CHAPTER I

SOURCE MATERIALS
The traditional background:

To trace the origin of the literature devoted completely to elephantology, we have to go back to the ancient Indian medical literature, i.e. Āyurveda as a whole. Animal science in ancient times was one of the major three topics included in the said medical literature, and the said three topics are (1) the science relating to the human beings, (2) the animal science and (3) the science of the trees and herbs. Utility of animals like cows, horses, elephants, dogs and others induced the ancient people to be engaged in the study of animals' life and behaviour as well as their ailments and their treatment. Herbs and trees were highly necessary for preparation of medicine for curing sick men or animals. Thus due to the interrelation of living beings and plants and herbs, a student of medical science had to be well-versed in all these three branches of knowledge of medical literature. All the treatises on medical science relating to either human beings or animals contain detailed chapters on herbal roots. The Ṣuśrutasamhita contains discussions on the ailments of both men and animals and it is evident that the duel discussions emanated from the same author, viz. the sage Ģuśruta. This was the practice with most of the ancient authorities to present discussions on the treatment
of human beings and animals side by side.¹

The whole Āyurvedic literature enlists the names of a good number of sages engaged in the practice of this science from a very early period. Sages like Angiras, Jamadagni, Vasiṣṭha, Kasyapa, Bṛgu, Ātreya, Gotama, Sāṅkhya, Pulastya, Nārada, Agastya, Vāmadeva, Mārkaṇḍeya, Aśvalāyana and many others have played fabulous roles in the mythical account of the origin of medicine in Ancient India. God Brahman has been maintained by tradition as the original authority of all the medical sciences.² All the sages assembled at the holy slope of the Himalayas to solve the problems of the ill fate of all beings falling in the grip of disease and ill health caused by unsuitable food and heavy works on earth. A delegation of sages led by Bharadvāja went to Indra, the god of heaven who was already acquainted with the medical science from the two Aśvinśyas,

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   AP, Chap. 279-286 relating to human beings
   Chap. 287-293 relating to animals
   GP, Chap. 146-215 relating to human beings
   Chap. 216-226 relating to animals

2. CS, Śūtrasthāna, 1.27
the twin physicians of gods. These two, had learnt it from Prajāpati, who again on his own part learnt it from the omniscient, self-born Brahman. From Indra, Bharadvāja had directly acquired the lore of medical science and taught the same to Ātreyā, who again passed it on to his six disciples. These six disciples composed some treatises with what they learnt from their teacher Bharadvāja. Suśruta also sometimes mentions the fact of his learning the contents of his own treatise directly from Indra. The Kaśyapasaṁhitā regards Kaśyapa, Vasiṣṭha, Atri and Bhṛgu to be in the possession of this knowledge bequeathed by Indra. Thus the origin of the Indian medical literature is described as mythic in all the treatises connected with this subject, and the animal science too being a part of Ayurvedic literature, has got a divine origin.

The study of the animal science reveals the interest of the ancient people in different animals like cows, dogs, asses, horses, elephants, goats, snakes and so on.

3. Ibid., Sūtrasthāna, 1.4 and 5
   Gikitsāsthāna, 1.4
4. CS, Sūtrasthāna, 1.30 and 31
5. SS, Sūtrasthāna, Chap. 1
6. KS, Vimānasthāna
But in spite of their profound interest they have not left any systematic and independent treatise on each one of these classes of animals though there are certain occasional references to them in the few treatises concerning some of the said animals. The Gotamasamhita, the Aśāyurveda and the Hastāyurveda — these are the only treatises on animal science we have found till now. First one was composed by sage Gautama and it deals with the cow. The second one, relating to the science of horse was composed by Śālihotra while the authorship of the third one is ascribed to sage Pālakaśya. Discussions relating to these three classes of animals are also found in some technical works having wider interests than only animals. Hence, it would not be perfectly right to take the said three treatises as the original productions of those respective sages only. Traditionally, however, Lord Brahman is recognized as the most original authority on all these and similar technical works. On the other hand it is also not unlikely that in the writings on the horse or on the elephant which have come down to us in the name of Śālihotra or Pālakaśya, there is also the hand of many other later masters who might have attributed their own compositions to a singular earlier authority like Śālihotra or Pālakaśya for the sake of gaining more respectful recognition and popular acceptance of their own writings. In this way also it may not be
very safe to recognize dogmatically either Śālihotra or Pālakāpya as the undisputed authority on the respective lores. What is perhaps more reasonable is to say that in the writings which now pass by the names of Śālihotra and Pālakāpya, we find the preservation of a rich traditional knowledge about the respective animals. There are evidences of cultivating the elephant-science by other sages also among whom the names of Vyāsa and Vaiśampāyana may be mentioned. The Agnipurāṇa regards Pālakāpya as the expositor of the elephant-science. Somadeva in the Yagastilakacampū illustrates a long list of sages who were engaged in the study of elephantology, although no book has yet been found in the names of those sages.

Also it would be unjust to conclude that the elephant was introduced for the first time in sanskrit literature only in the composition of Pālakāpya. It is true that no book, completely devoted to elephantology, was composed before Pālakāpya; but this animal has been referred to in early compositions also. The Vedas have referred to it with high esteem. The Aryan people at the dawn of Indian civilization has paid high regards to this animal by taking it as a symbol of strength, nobility, patience,

7. GG, pp. 68, 69, 70
8. AP, Chap. 287
9. YC, p. 291
grace, wisdom, benificence, power, might and beauty. They were much interested in the trunk, the most curious limb of the elephant's body that served as its hand. Therefore, they called it by the name hastin\(^{10}\) (nominative singular hast\(i\)), meaning 'having a hand'. Due to this trunk, they sometimes ranked it with the monkey and even with man. Its queer shape and huge size overwhelmed them with fear, and so they did include this animal occasionally in the Vedic hymns in praise of gods in the manner of including strange things of nature like big mountains, rivers, oceans, stones, snakes, and trees etc. They praised its strength\(^ {11}\) and virility.\(^ {12}\) The hastip\(a\) i.e. the elephant keeper is mentioned as one of the victims at the human sacrifice.\(^ {13}\) Yajurvedic people considered this animal as a valuable sacrifice to some of their deities.\(^ {14}\)

The people of early vedic period considered only the qualities of the elephant irrespective of its efficiency and paid high reverence to it. No practical use of

\(^{10}\) RV, I.64.7; IV.16.14
\(^{11}\) RV, III.22.3; IV.36.9; VI.38.2; VII.70.2; XII.1.25; XIX.1.32
\(^{12}\) RV, loc. cit.
\(^{13}\) RV, I.3; II.22
\(^{14}\) RV, III.22.6; VI.70.2 cf. Vedic Index, Vol. II
\(^{15}\) VS, XXX.11; Tq, III.4.9
\(^{16}\) IV, XXIV.29,30
the elephant was, however, mentioned through these references. With the development of culture, skill, and dexterity of the ancient people, the use of this big animal in practical fields such as war, carrying of loads, communication, games and hunting became prevalent in the society in course of time. It was only in the Atharvavedic period when the elephant became more popular among men that people used to concentrate their mind on a systematic study dealing with the elephant as a branch of the animal science, which was considered one of the branches of knowledge indispensable to the youths of the royal and noble families.

The earliest available works on elephant-science are the Hastvyuvrveda and the Gajasāstra. Both the works are attributed to sage Pālakāpya. The Hastvyuvrveda is a work in prose and verse while the Gajasāstra is completely in verse form. It is not unlikely that both the texts, now available to us, are only compilations of certain floating notions regarding the elephant traditionally handed down from the days of sage Pālakāpya of hoary antiquity.

Life account of Pālakāpya:

The life account of Pālakāpya too, like many other sage-authors of the Vedas, the Purāṇas, the Mahākāvyas and the technical treatises, comes down to us through some mythical anecdotes. His birth was by the grace of Brahman
Himself, in the womb of a she-elephant that conceived him (i.e. Pālakāpya) very strangely by drinking the urine of the sage Sāmagāyana, which was mixed with the semen of the sage. A chain of myths, however, illustrates that originally the elephant was possessed of wings and could fly in the regions of heaven and earth and could assume any shape that it wished. One day sage Dīrghatapās was delivering lessons to his pupils under a tree and incidentally a herd of elephants came to take rest on the branches of that tree. Being unable to bear their weight the branches broke and fell down on the heads of the pupils injuring them very badly. The proud elephants did not at all regret their mischiefs and sat silently on another tree. The sage became wild with rage at their negligence and misbehaviour and cursed them to lose their wings and powers and to become the vehicle of even the mortal man on earth. Their eight ancestors were, however, not cursed and they went to Brahman seeking any means for the protection of their cursed kinsfolk who might be falling into the attack

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15. **HA**, I.I.128-155  
**Gs**, I.61-62  
**ML**, I.13-14

16. **Gs**, I.49-55

17. **Ibid.**, 2.40-41
of diseases and ailments on earth due to unsuitable and unfamiliar food and drinks and burdens of heavy works. At their request, Brahman predicted the birth of Pālakāpya, a well-versed person in elephantology in all regards, who would be sincerely looking after the elephants on earth.

The divine nymph Rucirā, once happened to be cursed by Brahman to be born on earth as a human being. Consequently she was born as a daughter in the famous Vasu family and was named Gūṇavatī. Unfortunately, one day, Gūṇavatī entered the prohibited hermitage of sage Mataṅga, who became very angry with her and cursed her to be an elephant. However, at her entreaties, she was assured by the sage to be free from the curse and regain her heavenly life just after giving birth to a son.

Incidentally, Śāmagāyana was seized in a dream, one night, by a Yakṣa damsel and being perplexed he went out to urinate. A female elephant, which was no other than the cursed Gūṇavatī, by chance drank the urine mixed with semen and conceived. In course of time, the female elephant gave birth to a son who later on became famous as Pālakāpya. She entrusted the son to Śāmagāyana and announced in a heavenly voice that this son would take proper care of the elephants in their distress.¹⁸

¹⁸. HA, I.I.154-155
    GS, I.62-63
    ML, I.14
Sāmagāyana took and brought him up, performed the necessary sacraments, and named him Pālakāpya, quite suitably to his deeds such as keeping, training and nourishing the elephants.¹⁹ In his later life Pālakāpya used to dwell in the country named Aṅga with king Romapāda and composed the Hastvāyurveda by way of answering the queries made by Romapāda as a devoted disciple.

