit.*, p.245).”
- 10) One may recall Makkhali Gosāla’s view that happiness and suffering are determined in quantity to the soul, as if measured by a wooden pail. DN, Vol. I, p. 54 *doṇamīte sukhadukkhe pariyaṇtakāṭe saṃsāre n’ atthi hāyanaṇaḍḍhane n’ atthi ukkamsāvakaṃse*. This passage also refers to six Abhijātas.
- 11) *Ayas* in the RV virtually means ‘copper’ or possibly ‘bronze’. See the opening pages of M. Witzel’s “Early Indian History: Linguistic and textual parametres” (digital paper in 1995, with minor updates in 2001).
- 12) Further, metal refinement is referred to in ŚB 6.1.3.5; alloy technology in ChUp 4.17.7-8 *tadyathā lavaṇena suvarṇaṃ saṃdadhyāt, suvarṇena rajatam, rajatena traṇu, traṇuṇā sīsam, sīsena loham, lohena dāru, dāru carmaṇā, evaṃ eṣāṃ lokānām āsāṃ devatānām asyās trayyā vidyāyā vīryeṇa yajñasya viriṣṭaṃ saṃdadhāti*.
- 13) “Wichtiger ist die Metallgewinnung und das Handwerk des Schmiedes (*karmāra, -ru, ayastāpa*). So wurde, z. B. Gold gewaschen (ŚB 2.1.1.5), oder aus Erz geschmolzen (ŚB 6.1.3.5), in Feuer und durch Schmieden geläutert (JB 2.136; JUB 3.34.6).... Eisen (*syāma, kṛṣṇāyas, kārṣṇāyasa*), Kupfer (*loha, lohāyas/a/, lohītāyas/a/*), Erz oder Bronze (*ayas*), Glockengussmetall (bell-metal), eine andere Kupfer-Zinn-Legierung (*kaṃsa*), Zinn (*traṇu*), Blei (*sīsa*), Silber (*rajata*), und endlich Gold (*suvarṇa, hiraṇya*) wurden verarbeitet ...” As to the locations of JB, JUB, ŚB, see M. Witzel, “Early Indian History” (1995 on the Web) “JB, JUB: “where the rivers flow northwards,” the area between the Gaṅgā, Vindhya hills, Rajasthan desert and the sea: Matsya, the Baghelkhand and Malva. Eastern border unclear. ŚBK: Kosala, W. boundary with the Kuru-Pañcālas is the Sadānīrā.”
- 14) This is an alloy of lead and copper acc. to the Pali commentary; cf. CPD, s. v. *ārakūṭa: sīsatambe missetvā kaṭam vaṭṭalohaṃ* (Kkh-ṭ 254. 33 foll. ad Kkh 136. 20.)
- 15) Cf. also SN, Vol. 5, p. 92, and p. 9 in Gyana Ratna Sraman’s paper “Mental Hindrances — Based on Nikāya and Commentaries,” presented in the Annual meeting of the Japanese Association of Indological and Buddhist Studies at Bukkyo University, Kyoto, Sept. 7, 2003. There are other several passages of the same or a similar expression in the Pali canon.
- 16) For assistance and valuable information on the topic treated in this paper, I am indebted to Prof. Kazuyoshi Yoshimura of the Department of Chemistry at the Graduate School of Science, Kyoto University, Prof. Tetsuo Nakatsukasa of the Department of Classics, and Prof. Katsutoshi Uchiyama of the Department of

Greek Philosophy at the Graduate School of Letters, Kyoto University. I am also thankful to Miss Ayako Yagi for her help in collecting material from the Jaina canon.

[addendum]

It requires particular emphasis that I owe Dr. van der Krogt for the knowledge of association between *āraḥūṭa* and *ὄρετ-χαλκος*. See his Web page mentioned on page 7.

---

---

## THE OUTLINES OF THE MAIN ARTICLES IN THIS ISSUE

---

---

### Leśyā の起源について

徳 永 宗 雄

初期ジャイナ經典の一つ Uttarādhyayanasūtra の第 34 章に、生命体が各自の行為の結果に応じて六種の色 (Leśyā と呼ばれる) に変化しながら輪廻するという Leśyā 説が説かれていることから、ジャイナ教ではかなり古い段階からこの種の思想をもっていたと見られる。Leśyā 説については、これまで、後代のジャイナ教哲学の観点から研究者の関心を引くことはあったが、色名の起源や六色でなぜ一組になるのかといったことが疑問視されることはなかった。

ジャイナ教の Leśyā 説と似た考えはパーリ文献やマハーバーラタの『解脱法品』にもあり、前者ではアーजूヴィカ派の Abhijāti 説、後者では Sanatkumāra の六色説として説かれている。これら三種の六色説は色の名前と配列が若干異なっているが、六色一組という点では共通している。本稿ではまず三種の六色説を比較してジャイナの Leśyā 説が最も古い形態を保持することを示し、ついで、Leśyā 説の起源を探る。

マハーバーラタ『解脱法品』は金細工師等の例えを引いて六色説を述べており、このことから、紀元前一千年期の後半に「第二の都市化」を経験しつつあったガンジス中流域で発達する冶金技術と Leśyā 説に何らかの関係が予想される。そこで、この観点からヴェーダ文献、パーリ文献、叙事詩、カウティルヤの『実利論』、医学文献に見られる金属の種類とその色を調べると、Leśyā 説の六色が古代インドの主要六金属 (合金を含む) の色に対応していることが分かる。一部奇妙な色名も当時の金属業界の用語と理解すると分かりやすい。また、六色の一つに対応する真鍮 (āṛakūṭa) がギリシャ語 *ὄρει χαλκος* の借用語と見られることから、古代の真鍮製造技術、いわゆる「下方蒸留」が、「第二の都市化」時代に西方からバクトリアを経由してインドに導入されたと考えられる。

(京都大学大学院文学研究科教授／サンスクリット学)