

Elephantology in Sanskrit

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Abstract. Captive elephants were used extensively in India since the first millennium and various aspects of elephant husbandry were of great importance. There is a large body of literature on elephants from that period, written in Sanskrit, which is an ancient language of India. Hasthi Ayurveda is the most important of these with 12,000 verses dealing with the entire gamut of elephantology. Mathangaleela with 12 chapters is more or less a summary of Hasti Ayurveda. Manasollasa deals with staged elephant fights, which was a major entertainment of kings. Here brief summaries of these and four other texts are provided in English.

Introduction

Use of captive elephants in range countries goes back more than three millennia, their role varying from worship to war. The standard army of any major king in India had four divisions hence was called 'Chaturanga Sena' which literally means 'four armed army'. The four 'arms' consisted of elephants, chariots, cavalry and infantry. So the elephants were an integral part of a standard army, probably performing the role of tanks in the modern army. As Kautilla (BC 370-283) says in his Arthashastra "A king relies mainly on elephants for achieving victory in battles. With their large bodies they are able to do things in war, which are dangerous to the other arms of the forces. They can be used to crush foot soldiers, battle arrays, forts and encampments".

The epic war of Kurukshetra described in the Mahabharata (first millennia) carries the interesting story of Dharmaputra calling out 'Aswathama hatha', which means the elephant named Aswathama died. This shouting was to demoralise Drona who had a son having the same name. Since it was known to everybody that Dharmaputra speaks only truth, this did have the desired result.

The importance of elephants in war made their management very important for kings and a lot of literature on elephant capture, training,

and aspects of elephant husbandry came into existence in Sanskrit. Most of the copies of the Sanskrit literature available today are corrupt and incomplete. A translated summary of the major texts are provided here.

I. Hasthi Ayurveda

As the word literally means it is the Ayurveda of hasthi the elephant or in other words the life science of elephant. This book is authored by Sage Palakappya. Hence it is also known as Palakappya.

The book currently available is published by Sarawaathi Grantha Bhundar, Sivaji Nagar, Pune, Maharashtra, and they claim that the text is compiled from four copies procured from Jaipur and Kolkata. But all the copies were incomplete and corrupt. Consequently at some places the text does not convey a proper meaning and the editing is not proper subject wise. Hasthi Ayurveda consists of 12,000 verses and is written as a discourse between the King Ramapada and the Saint Palakappya. The discourse takes place at Champapuri, place of Rani Laskhmi Bai of Jhansi. However the book tries to antiquate it to the period of King Dasratha and poet Vyasa, probably to give greater credence to the work. The whole work is divided into four sections: 1. Maharogasthanam, 2. Kshudrarogasthanam, 3. Sallyasthanam and, 4. Utharasthanam.

1. *Maharogastanam (major maladies)*

The first chapter of this section deals with the origin of the king and Palakappya and the subsequent meeting of the king with Palakappya. The next chapter deals with feeding and medicated feeds. The chapters that follow deal with different types of diseases, like fever, glands, vitiligo, digestive and urinary diseases, fainting, diseases of the head, oedema of the foot and diseases of the eye. Eight important formulations are given.

2. *Kshudrarogasthanam (minor maladies)*

There are 72 chapters in this section comprising of many topics. Important areas discussed are: nausea, vomiting, diseases affecting blood, food poisoning, arrow poison, snake envenomation, cardiac fibrillation, gas accumulation, dwarf elephants, mental state of newly captured elephants, worm infestation, geriatrics, epilepsy, sternal injury, lesions of skin, exhaustion from heavy work, foot rot, psychosis, post-musth condition, conditions resulting out of excessive walking, paediatrics, indigestion, dentistry, tuberculosis, musth, eye diseases, diseases of heart, joints, and neck, dysphagia, pregnancy, parasites on the eye lashes, etc.

3. *Sallyasthanam (surgical conditions)*

This section has 34 chapters and surgical conditions like different types of wounds, wounds inflicted by tools and injury of blood vessels and nerves are described. Other conditions dealt with are pregnancy, colic, surgical instruments and their use, dental problems, burns, spider poisons, poisonous insects, carnivore maul, descriptions of body parts, fracture, and abortion.

