

## WHAT CAN THE LIFESPANS OF RṢABHA, BHARATA, ŚREYĀṂSA, AND ARA TELL US ABOUT THE HISTORY OF THE CONCEPT OF MOUNT MERU?

Ruth Satinsky

### 1. Introduction

Willibald Kirfel (1920/1990), in his major study on Indian cosmology, *Die Kosmographie der Inder nach den Quellen dargestellt*, compares the brahmanical, buddhist, and jaina cosmological systems, and gives an account of Mount Meru's characteristics in all three systems. He concludes that the early brahmanical cosmology forms the basis of the later cosmology found in the epics and *purāṇas*,<sup>1</sup> and that of the buddhist and jaina systems, as well.<sup>2</sup> Suzuko Ohira (1994: 22, §69) also adheres to Kirfel's point of view, and claims in her study of the *Viyāhapannatti* (= *Bhagavatīsūtra*): “[...] both Jainas and Buddhists built their own cosmographical features after the models of the Hindus.”<sup>3</sup>

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<sup>1</sup> “Die ältere Epoche der brāhmaṇischen Kosmographie ist aber nicht nur für die jüngere Voraussetzung und Grundlage, sondern auch für die Systeme der Buddhisten und Jaina die erst in späterer Zeit entstanden und auf den gegebenen Vorstellungen weiterbauen mussten” (Kirfel 1920/1990: 2).

<sup>2</sup> Apart from Willibald Kirfel's general work on Indian cosmology, scholarly literature has focused primarily on the symbolism of Mount Meru. See, e.g., Eliade, 1947/1969 and 1949/2004; von Heine-Geldern, 1930 and 1942; Mus, 1935/1990; Bosch, 1960; Mabbett, 1983; Granoff 1997/2009. These studies have presented Mount Meru variously as the “cosmic axis,” “home of the gods,” or “heaven on earth.” W. Randolph Kloetzli (1985) has argued that the shape of Mount Meru in the *Viṣṇu Purāṇa* is defined by the logic of stereographic projection; and (2010), that there may be a link between the names of the purāṇic Mount Meru and the “Climate of Meroë,” one of the “Seven Ptolemaic Climates.” Natalia R. Lidova (forthcoming) has studied the relationship between “The Cosmography of Mount Meru and Early Pūjā Cult.” See also Sircar 1966/1967: 33ff. for his study of conceptual interactions between brahmanical, buddhist and jaina cosmologies.

<sup>3</sup> “The cosmographical framework of the Jainas must have begun to be set down upon entering the third canonical stage [which Ohira proposes dating between 1<sup>st</sup> c. B.C. /1<sup>st</sup> c. A.D. – 3<sup>rd</sup> c. A.D.], and an inquiry into astronomical science was indispensable for this. As comparative studies of the ancient Indian cosmographies reveal [Ohira, fn 12: ‘For instance, cf. Kirfel: *Die Kosmographie der Inder*.’], both Jainas and the Buddhists built their own cosmographical features after the model of the Hindus. The Jainas started to collect the then astronomical theories and data from the *Jyotiṣa Vedāṅga* pertaining to the orbit, motion, position of the sun, and so on, and the waning and waxing of the moon, the conjunctions of the *nakṣatras*, etc., etc., which are recorded and refuted in the *Sūrya-Candra p.* in order to prove that the relevant Jaina positions were more advanced than others. This proves that the Jainas had already mastered the then available astronomical sciences and came out with their own views and theories by the beginning of the 3<sup>rd</sup> century A. D. and came out with their own views

Contrary to Kirfel's hypothesis, this paper will present some provisional ideas that suggest that the concept of Mount Meru entered brahmanical literature under the influence of the culture out of which Jainism and Buddhism arose, the culture of Greater Magadha.<sup>4</sup> Thus, the introduction of the concept of Mount Meru into brahmanical literature in the *Mahābhārata*<sup>5</sup> might, I propose, be the result of a different historical reality than that which Kirfel perceives. That is to say, one that gives rise to a syncretic form of brahmanical cosmology.<sup>6</sup> This hypothesis is based on the following observations:

1) The cosmological concept of Mount Meru (hereafter defined as: “the golden mountain at the centre of the earth and the universe, around which the heavenly bodies revolve”) is prominent in the earliest jaina and buddhist literature, but strikingly absent from brahmanical literature prior to the *Mahābhārata*.<sup>7</sup>

2) Its late introduction into brahmanical literature marks the shift from vedic to epic and purāṇic cosmology at a time when brahmanical contacts with Buddhism, Jainism, and their region of origin, Greater Magadha, were possible and presumably established.<sup>8</sup>

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and theories by the beginning of the 3<sup>rd</sup> century A.D” (Ohira, 1994: 22, § 69).

<sup>4</sup> The term “Greater Magadha” has been used by Johannes Bronkhorst 2007: 3ff. to refer to the region east of the confluence of the Gaṅgā and Yamunā (present-day Uttar Pradesh and Bihar) where the spiritual traditions of Buddhism, Jainism, Ājīvikism and other heterodox sects originated and manifested their own distinct spiritual ideologies, such as the belief in karmic retribution and rebirth. According to Bronkhorst, the brahmanization of this region did not begin to occur until sometime around 185 BCE.

<sup>5</sup> See below: Mbh 6.7.8-19, 27 (Appendix C); Mbh 3.102.2-7 (Appendix D); Mbh 3.160.25-28 (Appendix E).

<sup>6</sup> In addition to the concept of Mount Meru, there are other new cosmological concepts, and cosmographical features, which enter brahmanical literature for the first time in the *Mahābhārata*. For example: the heavenly Gaṅgā; Jambūdvīpa; the alternate concentric rings of continents, mountains and oceans; a cyclic notion of time (*kalpas*, *yugas*, etc.). See González-Reimann 2002 for his study of the *yuga* theory in the *Mahābhārata*. He argues (p. 2) that the *yuga* theory was “a late superimposition” onto the *Mahābhārata*, and points out (p. 7) that “the *yuga* theory is conspicuously absent from vedic literature.” Commenting on González-Reimann's hypothesis, Bronkhorst 2007: 71 believes that “[...] we may have to see in the cyclic vision of time an element that entered into the brahmanical tradition from the culture of Greater Magadha at a time when the core of the *Mahābhārata* (its first written version) was already in existence.” And Parpola 2013: 30 underlines the fact that certain aspects of brahmanical cosmology, such as astral names, appear rarely in vedic literature, yet frequently in the epics and *purāṇas* and are traceable to non-ṛgvedic traditions from “the non-brahmanical country of Magadha.”

<sup>7</sup> See below, Appendix B: “The Absence of the Concept of Mount Meru in Vedic literature.”

<sup>8</sup> See Bronkhorst 2007: 1ff. for a comparison between the brahmanic culture situated west of the confluence of

3) “The number eighty-four and its multiples,” a special group of numbers associated with cosmological phenomena and entities of importance, is prominent in the jaina and buddhist canons, and in Ājīvikism, but absent from brahmanical literature prior to the *Mahābhārata*.<sup>9</sup> The first occurrence in brahmanical literature of a number from this group with cosmological purport is found in *Mahābhārata* (Mbh 6.7.10)<sup>10</sup>, which states that Mount Meru rises 84,000 *yojanas* above the earth.

Concerning “the number eighty-four and its multiples,” it should be noted that my hypothesis does not rely upon research into the symbolism of these numbers. For, although these numbers are very prominent, their significance is nowhere explained. Thus, regardless of any symbolic meaning they may have possibly (but not necessarily) had for the various religious traditions in the early historical period, there *is* evidence for these numbers associated with cosmological phenomena or entities in the jaina and buddhist canons, and in Ājīvikism, and *none* for them in brahmanical literature prior to the *Mahābhārata*.<sup>11</sup> This, I believe, is a sufficient basis upon which to question their historical implications.<sup>12</sup> Consider the examples which follow.

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the Gaṅgā and the Yamunā, and the culture of Greater Magadha situated to the east; and a study of their interactions between the second century BCE and the second or third century CE.

<sup>9</sup> See below, Appendix A: “The Absence of the Concept of the Number Eighty-Four and its Multiples in Vedic Literature.”

<sup>10</sup> See below, Mbh 6.7.10 in Appendix C.

<sup>11</sup> W. Randolph Kloetzli (personal communication, 13 December 2011) has speculated that the number 84,000 could be “derived from some formula for relating the seven planets to the twelve signs of the zodiac ( $7 \times 12 = 84$ ).” John Brockington (personal communication, 8 January 2012) has proposed that the number eighty-four represents the seven days of the week multiplied by the twelve months of the year. The number seven, he says, is prominent with the Ājīvikas, and important in the Iranian tradition, where one finds the concept of the week very strong. Walther Schubring 1935/1962/2000: 28 has stated: “it should be remembered that the figure of eighty-four or either of its plurals frequently appear with the Jains and elsewhere where they only fail to give precise details for something founded on fact.”

<sup>12</sup> Numbers from this group associated with important cosmological phenomena or entities will be privileged here. However, it is to be noted that these numbers are also frequently associated with non-cosmological phenomena or entities in the jaina and buddhist canonical literature. This indicates to what extent these numbers were truly popular and embedded in these traditions. See, for example, KS<sub>3</sub> 213 and KS<sub>3</sub> 214 in fn 13, below.