It will, however, be seen that the Hastvāyurveda has much similarity with the Natvāstra of sage Bharata in style and diction. Hence, if the Natvāstra could be believed to be the work of a single author, the Hastvāyurveda also could have been the product of the genius of a similar sage named Pālakāpya. The argument is that if we accept Bharata (author of the Natvāstra), Vātśāyana (author of the Kāmasāstra) and Kautilya (author of the Arthasastra) as historical figures, then we should have full justification in presuming Pālakāpya to be the earliest authority on the elephant lore and in tracing out his date along with the location of his places of origin and activity.

Date of Pālakāpya:

In the epic Rāmāyana, there is a description of king Daśaratha and his family as:

¹³. HA, I.1.155
GS, I.89
The citation of king Romapāda and his state Aṅga side by side in this passage leads us to believe that this king Romapāda is the same king Romapāda of Aṅga in whose court Pālakāpya used to spend his later life. Friendship of Daśaratha, the famous king of the Rāmāyana with king Romapāda indicates that Pālakāpya might have been a contemporary of king Daśaratha whose date is traditionally fixed in caturvīmśastra-tāyuga:

"caturvīmśē yuge rāmo vasiṣṭhena purodhasā saaptamo rāvaṇasyārthe jajne daśarathātmajah"\(^2\)

Thus this makes it difficult to place Pālakāpya reasonably within the historical period.

Some technical works like Agnīpurāṇa, Carakasaṁhitā, Māṅgalkilā, Brhaṇasaṁhitā, Mānasollāsa, Yukti-kalpa-taru, Vaṣṭilaka-campū, Śukṣṇi, Paraśarasaṁhitā, Caturvarga-cintā-māṇi, Kaśyapa-saṁhitā, Arthaśāstra etc. contain evidence in respect of Pālakāpya by quoting either his name directly

\(^{20}\) Rāmāyana, Balakanda.
\(^{21}\) Ha, Prastāvana, pp. 1ff.
\(^{22}\) Ha, Prastāvana, p. 2
or by containing some parts relating to elephant science which resemble the composition of Palakāpya in respect of their style and treatment. Not a single one among these works can be taken as a work of an earlier date than the 5th century B.C. While the date of the Parāśārasaṃhitā is still uncertain, it is supposed to be definitely earlier than the Vājñavalkyāsmṛti, writing of which is inferred to be during the 1st or 2nd century A.D. or even earlier. In the light of the Parāśārasaṃhitā, Palakāpya's date can be conjectured to be belonging to a much earlier time.

The Late MM. Haraprasad Sastri was the first endeavouer to establish the date of Palakāpya. He tried to fix Palakāpya's time in the 5th or 6th century B.C. His assumption might be based on two grounds: the first being the style of composition and the second being the citation of the name of Palakāpya in the Agni-purāṇa. The conversational style and the use of Anuśṭubh metre as we have in the Hastvāyurveda were very much common in the period of the epic and the Purānic literature. Moreover, the use of Anuśṭubh metre almost disappeared in the classical period of Sanskrit literature which started at about 7th century B.C. with the advent of Pāṇini. The authorship of Purānic

22. AP, Chap. 287
ML, 12.28
literature is generally attributed to Vyāsa who is at the same time traditionally known as the author of the *Mahābhārata* also. If the authorship of both these two types of literature is assumed to be the same, then Pālakāpya's date can be inferred to be earlier than that of the *Mahābhārata* or contemporary of the *Mahābhārata* and the Purānic literature. The date of the *Mahābhārata* is supposed to be the 4th century B.C.25 The Purānic literature also appears to have originated before the 4th or 5th century B.C.26

Kālidāsa mentions in the *Raghuvaṃśa*, a *Sūtrakāra* as a trainer of elephants of the king of Aṅga.27 This leaves a scope for us to conclude, on two grounds, that Pālakāpya may be the said *Sūtrakāra*. Firstly, Pālakāpya's present work is written not in the form of *sūtra* but in *kārika* with occasional prose exposition, somewhat in the manner of Bharata's *Nātyasastra*, but since Bharata has also been called a *Muni* and *Sūtrakāra*, a similar allusion to Pālakāpya is not improbable. Secondly, here *Sūtrakāra* belongs to the king of Aṅga, while we also find Pālakāpya as the expositor of elephant science to Romapāda, the king of Aṅga. And if it be so, then the date of Pālakāpya should be earlier than that of Kālidāsa, which is assumed to be between 1st century B.C. and 5th century A.D.28

From the style of the *Hastavyurveda*, we may take it to be of almost the same date as that of the *Nāṭyasāstra*, which had been composed sometime around the beginning of the Christian era. 29

**Place of Pālakāpya:**

Pālakāpya himself describes his birth place as the hermitage of sage Śāmagāyana. 30 The location of the hermitage depends on the interpretation of the expression "śailarājāśrītaḥ punyam lauhityaḥ sāgaram prati." 31 There is also a variant reading for the later portion *lauhityaḥ sāgaraḥ prati*. 32 Stracey in his work *Elephant Gold* says that the hermitage was situated 'where the Louhitya flows away towards the sea.' This will give the location to be near modern Dhubri where the river Brahmaputra takes a sharp bent towards the sea. Stracey goes even to the extent of presuming that the river flows into the sea just at that very point because in his opinion "the reference to its

32. *HA*, I.1.101

*GS*, I.66 (cf. apasyannāsramapadannādrumalatāyutam/
śailarājāśrītaḥ punyaḥ lauhityaḥ sāgaraḥ
param/* GS*, I.16)
flowing into the sea is, in fact, a correct rendering of the situation of some hundred million years ago, when the waves of the Cretaceous sea lapped the Garo Hills. At this point the Himalayan Mountain (i.e., Sairājā) is not within a reasonable proximity to the river. The expression tends to mean that the āgrama was situated on the slopes of the Himalayas at a point where the river takes the bend or flows towards the sea as explained by Stracey. In order to bring the Himalayas and the river to a closer point we prefer to take the word prati in the sense of proximity. This expression should then mean that the āgrama was situated on the slope of the Himalayas and was at the vicinity of (prati = abhyāse = near) the river Brahmaputra. Here lauhityām sāgaram should be taken as referring to the river Lauhitya, that is, the river Brahmaputra.

We have evidences of a river being called a sāgara or samudra or abhī or sindhu elsewhere also. The word lauhitya should mean the entire river Brahmaputra. Nowadays only a small tributary of the Brahmaputra flowing in the district of Lakhimpur and the Arunachal, is known as Lohit. But there are stronger evidences to show that the Lauhitya was the name of the entire river Brahmaputra, e.g., the Grants of Vanamāla, the Apśad Stone Inscription

33. Stracey, P.D., Elephant Gold, p. 38
34. Mānasā, 2.3.172
35. Tezpur Plates and Parvatiyā Plates, verse No. 1, vide Inscriptions of Ancient Assam, pp. 96 and 116. Here also the river is called Lauhityasindhu.
of Adityasena (C.II.iii,p.203) and Raghuvamsa, IV.81. In the Raghuvamsa it is indicated that Raghu reached Prāgjyotiśa, the capital of Kamrupa, immediately after crossing over the river Lauhitya. While Prāgjyotiśa is identical with the modern city of Gauhati, Lauhitya could not have been anything other than the great river Brahmaputra.

In order to find the proximity both to the river and to the Himalayas, we must presume that the Āśrama of Sāma-gāyana was located in the north-eastern corner of Assam, on the verge of, or inside, the territory of the modern Arunachal Pradesh. K.K. Handiqui also maintains a similar view as he says that "The home of the sage was on the side of the Himalayas on the banks of the Lauhitya or the Brahmaputra, which points to north-eastern Assam where the river is still called Luit." 37

The location of the Āśrama anywhere between the modern Dhubri and the north-eastern corner of Assam would mean that Pālakāpya belonged to ancient Kamrupa. The contention that Pālakāpya happened to be an authority on the elephant lore by virtue of belonging to ancient Assam must have been very much sound because of an abundance of elephants in this region. This abundance is warranted also by other literary evidences. In the Raghuvamsa IV.83, it

36. cakampe tīr̥malauhitye tasminprāgjyotisēsvarah
tadgajālānatām prāptaiḥ saha kālāgurudrumāḥ
Raghu, IV.81

37. Handiqui, K.K., Yasastilaka and Indian Culture, p.456
is said that the defeated king of Kāmarūpa presented his most powerful elephants to the victorious king Raghu. In the Mahābhārata war Bhagadatta fought gallantly from the back of the celebrated elephant Supratīka. According to Chinese records sometime about 642 A.D., Bhāskaravarman proceeded with his army of elephants, 20,000 in number, to meet Harṣavardhana at Kājanālā near Rājmāhal, and his 30,000 ships passed along the Ganges to the same destination. The head of the elephant was used as the royal insignia by the kings of Kāmarūpa, beginning with at least Bhūtivarman and ending with Dharmapāla. Although Pālakāpya

38. In the Bhīṣma Parvan a full chapter (i.e. chap. 95), containing 86 verses, is devoted to the description of Bhagadatta's heroic feats and the great qualities of his elephant Supratīka. Bhīṣma himself praises Bhagadatta to be as strong as Indra in the battle field. In the Dronā Parvan as many as four chapters (i.e. 25 to 28) are devoted to the description of Bhagadatta's battle with Bhīma first and then with Arjuna, and finally of his death at the hand of the latter. Here also, the role said to have been played by the elephant is quite noteworthy (cf. p. 07, Inscriptions of Ancient Assam, by Dr. M.M. Sharma, Department of Publication, Gauhati University, 1978).

39. Majumder, R.C., History of Ancient Bengal, p. 70
was born in ancient Kāmarūpa, his place of activities was Campā in Aṅgadesa which is now identified with the Bhagalpur area of Bihar and as stated earlier, the contents of the Hastvāyurveda are presented in the form of a dialogue between Pālakāpya and Romapāda, the king of Aṅga.

In the opinion of P.C. Bagchi, Pālakāpya is a fictitious name. The word Pāla is shown to have great phonetic similarity with such words of south-Indian languages, like Palla and Pāl meaning tusk of an elephant and also with Punjabi Piuli and Pil meaning an elephant. Hsiuen Tsiang also mentions a word Pi-lo-so-la as the name of a mount presided over by an elephant-faced deity. These sources make us have an idea of an elephant from the first part of the word 'Pālakāpya'. It is further claimed that in the Sabdakalpadruma, kapi is presented in some way as a synonym of gaja. But in the body of the text itself the name Pālakāpya is explained as follows:

The author came to be named Pālakāpya,
Because of tending (pālanāt) a herd of elephants and
Because of being born in the Kāpyagotra.

