Anatomy in the Bhagavatī Ārādhana

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1. Introduction

The Bhagavatī Ārādhana [BhĀ] or the Mūlārādhana by Śivārya (ca. 2nd century?)¹⁾ is one of the Digambar Jain Āgamas and is classified under the category of Carañānuyoga (“Expositions on [mendicant and lay] conduct”). Despite the importance of the BhĀ in the history of Jainism, its complete version has not been critically edited and translated,²⁾ and thus little research has been performed.³⁾ In this paper, I will provide a summary of BhĀ 1021–1029, where the knowledge of anatomy is given in the course of discussion of the impurity of the human body, and will make some remarks comparing the similar anatomical data found in the Tandulaveyāliya [Tand], the Carakasamhitā [CS], the Suśrutasaṃhitā [SS], the Yājñavalkyasmṛti [YS], the Visuddhimagga [Vism], and the Garbha-Upaniṣad [GU]. I believe that this initial research will contribute not only to the philological study of the BhĀ, but also to the study of the development of anatomy in the traditional Indian medicine.

2. Anatomy, Impurity of the Body, and *brahmavrata*

According to the BhĀ, the path to fasting unto death (*bhattapaccakkhāṇa*) consists of 40 stages.⁴⁾ The 33rd stage is called *anusatṭhi* ‘successive instruction’; at this stage, a candidate monk of fasting unto death (*ārāhaga / khavaga*) who is already sitting on the seat for *bhattapaccakkhāṇa* (*saṃthāra*) is whispered successively in his ears many important Jain doctrines by other Jain monk-teachers assisting his fasting (*ñijjavayā āyariyā*) to fortify his resolution to death. Anatomical data is presented at this stage, especially in the instruction of the fourth of the five great vows, *brahmavrata* ‘sexual restraint / celibacy.’ Roughly speaking, in the BhĀ the teachings of this vow consists of five parts: (1) **sexual restraint—871–931** (2) views on womanhood—932–996 (3) impurity and transiency of

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the human body—997–1063 (4) faults originating from association with young people—1064–1078 (5) **virtues of sexual restraint**, and the anatomical data (1021–1029) is found in (3), in other words, such a knowledge is said to show that the every part of the human body is impure and thus it should not be clinged to.

In effect, the instruction of *brahmavrata* is completed by the verse 931. But Śivārya adds (5) as the last portion and puts other three themes (2)–(4) between (1) and (5). Except (2), originally (3) and (4) might have been independent themes and have nothing to do with *brahmavrata*, but at least in the present form of the BhĀ, these two parts are strictly connected with celibacy. Especially in the case of (3), the verses which simply tell of the impurity or the transiency of the human body **in general** are sometimes intervened by the verses which emphasize the impurity of **woman's** body or the adoption of a celibate life of sexual restraint based on the impurity of **woman's body** (1032, 1043, 1049–50, 1060–61). At present, it is not clear whether Śivārya himself created such a constitution or not, and thus it calls for further consideration.⁵⁾

3. BhĀ 1021–1029

What follows is the original text on anatomy as well as my summary on the text:

<Text>

aṭṭhīṇi huṃti tiṇṇi hu sadāṇi bharidāṇi kuṇimamajjāe / savvammi c'eva dehe saṃdhīṇi havaṃti tā-vadiyā (1021)

ñhārūṇa ṇavasādāṃ sirāsādāṇi ya⁶⁾ havaṃti satt'eva / dehammi maṃsapesiṇa huṃti paṃc'eva ya sadāṇi (1022)

cattāri sirājālāṇi huṃti solasa ya kaṃḍarāṇi tahā / cha cc'eva sirākuccā dehe do maṃsarajjū ya (1023)

satta tayāo kālejjayāṇi satt'eva hoṃti dehammi / dehammi romaḥkoḍḍiṇa hoṃti asidī sadasahassā (1024)

pakkāmayāsayatthā ya aṃtaguṃjāo solasa havaṃti / kuṇimassa āsayā satta huṃti dehe maṃsassa (1025)

