

On Elephants in Manasollasa – 1. Characteristics, Habitat, Methods of Capturing and Training

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Abstract

Hastishastra or the science dealing with elephants originated in India. Kings in ancient India maintained a separate division of manned elephants in their armies besides the foot soldiers, chariot riders, and horse riders. Capturing elephants from forests, managing them, treating their ailments, and training for various purposes formed an important activity in most kingdoms. Hastiyurvedasamhita (a manual of the science of elephant-life), a work by the sage Palakappya, is an ancient text that has been preserved in the Raja Serfoji Saraswathi Mahal Library of Thanjavur in Tamil Nadu.

The encyclopedic work, Manasollasa, or Abhilashitarthachintamani has been ascribed to the Western Chalukya King, Someshvardeva or Somadeva III, who ruled in the twelfth century AD. A large number of verses deal with elephants and their management. For the first time ever, these verses have been translated into English in this article with a discussion. This paper is the first in a series of three articles.

Introduction about the science and its antiquity

The word Hastishastra (a science dealing with elephants) can be translated into English as “Elephantology”. The science deals with topics like the genealogical, physical, mental and intellectual characteristics of elephants, techniques of tracing and capturing elephants from forests, nourishment for healthy growth and general upkeep, taming and training them for war and work, and diagnosis and treatment of their diseases. It was seriously studied in India since very ancient times in great details and has a continuous written and oral tradition. Of the two species of elephants, viz., the African and the Asian, known to the modern naturalists, the ancient Indian scholars understandably observed and studied only the latter, technically called *Elephas maximus* Linn.

The ancient Indian kings maintained huge armies in which foot soldiers, and warriors riding in chariots, on horsebacks, and on elephants formed the four divisions. Breeding, maintaining, and training horses and elephants and studying and treating their ailments, therefore, occupied a place of vital importance in maintaining law and order and in the defense of the state. As a result, the kings employed scholars and experts who investigated this branch of veterinary science, right from the early days. Their knowledge was based on experience and was an outcome of their direct observations and experiments. It was not a mere fanciful theorizing as is evident from the

detailed and practical instructions for the maintenance of these animals, which the works on the subject contain.

Hastyayurvedasamhita (A manual of the science of elephant-life), an ancient work of unrecorded date by sage Palakappya, is an important text on the subject preserved till date, a copy of which is available in the Raja Serfoji Saraswathi Mahal Library of Thanjavur in South India. The work consisting of over seventy-two chapters deals systematically with several diseases of elephants grouping them suitably into different categories. It also contains valuable instructions for the healthy growth, upkeep and training of elephants. The author is stated to have taught this science to king Romapada of Anga (probably parts of Bihar and W. Bengal extending to seashore), dating back to the period of Dasharatha of Ramayana (c.2000 BC). The authorship of some more works like Gajapariksha, Gajadarpana and Gajachikitsa is also ascribed to sage Palakappya. Hastyayurveda is, however, his magnum opus and was respected by later writers as a classic.

The study of this *shastra* formed an essential part of the formal training of the princes. Works with new interpretations and additions, modifications and abridgements, elaborations of certain selected topics etc. were composed continually till as late as the nineteenth century. In 1820 Raja Serfoji of the Bhosale dynasty of the Maratha rulers composed 'Gajashastrabhashaprabandha'. This work, also preserved in Thanjavur library, is unique and immensely valuable in as much as the king included in it colored illustrations, which vividly depict the otherwise terse content of the verses. Each illustration is flanked by the relevant Sanskrit verse on the top and its translation in Marathi at the bottom. Vaishampayana's Gajashastra, Vedavyasa's Gajashastra-Chikitsa, etc. are some more known works on the subject. Besides these, many more texts have been preserved in the libraries on palm leaves.

More definite evidence about the existence of this science is found in the Artha-sastra of Kautilya dating back to the third century BC. Kautilya appears to have been aware of some standard texts on the subject as is indicated by the words '*nibandhena vidyuh*' (Artha. II-2) where the word '*nibandha*' means a literary composition. (The attendants of elephants are directed to learn about the movements of elephants in the forests, checking their knowledge with the records in these works). Maintaining an army of elephants obviously required a large staff attending to various duties. Kautilya mentions about eleven of them such as *adhorana* (mahout), *hastyadhyaksha* (superintendent), *hastishastravidhijnya* (expert in the practical application of the science of elephantology), *chikitsaka* (doctor) etc., along with cooks, ration-supervisors, trainers, captivators, and guards. The duties of the elephants in war were well defined (Artha. X-4, 5) and they were trained for the purpose.