41. Watters, On Yuchauwang, p. 129
42. Hā, I.1.155.
The Hastāyurveda:

The Hastāyurveda contains deep and profound discussions on the origin of the elephant, disorders in its bodily components, causes, symptoms and nature of diseases, methods of treatment, preparation, use and measure of medicines to be applied depending on age, nature and climate; food, swelling place etc.; instructions for suitable food and drink, cares and precautionary measure to be taken to keep it tidy, and strong and free from ailments. It is a huge treatise consisting of 17 pages in the printed edition, 12,000 verses, 160 chapters in four big sections each called a sthāna and discusses 315 types of diseases probable to the elephant's body. The first section, known as Mahāroga-sthāna (principal diseases), consists of 18 chapters; the second one, Kṣudrarogasthāna (minor diseases), contains 72 chapters; the third, Śalvarogasthāna (surgery), has 34 chapters; and the last one, Uttarasthāna (therapy, bath, dietics etc.), consists of 36 chapters.

The work is partially in prose and partially in verse form, the proportion of the latter being more. In the verse portions there is a conspicuous preponderance on the Anus-thubh metre giving it the look of the Purānic works of the early classical period. The whole book is presented in a conversational style and in simple language.

43. Hastāyurveda, Anandasram Sanskrit Series No. 26, 1894.
In the first chapter, called *Vanānucaritādhyāva* of the *Mahārogasthāna* of this book, we have the accounts of the mythical origin of the elephants with a chain of stories about the misfortunes of elephants caused by the curse of the sage Dīrghatapass and their consequent migration to the earth from heaven, the birth of Pālakāpya at the prediction of Brahman and his inherent acquaintance with elephant science. In the remaining chapters of the same *Mahārogasthāna* a broad and thorough study is made regarding food and behaviour of elephants, major diseases with their classifications, bathing in water, smearing of oil, and clarified butter (ghee), time and measurement of feeding elephants with rice and crude sugar to increase their strength, solid and liquid food suitable in illness, fifteen causes of death to wild elephants, their natural food in the forests, diseases in elephants' body by the curse of Brahman, qualities and praise of good elephants, qualifications of efficient teachers and students of the elephant science, the origin of the *Haṣṭāvāyurveda* in the *Atharvaveda* and elaborations of the major ailments with their medication and so on.

The *Kṣudrārogasthāna* discusses the minor ailments such as vomiting, diarrhoea, its causes and symptoms, three kinds of poison according to their origin, wound caused by poisoned arrows, biting by snakes etc., origin and treatment of boils, planetary influence on its nature and bodily features, insanity caused by excitement, troubles from excretion,
troubles in ear, eye, nose, neck, losing of appetites, the
provokation of three cardinal principles viz. vāta, pitta
and kapha, the sources of increasing must and strength,
nourishing by natural wild food, wounds in the surface of
the foot and cares to be taken in relation to this, nature
and science of thirsty elephants, diseases of the tongue,
influence of the supernatural elements, madness and its
treatment, loss of memories, scantly and painful flow of
urine, attacks of worms staying in the edibles, wart,
inflammation in the heart and the scrotum, treatment and
care for old, young and weary elephants, gastric troubles,
diseases relating to urine, fever after delivery, diseases
in teeth with their origin and treatment, mental disturb-
ances caused by fear, colic pain, autumnal sickness, biting
of honey bees, skin diseases, diseases caused by eating of
soil, weakness, worms in hair of the ears, chronic enlarge-
ment of the spleen, heart disease, fracture in different
parts of the body, and so on. It covers these topics in 72
chapters.

The third extensive chapter, entitled Śálvarogasthāna
expounds the knowledge of surgery. Any extraneous substance
when lodges in the body and gives it very great pain, it is
called a sālya in Ayurveda. These substances in the Indian
medical treatment are divided into two categories, viz. sārīra
and vāhva. Sometimes they remain stuck to the body when

44. HA, 3.1.49
they are called śārīra and sometimes they hurt the body from outside, when they are called vāhva. They are removed from the body by using instruments (śastrakarman), mechanical devices (yantrakarman), cauterization (agnikarman) and by using caustics (kṣārakarman). This chapter gives a distinct description of the signs and symptoms of those diseases, at least 28 in number, which can be cured only through these ways. The signs of fresh wounds caused by nails or teeth of lions and tigers, ulcers, various applications of the instruments, names and characteristics of the five elements viz. earth, water, fire, wind and ether - constituting the body and food of the elephant, descriptions of the bodily elements, the places of śārīra type of sālva in the body, wounds and bruises (brana) and their different categories, venesection, the 107 sensitive points (marmasthāna), biting of mad dogs, description and distinction of different parts and limbs in the body, ten types of instruments, the signs of breaking bones, pregnancy, bearing of dead child, instruments used in cauterization, the methods of pulling out teeth - these are the principal topics discussed in this sthāna.

The fourth book called the Uttarasthāna mainly deals with the oleaginous medicine which is of two types viz. sthāvara and jaṅgama. The smearing of clarified butter, oil, water etc., time and amount of their use, the nature and characteristics of female elephants and
elephants of different classes, twenty four types of food and drinks suitable to them, different processes of giving enema, construction of stables, auspicious time for entering into the stable for each kind of elephant, medicine used in nasal diseases, signs of death, different types of collyrium and their uses, nursing of one year old elephant, giving grass, salt, water, milk, oil and cooked meal to elephants as food, behaviours in different seasons, feeding with sour gruel, good and bad reactions of wine and duties to be done after giving wine, spraying medicated fragrance or perfuming with incense, origin of the elephant in the churning of the ocean by gods and demons, nature of oily, less oily and extremely oily things, description of eatable and non-eatable things for elephants, nature and sign of the elephant overcome by vāta, pitta and kapha, excrements of cows and buffaloes etc., garlic and its different varieties, use of medicated salt and clay, the seven stages of must produced from, and affecting the seven constituents of the body, capturing and purchasing of elephants, nature of elephants residing in water, their classifications, the influence of ghosts and spirits in the stables and various rituals to be performed for keeping elephants in peace etc.

45. seven constituents of the body are rasa, rudhira, māṁsa, meda, astuṇa, mālā and suṅkra (cf. HA, 3.6)
- these are the topics of discussion in 36 chapters of the Uttarasthāna.

The Gajasāstra:

Gajasāstra, the other published work on elephantology, has been ascribed to Pālakāpya. Although the printed form of this treatise has gone under the name of Pālakāpya, it is, in fact, a compilation of the works of various authors among whom the names of Vyāsa and Vaiśampāyana can be cited. There are more than twenty manuscripts on elephantology in the Saraswati Mahal Library, Tanjore, attributed to Pālakāpya, Vyāsa, Vaiśampāyana and a few other sages. Out of these the works attributed to Pālakāpya are more comprehensive and authentic. His verses together with extracts from the works of Vyāsa and Vaiśampāyana have been compiled and published under the name of Gajasāstra. There is also an appendix in this book which is said to be a summary of all that has been written on the treatment of the elephant by the ancient authorities. The text of the appendix contains discussions on maintenance, training and treatment of sick elephants. A Tamil translation and a summary in English of the Gajasāstra have also been added in the printed book. There

47. Gajasāstra, op. 68, 69, 70 etc.
48. Gajasāstra, Preface, p. 3
are also twenty coloured drawings inside the book illustrating some portions of the text.

The Gajasāstra contains ten chapters each called a prakaraṇa. The first prakaraṇa brings forth the mythic account of the origin of Pālakāpya as well as his works on elephant science. King Romapāda enchain the herd of wild elephants, which created havoc in the agricultural farms, with the help of sages like Gautama. Incidentally, Pālakāpya, to whom the herd of elephants belonged, came to the court of Romapāda in search of his pet elephants. Being distressed at the plight of the elephants, he requested the king to take proper care of the elephants and explained his intimate knowledge of the elephant lore. The king was greatly impressed by him and requested him to tell all about the elephants. Then Pālakāpya narrated to the king his own origin and explained to him the precautions to be taken to keep elephants healthy.

In the second prakaraṇa Pālakāpya narrated the origin and creation of elephants, their eight ancestors,⁴⁹ their respective positions in eight directions, special characteristics and physical structures of their descendants and deities residing on different parts of the elephant's body.

The third prakaraṇa contains a chain of myths about the curses on elephants thrown by Brahman, Agni, Varuṇa, sages Jirghatapas and Bhṛgu and the favour of Brahman.

⁴⁹. Gajasāstra, 2.40,41
Descriptions of the characteristics of elephants residing in eight particular forests (vanas) viz. Prācyā, Gedikarūṣa, Dāsārāṇa, Áṅga, Kāliṅga, Aparāṇa, Saurāstra and Pāñcanada as well as the gardens (upavanas) viz. Kīrāta, Agni, Daksīna, Nārīta, Pāscima, Yāvavya, Utāra and Ṣāṇā are given in the fourth prakarana.

The nature of elephants of different ages, three-fold classification as well as efficiencies of elephants according to their age and views of Vaiśampāyana regarding these points are discussed in the fifth prakarana.

The characteristics of elephants of different lands, knowledge about suitability of dwelling places of elephants, and means and methods of capturing elephants are described in the sixth prakarana.

The seventh prakarana is entirely devoted to the classification of elephants, their respective nature, physical structure and specialities in behaviour.

The characteristics of elephants which are imagined to have represented the attributes of different deities, elephants of different colours, shades, smells, strength and voices, elephants possessing the qualities of sattva, rajas and tamas, and the properties of Deva, Gandharva, Vipra etc. and of elephants which are fit for fighting in the battle field and for sacrificing are discussed in the eighth prakarana.
Auspicious and inauspicious movements, major defects in the body, shapes and sizes, weights and units for measurement like paramāṇu etc. in giving food, oil and medicine are discussed in the ninth prakarana.

The last prakarana describes the styles of riding the elephant in the battle-field, different codes of directions and styles of striking of the goads in the body of the elephants to conduct them while they are engaged in the battle-field, methods and auspicious moment of cutting the tusk, effects of the colours visible in the spots where the tusk is cut and the smells coming out of the tusk, fourteen different styles of striking with the tusks of rival elephants at the time of fighting, seven stages of musth and the respective lustres of the same, nature of the angry elephants, methods of constructing stables for the rogue elephants in the outskirts of the city and means to excite the elephants to be engaged in fighting.