## 2. The Number Eighty-Four and its Multiples in the Jaina and Buddhist Canons<sup>13</sup>

### 2.1 The lifespans of Ṛṣabha, Bharata, Śreyāṃsa and Ara

The *Pajjosavaṇākappa*, a Śvetāmbara canonical text, states that Ṛṣabha's earthly lifespan was 8,400,000 *puvva*.<sup>14</sup>

The *Jambuddīvapannatti*<sup>15</sup>, the sixth *upaṅga* of the Śvetāmbara canon, also attests to 8,400,000 *puvva* for Ṛṣabha's lifespan (JDP<sub>1</sub> 2.40; JDP<sub>2</sub> 2.88)<sup>16</sup> and the same number of *puvva* for Bharata's lifespan (JDP<sub>1</sub> 3.87.2; JDP<sub>2</sub> 3.225).<sup>17</sup>

The *Viyāhapannatti*, the fifth *aṅga* of the Śvetāmbara canon, states, more generally, that the lifespans of *naradevā* (*cakkavaṭṭī*) last a minimum of seven hundred years and a maximum of 8,400,000 *puvva* (Viy<sub>4</sub> 12.9.13); and those of *devāhidevā* (*titthagara*), a minimum of seventy-two years and a maximum of 8,400,000 *puvva* (Viy<sub>4</sub> 12.9.15)<sup>18</sup>.

The *Triṣaṣṭiśalākāpuruṣacaritra*, a non-canonical Śvetāmbara universal history,<sup>19</sup>

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<sup>13</sup> The following examples from the jaina and buddhist canons are not exhaustive.

<sup>14</sup> KS<sub>3</sub> 227: *teṇaṃ kāleṇaṃ teṇaṃ samaeṇaṃ Usabhe arahā Kosalie vīsaṃ [...] caurāsīṃ puvva-saya-sāhassāiṃ savv'-āuyam pālaittā [...]*; KS<sub>2</sub> 227: “In that period, in that age the Arhat Rishabha the Kosalian lived [...] eight millions four hundred thousand years on the whole” (tr. Jacobi, 1884: 284f.). 8,400,000 *puvva* = 1 *tuṭitāṅga* (*tuḍiāṅga*) (= 8,400,000<sup>3</sup> years). The celestial lifespans of the Tīrthaṅkaras are longer and calculated in *sāgarovama*. See, fn 22 below.

The *Pajjosavaṇākappa* also associates “the number 84 and its multiples” with some non-cosmological subjects related to Ṛṣabha:

KS<sub>3</sub> 213: *Usabhassa ṇaṃ arahao Kosaliyassa caurāsī gaṇā caurāsī gaṇaharā ya hotthā.*

KS<sub>3</sub> 214: *Usabhassa ṇaṃ arahao Kosaliyassa Usabhaseṇa - pāmokkhāo caurāsī samaṇa sāhassāo ukkosiya samaṇa - sampayā hotthā:* “The Arhat Rshabha, the Kosalian, had eighty-four Ganas and eighty-four Ganadharas (213). The Arhat Rshabha, the Kosalian, had an excellent community of eighty-four thousand Sramanas with Rshabhasena at their head” (214) (tr. Jacobi, 1884: 284).

<sup>15</sup> The *Jambuddīvapannatti* contains biographies of Ṛṣabha and Bharata, as well as important sections on cosmography and cosmology.

<sup>16</sup> JDP<sub>2</sub> 2.88: [...] *caurāsīṃ puvvasayasahassāiṃ savvāuyam pālaittā [...]*.

<sup>17</sup> JDP<sub>2</sub> 3.225: *tae ṇaṃ se bharahe kevalī [...] caurāsīdam puvva-saya-sahassādam savv 'āuyam pālaittā [...]*.

<sup>18</sup> Viy<sub>4</sub> 12.9.13: *naradevāṇaṃ bhaṃte pucchā | goyamā jahanneṇaṃ satta vāsasayāiṃ ukkoseṇaṃ caurāsīṃ puvvasayasahassāiṃ ||*

Viy<sub>4</sub> 12.9.15: *devāhidevāṇaṃ bhaṃte pucchā | goyama jahanneṇaṃ bāvattariṃ (bāsattariṃ?) vāsāiṃ ukkoseṇaṃ caurāsīṃ puvvasayasahassāiṃ ||*

<sup>19</sup> The universal history developed out of the commentarial literature of the *Āvassayanijjuttī* which describes the six obligatory actions (*āvassaya*) to be recited daily by ascetics. See Leumann 1934.

also confirms Ṛṣabha's and Bharata's lifespans of 8,400,000 *puvva*, and mentions Śreyāṃsa's lifespan of 8,400,000 years, and Ara's of 84,000 years.<sup>20</sup>

## 2.2 Calculable (Gaṇiya) Time Measures

In the Śvetāmbara and Digambara traditions, “the number eighty-four and its multiples” are omnipresent in the category of “calculable” (*gaṇiya*) time measures.<sup>21</sup> Their function is to designate calculable time periods of great magnitude within the *osappiṇī* (“down-moving”) and *ussappiṇī* (“up-moving”) two half-motions of jaina cosmic time.<sup>22</sup> Hence, the use of these numbers to designate the extraordinarily long earthly lifespans of Ṛṣabha, Bharata, Śreyāṃsa, and Ara.<sup>23</sup>

Textual paradigms for the Śvetāmbara *gaṇiya* time measures are found in the *Viyāhapannatti* (Viy<sub>3</sub> 6.7.114) and *Jambuddīvapannatti* (JDP<sub>1</sub> 2.24; JDP<sub>2</sub> 2.4.4); and those of

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<sup>20</sup> See TŚPC 1931-1962/2013: 220-22 for the lifespans of Ṛṣabha, Bharata, Śreyāṃsa, Ara and the other formakers; and Kirfel 1959b: 142f. for a table of their lifespans compiled from the universal history.

<sup>22</sup> Time is conceived of as a great wheel (*kālacakka*), turning without beginning nor end, and divided into two half-motions, *osappiṇī* (“down-moving”) and *ussappiṇī* (“up-moving”), which are then subdivided into six time periods respectively. The six *osappiṇī* periods are: 1) an “extremely happy” *suṣumā-suṣumā period* that lasts 4 x 10<sup>14</sup> *sāgarovama* years; 2) a “happy” *suṣumā* period that lasts 3 x 10<sup>14</sup> *sāgarovama* years; 3) a “more happy than unhappy” *suṣumā-duḥṣamā* period that lasts 2 x 10<sup>14</sup> *sāgarovama* years; 4) a “more unhappy than happy” *duḥṣamā-suṣumā* period that lasts 1 x 10<sup>14</sup> *sāgarovama* years, less 42,000 calendrical years; 5) an “unhappy” *duḥṣamā* period that lasts 21,000 calendrical years; and 6) a “very unhappy” *duḥṣamā-duḥṣamā* period that lasts 21,000 calendrical years. When the sixth period ends in destruction, the upward moving period begins with the six periods occurring in reverse order than those of the *osappiṇī* (JDP<sub>1</sub> 2.25). The “down-moving” (*osappiṇī*) or “up-moving” (*ussappiṇī*) motions only exist in the *karmabhūmi*, not in the five Videha regions of the innermost Two-and-a-Half Island continents (Aḍādvīpa) of the Middle World (*madhyaloka*).

<sup>23</sup> The celestial lifespans of the formakers, as opposed to their earthly ones, are measured in time periods called *sāgarovama*. The *Jambuddīvapannatti* (JDP<sub>1</sub> 2.25; JDP<sub>2</sub> 2.6.2) and the *Viyāhapannatti* (Viy<sub>3</sub> 6.7.116) state that 1 *sāgarovama* = 10 *koṭākoṭi* of *paliovama*. However, Walther Schubring 1935/1969/2000: 226 claims that 1 *sāgarovama* = 8,400,000<sup>19</sup>; and Paul Dundas 2005: 2025 claims that 1 *sāgarovama* = 8,400,000 x 10<sup>19</sup> years. Unfortunately, they do not cite the textual references for their claims, but if either Schubring or Dundas is correct, this would imply that “the number eighty-four and its multiples” are embedded within all of the calculations for the celestial lifespans of the formakers based on time periods measured in *sāgarovama*. For example, the *Pajjosavanākappa* states that Ṛṣabha lived in the celestial world before being born into his earthly existence for thirty *sāgarovama* (KS<sub>1</sub> 191); Pārśva for twenty *sāgarovama* (KS<sub>1</sub> 149); Ariṣṭanemi, for thirty-three *sāgarovama* (KS<sub>1</sub> 162); and Mahāvīra for twenty *sāgarovama* (KS<sub>1</sub> 2).<sup>23</sup> There is also a passage in the second book of the *Āyāra* (ĀS 2.15.2) that attests to Mahāvīra's lifespan of twenty *sāgarovama* in the celestial world before he was born into his earthly existence. Although the second book of the *Āyāra* is considered by the commentators to be later than the first, the reference to the length of the celestial lifespan of Mahāvīra may, nonetheless, signify that “the number eighty-four and its multiples” underlie the notion of *sāgarovama*. The *Āyāra* is one of the earliest texts of the jaina canon, and contains the first extensive biography of Mahāvīra.

the Digambara *gaṇiya* time measures in the *Tiloyapannatti* (TP 4.282 ff.), *Trilokasāra* and *Trilokadīpikā*.<sup>24</sup> The *Viyāhapannatti* and *Jambuddīvapannatti* cite the *gaṇiya* time measures from the smallest unit of time (one *samaya*) up to the largest “calculable” unit (one *sīsapahelika*). From the time unit of eighty-four *vāsasayasahassa* upwards, “the number eighty-four and its multiples” are omnipresent in this system of time measures.