thūṇāo tiṇṇi dehammi hoṃti sattuttaram ca mammasadam / ṇava hoṃti vaṇamuhāṃ ṇiccam kuṇi-maṃ savamṭāṃ (1026)

dehammi macchulimaṃ aṃjalimittaṃ sayappamāṇeṇa / aṃjalimitto medo ujjō vi ya tattio c'eva (1027)

tiṇṇi ya vas'-aṃjalīo cha cc'eva ya aṃjalīo pittassa / siṃbho pittasamāṇo lohidaṃ addhāḍhagaṃ hodi (1028)

muttaṃ āḍhayamettaṃ uccārassa ya havaṃti chappacchā / viṣaṃ ṇahāṇi daṃtā battisaṃ hoṃti pa-

gadīe (1029)⁷⁾

3.1. Summary and Comments on BhĀ 1021–1029

What Śivārya says about anatomy in BhĀ 1021–1029 can be divided into the two categories: **(A) the parts of the body and their respective numbers**—(1) *aṭṭhi* (bone) - 300 (2) *saṃdhi* (joint) - 300? (*tāvadiyā*) (3) *ṇhāru* (cord / sinew) - 900 (4) *sirā* (vessel) - 700 (5) *mamsapesī* (muscle) - 500 (6) *sirājāla* (‘net’ of *sirā*) - 4 (7) *kaṃḍara* (a kind of cord so called) - 16 (8) *sirākucca* (‘brush’ of *sirā*) - 6 (9) *mamsarajju* (‘rope’ of flesh) - 2 (10) *tayā* (skin) - 7 (11) *kālejjaya* (Skt. *kāleyaka*) - 7 (12) *romakoḍi* (lit. ‘hair end,’ = hair) - 8000000 (13) *aṃtagumjā* (coils of intestine) - 16 (14) *āsaya* (receptacle) - 7 (15) *thūṇā* (‘pillar’) - 3 (16) *mamma* (vulnerable point) - 107 (17) *vaṇamuha* (‘mouth of a wound,’ here it is used as a synonym of *chidra* / *srotas*) - 9 (18) *ṇaha* (nail) - 20 (19) *daṃta* (tooth) - 32. **(B) the bodily constituents and their respective quantities**—(1) *macchulimṅga* (brain) - *añjali*[s] (*sayappamāṇa* / *svapramāṇa*, that is, everybody has different quantity of brain mass.) (2) *meda* (fat) - 1 *añjali* ? (3) *ujja* (= Skt. *ojas*, vital force) - ‘*tattiya*’ (?) (4) *vasā* (tissue-fat) - 3 *añjalis* (5) *pitta* (bile) - 6 *añjalis* (6) *simbha* (phlegm) - 6 *añjalis* (lit. ‘same as [the quantity of] *pitta*’) (7) *lohida* (blood) - 0.5 *āḍhaka* (8) *mutta* (urine) - 1 *āḍhaka* (9) *uccāra* (excrement) - 6 *prasthas*.

There are some obscure expressions in that list. **(I)** Both *tāvadiya* and *tattiya* in **(A)**-(2) and **(B)**-(4) are obviously the derivatives from Skt. *tāvat*, but the concrete numbers denoted by the two words are not very clear. As for the former, the commentator Aparājita explains it as *sandhipramāṇam api triśatam eva*, “the number of joints is also just 300,” that is, he understands *tāvadiya* as denoting the identical number of joints and bones. But as for the latter, Aparājita and another commentator Āśādhara give no comments. *Tattiya* may indicate *añjalimitto* in the same line, but what this very expression means is also vague (see IV). **(II)** *Aṃtagumjā* in **(A)**-(13) is explained as *antrayaṣṭayaḥ* by both Aparājita and Āśādhara, but the etymon of *-gumjā* is not given. Although it is possible that *gumjā* is a *deśi* which means *yaṣṭi*, it seems more probable that the word is derived from Skt. *kubjā*⁸⁾ ‘crooked,’ and *aṃtagumjā* means that the intestine ‘crooks,’ in other words, it is coiled 16 times in the human body. Compare the expression *antan ti ... ekavīsatiyā thānesu obhaggā....* “Intestine ... is ‘bent down’ at 21 points....” in Vism p.258. **(III)** It is unclear what the word *thūṇā* (Skt. *sthūṇā*) in **(A)**-(15) actually means in the human body. Aparājita gives no explanation on this word and in Āśādhara’s view it means *vāta-pitta-*