The text in the appendix starts with the praise of the elephant's strength and power. This is followed by the ascertaining of auspicious as well as inauspicious moments of capturing and of its longivity, nature and defects of she-elephants, courses of pregnancy, nature and behaviour of a pregnant she-elephant bearing twin embryo, knowledge of sex of the foetus, reasons for breeding elephants of different types regarding their nature and physical
structures, ways for taking care of a newly captured elephant—its training and processes of riding, development of must and its treatment, nature of an elephant in rut and its efficiencies in the battle-field, medicines used to increase strength, smell and harshness of the elephant, time for riding an elephant in rut, fixation of price of the elephant, necessity of cutting the tusk and medicine used in cutting the same, diagnosis of diseases, description of fever, treatment of Pakala, three humours of the body, process of removing salvas, preparation and application of medicines, general cares to be taken to keep an elephant sound and healthy, giving wine, honey, grape, juice, milk, fodder, paddy, leaves of trees, wild creepers, garlic and sugarcane, lightening the elephant stables, spraying fragrance of resin etc., methods of giving enema, treatment of young elephants, application of medicine to enkindle fire in the body for smooth digestion, building of stables and posts of tying, means to keep the stables clean and free from worms and many such subjects.

The Gajasāstra can be regarded as a whole, to be a supplement to the Hastyāyurveda. The Hastyāyurveda is composed with the aim of prescribing medicine for the elephant and in order to serve the purpose, the author has not spared even the slightest points regarding the physical as well as the mental condition of this animal. In discussing the topics
from medical points of view, the topics of less importance are simply touched on leaving room for detailed discussion and these points are also felt necessary for any one willing to keep and use an elephant in various fields of activities like war, hunting, sports and commerce and so on. Its origin and different varieties, natural qualities, moods in different states of mind, likings and dislikings, efficiency and capacity in different fields of works, methods of training and capturing, food and drinks, means to keep it satisfied, behaviour in movements and different functions and suitable place for its dwelling are also some of the important points which deserve to be mentioned here. The Gajaśāstra discusses all these topics in detail. Because of the all comprehensive nature of this work, the title Gajaśāstra, containing the word śāstra seems to be quite appropriate. In language and treatment it is not far apart from the Hastyāyurveda, while in style it differs from the Hastyāyurveda by using completely a verse form. In representation also it does not follow the conversational style of the same.

The Hastyāyurveda and the Gajaśāstra of Pālakāpya appear to follow the tradition of Indian medical literature for human beings in their style, language and treatment. Pālakāpya in his Hastyāyurveda deals with the major and minor ailments, their origin, diagnosis, classifications, symptoms, treatment through medicine and surgery, cares to be taken for infants, female and old elephants and their
behaviour in four extensive sthānas covering all the eight-fold treatment for human beings. Regarding the style and language also, it does not differ from the Āraṇākasaṁhitā and the Guṇḍūrākasaṁhitā. The style of starting with mythological account of the author as well as his production is found to be common in both human and animal sciences. The divisions called sthānas are also found in the science for human beings. Thus the conformities prove the similar and equal skill as well as sincerity in the study of the animal, especially the elephant, as in that of the human beings.

The Mātaṅgalīlā:

Mātaṅgalīlā, the third published work in this sphere has been composed by one Nīlakanṭha in the light of the Hastvāyurveda. The book with 253 verses, is divided into twelve chapters, each called a pāṭala. The origin of the elephant, auspicious and inauspicious marks, longevity, age, price, standard, signs of excellences, ichor, methods of capturing wild elephants, daily and seasonal duties for the elephant and the indispensable qualities and skills to be possessed by the elephant keepers — these are the twelve topics described in the respective twelve pāṭalas.

50. Eight-fold treatment viz. śālya, śālakya, kāya, bhūta, kaumāra, agada, rājasāyana and vājikaraṇa (cf. Indian System of Medicine, p. 2)

The first pātala known as Nagotpattyadhiṅkāra contains a description about the report by the people from various parts of the country to Romapāda, the king of Ánga, about the panic and destruction caused by the herds of wild elephants to their lives and husbandry, consequent tying up of the elephants by the king with the help of various sages, arrival of Pālakāpya in the capital Ánga, and his grievance at the plight of the elephants and then his divulgence of the elephant science to the king Romapāda. The descriptions of the curse of the sage Dīrghatapās and of the birth of Pālakāpya by the grace of Brahma resemble those in the Hāstvāyurveda. The ancestors of the elephant are described, in this pātala, to have come down from the shell of the egg Mārtana after the birth of Garuḍa. Brahma took the two empty halves of the shell in his two hands and was chanting the hymns of the Rgveda. Then Airavata first of all took birth from the eggshell half held in the right hand and then seven other ancestors of the elephant came out from the same half, then eight consorts for the aforesaid eight primordial elephants took birth from the half-shell held in the left hand. The significance of the various names such as nāga, gaja, hastin, vāraṇa, mātaṇga, kuṇḍara, padma, āvīpa, sindura, aṣṭaprabharaṇa, ibha, karīṃ, dantin etc. attributed to the elephant, the causes of their

52. M L. I.22,23
peculiar characteristics as having inner sweating, deep relationship with mud and lotus, and the peculiar smell of the elephant born in the spring season, form the themes of this patāla.

The second patāla, known as Subhalakṣaṇādhiṅkāra, deals with the auspicious marks of the elephant. These auspicious marks are considered from the view points of its physical shapes, position of different parts and limbs of the body like tusks, teeth, tail, tongue, hip and palate etc.; number of nails, colour of different parts, voice, strength, quality, virility, fragrance, speed, movements, capacity for tolerance in war etc. The auspicious marks should be observed when the elephant is to be engaged in different fields of work.

The third patāla, known as Aṣubhalakṣaṇādhiṅkāra, discusses the inauspicious signs of the elephant. The elephant, having nails more or less than twenty in number, short fingers, frog like stomach, blue or black coloured palate which is rough, uneven and full of knots, large sides, slight flow of ichor, is regarded as an inauspicious elephant. If the root of the tail is in its back, one of the ears is lost and if its limbs like teeth, nails, palate and skin are full of spots, then the elephant should be discarded. It further adds that the uncontrollable elephants known as
vyālahastī, should not be used in war, communication etc. 53

The fourth paṭala, dealing with the longevity of the elephant, is named Āyūrlakṣaṇādhikāra. The elephant, having smooth tusks, nails, eyes and hair, long ears, trunk, tail and back, a forehead full of all auspicious marks, equal sides, seven parts 54 of its body red in colour, six parts prominent, good fragrance and a skin blue in colour like that of the cloud, gets a long life. Its passions remain controlled. Its longevity depends on the number of its parts and limbs and the auspicious marks it possesses. Generally, the ṛṣa type of elephant reaches the fourth stage of the life span, the ṁanda type reaches the eighth stage and the ṭhadra type reaches the excellent stage. 56

The nomenclature and the physical characteristics of the elephant in respect of its age are dealt with in the fifth paṭala known as Vayolaksanādhikāra. The general longevity of the elephant is declared by this book to be 120 57 years and the whole life is divided into twelve equal stages each called a dasā.

53. ML, 3.6
54. Ibid., 4.2
55. Ibid., 4.2
56. Ibid., 4.6
57. cf. Classification of elephants as ṭhadra, ṁanda, etc. is made in Chap. II of this work.
The sixth pātalā, i.e. the Mānaniṃpayādhikāra ascertains the measurement of the elephant's body by distinguishing its different parts and limbs like kumbha, vidu, avagraha, vāhittha, pratimāna, vilāga, gandusa, īṣikā etc. The measurement of an elephant is made according to its length from the head to the tail, height, and girth of its body. It varies with the differences in respect of factors like caste, type, nature, age, etc. The measurement of a newly born elephant of Mrīga type is 1.5, 1 and 2 cubits in its length, height and girth respectively; and in its matured age these measurements are 7, 5 and 8 cubits. The proportions of these measurements are 8, 6, 9 cubits for the best type of elephants; 7, 5, 3 cubits for the mediocre type and 6, 4, 7 cubits for the lowest type of elephants.

Prices fixed for buying an elephant are discussed in the seventh pātalā called Mūlyaniṃpayādhikāra. Price fixation in case of an animal was made in ancient society in an absurd way simply considering their grades as uttama, madhyama and adhama. Suggestions are put forward to buy an elephant possessing all good signs with the full price. In case of that which loses one of its eyes or foot or tusks, which is deaf or sick, the price should be half. The elephant bereft of one half of an ear, or only five years

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58. ML, 6.4
old, deserves one third of its price, and that one which has no tusk should be bought for an aṅghrimūlya (i.e. one fourth of the full price). The eighth pātala, known as Sattvalaksanādhyānā, illustrates the qualities of goodness of the elephant which depend upon their nature, lustre, beauty, smell, voices, roars, likings and dislikings, auspicious and inauspicious movements, good eyes and tusks, the frontal globes on the forehead, trunk, tail, strength, sharpness in hearing and behaviour etc. The elephant is classified into four castes viz. Vīpra, Vaiśya, Kṣatriya and Śūdra; and it has four colours, viz. red, yellow, black and white. Depending on the five constituents of the body viz. earth, water, fire, air and ether, its skin emits five shades of colour. Considering their capacity for endurance and work they are classified into seven types viz. Atyarthavedī, Uttanavedī, Gambhiravedī, Anvarthavedī, Pratyarthavedī, Karkasāvedī and Siddhavedī. Thus this chapter ends with a brief as well as clean account of the diverse qualities of the elephant.

59. *ML*, 7.2. The meaning of the next and last verse given in this context is not intelligible.

cf. vāmadantonnatam vidyādāpākīlaṁ tu mūlayaṁ/ aṣṭāṁśahīnato vidyādvaśā mūlyatribhāgataṁ/

60. *Ibid.*, 8.18
The ninth pātala, under the name of Madabhedādhikāra, is devoted to mada i.e. ichor of the elephant. The author declares that the origin of mada is due to its extreme joy arising out of good health, vigour, and happy life with well-balanced bodily humours of elephants both in forest and village life. The secretion of mada occurs from different parts of the body, such as eye, temple, palate etc. Two forms of mada according as it portends favourable signs or detrimental effects have been distinguished. An elephant under the influence of mada displays eight different mental traits. Due to the flowing of mada the bodily constituents get decayed and consequently the elephant becomes subject to serious ailments. Therefore, protection against the flow of mada is necessary and so prescription of some medical herbs and recipes is suggested in the last portion of this pātala.

The tenth pātala, Gajagrahādhikāra, deals with the methods of capturing wild elephants. It suggests five methods of capturing elephant viz. Vārikarman, Vāsaṅkarman, Anugata, Apāta and Avapāta.

The eleventh pātala, Gajarakṣanadinartucaryādhikāra, expounds what care should be taken after the elephant is captured and domesticated.