According to *Viy*<sub>3</sub> 6.7.114<sup>1</sup>:

8,400,000 years	= 1 <i>puvvaṃge</i>
8,400,000 <i>puvvaṃgā</i>	= 1 <i>puvve</i> (= 70,560,000,000,000years <sup>1</sup> )
8,400,000 <i>puvā</i>	= 1 <i>tuḍiaṃge</i>
8,400,000 <i>tuḍiaṃge</i>	= 1 <i>tuḍie</i>
8,400,000 <i>tuḍie</i>	= 1 <i>aḍaḍaṃge</i>
8,400,000 <i>aḍaḍaṃge</i>	= 1 <i>aḍa</i>
8,400,000 <i>aḍā</i>	= 1 <i>avavaṃge</i>
8,400,000 <i>avavaṃge</i>	= 1 <i>avave</i>
8,400,000 <i>avave</i>	= 1 <i>huhuaṃge</i>
8,400,000 <i>huhuaṃge</i>	= 1 <i>huhue</i>
8,400,000 <i>huhue</i>	= 1 <i>uppalāṃge</i>
8,400,000 <i>uppalāṃge</i>	= 1 <i>uppale</i>
8,400,000 <i>uppale</i>	= 1 <i>paumaṃge</i>
8,400,000 <i>paumaṃge</i>	= 1 <i>paume</i>
8,400,000 <i>paume</i>	= 1 <i>ṇaliṇaṃge</i>
8,400,000 <i>ṇaliṇaṃge</i>	= 1 <i>ṇaliṇe</i>
8,400,000 <i>ṇaliṇe</i>	= 1 <i>atthañiuraṃge</i>
8,400,000 <i>atthañiuraṃge</i>	= 1 <i>atthañiure</i>
8,400,000 <i>atthañiure</i>	= 1 <i>auaṃge</i>
8,400,000 <i>auaṃge</i>	= 1 <i>auē</i>
8,400,000 <i>auā</i>	= 1 <i>pauaṃge</i>
8,400,000 <i>pauaṃge</i>	= 1 <i>paue</i>
8,400,000 <i>paue</i>	= 1 <i>ṇauaṃge</i>
8,400,000 <i>ṇauaṃge</i>	= 1 <i>ṇauē</i>
8,400,000 <i>ṇauē</i>	= 1 <i>cūliāṃge</i>
8,400,000 <i>cūliāṃge</i>	= 1 <i>cūliā</i>
8,400,000 <i>cūlie</i>	= 1 <i>sīsapaheliāṃge</i>
8,400,000 <i>sīsapaheliāṃge</i>	= 1 <i>sīsapaheliyā</i>

<sup>24</sup> Kirfel 1920/1990: 208 ff. bases his study of Digambara cosmology exclusively on the *Trilokasāra* (*Trailokyasāra*) by Nemicandra, and the *Trilokadīpikā* (*Trailokyadīpikā*) by Indravāmadeva. However, I have also included the *Tiloyapannatti* (*Trilokaprajñapti*) by Yativṛṣabha because: much of the *Trilokasāra* seems to be based on the *Tiloyapannatti*; the *Trilokasāra* (TLS Jain: 2003) does not contain the portion on time measures; and I was unable to consult the *Trilokadīpikā*. See Kirfel 1920/1990: 337-39 for tables of the Śvetāmbara and Digambara *gaṇiya* time measures compiled from the *Viyāhapannatti*, *Jambuddīvapannatti*, *Aṇuogadārā*, *Jīvābhigama* with Malayagiri's commentary, *Tattvārthasūtra* by Ūmāsvātī, *Trilokadīpikā* and *Trilokasāra*. "The number eighty-four and its multiples" are equally prominent in the Digambara time measures, but there are some variations (e.g., the highest *gaṇiya* number in the Digambara system is 1 *acalappa* = 8,400,000<sup>16</sup> x 84<sup>15</sup>).

### 2.3 The Number 84,000 and the Height of Mount Meru

The Digambara *Tiloyapannatti*<sup>25</sup> states that there are five Merus (here also called Mandara) in all. One in the centre of Jambūdīva (Jambūdīvīpa): 99,000 *yojanas* above the earth, and 1,000 *yojanas* below it;<sup>26</sup> two on the island-continent of Dhādaīsaṇḍa (Dhātakīkhaṇḍa): 84,000 *yojanas* above the earth, and 1,000 *yojanas* below it, respectively;<sup>27</sup> and two are on the half island-continent of Pokkhara (Puṣkarārdha): 84,000 *yojanas* above the earth, and 1000 *yojanas* below it, respectively.<sup>28</sup> The *Trilokasāra*<sup>29</sup> provides the same information as the *Tiloyapannatti*.<sup>30</sup>

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<sup>25</sup> TP 4.2.10.1803-1804; TP 4.4.2616-2617; TP 4.6.2830; TP 4.6.2836; TP 4.6.2857.

<sup>26</sup> On Jambūdīva:

TP 4.2.10.1803: *varise mahāvidehe bahumajjhe maṇḍaro mahāselo* / (“In the very middle of Mahāvideha is Mandara ...”) (tr. Jain and Jain, 2012: 367, modified by R. Satinsky (idem for fns 26-27)).

TP 4.2.10.1804: *joyaṇa-sahassa-gāḍo ṇava-ṇavadi-sahassa-metta-uccheho* / (“1000 *yojanas* deep, and 99,000 *yojanas* high...”) (Jain and Jain, 2012: 367).

<sup>27</sup> On Dhādaīsaṇḍa:

TP 4.4.2616: *taddīve puvāvara-vidēha-vassāṇa hodi bahumajjhe / puvva-pavaṇiṇada-rūvo ekkekko maṇḍaro selo* // ([On Dhādaīsaṇḍa], “in the very middle of the eastern and western Videha regions, there is a Mandara in each region.”) (Jain and Jain 2012: 511).

TP 4.4.2617: *joyaṇa-sahassa-gāḍhā cūlasīdi-sahassa-joyaṇucchehā* / (“They [i.e., the two Mandaras attested to in TP 4.4.2616] are 1000 *yojanas* deep and 84,000 *yojanas* high.”) (Jain and Jain 2012: 511).

<sup>28</sup> On Pokkhara:

TP 4.6.2830: *doṇhaṃ isugārāṇaṃ vicchāle hoṃti doṇiṇa vijayavarā / cakkaddha-samāyārā ekkekka tāsu merugiri* 7 ll: “In each of the two Videha regions shaped like a whole in the wheel, there is one Mount Meru” (Jain & Jain 2012: 550).

TP 4.6.2836: *mukkā merugiriṇḍaṃ kulagiri-pahudīṇaṃ dīva-tidayammi / vitthāruccheha-samo keī evaṃ parūvetiṃ* ll: “The width and height of all the mountains **excluding** Mount Meru are similar in all three *dvīpas*” [i.e., Jambūdīva, Dhādaīsaṇḍa, and Pokkhara.] (Jain & Jain 2012: 551).

TP 4.6.2857: *dhādaīsaṇḍa-pavaṇiṇada-doṇṇaṃ meruṇa savva-vaṇṇaṇayaṃ / ettheva ya vattavvaṃ gayadaṃtaṃ bhaddasāla-kuru-rahidaṃ* ll: “The descriptions of Dhādaīsaṇḍa and Pokkhara should also be understood as that of Pokkhara except for that of Mount Tusk-faced, Bhaddasāla, and Kuru” [i.e., the four Merus (two on Dhādaīsaṇḍa, and two on Pokkhara) are 84,000 *yojanas* high and 1000 *yojanas* deep respectively] (Jain & Jain 2012: 555).

<sup>29</sup> TLS 5.605 ff.; TLS 2003: 303.

<sup>30</sup> The *Thāṇa* (Thāṇ 2.3.344; 2.3.350; 4.2.337) also attests that in addition to Mandara on Jambūdīvīpa, there are four other Mandaras: two on Dhātakīkhaṇḍa, and two on Puṣkarārdha, respectively. However, the text does not mention their heights. According to Schubring 1935/1962/2000: 229, the two Mandaras on Dhātakīkhaṇḍa are also attested to in the *Samavāya* (92a); *Sthānāṅgavṛitti* (167b); and Umāsvāti's *Tattvārthasūtra* (on 3, 11). The *Jambuddīvapannatti* (JDP<sub>1</sub> 4.132; 4.137) only mentions Mandara on Jambūdīvīpa rising 99,000 *yojanas* above the earth and descending 1000 *yojanas* below it. Kirfel 1920/1990: 250-52 confirms that the heights of the two Mandaras on Dhātakīkhaṇḍa and the two on Puṣkarārdha are 84,000 *yojanas* above the earth and 1000 *yojanas*

In the Pāli canon, the *Aṅguttara Nikāya* states that Sineru (Meru) is 84,000 *yojanas* high and wide, and that it descends 84,000 *yojanas* beneath the sea.<sup>31</sup>

There are other significant occurrences of the number 84,000 in buddhist literature. For example, there are the 84,000 *dharmaskandhas* of the Buddha<sup>32</sup> - i.e., portions of the teaching relating to laws (*dharmaskandhavaśena caturaśītisahasravidham*)<sup>33</sup> - and the 84,000 *stūpas* containing the relics of Śākyamuni<sup>34</sup> which were distributed by Aśoka out of the original eight portions.

In the Bhīṣmaparvan of the *Mahābhārata* (Mbh 6.7.10),<sup>35</sup> as well as in the *purāṇas*,<sup>36</sup> it is stated that Meru rises 84,000 *yojanas* above the earth and descends 16,000 *yojanas* below it. The height of Mount Meru in the *Mahābhārata* is the first occurrence in brahmanical literature of a number with cosmological significance from the group of “the number eighty-four and its multiples.”<sup>37</sup>

## 2.4 The Number 8,400,000 for Jainas and Ājīvikas

The *Viyāhapannatti* (Viy<sub>4</sub> 13.1.4; 13.1.10-16) lists the seven regions of the Lower World

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below it, respectively. His sources are the *Jīvābhigamasūtra*, *Lokaprakāśa*, *Jambūdvīpasamāsa*, *Trailokyadīpikā*, and *Trailokyasāra* for Dhātakīkhaṇḍa; and *Jīvābhigamasūtra*, *Lokaprakāśa*, *Jambūdvīpasamāsa*, and *Trailokyadīpikā* for Puṣkarārḍha. For the editions of these texts, see Kirfel 1920/1990: 208f. The *Sūyagaḍa* (Sūy 1.6.10-11) also attests that Meru rises 99,000 *yojanas* above the earth and descends 1000 *yojanas* below it. However, my thanks to Peter Flügel (personal communication, 15 June 2014) for pointing out to me that this passage is considered to be an interpolation.