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śleṣmāṇaḥ. However, I have not been able to find such a usage of the word neither in the Śvetāmbar and Digambar Jain texts nor in the Buddhist and Hindu (especially medical) literature. (IV) There are two possibilities about the meaning of *aṃjalimitto medo* in 1027, (B)-(2); one is that it simply means ‘the quantity of fat is 1 *añjali*,’ and another is that people differ in the quantity of fat, if the word *sayappamāṇeṇa* in the first line qualifies all the quantities in that verse.

4. BhĀ 1021–1029 and Other Indian Texts

In the process of investigating anatomical knowledge presented in the BhĀ, it is important to look into its background from the viewpoint of not only the Jain but also Hindu intellectual history. This investigation will serve also to unravel the complicated textual layers of the BhĀ. Here I will devote some space to the discussion of the intellectual source[s] of Śivārya by giving a synoptic table in which the anatomical information of the BhĀ is compared with some other Indian texts, owing much to the great results of scholars and especially that of late professor C. Caillat.⁹⁾ Due to the space limitation, I omit the most of discussions and point out some synonymous words in the different traditions, such as *vaṇamuha* and *srotas*, *uccāra* and *purīṣa*, and so on.

<Table: Lists of the anatomical information in the several Indian texts>

	BhĀ	Tand	SS 3.5	CS 4.7	YS 3.84–107	Vism 249ff.	GU
<i>aṭṭhi</i>	300	300	300	360	360	300	360
<i>saṃdhi</i>	300?	160	210	200	200	180	180
<i>ñhāru</i>	900	900	900	900	900	900	900
<i>sirā</i>	700	700	700	700	700		700
<i>mamsapesi</i>	500	500 (*1)	500 (*2)	400	500	900	500
<i>sirājāla</i>	4		4				
<i>kaṃḍara</i>	16		16			60	
<i>sirākucca</i>	6		6				
<i>mamsarajju</i>	2		4 (<i>rajju</i>)				
<i>tayā</i>	7		7	6	6		
<i>kālejjaya</i>	7	*25 pala					
<i>romakoḍi</i>	8000000	9900000 (*3)		29956 × 2	546750000 (*4)	(*5)	45000000
<i>aṃtagumjā</i>	16					21	
<i>āsaya</i>	7	2 / 5 / 6	7 (*6)	15 (<i>koṣṭha</i>)		6 / 7	

<i>thūṇā</i>	3						
<i>mamma</i>	107	107	107	107	107 / 108 (*7)		107 / 108 (*8)
<i>vaṇamuha</i>	9	9	9	9	9	9	
<i>macchuliṃga</i>	<i>añjali</i> [s]	1 <i>prastha</i>		0.5 <i>āḍhaka</i>	0.5 <i>āḍhaka</i>		
<i>meda</i>	1 <i>añjali</i> ?			2 <i>añjalis</i>	2 <i>añjalis</i>		2 <i>prasthas</i>
<i>ujja</i>	<i>tattiya</i> (?)			0.5 <i>añjali</i> (*9)	0.5 <i>añjali</i> (*9)		
<i>vasā</i>	3 <i>añjalis</i>	0.5 <i>āḍhaka</i>		3 <i>añjalis</i>	3 <i>añjalis</i>		
<i>pitta</i>	6 <i>añjalis</i>	1 <i>kuḍava</i>		5 <i>añjalis</i>	5 <i>añjalis</i>		1 <i>prastha</i>
<i>simbha</i>	6 <i>añjalis</i>	1 <i>kuḍava</i>		6 <i>añjalis</i>	6 <i>añjalis</i>		1 <i>āḍhaka</i>
<i>lohida</i>	0.5 <i>āḍhaka</i>	1 <i>āḍhaka</i>		8 <i>añjalis</i>	8 <i>añjalis</i>		
<i>mutta</i>	1 <i>āḍhaka</i>	1 <i>āḍhaka</i>		4 <i>añjalis</i>	4 <i>añjalis</i>		variable (*10)
<i>uccāra</i>	6 <i>prasthas</i>	1 <i>prastha</i>		7 <i>añjalis</i>	7 <i>añjalis</i>		
<i>ṇaha</i>	20			20	20	20	
<i>daṃṭa</i>	32	32	32	32	32	32	32