Study on elephants at the academic level was continuous. Encyclopedic works preserved material on the subject and often formed the basis for such studies. Manasollasa or Abhilashitarthachintamani of Someshvardeva, a twelfth century ruler of the Chalukya dynasty is one such work.

The Chalukyas according to one opinion went to the south from Ayodhya in the north and established their kingdom there, around 550 AD. In 632 AD, The king Vishnuvardhana established an independent kingdom on the Eastern Ghats from whereon the eastern branch of the Chalukyas came into existence. Someshvardeva, the author of Manasollasa belongs to the western branch. Someshvara I of this line ruled in 1042 to 1068 at Kalyani in northern Karnataka. His first son Someshvara II ruled from 1069 to 1076 and second son Vikramaditya VI from 1076 to 1126. The latter was a prominent ruler and his achievements are recorded and eulogized by the Kashmiri poet Bilhana in his famous Sanskrit epic, Vikramankadevacharita composed before 1088. Someshvara III or Someshvardeva, the author of the present book, was his son who ruled from 1126 to 1138. He is not on the record of historians of Sanskrit literature as his work,

although of immense value for the cultural and social history of India, was not of a literary character. Besides Manasollasa, Someshvardeva is also credited with the authorship of a Sanskrit *champakavya* (an epic composed in prose and verse) 'Vikramankabhyudayam' in which the hero is his father, Vikramaditya VI. The manuscript of this work is preserved in Jaina Pustaka Bhandar at Varanasi (Benaras). Unfortunately the book is only partially preserved. The grandson of Someshvardeva, Someshvara IV (1163–1189) is the last known ruler of the western Chalukyas.

A verse in the introductory portion of Manasollasa (I-1-9) clearly states that, Someshvardeva, a well-known king of the Chalukyas, composed this valuable work containing a treasure of information. Another verse (IV-20-1493) refers to him as the son of Vikramaditya. This internal evidence confirms his authorship of the work. However, another verse in the text (II-IV-371) appears to contradict this as here, the author has made himself the standard of comparison while describing the greatness of ocean and according to Shrigondekar (1925), "No author would be guilty of so flagrant a piece of vanity." According to him, it is probable that some scholar in his court composed the work and dedicated the authorship to his patron king. Considering the encyclopedic nature of the work dealing with various topics, the probability cannot be ruled out. It was a known practice in Indian history that experts on different subjects enjoying the king's patronage composed and collected valuable information on different topics to prepare these treasures of knowledge and information. These works generally represent the knowledge base at the time, on those subjects. The authorship of such works, which were perhaps the outcome of collective effort of several academicians, was often ascribed to the kings themselves.

On the basis of information contained in Manasollasa II-2-61 to 65, where the author discusses *Dhruvanka* (astronomical constant) for the scheme of the calendar propounded in the work, the date of composition of Manasollasa is fixed as 1131 A.D.

About Manasollasa

Manasollasa means 'delight' or 'radiance' of mind so called as it enlightens mind and Abhilashitarthachintamani where '*chintamani*' means 'thought-gem', a fabulous gem supposed to yield its possessor all desires, indicates that the present work aspires to bestow upon its possessor the knowledge of any subject that he wants to learn about. The voluminous work consists of 10,000 or so verses composed in Anushtubh, divided into five sections called *Vimshati*, i.e., a group of twenty, as each section contains twenty chapters. Gaekwad's Oriental Series, Baroda published the text in three volumes in 1925, 1939, and 1961. (The present translation is based on this text). The University of Mysore too, published it in 1926. Yet, for want of complete translation, the contents of the work are not known very widely. However it is worth mentioning that three British authors [Burnell, Tiele, and Yule, 1885 as quoted by Watts (1891) under the section on rice] made a derogatory reference to the description of amusements in Manasollasa as "foolish and indecent", ignoring valuable information on natural history. This was a typical attitude of the scholars of the Mughal and British periods.