<sup>31</sup>Hardy, 1958: 100: *Sineru bhikkave pabbatarājā caturāsītiyojanasahassāni āyāmena caturāsītiyojanasahassāni vitthārena caturāsītiyojanasahassāni mahāsamudde ajjhogāḷho caturāsītiyojanasahassāni mahāsamuddā accuggato.*

<sup>32</sup> According to Lamotte 1958: 162, the number of *dharmaskandhas* of the Buddha is generally given as 84,000, but there are variant versions with the number 80,000.

<sup>33</sup> *Theragāthā* 1024, as given in Lamotte 1958: 162: *Dvāsītiṃ buddhato gaṇhi, dve sahasāni bhikkhuto caturāsīti sahasāni ye 'me dhammā pavattino.*

<sup>34</sup> According to Lamotte 1958: 162, the number of *stūpas* containing the relics of Śākyamuni is generally given as 84,000, but there are variant versions with the number 80,000.

<sup>35</sup> See also the apparatus at Mbh 6.7.9 for some numerical variations.

<sup>36</sup> See, eg., *Viṣṇu Purāṇa* 2.2.8; *Matsya Purāṇa* 1.113.40; *Vāyu Purāṇa* 1.34.49–50.

<sup>37</sup> See below, Appendix A: “The Absence of the Concept of the Number Eighty-Four and its Multiples in Vedic Literature.”



(*ahe-loga*) and gives the number of abodes of hell (*niray'-āvāsa*) for each respective region. The total number of places of hell is 8,400,000.<sup>38</sup>

Also in the *Viyāhapannatti* (Viy<sub>1</sub> 15.101; Viy<sub>2</sub> 15.68), the number 8,400,000 refers to the number of *mahākappas* through which a person must pass before he can reach salvation according to the Ājīvikas.<sup>39</sup> The same concept, attributed to the teachings of Makkhali Gosāla, is expressed in the Sāmmaññaphala Sutta of the buddhist *Dīgha Nikāya* (DN 1 p. 54).<sup>40</sup>

Padmanabh S. Jaini (1980: 228) also draws attention to the fact that the number 8,400,000 has been retained in [the jaina] system to the present-day, although in a

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<sup>38</sup> Viy<sub>4</sub> 13.1.4; 13.1.10; 13.1.12-16: “[...] *tīsaṃ nirayāvāsasayasahassā pannattā* (3,000,000) | [...] *paṇavisam sayasahassā* (2,500,000) | [...] *pannarasa sayasahassā* (1,500,000) | [...] *dasa sayasahassā* (1,000,000) | [...] *tiṇiṇa sayasahassā* (300,000) | [...] *ege paṃcūne sayasahasse* (95,995) | [...] *paṃca* (5) | [i.e., 3,000,000 + 2,500,000 + 1,500,000 + 1,000,000 + 300,000 + 95,995 + 5 = 8,400,000 (R. Satinsky)].

<sup>39</sup> Viy<sub>1</sub> 15.101; Viy<sub>2</sub> 15.68: *savve te caūrāsītīm mahākappa-saya-sahassāiṃ satta divve satta sañjūhe satta sannigabbhe satta paūṭṭa-parihāre pañca kammāṇi saya-sahassāiṃ saṭṭhiṃ ca saḥassāiṃ chac ca sae tinni ya kammaṃse aṇupuvveṇaṃ khavaūtā tao pacchā sijjhanti bujjhanti muccanti parinivvānti savvadukkhānam antaṃ kareṃsu vā karenti vā karissanti vā* ||: “All those who have reached or are reaching or will reach salvation must finish in order 8,400,000 *mahākappas*, seven divine births, seven groups, seven sentient births, seven ‘abandonments of transmigration’ (*paūṭṭa-parihāra*), 500,000 *kammās*, and 60,000 and 600 and the three parts of *kamma*. Then, being saved, awakened, set free, and reaching *nirvāṇa* they have made or are making or will make an end of all sorrow” (tr. Basham 1951: 219, and modified by Bronkhorst 2007: 44).

<sup>40</sup> DN 1 p. 54: “[...] *cullāsīti mahā-kappuno sata-sahassāni yāni bāle ca paṇḍite ca sandhāvītvā saṃsaritvā dukkhass' antaṃ karissanti. Tattha n' atthi: “Imināhaṃ sīlena vā vatena vā tapena vā brahmacariyena vā aparipakkaṃ vā kammaṃ paripācēssāmi, paripakkaṃ vā kammaṃ phussa-phussa vyanti-karissāmīti.” H'evaṃ n' atthi doṇa-mite sukha-dukkhe pariyanta-kaṭe saṃsāre, n' atthi hāyana-vaḍḍhane n' atthi ukkaṃsāvakkamaṃse. Seyyathā pi nāma sutta-guḷe khitte nibbeṭhiyamānam eva phaleti, evam eva bāle ca paṇḍite ca sandhāvītvā saṃsaritvā dukkhass' antaṃ karissantīti*”: “There are [...] 8,400,000 great *kalpas*, through which fool and wise alike will take their course, and make an end of sorrow. There is no question of bringing unripe *karma* to fruition, nor of exhausting *karma* already ripened, by virtuous conduct, by vows, by penance, or by chastity. That cannot be done. *Saṃsāra* is measured as with a bushel, with its joy and sorrow and its appointed end. It can neither be lessened nor increased, nor is there any excess of deficiency of it. Just as a ball of thread will, when thrown, unwind to its full length, so fool and wise alike will take their course, and make an end of sorrow” (tr. Bronkhorst 2007: 43, who explains that he omits additions made by Basham on the basis of Buddhaghosa's commentary).

My thanks to Johannes Bronkhorst for bringing this passage to my attention (Bronkhorst, personal communication, 15 December 2011). This passage is cited by Basham 1951/1989: 14-15 n. 3; 1954/1959: 295 as being representative of Makkhali Gosāla's teachings in the Sāmmaññaphala Sutta of the buddhist *Dīgha Nikāya*; and is also cited by Bronkhorst 2007: 42 ff.. Both Basham 1951: 219 and Bronkhorst 2007: 44 compare DN 1 pp. 53-54 with Viy<sub>1</sub> 15.101 and Viy<sub>2</sub> 15.68. They conclude that these passages must be derived from a common source. Bronkhorst 2007: 44 states that: “It also constitutes an important argument to look upon the passage in the Pāli Sāmaññaphala Sutta as providing historical information about the Ājīvikas, even though there appear to be no precise parallels in Chinese and Tibetan.”

significantly altered context.<sup>41</sup> This number is for Jainas the sum total of conceivable birth-situations (*yoni*) (i.e., the four destinies divided into all their sub-categories, sub-sub-categories, etc.) in which souls may find themselves, again and again, as they circle through *saṃsāra*.<sup>42</sup>

### 3. The Concept of Mount Meru in the Jaina and Buddhist Canons

The *Jambuddīvapannatti* (JDP<sub>1</sub> 4.132)<sup>43</sup> describes Mount Meru (here called Mandara<sup>44</sup>) as being situated in the very middle of Jambuddīva, the innermost circular continent at the centre of the earth and the universe; and (JDP<sub>1</sub> 7.159 ff.)<sup>45</sup> as the mountain around which the suns, moons, constellations, and planets revolve. The *Sūrapannatti* (Sūrap 19.22.10-11;

<sup>41</sup> I.e., different from that of the Ājīvikas.

<sup>42</sup> Here, Jaini 1980: 228 n. 26 supplies quotations from the *Tattvārthasūtra* and from its commentary the *Sarvārthasiddhi*.

<sup>43</sup> JDP<sub>1</sub> 4.132: [pra. 1] *kahi naṃ bhante jambuddīve dīve mahāvidehe vāse mandare ṇāmaṃ pavvae paṇṇatte | [u.] goyamā uttarakurāe dakikhaṇeṇaṃ devakurāe uttareṇaṃ puvvavidehassa vāsassa paccatthimeṇaṃ avaravidehassa vāsassa puratthimeṇaṃ jambuddīvassa bahumajjhadesabhāe ettha naṃ jambuddīve dīve mandare ṇāmaṃ pavvae paṇṇatte | [...]*.

<sup>44</sup> The *Jambuddīvapannatti* (JDP<sub>1</sub> 4.138; JDP<sub>2</sub> 4.260) states that Mount Meru (Mandara) has sixteen names: 1. Mandara, 2. Meru, 3. Manorama, 4. Sudaṃsaṇa, 5. Sayaṃpabha, 6. Girirāyā, 7. Rayaṇoccaya, 8. Siloccaya, 9. Majjhe logassa, 10. Nābhī, 11. Accha, 12. Sūriavatta, 13. Sūriāvaraṇa, 14. Uttama, 15. Disādi, 16. Vaḍiṃsa.