*Notes on the table: (*1) Woman: 470; eunuch (*paṃḍaga*): 480. (*2) Woman: 520. (*3) 35000000, if the number of hair and beard is included. (*4) This is the number of *roma*, and those of hair and beards are 300000. (*5) In Khuddakapāṭha-Aṭṭhakathā p.51 (PTS ed.) the expression *navanavutilo-makūpasahassa* ‘99000 pores’ is found. (*6) Woman has eight (plus *garbhāśaya*). (*7) On this difference, see Y. Ikari and N. Watase, *Japanese Translation of the Yājñavalkyasmṛti* (Tokyo, 2002), p.321. (*8) The GU with the commentary by Nārāyaṇa: 107; the GU with the commentary by Śaṅkarānanda: 108. (*9) The term used is not *ojas* but *ślaiṣmika ojas*. (*10) It differs in accordance with eating and drinking.

5. Some remarks

The above comparison reveals some noteworthy points for the consideration of the source[s] of the BhĀ about anatomy. As a conclusion, I would like to list up these points:

(1) The relationship between the BhĀ and the Tand: the accordances of numbers and quantities are relatively partial. The quantities of bodily constituents especially differ widely. This means that the Tand is not the only source for the BhĀ (and of course *vice versa*), though it is possible to say that one might have referred to the other as one of many materials, or both might have quoted at length from the same source[s] unknown to us.

(2) Comparing BhĀ with classical Indian medical literature, the anatomical knowledge—especially the numbers of the body parts—of the BhĀ is relatively closer to that of the SS than that of the CS, but does not strictly corresponds to. Thus it is possible to assume that the author of the BhĀ was more familiar with the medical tradition of the SS than that of

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the CS, but that he did not totally acquire his anatomical knowledge from the tradition of SS and used further (unknown) material[s].

(3) There are many discrepancies in the quantities of bodily constituents among all the texts used above. On the one hand, this fact seems to show that the author of BhĀ knew some different sources which are not known to us. On the other hand, the possibility that a quantity of a unit might differ among different areas and different ages may not be excluded. For example, 2 *añjalis* in area A and 5 *prasthas* in area B might in fact denote the same quantity. However, producing evidence of such a possibility is very difficult, if not impossible.

I would like to thank Dr. Stella Zhivkova for correcting my English.

- 1) K. L. Wiley, *Historical Dictionary of Jainism* (Maryland, Tronto, Oxford, 2004), p.xxvi. On another chronology, for example, see K. Oetjens, *Śivāryas Mūlārāḍhanā: Ein Beitrag zur Kenntnis der Sterbefasten-Literatur der Jainas* (Hamburg, 1976), in which he gave older date (1st century A.D.).
- 2) Oetjens (*supra*) made the critical edition and German translation of BhĀ 1–70 and 2088–2159, but for some reasons this doctoral thesis has not been published yet.
- 3) Thus in the present state of the study on the BhĀ, it is hard to answer whether Śivārya himself composed (or at least compiled) every verse of the BhĀ, or there are some later additions in it. So the expressions in this paper such as “Śivārya’s knowledge,” “Śivārya says,” etc. are expedient.
- 4) On each stage in detail, see S. Settar, *Pursuing Death*, Dharwad, 1990, pp.25ff.
- 5) The close comparison with the Tand may be helpful for the consideration about this problem, for in the Tand also the instructions about anatomy, embryology, and osteology are connected with the impurity of the human body (108–153), and these teachings are followed by the teachings about many defects of women (154–166). At the conference I briefly touched upon this point.
- 6) Although J does not read *ya*, I adopt the reading of D from the metrical point of view.
- 7) It should be noted that the Ārāḥaṇāpaḍāyā by Virabhadda [ĀrāḥPaḍV] has the parallel or similar verses of BhĀ 1021–1029; BhĀ 1021: ĀrāḥPaḍV 602; BhĀ 1022: ĀrāḥPaḍV 603; BhĀ 1023: ĀrāḥPaḍV 604; BhĀ 1024: ĀrāḥPaḍV 605; BhĀ 1025: ĀrāḥPaḍV 606; BhĀ 1026 : the second line of ĀrāḥPaḍV 606 and the first line of 607; BhĀ 1027: the second line of ĀrāḥPaḍV 607; BhĀ 1028: ĀrāḥPaḍV 608; BhĀ 1029: ĀrāḥPaḍV 609. The full version of the correspondence table is now being prepared by me.
- 8) Though it is hard to explain why the gender of this word is feminine.
- 9) C. Caillat, “Sur les doctrines médicales du Tandulaveyāliya,” *The Adyar Library Bulletin* 38,