One of the topics dealt with in the text is 'elephants'. According to the context of the respective chapters the author deals with this subject, covering the important topics of the *hastishastra*, at three different places, as specified hereunder:

- *Vimshati* II, Chapter III dealing generally with the country to be ruled by the king, contains 161 verses (171–331) on characteristics of elephants, habitat, captivation methods, and training.
- *Vimshati* II, Chapter VI (620–677) dealing with the king's army, contains 58 verses on various diseases of elephants and their treatment.

- *Vimshati* IV, Chapter III (405–660) dealing with sports and other entertainment contains 256 verses on elephants' sports.

Information on elephants in *Manasollasa* has been translated from Sanskrit to English and will be published serially in three parts. The first part is a translation of verses 171–331 in *Vimshati* (Section) II, Chapter III.

Translation of verses

Forests

171. A forest known for the breeding of elephants is considered to be the best. The king must protect such forests and also those in which elephants are known to inhabit, with the help of the forest dwellers.

Identification of forests in which elephants reside

172. Forest located amidst Gangasagara¹, Himadri², and Prayaga³ with red sea to the west is Prachya (the eastern) forest.

173. The forest from Tripuri⁴ to Kosala⁵ is called Vedikarupa (resembling a platform). The one in Shrikshetra⁶ and Gaudabangala⁷ is the Angireya forest.

174. The forest situated over the regions of Vindhya⁸, Chitrakuta⁹, Kalinga¹⁰, Dravida¹¹, spreading up to the sea is called Kalingaka.

175. Dasharnaka forest spread over Shri¹², Veda¹³, and Malaya¹⁴ mountains, is the breeding ground of the elephants.

176. Forests in Sahyadri¹⁵ reaching up to Bhrigukaccha (western sea shore) is recognized as Aparanta and those located in Dwaravati¹⁶ and Avanti¹⁷ are the Saurashtra forests.

177. Forest in Kalanjara¹⁸, Kurukshetra¹⁹ connected to Sindhusagara²⁰ and spread up to the Himalayas is called Panchanada.

178. Kalinga, Vedikarupa, and Dasharna are the superior kinds of forests while Angireya and Prachya are mediocre forests.

179. Aparanta, Panchanada, and Saurashtra are the inferior types of forests. These are the eight forests where elephants breed.

Death penalty for elephant killers

180. The king should execute those offenders who kill elephants. If elephants die naturally or accidentally, the king should, however, take possession of their tusks.

Tracing

181. Presence of an elephant herd in a forest can be ascertained from animals of the forest smeared with urine and dung of the elephants and the leaves of *arushka* (*Semecarpus anacardium* L.f.) sticking on to them.

182. It can also be inferred from the footmarks and droppings of the elephants, from the felled trees dashed against by them, from their resting places, and also from their trumpets.

Ensnaring Devices

183. Equipped with all the necessary material, carrying with him foot-snares and net, and accompanied by several assistants riding on cow-elephants, carrying material required in the devices (for catching elephants),

184. –an expert in identifying the various characteristics of elephants should proceed to catch elephants of high breed, using the devices, at the king’s order, during *Grishma* (summer season).

185. He should, as ordered by the king and with the help of elephant-keepers and persons knowing the methods, catch elephants with any one of the three devices.

186. *Vashabandha* (the device of seducing), *Varibandha* (the device of ensnaring by obstructing the path) and *Anugatabandha* (The device of segregating and chasing) are the three excellent type of devices for captivating elephants.

187. The two devices called *Apata* and *Avapata* are condemned because sometimes elephants die in the process. They should therefore be avoided.

Varibandha

188. Observing the grazing places of the elephants, fresh and tender grass should be spread over there. *Sallaki* (*Boswellia serrata* Roxb. ex Colebr.), plantain-stems, pieces of sugarcane sweet like nectar,

189. –tasty lotus bulbs, tender leaves of *pippala* (*Ficus religiosa* L.), green leaves of bamboo and such other matter as is cherished by elephants should also be spread there.