<sup>45</sup> JDP<sub>1</sub> 7.159: [pra] *jambuddīve naṃ bhaṃte dīve kai caṃdā pabhāsiṃsu pabhāsaṃti pabhāsissaṃti kai sūriā tavaiṃsu tavemti tavissaṃti kevaiā ṇakkhattā jogam joiṃsu joaṃti joissaṃti kevaiā mahaggahā cāraṃ cāriṃsu caraṃti carissaṃti kevaiāo tārāgaṇa koḍakoḍṭo sobhiṃsu sobhaṃti sobhissaṃti [u] goyamā do caṃdā pabhāsiṃsu do sūriā tavaiṃsu chappaṇṇaṃ ṇakkhattā jogam joiṃsu chāvattaraṃ mahaggahasayaṃ cāraṃ cariṃsu |*

*egam ca saya sahasaṃ tettisaṃ khalu bhava sahasāim |  
nava y sayā paṇṇāsā tārāgaṇakoḍikodīnaṃ ||*

JDP<sub>1</sub> 7.164 (the solar orbits with their distance from Meru): [pra 1] *jambuddīve naṃ bhaṃte dīve maṃdarassa pavvayassa kevaiāe abāhāe savvabbhaṃtare sūramaṃḍale paṇṇatte | [u] goyamā coālisaṃ joaṇa sahasāim aṭṭha ya vīse joaṇa sae abāhāe savvabbhaṃtare sūramaṃḍale paṇṇatte |*; JDP<sub>1</sub> 7.175 (the lunar orbits): [pra 2] *jambuddīve naṃ bhaṃte dīve kevaiiṃ ogāhittā kevaiā candamaṃḍalā paṇṇattā | [u] goyamā jambuddīve dīve asīyaṃ sayam ogāhittā paṃca candamaṃḍalā paṇṇattā |*; JDP<sub>1</sub> 7.182 (the constellation orbits): [pra 1] *kai naṃ bhaṃte ṇakkhattamaṃḍalā paṇṇattā | [u] goyamā aṭṭha ṇakkhattamaṃḍalā paṇṇattā*; JDP<sub>1</sub> 7.198 (the stellar orbits): [pra 1] *mandarassa naṃ bhante pavvayassa kevaiāe abāhāe joisaṃ carai | [u] goyamā ikkārasahiṃ joaṇa saehiṃ abāhāe joisaṃ cāraṃ carai |*

See also, Kirfel 1920/1990: 285 for references to similar passages in the manuscripts he consults; and Schubring 1935/1962/2000: 234.

19.23)<sup>46</sup> and the *Tiloyapannatti* (TP 4.435)<sup>47</sup> also attest to the sun and the moon revolving around Meru; and the *Pajjosavaṇākappa* (KS<sub>2-3</sub> 39)<sup>48</sup> mentions the concept in one of the fourteen dreams of Triśalā, the soon-to-be mother of Mahāvīra.<sup>49</sup> However, the concept of a central mountain around which the heavenly bodies revolve is absent from vedic literature, and only found for the first time in brahmanical literature in the *Mahābhārata*.<sup>50</sup>

The Pāli canon also attests to Mount Meru, but calls it Sineru or Neru.<sup>51</sup> There is a *Sineru Sutta* in the *Samyutta Nikāya*,<sup>52</sup> and a *Neru Jātaka*.<sup>53</sup>

In buddhist literature, Meru is associated with two systems. The first is the *cakkavāla*, or “single world” system,<sup>54</sup> which describes the cosmos as a flat disc with heavens and meditation realms above, and hells below. There are seven concentric golden mountain ranges with Mount Meru at the centre, and the *cakkavāla*, a circular mountain range made of iron, lies at the outermost perimeter of the disc. The second is the system known as “*sāhasra* cosmology,” which has a thousand universes each with its own Meru, seven concentric rings of mountains, a sun, and a moon.<sup>55</sup> In both systems the wind, moon, sun, and stars revolve around Meru.

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<sup>46</sup> Sūrap 19.22.10: *te merum aṇucaramā, padāhiṇāvattamaṇḍalā savve | aṇavaṭṭhitehiṃ jogehiṃ, caṇḍā sūrā gahagaṇā ya ||* Sūrap 19.22.11: *ṇakkhattatāragāṇam, avaṭṭhitā maṇḍalā muṇeyavvā | tevi ya padāhiṇāvattam eva merum aṇucaramāti ||* See also Sūrap. 19.23.

<sup>47</sup> TP 4.435: *jambūdīve merum kuvvaṃti padāhiṇam taraṇi-caṇḍā |*

<sup>48</sup> KS<sub>2-3</sub> 39: *tao [...] | meru giri sayaya pariyattayaṃ / visālam sūram [...] ||*

<sup>49</sup> The *Sūyagaḍa* (Sūy 1.6.11) also states: “It [Meru] touches the sky and is immersed in the earth; round it revolve the suns; it has the colour of gold, and contains many Nandana (parks); on it the Mahēndras enjoy themselves” (tr. Jacobi, 1895: 288). However, as mentioned above (p. 9, n. 34), this passage is an interpolation.

<sup>50</sup> See below: Appendix B: “The Absence of the Concept of Mount Meru in Vedic Literature”; Appendix C: *Mahābhārata* (Mbh) 6.7.8–19, 27; Appendix D: *Mahābhārata* (Mbh) 3.102. 2-7; and Appendix E: *Mahābhārata* (Mbh) 3.160.24-29.

<sup>51</sup> Other names for Meru are Hemameru (*Cūlavamsa* 32.79), and Mahāneru (*Majjhima Nikāya* 1.38); see Malalasekera, 1960: 1136.

<sup>52</sup> Feer, 1960: 457–59; Woodward, 1965: 384–86.

<sup>53</sup> Fausbøll, 1962–64, 3: 246–48; Cowell, 1895–1907, 3: 159f. My thanks to Jens-Uwe Hartmann who clarified for me (Hartmann, personal communication, 7 September 2014) that there are no known manuscripts or fragments of the *Sineru Sutta* or the *Neru Jātaka* in Sanskrit.

<sup>54</sup> Kloetzli, 1983: 23ff.; Kloetzli, 1987/2005: 2026f.

<sup>55</sup> Morris, 1961: 227f.; Woodward, 1970: 207.

#### 4. Conclusion

The examples presented here not exhaustive, but attest, nonetheless, to the prominence of “the number eighty-four and its multiples” and the concept of Mount Meru in the earliest jaina and buddhist literature; as well as the concept of 8,400,000 great *kalpas* in Ājīvikism.

Although the earliest jaina texts which have come down to us are relatively late, and their dating problematic, if the examples in the jaina canon are considered together with the other numerous examples in the Pāli canon, and those in Ājīvikism, this strongly suggests that the concept of Mount Meru entered brahmanical literature under the influence of the culture of Greater Magadha.

It is possible that the concept of Mount Meru was introduced into brahmanical literature as part of the overall response to the crisis that Brahmanism faced under the Nandas and Mauryas. At that time, Buddhism, Jainism, and other heterodox sects were favoured by rulers over Brahmanism - a situation which threatened Brahmanism's survival.<sup>56</sup> Brahmanism responded by developing various strategies to regain its former prominence in society. The reworking of vedic cosmology, and the introduction of new cosmological concepts from the cultural milieu of Greater Magadha, may have been one of those strategies.

For example, in vedic literature, the heavenly Sarasvatī falls down to earth on the world tree at Prakṣa Prāsravaṇa<sup>57</sup>, but in the *Mahābhārata* (Mbh 6.7.27)<sup>58</sup>, it is the heavenly Gaṅgā that falls down to earth on the summit of Mount Meru. By reworking and/or combining certain traditional vedic cosmological concepts, with those that were popular and prominent in the cultural milieu of Greater Magadha, one might speculate that the redactors of the *Mahābhārata* were better armed, ideologically, to persuade rulers of their superiority as ritual specialists.<sup>59</sup> The result, as we know, was that the Brahmins eventually succeeded in

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<sup>56</sup> See Bronkhorst 2007; 2008; 2011 for his analysis of the impact of the culture of Greater Magadha on brahmanical culture.

<sup>57</sup> Vedic Brahmins sought access to the heavenly world, which they equated with the heavenly Sarasvatī (or Milky Way), by performing a *yātsattra* (“continuous sacrifice”) known as the *gavām ayana* (“march of the cows”). For one year, they walked upstream along the banks of the Sarasvatī river with 100 cows and a bull, and performed sacrifices. They moved the sacrificial fire each day until they reached the river's source, which streamed forth from the world tree at Prakṣa Prāsravaṇa. The world tree was held to be the centre of the world (i.e., the centre of both heaven and earth) (JUB 4.26.12: *plakṣasya prāsravaṇasya pradeśamātrād udak tat pṛthivyai madhyam*); and the entrance to the heavenly world. The concepts of the heavenly Sarasvatī and the world tree at Prakṣa Prāsravaṇa in the vedic texts are replaced by the concepts of the heavenly Gaṅgā and Mount Meru in the *Mahābhārata*. See Witzel, 1984: 213-79; and Hildebeitel, 2001: 148-52.

<sup>58</sup> See, Appendix C.

<sup>59</sup> The Brahmins were ritual specialists renowned and feared for their ability to control and manipulate supernatural powers for the benefit or detriment of rulers and their kingdoms (e.g., the conquest of enemies,

making themselves indispensable to rulers again, and not only as ritual specialists, but also as counselors to rulers for statecraft and governing, interpreters of divine signs and omens, pronouncers of curses and blessings, etc. (Bronkhorst, 2007: 271-73; 2008: 6 ff.; 2011: 30-31). From the *Mahābhārata* onwards, the concept of Mount Meru became the pivot of brahmanical cosmology, and remained henceforth unchanged and prominent in brahmanical literature and sacred geography to the present day.

### **Appendix A: The Absence of the Concept of the Number Eighty-Four and its Multiples in Vedic Literature**

In contrast to the frequent occurrences of “the number eighty-four and its multiples” in jaina and buddhist literature, the few examples to be found in vedic literature are not associated with concepts of cosmological significance. According to the *Vedic Word-Concordance*, in *Kāṭhaka Saṃhitā* (5.2.5) the number eighty-four occurs in a long list of numbers (4, 8, 12, 16, etc., up to 100). In the *Ṛgveda Prātiśākhya* (sūtra 949) the number also appears in a list of numbers (80, 84, 88, 92, etc., up to 104). In the *Maitri* or *Maitrāyaṇīya Upaniṣad* (3.3) the number eighty-four occurs in the phrase: “The totality of beings which, determined by the three *guṇas*, evolve from eighty-four lacs of wombs, constitute the variety of its forms.” Since this Upaniṣad is late, and this fits perfectly with the uses of eighty-four in Ājīvikism and Jainism, this is a clear case of borrowing. *Jaiminīya Brāhmaṇa* (2.59) mentions the number eighty-four as being the total number of syllables (*akṣaras*) when the *gāyatrī* (24) and *uṣṇih* (28) and *anuṣṭubh* (32) are added together; when the *pañkti* (40) and *triṣṭubh* (44) are added together; and when the *br̥hatī* (36) and *jagatī* (48) are added together. Finally, the occurrence of the number eighty-four in *Atharvaveda Pariśiṣṭa* (52.2.2) is too late to be of significance, nor is its utilisation in this phrase pertinent to this study.