The last pātala is known as Arohanagunādyadhikāra. It illustrates the qualities and knowledge to be possessed by an elephant-keeper.
Hātaṅgalīlā recognises a threefold classification of the elephant as Bhadra, Manda and Mrigai; threefold methods of training (prapidhi) as vāk, pāda and aṅkusa, three types of movements of the elephant as manda, sīghra and dhāvana, three types of seat (āsana) in the front part of the elephant's body viz. mukhya, mahya, adhama, and five types of seat (āsana) in the back part of the body viz. prāk, paścād, vṛtta, tīryak and vyāvartana, six parts in the body to use the goad as vītāna, vīdu, grīva, nīryāna, māstaka and avagraha; and fourfold divisions of hooks to drive the elephants (ṣrṇi) viz. vajra, ardhacandra, naka and kaitakakuntaka. Few means are suggested, in this pātala to control a wild elephant or an elephant in rut. In this context, some herbal recipes are also suggested, the paste of which, mixed with cowdung, should be applied at the end of a goad and when such a goad is thrust into the elephant's body, it offers its back for riding. The stick, this pātala mentions, is used for striking five parts of the body of the elephant, that is, the two flanks, the two sides of the belly and the root of the tail. All the skills of climbing on to and getting down from an elephant, that should be known by the elephant-keeper are also described here.

61. Mi, 12.13
62. Ibiq., 12.19
63. Ibiq., 12.26, 27
Regarding the authorship of the Hatañgalīlā there is still some confusion amongst the scholars. I. Ilanapati Sastri, however, published this book from Trivandrum in the name of Mīlakaṇṭha. Later Sanskrit works or anthologies hardly refer to this book and its author. Mīlakaṇṭha, the author of the Śāvyollāsa and the Kalyāṇasaukgandhika, is, of course, mentioned to be the author of the Hatañgalīlā. 64

Most of the manuscripts of this work also contain the name of Mīlakaṇṭha as its author.

The TISSM Library, Thanjore, contains the following manuscripts of the Hatañgalīlā. 65

1. R 170058 : Palm leaf manuscript, Malayalam script, text complete in 12 chapters; extent about 500 granthas.

2. D 13324 : Paper manuscript, Devnagari script, text with 11 chapters, extent about 400 granthas.

3. D 13325 : Paper manuscript, Telegu script,


5. R 17168 : Palm leaf manuscript, Malayalam script, text with Malayalam meaning in 12 chapters, extent about 1,250 granthas.

64. Krishnachārya, M., History of Sanskrit Literature, p. 237

65. Vide Letter No. 1247/B/75 dated 28.12.75, received from the Curator-in-Charge, Govt. Oriental Manuscript Library
The general characteristics of the above manuscripts are that most of them bear South-Indian impact and the general authorship of them goes to Hālakaṇṭha. The sports of the elephant as described in this treatise as well as the work Hātaṅgalīlā are widely known in Kerela. Hence, the place of Hālakaṇṭha might be somewhere in Kerela or in the Malawar.

The entire text of the Hātaṅgalīlā is composed in verse form as a simple poetical narration by Pālakāpya to Romapāda. The text sometimes goes to be more fanciful, neglecting the real theme and sometimes bears only the imaginary descriptions of elephantology. Though the work wholly bears the theme, ideas and treatment of the Hāṣṭyā-ṛṣyurveda, it has characteristics of its own, in points of style, language and diction. The very name Hāṣṭyāṛṣyurveda implies the medical treatment of the elephant, and hence, the main emphasis herein is on the medical aspect, while the Hātaṅgalīlā signifies the entire nature, activities and likes and dislikes of the elephant rather than the medical purport. Hence, the scopes and purposes of both the works are different to some extent. The Hātaṅgalīlā conforms to the Hāṣṭyāṛṣyurveda in respect of the classification of the elephants, mental and physical traits displayed by them in different ages, daily cares to be taken, process of feeding, medical treatment and origin of the medical
science. The text of the Hastyāyurveda is composed in dialogue form. The Jataṅgālīlā on the other hand is in a mere poetic form at a stretch. The simple language and style of Pālakāpya conform to those of Sanskrit works like the Vedas, the Purāṇas etc. which give it a very high antiquity. The style and language in the Jataṅgālīlā on the other hand, conform more to those of later artificial classical literature. Pālakāpya usually prefers the Vedic Anuṣṭubh metre while Nīlakanṭha uses varieties of metres.

The Jataṅgālīlā was translated into English in 1917 by F. Edgerton66 and to German in 1929 by H. Zimmer.67 Edgerton mentions the name of the Hastyāyurveda in the preface to this published book as the only published work on elephantology he had found then.68 His bibliography includes some technical works like the Arthaśāstra of Kautilya, the Yaśastilakačampū of Somadeva, the Brhatkatha of Guṇādhya and Ms. No. 12295 of Madras Library, Tanjore. He gives foot notes to the complex terms also. The date of Nīlakanṭha is not, however, mentioned in this book.

68. Elephant Lore of the Hindus, Preface
8. The Mānasollāsa:

More than 700 verses of the Mānasollāsa, a work on a variety of topics including ceremonial rites, statesmanship and pastimes, are devoted to the science of elephant and reveal the influence of the elephant on society in various spheres. The elephant was considered in the age of the Mānasollāsa as the part and parcel of the royal society. It was used in war, in sports and hunting for amusements.

The sciences regarding the medical treatment and use of the elephant in different fields of activities were learnt and practised by the keepers of the elephants of the king. The process of riding the elephant, the use of different weapons, the capturing of the wild ones were learnt and practised even by the king himself. It appears that it was obligatory on the part of the king, the prince and the minister to have some knowledge of the elephant lore at the time of Somesvara the author of this work.

Mānasollāsa, also known as Abhilasitacintāmani or Abhilasitārthacintāmani, is a treatise on numerous topics composed by Somesvara in the first half of the 12th century A.D. The book concerns itself with almost all the branches

70. Mānasā, 4.3.577-578
71. Ibid., 2.3.283
72. Ibid., 2.3.180-220
of knowledge desired to be known by the king or persons related to the royal office, hence, the title Mānasollāsa or Abhilasitacintāmaṇi is appropriately given to this book. Even the author himself intends to designate it as Jñānācāryapustaka as it expounds knowledge of everything about the world. Pointing to its very useful purposes, he compares the same to a Kālnadruma also.

The complete work of the Mānasollāsa contains one hundred topics in five clusters of twenty chapters (adhyāyas) each. Technically, these clusters, known as vims'atis deal with the means of acquiring a kingdom, the processes of stabilizing the same, amusements, royal enjoyments, games and sports respectively. The authorship of this work is attributed to king Someśvara III of the Cālukya dynasty. Someśvara gives his identification as Bhūlokamalla and mentions his name in a verse as follows:

\[
\text{cālukyavaṃśatilakaḥ śrīsomeśvarabhūpatiḥ} / \\
\text{kurute mānasollāsaṁ sāstraṁ viśvopakārakam} / \\
\text{Mānasa, 1.1.9}
\]

The concluding verses of each chapter and the colophon as well bear the evidence of Someśvara being the author of this book.

74. Ibid., 1.4.34
In Barnett's *Antiquities of India* the date of Gomeśvara, the author of the *Mānasollāsa*, is given as 1126-1138 A.D.\textsuperscript{75} Aufrecht in his *Catalogus Catalogorum* fixes the period of Gomeśvara as 1127-1138 A.D.\textsuperscript{76} The date of Gomeśvara as a king of Cālukya dynasty ruling in this period is confirmed by the author in the verse:

\begin{quote}
\texttt{ekapāṇcāśādādhike sahasre śaradāṁ gate \\
sakasya somabhūpāle sati cālukyaṁ anđane.}
\end{quote}

\textbf{*Mānasa*, 2.2.62}

A luxurious and prosperous life of the king Gomeśvara is represented by the elaborate description of the pomp and glory of the royal life in the work *Mānasollāsa*. Adequate consciousness about his physical health, amusements, enjoyments as well as about his royal duty is best revealed by his prescription of a well-disciplined schedule of enjoyments and royal duties. The first \textit{vimśati} discusses twenty different means to obtain a kingdom, sometimes in the form of prohibition of bad things and habits and sometimes in the form of gnomic instructions. He advises to keep away from what is untruth, hostile, unapproachable, non-eatable, envious, wicked, fierce, and self laudatory, and praises the gift of different things, use of nice words, feeding and supporting of the servants, faith in gods, pilgrimage and so on.

\textsuperscript{75} *Mānasa*, Preface, p. VI

\textsuperscript{76} \textit{Ibid.}, Preface, p. VI
Stabilization of an acquired kingdom is regarded as a very essential, but difficult task for a king. In order to maintain its stability, the entire kingdom as well as its administration is divided into seven parts viz. the king, the minister, the people, the treasury, the forts, defence and allies. Six modes of policy viz. treaty, war, military expedition, maintaining a post against an enemy, seeking shelter or protection with others and duplicity; three powers viz. power of master, power of counsel and power of enthusiasm; four expedients viz. peace, gift, creation of dissension in the enemy camp and punishment — these are regarded as essential means to stabilize a country.

The third viṃśati deals with twenty types of enjoy­ments relating to the personal life of the king which aim at erotic pleasure, pleasure of eating, health and mental satisfaction. The next viṃśati describes amusements derived from using weapons, studying books, playing with elephants, horses, mathematical pastimes, wrestling, playing of various birds and animals, hunting, singing music, dancing, enlight­ening and diverting conversation, magic etc.

77. Mānasa, anukramanika, v. 20
78. Ibid., v. 21
79. Ibid., v. 22
The last viśeṣaṭi brings forth long descriptions of sports played on the ground or in forests, sports played at the end of marriage or spring festivals or at the end of any victory, water sports, sports played in bowers and in the moon light, corn-sports, drinking of wine, puzzles, chess, gambling, erotic and heroic playings and so on.

The elephant, signifying prosperity and victory was accepted as the official emblem of the state. It played important roles in the royal activities such as war and transportation and in amusements like playing, hunting and sports and in religious activities as well. It was regarded as the chief part of the entire army that brings victory to the king in the war. The study of the science of elephant, which includes the items like medical treatment and general care of the health of the elephant, selection of the forest for its abode, marking of its auspicious and inauspicious qualities, its classification and training and many others, was made an essential part of the education for a king. The power and fame of the king were measured by the strength of his elephants only. So the king was always alert to keep the elephants carefully within the country. Eight forests as the dwelling places of the elephant are named and five methods of capturing the wild

30. Mānasā, 2.4.678
31. Ibid., 2.3.172-179
elephants are recommended by Somesvara. The disposition (sattvas), inheritance (āṁśa), race (kula) and the characteristics of its eight ancestors are also illustrated in this work.