190. The elephant herd cherishing tender fodder arrives there at the desired spot. Observing it arriving regularly for a few days, blocking of the path should be planned.

191. A piece of land measuring one *kosa* (approx. 3.6 km) in length and breadth should be encircled by trees or trenches.

192. An expert in this device should leave there a place for entrance for the elephants at the ground level.

193. A wise person having properly ascertained that the elephants have entered the place should then block the entrance (himself) concealed by big trees.

194. After that out of the elephants caught inside, those with good marks should be captured. The procedure of this kind is called *Varibandha*.

Vashabandha

195. Seven or eight mighty and speedy tamed cow-elephants with keepers covered with leaves and carrying snares in their hands, riding on them-

196. –should place the snares for captivating elephants, on the trunks of the cows and then a wise person should slowly approach the elephants from the direction of the wind.

197. Manipulating the cows and seducing the elephants by them the operation of captivating the elephants should be completed. This captivation procedure called *Vashabandha* is wonderful.

Anugatabandha

198. Having observed with perseverance through hunters that an elephant herd is sleeping [at a particular place in the forest] one should proceed for the operation accompanied by many people carrying snares and bundles of grass in their hands.

199. The elephant-catcher, accompanied by people carrying trumpets, goads, as also different kinds of musical instruments,

200. –some riding on horses, others on tamed cow-elephants, all very watchful and appointed by the king for the purpose should start on the expedition of catching elephants.

201. Intelligent servants carrying trumpets with them should be positioned at all the places on the trees nearby, where elephants come for drinking water.

202. Early morning in *Nidagha* (summer), the catcher should silently approach the place where the herd is resting in deep sleep,

203. –in the direction to which the wind is blowing, and hushing up the noise of men, he should order a sudden and simultaneous blowing of trumpets along with the beating of drums.

204. The herd awakened suddenly, bewildered and frightened starts running speedily in confusion.

205. At that time the experts in the operation of *Varibandha* should follow them on the path by which the frightened herd has left for another forest.

206. The capturers who carry snares and grass bundles should then follow the elephant that gets separated from the herd while running in fear and confusion.

207. Exhausted and thirsty, when the elephant approaches for water, hearing the noise of the trumpets there, he runs away from the place.

208. With his mouth completely parched the elephant stands still with his trunk and tail slackened and ears motionless.

209. At that time, the cow-elephants controlled and goaded by the riders should speedily approach the elephant and surround him on all sides.

210. Then the watchful men having the snares, concealed behind the bodies of the cows should bravely ensnare that elephant at his various limbs.

211. Ensnared at the armpits and throat with ropes of leather, the elephant should then be tied to the trunk of a nearby tree.

212. When an elephant is caught with this kind of a method the expert catchers call it *Anugatabandha*.

Apatabandha

213. A rope made from the barks of coconut and *anjana* (*Hardwickia binata* Roxb.) trees should be used to prepare a snare sixty forearms (18inx60=1080in=90ft=27m) in length and one forearm (45cm) in width.

214. The half of that should be thrown over the body (of the elephant) and must be interred firmly in mud (?). The remaining half should be used to ensnare the elephant at neck and feet (?).

215. The elephant tied with this snare is severely afflicted. He may even die in rare cases. He may also survive.

216. The elephant-catchers call this procedure *Apatibandha* (catching suddenly). It is always condemned and is *simhasamshayita* (carries the risk of encountering a lion?)

(Unlike other *bandhas* this procedure is not clear at all.)

Avapatabandha

217. A pit measuring four forearms in depth, two in width and five in length (a forearm is approx. equal to 18in or 45cm) should be prepared by a wise person.

218. It should then be carefully covered with sticks, grass, leaves, etc. When an elephant falls into it, the risk of injury or death is present here too.

219. He may break his legs, get his chest torn, lose his tusks or may in extreme cases die.

220. This device called *Avapata* is also therefore condemned. In this operation elephants perish and hence wise persons must not practice it.

221. After capturing the elephants the king should thoroughly investigate into their auspicious marks, imitation tendencies, origin, strength, and breed.

Measurements

222. An elephant of seven *aratnis* (*aratni* = a forearm, 18in or 45cm approx.) in height, nine *aratnis* in length and ten *aratnis* when girded in width is auspicious as far as measurements are concerned.