Thus, the number eighty-four or its multiples, associated with phenomenon or entities of cosmological significance, appear very late in brahmanical literature, i.e., not before the *Mahābhārata*. This fact provisionally excludes the possibility that the cosmological concept of this group of numbers originated in the brahmanical context.

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protection of kingdoms, acquisition of rain, male progenitors, a place in heaven, etc.).

## Appendix B: The Absence of the Concept of Mount Meru in Vedic Literature<sup>60</sup>

The *Ṛgveda* mentions the mountains of Himavat (10.121.4)<sup>61</sup> and Mūjavat (10.34.1). The later Saṃhitās and Brāhmaṇas mention Trikakud (*Atharvaveda* 4.9.8; *Śatapatha Brāhmaṇa* 3.1.3.12) or Trikakubh (*Maitrāyaṇī Saṃhitā* 3.6.3; *Kāṭhaka Saṃhitā* 23.1; *Vājasaneyi Saṃhitā* 25.4; *Pañcaviṃśa Brāhmaṇa* 22.14). The *Śatapatha Brāhmaṇa* (1.8.1.8) mentions *manor avasarpaṇam*, the mountain to which Manu's vessel is taken by the fish to save him from being washed away by the flood. The *Taittirīya Āraṇyaka* mentions Mahāmeru (1.7.1–3),<sup>62</sup> Krauñca (1.31.2), and Maināka (1.31.2). However, none of these texts introduce the concept of a mountain at the centre of the world called Mount Meru, or called by any other name, and nor do they mention a mountain around which the heavenly bodies revolve.

## Appendix C: *Mahābhārata* (Mbh) 6.7.8–19, 27

*parimaṇḍalas taylor madhye meruḥ kanakaparvataḥ* || Mbh 6.7.8cd ||

*ādityataruṇābhāso vidhūma iva pāvakaḥ* |

*yojanānāṃ sahasrāṇi ṣoḍaśādhāḥ kila smṛtaḥ* || 9 ||

*ucchais ca caturāśītir yojanānāṃ mahīpate* |

*ūrdhvam antaś ca tiryak ca lokān āvṛtya tiṣṭhati* || 10 ||

*tasya pārśve tv ime dvīpās catvāraḥ saṃsthitāḥ prabho* |

*bhadraśvaḥ ketumālaśca jambūdvīpās ca bhārata* |

*uttarās caiva kuravaḥ kṛtapuṇyapraṭiśrayāḥ* || 11 ||

*vihagaḥ sumukho yatra suparṇasyātmajaḥ kila* |

*sa vai vicintayāmāsa sauvarṇān prekṣya vāyasān* || 12 ||

*merur uttamamadyānām adhamānāṃ ca pakṣiṇām* |

*aviśeṣakaro yasmāt tasmād enaṃ tyajāmy aham* || 13 ||

*tam ādityo 'nuparyeti satataṃ jyotiṣām patiḥ* |

*candramās ca sanakṣatro vāyuś caiva pradakṣiṇam* || 14 ||

<sup>60</sup> The textual references in this section are taken from Kirfel 1920/1990: 11 nos. 1–5.

<sup>61</sup> Himavat also appears in *Atharvaveda* 4.9.9; 5.4.2, 8; 5.25.7; 6.24.1; 6.95.3; 12.1.11; 19.39.1; *Taittirīya Saṃhitā* 5.5.11; *Vājasaneyi Saṃhitā* 24.30; 25.12; and *Aitareya Brāhmaṇa* 8.14.3 See Kirfel, 1920/1990: 11 n. 1.

<sup>62</sup> The first mention of Mount Meru in brahmanical literature is found in *Taittirīya Āraṇyaka* 1.7.1–3, where it is called “Mahāmeru.” The reference is brief, and is without any indication of Mahāmeru's place within a broader cosmological system. *Taittirīya Āraṇyaka* 1.7.1–3: *sa mahāmerum na jahāti | na hi śekum iva mahāmerum gantum iti | gacchanta mahāmerum* |

*sa parvato mahārāja divyapuṣpaphalānviṭaḥ |*  
*bhavanair āvṛtaḥ sarvair jāmbūnadamayaiḥ śubhaiḥ || 15 ||*  
*tatra devagaṇā rājan gandharvāsurarākṣasāḥ |*  
*apsarogaṇasamyuktāḥ śaile krīḍanti nityasāḥ || 16 ||*  
*tatra brahmā ca rudraś ca śakraś cāpi sureśvaraḥ |*  
*sametya vividhair yajñair yajante 'nekadakṣiṇaiḥ || 17 ||*  
*tumburur nāradaś caiva viśvāvasur hahā huhūḥ |*  
*abhigamyāmarasreṣṭhāḥ stavaistunvanti cābhibho || 18 ||*  
*saptarṣayo mahātmānaḥ kaśyapaś ca prajāpatīḥ |*  
*tatra gacchanti bhadrām te sadā parvaṇi parvaṇi || 19 || ...*  
*punṇyā punṇyatamair juṣṭā gaṅgā bhāgīrathī śubhā |*  
*pataty ajaśravegena hrade cāndramase śubhe | 27a–d |*

#### **Appendix D: Mahābhārata (Mbh) 3.102.2-7:**

*lomaśa uvāca |*  
*adrirājaṃ mahāsailaṃ maruṃ kanakaprvatam |*  
*udayāstamaye bhānuḥ pradakṣiṇam avartata || Mbh 3.102.2 ||*  
*taṃ tu drṣṭvā tathā vindhyaḥ śailaḥ sūryam athābravīt |*  
*yathā hi merur bhavatā nityasāḥ parigamyate |*  
*pradakṣiṇaṃ ca kriyate mām evaṃ kuru bhāskara || 3 ||*  
*evam uktas tataḥ sūryaḥ śailendraṃ pratyabhāṣata |*  
*nāham ātmecchayā śaila karomy enaṃ pradakṣiṇam |*  
*eṣa mārگاḥ pradiṣṭo me yenedaṃ nirmītaṃ jagat || 4 ||*  
*evam uktas tataḥ krodhāt pravṛddhaḥ sahasācalaḥ |*  
*sūryācandramasor mārگاṃ roddhum icchan paraṃtapa || 5 ||*  
*tato devāḥ sahitāḥ sarva eva; sendrāḥ samāgamya mahādrirājam |*  
*nivārayām āsur upāyatas taṃ; na ca sma teṣāṃ vacanaṃ cakāra || 6 ||*  
*athābhijagmur munim Āśramasthaṃ; tapasvinaṃ dharmabhṛtām*  
*variṣṭham/agastyam atyadbhutavīryadīptaṃ; taṃ cārtham ūcuḥ sahitāḥ surās*  
*te ||*

#### **Appendix E: Mahābhārata (Mbh) 3.160.24-29:**

*etaṃ jyotīṃṣi sarvāṇi prakarṣan bhagavān api |*  
*kurute vitamaskarmā ādityo 'bhīpradakṣiṇam || Mbh 3.160.24 ||*

*astam prāpya tataḥ samdhyām atikramya divākaraḥ |*  
*udīcīm bhajate kāṣṭhām disam eṣa vibhāvasuḥ || 25 ||*  
*sa merum anuvṛttaḥ san punar gacchati pāṇḍava |*  
*prānmukhaḥ savitā devaḥ sarvabhūtahite rataḥ || 26 ||*  
*sa māsaṁ vibhajan kālāṁ bahudhā parvasamdhīṣu |*  
*tathaiva bhagavān somo nakṣatraiḥ saha gacchati || 27 ||*  
*evam eṣa parikramya mahāmerum atandritaḥ |*  
*bhāvayan sarvabhūtāni punar gacchati mandaram || 28 ||*  
*tathā tamisrahā devo mayūkhair bhāvayañ jagat |*  
*mārgam etad asaṁbādham ādityaḥ parivartate || 29 ||*

## BIBLIOGRAPHY

### Primary Sources

*Abhidharmakośabhāṣyam*. Translated from the French Translation by La Vallée Poussin into English by Leo M. Pruden. Vol. 2. Berkeley, California: Asian Humanities Press, 1923-1931/1991.

AN<sub>1</sub> = Aṅguttara-Nikāya. In: *The Aṅguttara-Nikāya*, vol. 1 (*Ekanipāta, Dukanipāta, and Tikanipāta*). Edited by Richard Morris. Second Edition, Rev. A. K. Warder. London: Pali Text Society / Luzac & Co., 1885/1961.

AN<sub>2</sub> = Aṅguttara-Nikāya. In: *The Aṅguttara-Nikāya*, vol. 4 (*Sattaka-Nipāta, Aṭṭhaka-Nipāta, and Navaka-Nipāta*). Edited by E. Hardy. London: Pāli Text Society / Luzac and Co, 1899/1958.

AN<sub>3</sub> = Aṅguttara-Nikāya. In: *The Book of the Gradual Sayings (Aṅguttara-Nikāya) or More-Numbered Suttas*, vol. 1 (*Ones, Twos, Threes*). Translated by Frank L. Woodward. London: Pali Text Society / Luzac & Co., 1932/1970.

*Atharvaveda-Pariśiṣṭas*. In: *The Pariśiṣṭas of the Atharvaveda*. Edited by George Melville Bolling & Julius von Negelein, with Hindi Notes by Ram Kumar Rai. Varanasi: Chaukhambha Orientalia, 1976 (Chaukhambha Prachyavidya Granthamala 1).



ĀS = *Āyāra (Ācārāṅgasūtra)*. In: *Gaina Sūtras*. Part 1. The Ākârânga Sūtra. The Kalpa Sūtra. Translated from Prākṛit by Hermann Jacobi. The Sacred Books of the East 22. Edited by F. Max Müller, 1-213. Oxford: Clarendon Press, 1884.