As the powers of the king were judged by the strength of his elephants, the king always kept a sharp eye on their training and treatment. They were generally trained through three ways viz. vāk (voice), pāda (indication through the stroke of the feet) and aṅkusa (use of hook) in different styles in different times. The descriptions of medical treatment and medical recipes are made in the same line as in the Hastvāyurveda and the Gajasāstra.

Among the royal amusements, the gajavāhyāliviroda i.e. the sport with the elephant is a very interesting one. The arena for gajavāhyāli covers an area of 16,000 sq. dhānus and this area is divided into three parts — one for the king, one for the general people to witness the game and the remaining part is for playing. Only those elephants that can run fast are brought for fighting and it is mada (ichor) that stimulates the animals to take a great speed in running. Being excited by mada, they become furious and attack the rival elephants and that is why

82. Māhāp., 2.3. 180-220
83. Ibid., 2.6. 620-674
84. Ibid., 4.3. 515-517
proper training of fighting and use of medicines to increase their mada are prescribed. To change the colour of mada and to stimulate its anger, essential means are prescribed to be taken in the day previous to the fighting date. Seven types of sōbhā i.e. beauty of mada are also mentioned by the author. The Mānasollāsa agrees with the threefold divisions of elephants viz. Bhadra, Manda and Mrka, according to their physical structure and mental dispositions.\(^{85}\)

Somesvara describes twelve stages of the secretion of mada. Among these, five are declared to be internal and the rest are external.\(^{86}\) Again among the seven states of external mada only first five stages are good for elephants and these five stages are called sañcita, kopa, anubandhinī, gandacārinī, and krodhinī.\(^{87}\)

To stimulate the elephant in the play ground, sounds of various instruments such as vīrasūda, dhakkā, javaghanta, simhanāda etc. should be made by the superintendent in the day time.\(^{88}\) Food and water should not be offered on the day of fighting. Oil should be applied to their hips and tilaka should be marked on the head of the elephant.\(^{89}\)

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85. Mānas, 4.3.211-230  
86. Ibid., 4.3.481  
87. Ibid., 4.3.482-498  
88. Ibid., 4.3.499-508  
89. Ibid., 4.3.513
There are ten processes of mounting an elephant. Different modes of sitting like utkrśtāsana, madhyāsana and avakṛśtāsana (sama, drdha and samlagna) are mentioned.

The poses and styles to touch and pierce the elephant with hook (aṅkusā) and club etc. are described in different ways like pāṛśvāvanata, prsthāvanata, upalāpana, prajāpāna, tarjana, pratikṣipta, prahata, adīrna, isatsprṣta, etc.

Gift, which is considered one of the four means to negotiate with the neighbouring states, is described to be of sixteen types among which the gift of elephants is regarded as a precious one known as dantidāna. Moreover, the use of the elephant as a vehicle is regarded as excellent one.

Thus Somesvara brings into light the importance of the elephant in the society. It was a source of inspiration to the king. Manifold use of the elephant in war, transport, political affairs, playing, sports etc. as we find in the Mānasollāsa, proves the popularity of the elephant in the ancient Indian society and due to its wide influence, the king entrusted the care of elephants including female-elephants and calves to the efficient royal officials and ministers only.

90. Mānas, 4.3.577-478
91. Ibid., 4.3.579, 582
92. Ibid., 4.3.584-592
93. Ibid., 2.19.1015
The Manasollása, though a work of a later period, represents an old style of composition using Anuṣṭubh metre in a simple language avoiding complex terms and compounds. From the literary point of view it is more akin to the Gaṇaśāstra and the Hastyāyurveda of Pālakāpya than to the Mātaṅgalīlā of Nīlakanṭha. It conforms to the text of the Hastyāyurveda and the Gaṇaśāstra in those portions which relate to the science of elephant. Excellency and originality of the author in representing the diverse topics like horse-science, astronomy, food, architecture, picture painting, music etc. prove his close familiarity with some authentic works of technical science like the Arthaśāstra, the Vāgbhaṭālaṅkāra and so on.

The Yaśastilakacampū:

The Yaśastilakacampū, a Jaina romance in campū style, is composed by Somadevasūri to whom is also attributed the work Nītivākyāṃṛta, a famous treatise on polity. The work consists of eight chapters, each being called an Aśvāsa. It deals with the pathetic story of prince Yaśodhara of Avanti. Though, basically, this work reveals itself as a religious romance, at the same time it presents the socio-cultural picture of the society of India of the 10th century A.D. It brings into light various aspects of the society,

94. Yaśastilakacampū of Somadevasūri, Kavyamala, No. 70, 1916.
the behaviour and works of the people, cultivation, standard of living, processes of earning, occupation, economic condition, cultural life, dresses, food, festivals, sports, amusements and so on. The society is, of course, presented in the light of the royal life only. The king Yasodhara is very much conscious about his status, prosperity and prestige of his state and in order to make his state strong and safe, he resorts to various means, both in internal and external affairs.

The Yasastilakacampū, bears a good amount of information about the importance laid on the elephant and the culture of the elephant-science in the society of its time. The work concentrates rather more on the importance of elephants in the royal household than on the usual need of the general people. The strength and prestige of the state depends on the force of the elephant troops, and the elephant wing of defence is considered the most powerful of the four wings of the armed forces, viz. cavalry, infantry, elephants and chariots.95 It is also regarded as the best vehicle.96 It destroys the enemy in the battle with its eight weapons viz. the two tusks, the trunk, the four feet and the tail.97

95. YC, Chap. 2, v. 178, p. 303
96. Ibid., Chap. 2, v. 176, p. 302
97. Ibid., Chap. 2, v. 178, p. 303
Its speed in the war field is no less than a horse's.  
Due to its wonderful services the science of elephant was regarded as an auxiliary branch of statecraft.

The use of the elephant in the royal society is equally observed in connection with the means of communication, sports, hunting and religious activities as in the battle-field. The care of royal elephants was entrusted specially to a very efficient person of high caste. Uddhatāṅkuśa, the elephant superintendent of the king, known as the Mahāmatra, belonged to the family of Parasurāma, the great Brahmin, while this portfolio in case of the horse troop was carried on by a man of Kṣatriya family.  
The reference to numerous sages like Yājñavalkya, Nara, Nārada, etc. who were engaged in composing treatises on elephanto-logy, signifies the liking and respect the society of the wise and high classes had for this animal. The science of elephants pertaining to diseases and treatments, methods of capturing wild elephants, rearing and training them for war, was a part and parcel of royal education. The Mahāmatra of the king Yaśodhara was engaged with the books on elephanto-logy composed by the sages mentioned already. The

98. Vg, Chap. 2, v. 187
99. Ibid., Chap. 2, p. 290
100. Ibid., Chap. 2, p. 291
excellence of the elephants of the Kalinga state in war is also declared by the Mahāmātra of the king Yasodhara. On the other hand, an untrained elephant also can be regarded as the cause of destruction to the state. A committee of experts (ācāryaparīṣad) is also mentioned in this work to find out the efficient and auspicious elephants for use in the processions at the time of the marriage and coronation of the prince. This committee of experts mention two names, Saṃkhānkuśa and Guṇānkuśa, who were competent in elephantology and had thorough acquaintance with the works on elephant-science. An elephant called a Yāgahasti, possessed of special characteristics, was used to be sacrificed in religious sacrifices. It should have been physically beautiful and mentally balanced. The influence of mada is also discussed in this book. The marks and signs of an auspicious elephant and the results of its sight are illustrated widely. Numerous methods for attending to elephants in rut are discussed by Somadeva. The varieties and different stages of mada, the qualities of mada in its different

102. YC, Chap. 2, p. 291
103. Ibid., Chap. 2, p. 290-91
104. Ibid., Chap. 3, p. 495
105. Ibid., Chap. 2, v. 172, p. 301
106. Ibid., Chap. 3, p. 495
107. Ibid., Chap. 2, pp. 291 to 299
stages, the sources, different names to denote māda are discussed elaborately by the author.\textsuperscript{108}

Four castes of the elephant are recognised by Somadeva viz. Brāhmaṇa, Vaisya, Kṣatriya and Śūdra. Lots of terms like kari, karatī, gaja, sindhuvara to denote an elephant are given in this work.

Along with the king and the royal persons, the envoy of Yaśodhara was also bound to learn the elephant science. He is described to be more efficient in intellect than the sages like Pulaha, Puloma, Pālakāpya etc.\textsuperscript{109}

Somadeva mentions Īśacārin, Yājñavalkya, Vādhhali, Nara, Nārada, Rājaputra, Gautama and other sages as ancient authorities on the elephant lore.\textsuperscript{110} None of their works is now extant but it is noticeable that a large number of books on elephants were available in that period.

In religion and culture the use of elephant in the time of Yaśodhara is best revealed through various references. The elaborate signs of a Yāgahasti proves the use of elephant as a beast of sacrifice in temples along with other animals such as cows, goats, bird etc. The Yasastilakaçampū bears the names of some sacrifices having some relations with Vedic

\begin{itemize}
\item \textsuperscript{108} Ye., Chap. 2, p. 292
\item Chap. 3, p. 495
\item \textsuperscript{109} Handiqui, K.K., Yasastilaka and Indian Culture, p. 454
\item \textsuperscript{110} Ibid, Chap. 2, p. 291
\end{itemize}
rituals such as Gosava, Rājasūya, Vājapeya, Aśvamedha along with the names of sacrifices called Pundarīka and Karīrī which involve the elephant, possessing all good and auspicious marks. The object of Karīrī sacrifice was to bring rain.

Apart from the religious ceremonies, in other social functions also played an important part. On the occasions of the marriage and coronation of prince Yasodhara were arranged the processions of elephants gorgeously decorated with various ornaments and paintings. This proves the necessity of the elephant in the social and religious festivals.

Somadeva's Yasastilaka was composed in 959 A.D. Somewhere in the area corresponding to modern Dharwar and the westernmost districts of Hyderabad State. The Sanskrit text was published by the Mirmaya Sagar Press in two volumes with the commentary of Śrutasāgara. The second volume was published in 1903 and the second edition of the first volume in 1916. The published book is edited by Kedar Nath Sharma.

111. Handiqui, K.K., Yasastilaka and Indian Culture, p. 377
112. Handiqui, K.K., Yasastilaka and Indian Culture, p. VII
Almost seventy-six verses in the 103rd. Chapter of the YuktiKalpataru are devoted to the science of elephant relating to different aspects like counting the auspicious moments for riding them for a journey, the characteristics of the eight ancestors of elephants and their races, classification of the same into different groups regarding their birth, castes, auspicious marks or good qualities, inauspicious marks and their result, and so on. It is, in fact, a work on statecraft and architecture and is attributed to Bhoja, the celebrated king of Paramāra Dynasty, who reigned in Dhara during the period of 1005-1054 A.D.