4. *Utharastanum (epilogue)*

This section deals with the administration of medicated oils, electuaries, different types of enemas, inhalation, feeds and fodder for different seasons, management changes required for different seasons, dentition and tusk trimming, feeding and watering protocols, feeding of sugar cane, salt, tamarind, milk, ghee (clarified butter), meat, alcohol, and signs of death, use of barley

in musth, therapeutic use of leeches, evil spirits that are present in elephant stables and its counter measures, elephant welfare and its mantras and procedures.

II **Mathangaleela (elephant sport or game)**

Mathangaleela is another classical Sanskrit text on elephantology written by Neelakanta and edited by Ganapathy Sasthri. Neelakanta is believed to be hailing from Kerala in southern India. Mathangaleela is very popular among people in Kerala.

Mathangaleela has been translated to Malayalam the language spoken in Kerala by the famous poet of Malayalam, Vallathol Narayana Menon in verse form. It has been translated to German by Heinrich Zimmer and to English by Franklin Edgerton, a professor of Yale University and its first edition came out in 1931 in the USA.

Mathangaleela is considered to be 200 years old although many attribute it to an earlier period. It consists of 12 chapters with 253 stanzas. Chapters are of uneven length consisting of three to fifty one stanzas.

Chapter I

This chapter deals with the origin of elephants as well as sage Palakappya. According to this book elephants once had the capacity to fly in the air. Once they perched on a branch of a tree and because of the weight it broke and fell upon the hermitage of Sage Dirghatapas (Fig. 1). The enraged sage cursed them and elephants lost the capacity to fly. Some of them went to Brahma and requested for recourse and for the cure of diseases, which they are likely to be afflicted with by the curse. The Lord gave them a promise that a child will be born out of a cow elephant that will be named as Palakappya. Palakappya born out of a cow elephant grew with elephants and learned everything about elephants. Palakappya tells the King Anga that elephants descended from Airavatha and the seven sacred elephants born out of the Cosmic Shell are to be zealously tended.

This chapter also narrates different synonyms of elephants and their etymologies in verses starting from 31. It is explained why the elephants lack sweat glands on their skin unlike other animals and also the presence of intra-abdominal testes. The condition of musth is discussed in detail.

Chapter II

This chapter deals with favourable marks that can be seen on a good elephant. An ideal quality for a good elephant that is to be kept by the king is spelled out in verses six to nine. Similarly desirable qualities of working elephants and those to be used in war are given. It also describes different sounds that are produced by elephants. This chapter with 17 verses ends with a warning about the desirable number of nails and its significance.

Chapter III

Different unfavourable marks of an elephant are described in this chapter. They include the number of nails, presence of external testes, very short trunk fingers etc. Undesirable marks on the trunk, penis, and on the tail are given in verses two and three. A list of undesirable marks that are seen on the other parts of the body is also listed. Another warning is not to have a pregnant cow or a cow with a calf at foot.

Chapter IV

This is a comparatively a short chapter having only six stanzas and describes marks of longevity. These marks are seen on the head, tail, and spine. Certain colours on some specific parts of the body may also indicate longevity. Other marks of longevity can be seen on the body of an animal at different stages of its growth.

Chapter V

Stages from infancy to very old age are described decade wise and different names for each decade are given, up to the fifth decade.

Chapter VI

This chapter is given the title ‘decisions of measurements’. Standard measurement protocols for each class of elephants are given. Length of the elephant is given as the measurement from the eye to the root of the tail, height from the shoulder

to the bottom of the toenail and circumference at the girth. Names of different body parts are also given. For example the Vayu Kumba is given for the wind boss on the head. Similarly names are given for different body parts like the tip of the trunk, root of the ear, middle of the body, hind quarters etc.

Chapter VII

This is the shortest of all the chapters and has only three stanzas and deals with the valuation criteria for an elephant. The statement given is as follows ‘the price agreed to by both the buyer and the seller shall be the best price when the seller feels that he got the right price and the buyer feels that he gave only the right price and not more’. Further it details the price reduction of an elephant for different defects of the animal.

Chapter VIII

This chapter with the heading ‘Signs of Character’ describes the marks that may indicate differences in physical and mental characters. Elephants are classified as Gods, Demons, Gandharvas (heavenly singers), Brahanas, Kshathriyas, Vyasias, and Sudhras. In Hinduism humans are classified into four classes, i.e. Brahanas the priests, Kshathirias, the kings, Vyasias the traders and the Sudra the artisans. This is known as chaturvarna, which literally means the four classes.



Figure 1. The elephant’s mischief that cost them their wings (from Gaja Sastra).

Chapter IX

This chapter provides a full description of musth, different stages of musth and important behavioural changes during musth.