The *Commentary on the Dhammapada*, vol. 3. Edited by H. C. Norman. London: Pali Text Society / Luzac & Co., 1906/1970.

DN = *The Dīgha Nikāya*. 3 vols. Edited by T. W. Rhys Davids & J. E. Carpenter. London: Pāli Text Society, 1890-1911.

*Jaiminīya Brāhmaṇa of the Sāmaveda II.1-80 (Gavāmayana)*. Edited by Lokesh Chandra. Nagpur: International Academy of Indian Culture / Arya Bharati Press, 1950 (Sarasvati Vihara Series 21.)

Jātaka<sub>1</sub> = *The Jātaka or Stories of the Buddha's Former Births*. Translated from the Pāli by Various Hands. Edited by Edward B. Cowell. Cambridge: Cambridge University Press, 1895–1907.

Jātaka<sub>2</sub> = *The Jātaka Together with its Commentary, Being Tales of the Anterior Births of Gotama Buddha for the First Time Edited in the Original Pāli*. Edited by Viggo Fausbøll. 6 vols. London: Pali Text Society / Luzac and Co., 1877–96/1962–64.

JDP<sub>1</sub> = *Jambuddīvapannatti (Jambūdvīpaprajñapti)*. In: *Illustrated Jambudveep Prajñapti Sutra. Basic Prakrit Text: Hindi-English Translation Alongwith Elaboration and Illustrations*. Editor-in-chief: 'Jain Dharma Diwakar' 'Adhyatma Yugapurush' Pravartak Shri Amar Muni ji Maharaj. Associate Editor: Srichand Surana 'Saras.' English Translator: Rajkumar Jain. Illustrator: Trilok Sharma. Delhi: Padma Prakashan, 2006.

JDP<sub>2</sub> = *Jambuddīvapannatti (Jambūdvīpaprajñapti)*. In: *Uvaṅgasuttāṇi 2*. Vācanā Pramukha: Ācārya Tulsī. Saṃpādaka: Yuvācārya Mahāprajña, 357-588. Lāḍnūṃ: Jaina Viśva Bhāratī, 2002.

JUB = “The Jāiminīya or Talavakāra Upaniṣad Brāhmaṇa: Text, Translation and Notes.” (Edited and Translated by Hans Oertel.) *Journal of the American Oriental Society* 16 (1896) 79-260.

KS<sub>1</sub> = *Pajjosavaṇākappa (Kalpasūtra)*. In: *Kalpasūtra. Eighth Chapter of the Daśāśrutaskandha of Bhadrabāhu with Hindi and English Versions and Coloured Reproductions of Original 16th Century Miniatures*. Editor and Hindi Translator: Mahopadhyaya Vinayasagar. English Translator: Mukund Lath. Note on Paintings: Smt. Chandramani Singh. Third Edition. Mumbai: Akrti Arts, 2006 (Prakrit Bharati Series 1)

KS<sub>2</sub> = *Pajjosavaṇākappa (Kalpasūtra)*. In: *Gaina Sūtras*. Part 1. The Ākârânga Sūtra. The Kalpa Sūtra. Translated from Prākṛit by Hermann Jacobi. The Sacred Books of the East 22. Edited by F. Max Müller, 217-311. Oxford: Clarendon Press, 1884.

KS<sub>3</sub> = *Pajjosavaṇākappa (Kalpasūtra)*. In: *The Kalpasūtra of Bhadrabāhu*. Edited with an Introduction, Notes and Prākṛit-Saṃskṛit Glossary by Hermann Jacobi. Leipzig: In Commission bei F. A. Brockhaus, 1879. (Reprint Kessinger Publishing: Abhandlungen für die Kunde des Morgenlandes 7, 1)

*Kāṭhaka Saṃhitā*. In: *Kāṭhaka: Die Saṃhitā der Kāṭha-Śākhā*. Edited by Leopold von Schroeder. 4 vols. Wiesbaden: F. Steiner Verlag, 1900–10/1970–72.

Mbh<sub>1</sub> = *Mahābhārata*. In: *The Mahābhārata for the First Time Critically Edited*. Edited by Vishnu S. Sukthankar et al. Poona: Bhandarkar Oriental Research Institute, 1933–1971.

Mbh<sub>2</sub> = *Mahābhārata*. In: *The Mahābhārata of Krishna-Dwaipayana Vyasa* Translated into English Prose from the Original Sanskrit Text by Kisari Mohan Ganguli. 12 vols. Delhi: Munshiram Manoharlal, 1883–96/1990–98.

*The Maitrāyaṇīya Upaniṣad: A Critical Essay, with Text, Translation and Commentary*. Edited and Translated by Johannes A. B. van Buitenen. The Hague: Mouton & Co., 1962 (Disputationes Rheno-Trajectinae 6).

*Matsya Purāṇa*. In: *The Matsyamahāpurāṇam*. Text in Devanagari, translation and notes in English. Arranged by Nag Sharan Singh. Foreword by Horace Hayman Wilson. 2 vols. Delhi: Nag Publishers, 1983.

*Ṛgveda-Prātiśākhya*. In: *Rig-Veda-Prātiśākhya, das älteste Lehrbuch der vedischen Phonetik: Sanskrittext mit Übersetzung und Anmerkungen*. Edited and Translated by Max Müller. Leipzig: F. A. Brockhaus, 1869.

SN<sub>1</sub> = Saṃyutta Nikāya. In: *Saṃyutta Nikāya*. vol. 5 (*Mahā-Vagga*). Edited by M. Leon Feer. London: Pali Text Society / Luzac & Co., 1898/1960.

SN<sub>2</sub> = Saṃyutta Nikāya. In: *The Book of the Kindred Sayings (Saṃyutta-Nikāya) or Grouped Suttas*, vol. 5 (*Mahā-Vagga*). Translated by Frank L. Woodward. London: Pali Text Society / Luzac & Co., 1930/1965.

Sūrap = *Sūrapannatti (Sūryaprajñapti)*. In: *Uvaṅgasuttāṇi 2*. Vācanā Pramukha: Ācārya Tulsī. Saṃpādaka: Yuvācārya Mahāprajña, 594-712. Lāḍnūṃ: Jaina Viśva Bhāratī, 2002.

Ṭhāṇ = *Ṭhāṇa (Sthānāṅgasūtra)*. In: *Illustrated Sthananga Sutra*. Editor in Chief: U. B. Pravartak Shri Amar Muni. Associate Editors: Srichand Surana “Saras.” English Translation: Surendra Bothara. Illustrator: Trilok Sharma. 2 Vols. Delhi: Padma Prakashan, 2004 (Illustrated Agam Series 15).

Sūy = *Sūyagaḍa (Sūtrakṛtāṅgasūtram)*. In: *Gaina Sūtras*, Part 2: The Uttarādhyayana Sūtra / The Sūtrakṛtāṅga Sūtra. Translated from Prākṛit by Hermann Jacobi. The Sacred Books of the East 45. Edited by F. Max Müller Oxford: At the Clarendon Press, 1885.

*Taittirīya Āraṇyaka*. In: *Kṛṣṇayajurvedīyam Taittirīyāraṇyakam: śrīmat-Sāyaṇācārya-viracita-bhāṣya-sametam / Etat pustakam Bābāśāstrī Phadake ity etaiḥ saṃśodhitam*, vol. 1. Puṇyakhyaṇṭane: Ānandāśrama-saṃsthā, 1981 (Ānand-āśrama-saṃskṛta-granthāvalī 36).

TLS = *Trilokasāra (Trailokyasāra)* of Nemicandra. In: *The Exact Sciences in the Karma Antiquity*, vol. 2: *Mathematical Contents of the Trilokasāra (The Essential Information about the Three Universes)*. Prakṛit text, English Translation and Commentary. Edited by Laxmi Chandra Jain with the Collaboration of Prabha Jain. Jabalpur: Sanjay Kumar Jain, 2003.

TP = *Tiloyapannatti (Trilokaprajñapti)* of Yativṛṣabha. In: *Acharya Yati Brishabha's Tiloya Pannatti*. Translated by Dashrath Jain & P. C. Jain. 3 Vols. Delhi: Jain Granthāgār, 2012.

TS = *Tattvārthasūtra* of Umāsvāti. In: *Tattvārthādhigama Sūtra: A Treatise on the Essential Principles of Jainism*. Introduction, Translation, Notes and Commentary by J. L. Jaini. Vol. 2. Edited by Sital Prasad, Brahmachari. New York: AMS Press, 1920/1974 (The Sacred Books of the Jainas 2).

TŚPC = *Triṣaṣṭīśalākāpuruṣacaritra* of Hemacandra. In: *The Jain Saga: Brief History of Jainism. Trisastishalaka Purush Charitra*. Translated by Helen M. Johnson, 1931-62. Edited by Muni Samvegayashvijay Maharaj. 3 Vols. Ahmedabad: Acharyadev Shrimad Vijay Ramchandra Suriswarji Jain Pathashala, 2013.

*Vāyu Purāṇa*. Translated by G. V. Tagare. 2 vols. Delhi: Motilal Banarsidas, 1987–88.

Viy<sub>1</sub> = *Viyāhapannatti (Vyākhyāprajñapti)*. In: *Bhagavatī Viāhapaṇṇattī*. Edited by Muni Nathamal. Lāḍnūṃ: Jaina Viśva Bhāratī, V.S. 2031(Anga Suttāṇi 2).

Viy<sub>2</sub> = *Viyāhapannatti (Vyākhyāprajñapti)*. In: *Viyāhapaṇṇattisuttam*. 3 vols. Edited by Bechardas J. Doshi & Amritlal Mohanlal Bhojak. Bombay: Mahāvīra Jaina Vidyālaya, 1974 - 1982 (Jaina-Āgama-Series 4).