The YuktiKalpataru deals with other topics like building of houses, testing of jewels, war weapons, and animals like cows, goats, deer and horses, characteristics of boats and throws etc., and thus the author reveals his excellency and profundity of knowledge in varied directions. His mastery over other branches of learning is revealed in books like the Cānakyanīti, the Samarānganasaṅgītrādha, the Sarasvatīkāntābharana, the Śrīcārangasātaka, the Rājamārtanda and the Rāmāvaṇacampū. Regarding the treatment of the

114. YK, Chap. 103
115. Varadacari V., A History of the Saṃskṛta Literature, p. 212
different topics, there are some similarities between the Yuktikalpataru and the works of Bharadvaja, Gargya, Kapya, Nakula, Palakapya, Parashara etc. quoted by him, which proves his acquaintance with almost all these books available in his own time.

The influence of Gargya and Palakapya is distinct in the discussions relating to the elephant-science in his Yuktikalpataru which starts with the account of auspicious moments and dates for riding an elephant. These auspicious moments and days and the location of the stars should always be observed in the time of buying, seeing and giving an elephant as gift.

The elephant, like human beings, is classified by Bhoja into four castes, viz. Brähmana, Kṣatriya, Vaisya and Südra. An elephant born of a single caste is called Südha; of two castes, Jāraja; of two mixed castes, Śūra; and of Brähmana and Jāraja — Uddanta. 116 In respect of their noble qualities they are divided into twelve groups. 117 The passages containing these discussions are followed by quotations from Palakapya and Gargya.

116. YK, 103, 84-96
117. Ibid., Palakapya, 103. 127
        Gargya, 103. 128-135
The Śukranītisāra

The Śukranītisāra is a treatise on polity in four chapters attributed to sage Śukrācārya. Though it is attributed to a mythical authority, viz. Śukrācārya, it seems to be a work of a much later date. The published work does not carry any information regarding the date of sage Śukrācārya. More than one edition of the work Śukranītī has been published already, and an English translation was made by B.K. Sarkar in 1923. The Śukranītī enables us to know the influence of the elephant on the royal life. The elephant specially played a very important role in the time of war and used to be preferred as a vehicle of prestige in the society. The owner of an elephant, known as gajapati, was to learn all about the elephant, its different castes, peculiarities, diseases and treatment and to have knowledge about the different limbs of the body of the elephant, such as the palate, the tongue, and the nails. Śukrācārya states the fourfold classifications of elephants. He discusses the signs of the auspicious and inauspicious elephants. The fixation of price is also discussed clearly in this work.

118. Śukranītisāra of Śukrācārya, translated by Khemraj Srikrishnasadas, Venkateswar Street, Bombay, 1956

119. Śukranītī, translated by B.K. Sarkar, Panini Office, Bhuvaneswari Asrama, Bahadurganj, Allahabad, 1923

120. Śukranītī, 4.141
A life of hundred years is regarded as the longest for both men and elephants. The period earlier to the twentieth year is called young stage in case of both men and elephants, while the middle stage lasts up to eightieth year in case of elephants.

The Arthasastra:

The Arthasastra, is a scientific work of totalitarian and secular tendency which contains all kinds of topics like general principles of kingship, the art of government, precautions to protect the life of the king, the characters of the members of the royal family and the ministers, rules of administration, duties of the superintendents of different branches, the civil, criminal and personal laws and administration, penal measures for wrong doers, responsibilities of the ministers, lawyers and followers, means for collecting taxes, seven elements of politics, methods of international relations, ill-luck that comes to the king, atmosphere of the battle-field, various means to destroy the unity among powerful opponents, use of secret agents, divine favour to gain a fortified city, methods of murder

121. Ibid., 4.88
122. Ibid., 4.89,90
etc. The whole book is divided into fifteen broad chapters, each called an adhikarana.

The authorship of this work is attributed to Kautilya, the famous Brahmin counsellor of the Maurya king Chandragupta. Researches in Indian History affirm the date of this Chandragupta Maurya to be 321 B.C., and accordingly the date of the composition of this work adheres to the period between 321 B.C. and 330 B.C. The antiquity of this work is supported by its old archaic sūtra style of composition as well as references made to this work and its author Kautilya by some early works like the Nītisāra of Kāmandaka, the Daśakumārācarita of Daṇḍin, the Kādambarī of Vānabhatta, and the Pañcatantra of Viśnusārman. Quotations from the Arthasastra are also found in some commentaries of Mallinātha. Kauṭilya, also known as Viśnugupta or Cāṇakya, crushed the Nanda Dynasty by getting Mahāpadmananda, the last king of the dynasty murdered and placed Chandragupta on

125. *Nītisāra* of Kāmandaka, 1.4-7
126. *Daśakumārācarita* of Daṇḍin, ii.3
129. Commentaries on *Raghu*, xv, 29

*Raghu*, xvii, 49
the throne. This exploit of Cāṇakya is warranted even by
the Visnupurāṇa.130

The Arthasastra presents a fair amount of inform-
ation about the role of the elephant in the most important
functions of the statecraft. Kauṭilya acclaimed this animal
to be the cause of victory to the king131 and the state, and
measured the Strength of the king only by the force of the
elephant troop of his entire army. Due to the prolonged and
exalted works performed by the elephant in state affairs,
this animal was kept under careful observation. The task of
taking care of the elephant as well as its treatment and
training was taken as an essential function of the state
and it was entrusted to a superintendent called Gajādhyakṣa.
The principal duties of this superintendent of the elephants
were to inspect the elephant-forests, to care for the
elephant while resting in the stable after training, to
determine the proportion of their food and drinks, to fix
the extent of training, to choose the accoutrements and
ornaments, and to supervise the works of the physicians,
trainers, drivers and binders of the elephant, and many
others.132

130. Ve, 4.24,26
131. As, 2.2
132. Ibid., 2.31
Kautilya instructs to construct the elephant stables in two apartments, one for the female elephants, and the other for the male elephants. The height and breadth should be twice the length of an elephant. The doors should be made facing the east or the west.\textsuperscript{133}

The \textit{Arthasastra} mentions the equipments for an elephant to be used in war.\textsuperscript{134}

The physicians of elephants should always have eyes on proper medical treatment and care, cleanliness and adequate food supply for elephants. Instructions are issued in this connection to punish the wrong-doers.\textsuperscript{135}

Along with this scientific treatment of the elephant, Kautilya instructs the observance of some rituals like blazing of lights at the juncture of two seasons and the sacrifice of animals and the performance of the worship of \textit{Skanda} at the end of every full-moon and new-moon days to increase the health and strength of the elephants.\textsuperscript{136}

In instructing the cutting of the tusks of the elephant, Kautilya advises to cut them in a definite measure, once in two and a half years in case of an elephant born in marshy land, and once in five years in case of an elephant born in mountain lands.\textsuperscript{137}

\begin{footnotes}
\item \textsuperscript{133} \textit{As}, 2.31
\item \textsuperscript{134} \textit{Ibid.}, 2.32
\item \textsuperscript{135} \textit{Ibid.}, 2.32
\item \textsuperscript{136} \textit{Ibid.}, 2.32
\item \textsuperscript{137} \textit{Ibid.}, 2.32
\end{footnotes}
Kauṭilya divides the day and night into eight parts, each called a nādiṅkā, and recommends that the king should remain engaged in different works in the different nādiṅkās in a systematic way. He considers the seventh part of the day as proper time for inspecting the elephant and the other three wings of the army. In case of the elephants the first and the seventh parts are for bath and the second and the eighth parts are selected for food, the forenoon for exercise, the afternoon for drinks, two parts of the night for sleep, and one third of the night is for wakeful rest for the elephant. In case of a prince also the forenoon is selected as the time for his training in elephant science and military arts concerning horse, cavalry and infantry. Kauṭilya maintains that in training the elephants, their suitability, efficiency, physical splendour, nature, characteristics, senses, places of origin, seasons and many other points which he illustrates widely, should be minded carefully.

Kauṭilya recommends the elephant for use as a beast of games and amusements. The forest for the elephant and other harmless animals, and for those furious ones, deprived of their injurious limbs such as nails, claws, teeth etc. should be located in the boundary of the city and should be

138. Ibid., 1.19
139. Ibid., 2.31
140. Ibid., 1.19
provided with an entrance having the sides bounded by ditches, plantations and water-lakes. The forest guards and the physicians of elephants render great help in capturing the elephant by the experts.

While marching, the watery roads and rivers should be crossed with the help of elephants, planks, bridges, boats, timber etc. The ground meant for keeping the elephants in the battlefield should have only such hillocks, uneven grounds and low lying lands through which it can easily pass; the trees lying there should be easily breakable for the elephants, the creepers lying there should be within the easy reach of them, and the ground, as a whole, should be free from mud, rough lands and thorns. The special services rendered by the elephant in the battlefield are wise: marching in the front, opening paths, making camping fields and paths to the rivers, entering the inaccessible places by crossing ponds of water and different roads, setting fire to the enemy side and extinguishing out fire in its own side, making the entire army a strong one by uniting the four limbs, dispersing the enemy party being wild with mada, destroying the walls and towers of the opposite party, carrying the booty, and so on.

141. Ibid., 2.11
142. Ibid., 10.4
143. Ibid.,
144. Ibid., 10.4
According to Kautūlya, if someone deliberately gets killed by being trampled over by an elephant, then his nearest relation must give as fine a drona quantity of food, a pitcher of wine, garlands and scents etc. and as much cloth as is necessary for cleansing the tusks of the elephant. The death caused by an elephant was regarded as auspicious for the dead.

The killer of an elephant is condemned to be put to death; and the person who brings a pair of tusks of elephant, dead from natural causes, is allowed to be rewarded highly. Any negligence in rearing elephants, regarding their stables, supply of food, overloads, entrance into thick forests, and riding by strangers on them is punishable with fines.

Thus Kautūlya represents the influence of the elephant upon society by depicting its importance and role in statecraft.

The Brhatāsthānārita:

The authority of this astronomical work is ascribed to Varāhamihira and its date is fixed in 587 A.D.