Chapter X

This chapter deals with capture techniques. The commonly described five methods, stockade (khedda), pit, noosing, use of a receptive cow as a decoy and mela shikkar are given along with the merits and demerits of each method.

Chapter XI

Management of elephants is the topic of discussion in this chapter. Both daily protocols as well as the seasonal changes required are given. This is the longest of all the chapters and has 51 stanzas. It says that elephants in the wild have got all the freedom of roaming around and hence this has to be considered when they are kept in captivity. They should be tended with great care as well as provided graze and browse. Grains both cooked and raw are to be fed in the prescribed quantity. Administration of medicines and nutrition and changes in management in different seasons are described.

Chapter XII

Qualities of elephant managers, mahouts, and trainers are described. Various commands including visual signs, oral, percussion, and prodding are given. How and when these commands are to be used so that the elephant will obey the mahout is an interesting section. The chapter ends with a thought provoking note 'elephant science is like a deep ocean, this small part is extracted by me from it and is given as Mathangaleela. This may be examined, tested and corrected by the wise'.

III Brihat Samhita

This is a voluminous book written by Varahamihira who lived in Ujjain during the period 505-587 AD. He was an astronomer, mathematician and astrologer. According to some commentators of this book, the section dealing with elephants was not in the original text but was added subsequently. But in the book available with us, under chapter 67 there are eight slokas given as 'Signs of Elephants'. The previous chapter to this is on horses and the subsequent one on is 'Signs of Men'.

Sloka 1. Deals with Bhadra class of elephants and they are good for work.

Sloka 2. Deals with signs of elephants falling in the class Manda.

Sloka 3. Deals with the signs of Mriga and Sankrina class of elephants.

Sloka 4. Deals with the height, weight and girth of different classes of elephants.

Sloka 5. Gives the colour of Bhadra, Manda, Mriga and Sankrina classes of elephants.

Sloka 6 and 7. Gives the characters of elephants that are auspicious to own.

Sloka 8. Describes the characters of elephants that can bring luck to the king.

Sloka 9 and 10. Describes elephants that are inauspicious and which will bring bad luck to the king and to the country. It is suggested that elephants of this type should be removed from the country.

IV Manasollasa (Gajavahyali-Abhilashitarta Chintamani)

This book is authored by Bhulokamalla – Somasevara III (1126-1138 AD) King of



Figure 2. Elephant fight (from Gaja Sastra): 1st mode (left), 2nd mode (middle), 3rd mode (right).

Chalukya dynasty. The word ‘mansollasa’ means entertainment and this book is mainly devoted to royal games, one of which was a fight between two elephants (Fig. 2).

The book is divided into five parts with 20 chapters in each and hence a total of 100 chapters. One section deals with elephant habitat, and methods of capturing and training them. This is spread out in 16 pages. Another section (10 pages) deals with diseases and their treatment.

The elaborate portion of this book relates to fights between elephants in an arena. In the beginning types of elephants like Mriga, Manda, Bhadra, Mishra, and Sankrina are described. Then it describes the constitutional requirement to fight in an arena. This is followed by best medication for the increased performance, exciting aggression, signs of health, stages of intoxication, arena preparation, arena itself, announcements, preparation from the stable, arrival at arena, and grading of participants. A description about the races of elephants, horses and its riders, mahouts, types of seats, attendant mahouts, codes of communication, ability of elephants, posture of elephants for fight, races related to mahouts and elephants, hazardous situations arising from unruly elephants, fights between elephants, various attacking modes in fight, general precautions, rewards and arrival of the king to the arena. Since horses are also involved in these fights there is a description about horses also.

V. Gaja Sastra (Science of Elephants)

Paksī laksana āni cikitsā Bājanāmā va Cittā vahāgāsa cikitsā Yūjanāmā (and training and treatment of falcons, hunting cheetahs, rams, and smaller birds).

This book is one of a series of publications by Sarswathi Mahal Library of Tanjavore. It says that the book was compiled at the instance of Raja Serfoji II (1788-1832). Editing and English translation was done by Sri. Krishna Swami Mahadik. Although Palakappiyam is the Magnum Opus, this book is more of a summary, and is intended for a young prince’s

education by Rakhmaji Pundit under the orders of heir apparent Sivaji, commencing in the year 1812 and completed in 1822 AD. The text starts by invoking the blessings of Vigneswara (Ganapathy-the elephant God) and is followed by the headings:

Gaja Devatha lakshana - Characteristics of elephant Goddess. Gajayush lakshana – Signs of longevity and Gajavau lakshana – Signs of age in elephants. The total lifespan of elephants is considered to be 120 years and all the 12 Dasas or stages are described. Avartha lakshana – Auspicious marks, under these twelve marks are described. Subavartha Sthana – Places where these auspicious marks are located (Fig. 3). Asubavartha Sthana – Places where inauspicious marks are located.