Viy<sub>3</sub> = *Viyāhapannatti (Vyākhyāprajñapti)*. In: *Bhagavatī Sūtra*. Prakrit Text with English Translation and Notes based on the Commentary of Abhayadeva Sūri by K. C. Lalwani. 4 Vols. [Śatakas 1-11.] Calcutta: Jain Bhawan, 1973-1985.

Viy<sub>4</sub> = *Viyāhapannatti (Vyākhyāprajñapti)*. In: *Illustrated Shri Bhagavati Sutra (Vyakhya Prajñapti)*. (Fourth Volume). Editors-in-chief: Pravartak Amar Muni. Associate Editors: Varun Muni & Sanjay Surana. English Translation: Surendra Bothara. Illustrations: Trilok Sharma. Delhi: Padma Prakashan, 2013. (Illustrated Agam Series 26).

Viy<sub>5</sub> = *Viyāhapannatti (Bhagavatī)*. *The Fifth Aṅga of the Jaina Canon*. Introduction, Critical Analysis, Commentary & Indexes by Jozef Deleu. Foreword by J. W. de Jong. Delhi: Motilal Banarsidas, 1970/1996 (Lala Sundarlal Jain Research Series 10).

*Viṣṇu Purāṇa*. In: *The Viṣṇu Purāṇa: A System of Hindu Mythology and Tradition*. Translated by Horace Hayman Wilson. Enlarged (with Sanskrit text) and Edited by Nag Sharan Singh. 2 vols. Delhi: Nag Publishers, 1980/2003.

## Secondary Sources

Basham, Arthur L. *History and Doctrine of the Ājīvikas: A Vanished Indian Religion*. Delhi: Motilal Banarsidas, 1951/1981.

Basham, Arthur L. *The Wonder that was India: A Survey of the Culture of the Indian Sub-Continent before the Coming of the Muslims*. New York: Grove Press, 1954/1959.

Bandhu, Vishva. *A Vedic Word-Concordance: Being a Universal Vocabulary Register of about 400 Vedic Works, with a Complete Textual Reference and Critical Commentary Bearing on Phonology, Accent, Etymo-Morphology, Grammar, Metre, Text-Criticism, and Ur-Aryan Philology*. 5 vols. Hoshiarpur: V. V. R. Institute, 1955-1965.

Bosch, F. D. K. *The Golden Germ: An Introduction to Indian Symbolism*. The Hague: Mouton, 1960.

Brockington, John. *The Sanskrit Epics*. Leiden: E.J. Brill, 1998 (Handbuch der Orientalistik 2.12).

Bronkhorst, Johannes. *Greater Magadha. Studies in the Culture of Early India*. Leiden: E.J. Brill, 2007 (Handbook of Oriental Studies 2.19).

Bronkhorst, Johannes. "Buddhism in its Indian Context." Unpublished Lecture Series. Buddhism – SOAS 2, 2008.

Bronkhorst, Johannes. *Buddhism in the Shadow of Brahmanism*. Leiden: E.J. Brill, 2011 (Handbook of Oriental Studies 2.24).

Caillat, Collette & Ravi Kumar. *Jain Cosmology*. English Rendering by R. Norman. New Delhi: Bookwise, 1981/2004.

Dundas, Paul. *The Jains*. Second Edition. London: Routledge, 1992/2002.

Dundas, Paul. "Jain Cosmology." *Encyclopedia of Religion*. Second Edition. vol. 3. Edited by Lindsay Jones, 2022-2026. Detroit: Thomson Gale, 2005.

Eliade, Mircea. *Le mythe de l'éternel retour*. Translated by Jean Gouillard & Jacques Soucasse. Paris: Gallimard, 1947/1969.

Eliade, Mircea. *Traité d'histoire des religions*. Paris: Editions Payot et Rivages, 1949/2004.

Glaserapp, Helmuth von. *Der Jainismus: Eine indische Erlösungsreligion*. Berlin: Alf Häger Verlag, 1925.

González-Reimann, Luis. *The Mahābhārata and the Yuga: India's Great Epic Poem and the Hindu System of World Ages*. New York: Peter Lang, 2002 (Asian Thought and Culture 51).

Granoff, Phyllis. "Heaven on Earth: Temples and Temple Cities of Medieval India." *India and Beyond: Aspects of Literature, Meaning, Ritual and Thought. Essays in Honor of Frits Staal*. Edited by Dick van der Meij, 170–193. London: Routledge, 1997/2009.

Hiltebeitel, Alf. *Rethinking the Mahābhārata: A Reader's Guide to the Education of the Dharma King*. Chicago: University of Chicago Press, 2001.

Jaini, Padmanabh S. "Karma and the Problem of Rebirth in Jainism." *Karma and Rebirth in Classical Indian Traditions*. Edited by Wendy Doniger O'Flaherty, 217–238. Berkeley: University of California Press, 1980.

Kirfel, Willibald. *Die Kosmographie der Inder nach den Quellen dargestellt*. Hildesheim: Georg Olms Verlag, 1920/1990.

Kirfel, Willibald. *Symbolik des Hinduismus und des Jainismus*. Symbolik der Religionen 4. Stuttgart: Anton Hiersemann, 1959a.

Kirfel, Willibald. *Symbolik des Buddhismus*. Symbolik der Religionen 5. Stuttgart: Anton Hiersemann, 1959b.

Kloetzli, W. Randolph. *Buddhist Cosmology: Science and Theology in the Images of Motion and Light*. Delhi: Motilal Banarsidas, 1983/2007.

Kloetzli, W. Randolph. "Maps of Time, Mythologies of Descent: Scientific Instruments and the Purāṇic Cosmograph." *History of Religions* 25, 2 (1985) 116-147.

Kloetzli, W. Randolph. "Buddhist Cosmology." *Encyclopedia of Religion*. Second Edition. Vol. 3. Edited by Lindsay Jones, 2026–2031. Detroit: Thomson Gale, 1987/2005.

Kloetzli, W. Randolph. "Ptolemy and Purāṇa: Gods Born as Men." *Journal of Indian Philosophy* 38, 6 (2010) 583–623.

Lalwani, Ganesh Chandra and Satya Ranjan Banerjee, eds. *Albrecht Weber's Sacred Literature of the Jains: An account of the Jaina Āgamas*. Calcutta: Jain Bhawan, 1999.

Lamotte, Etienne. *Histoire du Bouddhisme Indien : des origines à l'ère Śāka*. 43. Louvain: Publications Universitaires / Institut Orientaliste, 1958 (Bibliothèque du Muséon).

Leumann, Ernst, *Übersicht über die Āvaśyaka-Literatur*. Aus dem Nachlass herausgegeben von Walther Schubring. Hamburg: Friederichsen, de Gruyter & Co., 1934 (Alt- und Neu-Indische Studien 4).

Lidova, Natalia R. "The Cosmography of Mount Meru and Early Pūjā Cult." Proceedings of the Fifth Dubrovnik International Conference on the Sanskrit Epics and Purāṇas (forthcoming).

Lishik, S. S. *Jaina Astronomy. (Post-Vedic Indian Astronomy) a Challenge to Western Influences*. Foreword by A. I. Volodarsky and Introduction by A. K. Bag. Second Edition. Delhi: Arihant International, 1978/2000.

Mabbett, Ian W. "The Symbolism of Mount Meru." *History of Religions* 23, 1 (1983) 64–83.

Malalasekera, Gunapala P. *Dictionary of Pāli Proper Names*, vol. 2 (N–H). London: Pali Text Society / Luzac & Co., 1960.

Mus, Paul. *Barabudur. Esquisse d'une histoire du bouddhisme fondée sur la critique archéologique des textes*. Paris: Arma Artis, 1935/1990.

Ohira, Suzuko. *A Study of the Bhagavatīsūtra. A Chronological Analysis*. Ahmedabad: Prakrit Text Society, 1994 (Prakrit Text Series 28).

Parpola, Asko. *Deciphering the Indus Script*. Cambridge: Cambridge University Press, 1994.

Parpola, Asko. "Beginnings of Indian Astronomy with Reference to a Parallel Development in China." *History of Science in South Asia* 1 (2013) 21-78. (Online version: <http://hssa.sayahna.org/>)

Plofker, Kim. *Mathematics in India*. Princeton: Princeton University Press, 2009.

Plofker, Kim “Links Between Sanskrit and Muslim Science in Jaina Astronomical Works.” *International Journal of Jaina Studies (Online)* 6, 5 (2010) 1-13.

Ratnachandra, Muni. *An Illustrated Ardha-Magadhi Dictionary with Sanskrit, Gujarati, Hindi and English Equivalents, References to the Texts and Copious Quotations with an Introduction by A. C. Woolner*. 5 vols. Delhi: Motilal Banarsidas, 1923/1988.

Rocher, Ludo. *The Purāṇas*. Wiesbaden: Otto Harrassowitz, 1986 (A History of Indian Literature, Edited by Jan Gonda. Vol II, Fasc. 3).

Schubring, Walther. *The Doctrine of the Jainas Described after the Old Sources*. Translated from the Revised German Edition by Wolfgang Beurlen with Three Indices Enlarged and added by Willem Bollée and Jayandra Soni. Second revised edition. Delhi: Motilal Banarsidas, 1935/1962/2000 (Lala Sundarlal Jain Research Series 15).

Sheth, H. D. T. *Pāia-sadda-mahaṇṇavo*. Benares: Motilal Banarsidas, 1928/ 1963.

Sircar, D. C. *Cosmography and Geography in Early Indian Literature*. Sir William Meyer Endowment Lectures in History 1965–66, University of Madras. Calcutta: Indian Studies Past and Present, 1966/1967.

von Heine-Geldern, Robert. “Weltbild und Bauform in Südostasien.” *Wiener Beiträge zur Kunst und Kulturgeschichte Asiens* 4 (1930) 28–78.

Witzel, Michael. “Sur le chemin du ciel.” *Bulletin d’Études Indiennes* 2 (1984) 213–279.