145. Ibid., 10.3
146. Ibid., 4.13
147. Ibid., 2.32
149. Varadacari V., A History of Sanskrita Literature, p. 192
Varāhamihira divides the science of astronomy into three groups such as Tantra (based on astronomical and mathematical conception), Ṣaṃhita (horoscope) and Saṃhita (natural astrology) and his work Brhaṃsaṃhita is included in the third division. The book deals with the planets and constellations, their movements and influence on human life, characteristics of weather and wind, Indian geography, characteristic signs or marks existing in men, women, and animals, birds, and the indications of omens with their results, the efforts of these beings, architecture, ways to live peacefully in the family, and the like.

While describing the characteristics of animals, the author dwells on the elephants in chapters 67 and 94, known as Hastilaksana and Hastīṅkita respectively. The previous one contains accounts of elephants in relation to their division into castes, nature, characteristics peculiar to each group, signs of good and auspicious elephants and that of bad and inauspicious ones, colour and odours of ichor produced by different kinds of elephants and auspicious and inauspicious indications of different types of elephants. Regarding their physical structure and nature, elephants are broadly grouped into four classes viz. Bhadra, Manda, Mrga and Saṃkīrṇa. The characteristics of ichor of

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150. Ibid., p. 197
151. Ibid, 67.1-3
different types of elephants are shown only by their colour and smell.  

The best type of elephant is that whose lips, face and palate are of copper colour, eyes are like those of a sparrow, the front tusks are smooth and prominent, the face is flat and wide, the back bone is developed widely and openly like that of a bow, the shape of the frontal globe is like that of a tortoise, the hair is thick and beautiful, the ears, the jaws, the forehead and the private parts are wide, nails are prominent and are eighteen or twenty in number, the trunk is round-shaped marked by three lines from which come out odoriferous inhors and air of lotus-smell.  

That elephant whose trunk is long, tip of the trunk is red, voice resembles that of a waterful cloud, is an auspicious elephant and is fit to be kept with the king.  

An elephant which is lacking in ichor and possesses more or less nails and parts as mentioned for the auspicious elephant and whose tusks are short and bending like the horns of sheep, whose penis is visible, the palate is of various colours, an elephant, which is tuskless and devoid of generative potentiality, and a pregnant having the characteristics.  

152. Ibid., 67.5
153. Ibid., 67.6.7
of a male elephant—all these should be sent to other countries as they bring ill luck to the state. The inauspicious elephants are classified into five categories, viz. Vamana, Kubja, Matkuna, Gandha and Vikata.

The 94th chapter, known as Hastinigita, in 14 verses, presents elaborately the portents conveyed by the elephants for their owners. These portents are gathered from the spots found in the elephant's tusks as they are cut, and from sounds and secretion that come out from its body, and the habitual movements and the behaviour of the elephant. The tusk of the elephant should be cut off at a portion which covers the double length of the circumference of the tusks at their roots and at the remaining portions only the omens should be studied. The measurement of the incision of the tusks should be slightly more in the case of the elephant roaming in the watery lands, and less in the case of a mountain elephant.

The root, the middle and the tip of the tusk of the elephant are the respective places for the residence of gods, demons and men. The result of the portents observed in the region of root occurs very soon, in case of the portents of the middle portion it is a bit late, and the

155. Ibid., 67.9.10
156. Ibid.
157. Ibid., 94.1
omen indicated by the signs in the tip results after a long time.\textsuperscript{158} If the right tusk starts decaying and infects the residing places of gods, demons and men, it brings danger to the king, the state and the army respectively and in the case of the left tusk the omen is for the death of the prince, the priest and the care-taker of the elephant and also of the soldiers, the women and the leaders respectively. If both the tusks begin decaying at the same time, it signifies the ruin of the royal race completely.\textsuperscript{159}

Elephants born in the auspicious days and moments etc. bring fortune and the reverse is the case from elephants born in inauspicious times. The special effect of the breaking of the left tusk at the middle portion due to the rubbing against a tree called \textit{K\text{\'{a}ravr\text{\'{a}}}a} and a tree that renders sweet fruits and flowers, and against the sloppy bank of the river, is the ruin of the enemy; but breaking otherwise leads to a different result.\textsuperscript{160}

Diverse effects take place due to changes in respect of the usual movement of the elephant. If it suddenly stops while walking and abandons shaking of the ears, places its trunk on the ground with great sorrow, takes long and slow beaths, becomes dismayed with eyes half-open, sleeps for a long time, eats uneatable things, walks in a direction and

\begin{itemize}
\item \textsuperscript{158} \textit{BG}, 94.8
\item \textsuperscript{159} \textit{Ibid.}, 94.9-10
\item \textsuperscript{160} \textit{Ibid.}, 94.11
\end{itemize}
style undesirable and unwarranted and discharges blood-mixed excrement for a long time, then it indicates danger.\textsuperscript{161} If it finds delight in crushing an ant-hill (valmīka), a post (sthānu), a creeper bower (gulma), a shrub (ksupa) or a tree (taru) of its own accord and being pleased with these walks speedily in the favourable direction, and if at the time of fixing the saddle it sprinkles water with the trunk, roars, emits ichor and encircles the right tusk with the trunk, then the result becomes auspicious.\textsuperscript{162} Again if it is caught by a crocodile in water which goes scot-free, the king will die very soon; but if the elephant catches it and comes out from the water, good luck is sure for the king.\textsuperscript{163}

In the 79th chapter, called सव्यसानालक्षण, ivory-made bed and seat are declared to be auspicious for the king. In this respect the author goes on illustrating the effects of the tusk of the elephant. The text is, of course, almost a repetition of what is contained in the chapter 69.

\textit{Agnipurāṇa}\textsuperscript{165}:

Another source, the \textit{Agnipurāṇa}, one of the eighteen Mahāpurāṇas, is encyclopaedic in nature and contains a large number of topics. This work, though belonging to the Vaishnava sect, concerns itself with the gods and the goddess of other

\begin{itemize}
  \item \textit{Ibid.}, 94.12
  \item \textit{Ibid.}, 94.13
  \item \textit{Ibid.}, 94.14
  \item \textit{Ibid.}, 79.19
  \item \textit{Agnipurāṇa} with Bengali translation by T. Kavyatirtha, published by H. L. Choudhury, Calcutta (1944 ed)
\end{itemize}
sects also and advances the instructions of tantric rituals. Besides, cults of Linga, Durgā, Ganesa, Sūrya etc. are mentioned in the Agnipurāṇa. It also instructs to worship the gods and the goddesses and to construct their idols, temples etc. Through its long and extensive details, the Agnipurāṇa contains the theological and profane knowledge in a simple dialogue form and constitutes the base of the creed of Brāhmaṇical Hindus.

The Agnipurāṇa contains description of the incarnations of Lord Viṣṇu, starting from the Matsya and ending with the Kṛṣṇa; different portions of the Mahābhārata and the Rāmāyana and of other religious scriptures; ways to construct buildings and towns etc.; duties to be performed in different stages of life; customs and rituals connected with marriage, social and religious festivals, and death; art and architecture; construction of dwellings of the battle-field, houses; greatness of holy places; astrology, astronomy, art of war; omens and portents with their sciences; knowledge of epidemics which break out in the human and animal world with their remedies; poetics, law, grammar, lexicography, metres, royal duties; characteristics of men, women, animals, weapons, jewels, flowers and a large number of other things.

In course of examining the nature and characteristics of various animals, the elephant is taken into account in
the 287th chapter of the Agnipurāṇa. It illustrates the points of excellence and ailments suffered by the domestic elephants. The colour, the strength, general built, the speed, the roundness of the physique, inclinations for fighting, power of endurance—these are the sevenfold qualities to be marked at the time of accepting an elephant. An elephant possessing a good height, eighteen to twenty foot-nails and discharging a transparent liquid from the temples even in the winter season and capable of enduring a great measure of fatigue, and one whose right tusk is more elevated than the left one, is of large size and possesses large well-developed flapping-ears dotted with little white spots and whose colour is like that of a showering cloud, is auspicious. Contrary to this, a short statured and disobedient elephant is inauspicious, should be always abandoned.\^[166]\  

The she elephant should be used in catching rogues and wild elephants. The stable should be constructed at a suitable place good for health of the elephant. Possible diseases from which elephants can suffer, as mentioned in this Purāṇa, are chiefly jaundice, constipation, fainting, headache, constant shivering, acute dysentry, numbness of the trunk, hoarseness of the voice, inflammation of the
thorax, retention of urine, skin diseases, presence of worms in the intestines, wasting diseases, intestinal tumours, colic pain in the abdomen, and so on.

Oil, clarified butter, medicated ghee, different salts, honey and various herbal recipes are prescribed for use in the treatment of different diseases. Wine, powder, morsel, decoction, juice, amulets, enema etc. are the different forms of medicines prescribed in the Agnipurāṇa. The essence of living creatures like Kakamāci, Tittery and Lava mixed with pepper and pippali is prescribed for an elephant in special ailment like constant shivering.

The items of food to keep the general health of the elephants strong while under medical treatment are divided into three categories as best, common and worst. The meat-essence of ravens, owls and dogs mixed with honey are given as food in times of special need. The soup of meat essence is essential for making the elephant excited in the battlefield; collyrium is applied to strengthen the eyesight and to make it happy; and paste is necessary to cool the eye. A lotion of warm oil should be applied to keep the nails strong. The resting place or the sleeping place should be covered with ashes and cow-dung crumbled into powder and the body of the elephant should be anointed with oil in summer and winter seasons. 167

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167. AP, 287.22-33
The divine origin of the elephant and its eight ancestors, threefold division of the elephant as Bhadra, 
Manda and Myra are referred to briefly in the 269th chapter 
of the Agnipurāṇa. The elephant is also imagined to be best- 
owed with divine favours as it acquires its beauty from the 
moon, strength from Viṣṇu, energy from the Sun, speed from 
the wind god, steadiness from the mountain, victory from 
and 
Rudra, fame from Purandara. 168

The chapters as regards the elephant science mention 
the name of Pālakāpya as the narrator of this science. This 
proves the indebteness of the Agnipurāṇa to Pālakāpya, and 
therefore, it can not claim any originality as regards the 
elephant science. Anyway, allotment of two chapters to 
elephantology in this treatise of great popularity bears 
evidence of the importance of the elephant in the society 
in its age, and of elephant science in Sanskrit literature.

In the following chapters we shall have an occasion 
to discuss the various aspects of the ancient elephant lore 
as preserved in the aforesaid traditional texts. It will be 
seen that all the traditional discussions are based on a 
classification of the community of the elephants. The details 
of every aspect of the science vary according to the variety 
of the types of the elephants. Hence, it becomes more

168. Ibid., 269.14-12
convenient to follow the traditional observations when there is a clear picture of the varieties of the animal before us. So we propose to examine the classification of elephants in the next chapter and then to proceed on to the other aspects of the science.