1974, pp.102–114. My knowledge about traditional Indian anatomy owes also to: G. J. Meulenbeld, *A History of Indian Medical Literature*, Volume IA Text / Volume IB Annotation, Groningen, 1999; T. Yamashita, “The Anatomical Knowledge of Ancient Indian Medicine (Āyurveda),” *Bulletin of the Society for Western and Southern Asiatic Studies, Kyoto University*, 40, 1994, pp.1–23 (in Japanese); T. Yamashita, “Śārīrasthāna of the Āyurveda—A Comparative Study—,” *Indo shisōshi kenkyū* 7, 1995, pp.105–113; K. G. Zysk, “The Evolution of Anatomical Knowledge in Ancient India, with Special Reference to Cross-Cultural Influences,” *JAOS* 106-4, 1986, pp.687–705.

Abbreviations

- ĀrāhPaḍV Ārāhaṇāpaḍyā by Virabhadda, *Paiṇṇayasuttāim Part II*, Jaina-Āgama-Series No.17-1, Bombay, 1987.
- GU Garbha-Upaniṣad. *Upaniṣadāṃ samuccayah*, Ānanndāśramasaṃskṛtagrantāvaliḥ granthāṅkaḥ 29, Pune, 1925.
- CS Carakasamhitā. *The Charakasamhitā by Agniveśa: Revised by Charaka and Dṛdhabala with the Āyurveda-Dīpikā Commentary of Chakrapāṇidatta*. Kashi Sanskrit Series 228, Varanasi, 1984.
- Tand Tandulaveyāliya. *Paiṇṇayasuttāim Part I*, Jaina-Āgama-Series No.17-1, Bombay, 1984.
- BhĀ Bhagavatī Ārādhana. *Ācārya Śivārya viracita Bhagavatī Ārādhana (Ācārya Aparājita Sūri racita Vijayodayā Ṭikā tathā tadanūsārī Hindī Ṭikā sahita)*, Jivarāj Jain Granthamālā Hindī vibhāga puṣpa 36, Solāpur, 2004. [J]
 Śrī Śivakoṭi ācārya viracita Mūlārādhana (aparanāma Bhagavatī Ārādhana), Śrī Svāmī Devendra-kīrti Dīgambar Jain Granthamālā 2, Solāpur, 1935. [D]
- YS Yājñavalkyasmṛti. *The Yājñavalkyasmṛti with the Commentary Bālakṛida of Viśvarūpāchārya*, New Delhi, 1982.
- Vism Visuddhimagga. *The Visuddhi-Magga of Buddhaghosa*, London: The Pali Text Society, 1975.
- SS Suśrutasamhitā. *Suśrutasamhitā of Suśruta with the Nibandhasaṅgraha Commentary of Śrī Dalhanāchārya and the Nyāyacandrikā Pañjikā of Śrī Gayadāsāchārya on Nidānasthāna*, Jaikrishnadas Ayurveda Series 34, Varanasi, 1997.

⟨Key words⟩ *Bhagavatī Ārādhana*, anatomy, Āyurveda

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