Gaja Dantha Cheda lakshana – Method of cutting the tusk. Time of cutting the tusk and the measurements involved in cutting the tusk are described. Dantha vridhi prakar – Rate of growth of tusk. Auspicious and inauspicious colour, marks, and smell of cut portions of tusk.

Gaja Shikaha prakar – Training of elephants, qualities of Gajadhikari (officer in charge of elephants), the Gaja vaidya (elephant veterinarian), mahouts and their assistants. Gaja Marga prakar – Methods of locating elephants in the forest. Bandaha lakshana – Methods of capture. All methods that were used like Keddha, mela shikkar, use of female decoy, and pit method are described.

Nakha lakshana – Signs of nail. Dantha lakshana – characteristics of tusk. Gaja pramana – Body



Figure 3. Situation of auspicious marks.

measurements. Based on body measurements elephants are classified into six groups as the best, moderate, smaller breeds, dwarfish, and hump backed.

Gaja maha dosha – defective elephants. Descriptions given here are similar to that are given in other texts. Gathi lakshana – Gait or signs of motion. Further classification being, Suba gathi –good gait, Asuba gathi – unfavourable gait, and Vishama gathi –bad gait. Swara lakshana – Characteristics of voice like Subha swara – good voice, Dhushta swara – bad voice. Asana lakshana – Sitting postures, like Uthkrishta – the best, Madhyamam – medium, Avakrishta –worst. Pada pranidhi – Methods of giving commands by foot.

Saptha Sobha – Seven types of comeliness when in musth. Saptha Maha Avastha – Seven important stages of musth. Gaja nethra varna lakshana – Signs based on the colour of eyes. Gaja gandha lakshana – Body odours. Good body odours and bad body odours. Gaja Sathava lakshana – Signs of strength of elephants like Uthamam sathva-high class, Madhyama sathva – medium class and Heena sathva – weak varieties. Four casts of elephants: Brahmana sathva, Kshathriya sathva, Vaisya sathva, Sudra sathva (just like the four varnas of Hindu religion) are described.

Gaja jathi lakshana: ten classes of elephants are described (Fig. 4): Bhadra, Manda, Mriga or deer, Bhadra-Mandha, Bhadra-Mrigha, Mandha-Bhandra, Bhandha-Manda-Mrigha, Mrigha-Bhandra-Mandha, Mrigha-Mandha and Mandha-Mrigha. Gaja Varna – elephant colouring. Gaja Chaya – grace of elephants: Subha chaya - good grace, prathwi i.e. earth. Udhaka chaya - water and Agni Chaya- fire. Asubha chaya – unfavourable look: Vayu - wind and Nabha - cloud or sky.



Figure 4. Classes of elephants: Bhadra (left), Manda (middle), Mriga (right).

VI Arthasasthra

Arathasasthra is an ancient treatise on state craft, economic policy, and military strategy authored by Chanakya (350-283 BC). He was the political advisor to emperor Chandra Guptha and is often called Machiavelli of India.

Elephants and horses were two important arms of the army in those days. Hence Arthasasthra gives a detailed account about the importance of forests with elephants, and their protection, capturing, training, and their management. A major portion of chapters 31 and 32 of Book II is devoted to it. He stresses the importance of protecting forests where good elephants are in plenty, ideal season and time of capturing, preferred age of elephants to be captured etc. It prescribes separate stables for males, cows, and calves and their requirements.

Daily protocols for bathing, feeding as well as rations for different animals are given. Maximum importance is given for training of elephants for domestic use, riding and war. Training of war elephants is very elaborate and includes trampling and killing, fight with other elephants, assailing cities and forts. The persons required for the elephant’s welfare, starting from the grass cutter to the veterinarian and the manager are given. Duties of the ‘elephant supervisor’ are elaborated.

VII Yasastilaka

This text is authored by Somadeva and is essentially a Jain text. There are a few sporadic references about elephants, but nothing new, not found in earlier texts is described.