223. One who exceeds these measurements by a single *aratni* is called *arala* (crooked) and the one that exceeds these standards by two *aratnis* is called *atyarala* (excessively crooked). Both of these being oversize are condemned.

224. An elephant that is shorter by one *aratni* compared to the standard measurements is *madhya* (mediocre) and the one shorter by two *aratnis* is called *kanishtha* (inferior).

(Different scholars define the measures related to human hand etc., differently. As per the word-meaning *hasta* should be a length of an arm and *aratni* should be the length of a forearm. Lexicographer Monier Williams, however, gives identical meaning for both).

225. The elephant, smaller even than the *kanishtha* (inferior) is called *vamana* (short) and the one smaller even than *vamana* is *kubja* (hunchbacked). Both these types are the condemned type of elephants.

Auspicious Marks

226. Smooth, rounded tusks with the right one slightly raised, red and smooth palate, eighteen shapely claws,

(According to the modern naturalists, the Asian elephant has five toenails on each of the front and four on each of the hind feet, the total being eighteen)

227. –whitish penis, hairy tail, large ears without a hole, eyes brownish like honey,

228. –trumpets resembling the deep rumbling of a cloud, tip of the trunk preferably of a reddish color, toes, round and long and complexion of the body of an ash-gray hue,

229. –are the auspicious marks of elephants promising success (to the kings). Hence the kings should keep only such elephants as are known to possess auspicious marks.

Inauspicious Marks

230. All marks, other than these, either exceeding or falling short of the standard are ugly and unnatural and are, therefore, considered inauspicious.

231. Kings should reject elephants having inauspicious marks, irritating the sight, and portending famine, misery and fear.

Anuka

232. *Anuka* (appears to be a technical word used in the *shastra*) is the name given by the experts in the science of elephants, to the gait, gesture, and voice of other animals imitated by elephants.

233. Imitation of animals considered auspicious is called auspicious *anuka* and is preferable. Imitation of inauspicious animals is, however, condemned.

(Tiger, lion, swan, etc. are stated to be auspicious while wolf, mongoose, donkey etc. are said to be inauspicious as regards the gait. Regarding voice, cloud, conch, kettledrum and animals like lion, tiger, bull, etc. are believed to be auspicious while dog, crow, pig, etc. are said to be inauspicious).

Amshaka (Partial incarnation)

234. If the spots on the body of an elephant are clearly visible, complexion is whitish and beautiful, corners of the eyes are red and the tusks are strong and smooth,

235. –he is considered a partial incarnation of Brahma and equipped with such characteristic marks, deserves to be worshipped by kings as he portends success and health for them.

236. If an elephant's sides and neck are in level, has massive shoulders, if the color of his mouth resembles that of a red lotus and if he is adorned with a pair of hair cluster? (*romayugma?*),

237. –if his state of intoxication lasts for a long duration of time, is brave and is delighted on hearing the rumbling of a cloud, he is stated to be a partial incarnation of Prajapati and portends growth in progeny (for the king).

238. If on the body of an elephant spots or skin-folds resembling *swastika*, square, lotus, and circles are visible,

239. –and if his eyes resemble a red lotus, he is most likely a partial incarnation of Indra. In war, he may bring victory and fortunes from the rival king.

(Swastika is an auspicious figure that is drawn by proportionate perpendicular lines drawn at the tips of a + sign in a clockwise direction).

240. If his lips are red, tongue is of the color of a *dhatri* (*Emblica officinalis* Gaertn.) fruit and eyes and tusks are of a honey-color,

241. –the elephant being one of the best, is a partial incarnation of Kubera bringing prosperity in the form of wealth and jewels and is kept in the courtyard of the king to be worshipped.

242. Resembling the color of a dark cloud, slow in gait, difficult to be controlled by fair means, having a well-formed place where the driver sits (alternately easy to ride on), having a deep voice like the rumbling of a cloud,

243. –is an elephant who is a partial incarnation of Varuna. A large quantity of ichor flows from his temples. On the battlefield he is a destroyer of the enemy, bringing victory to his master.

244. Adorned with three skin-folds on the neck, having eyes brown like honey, possessing tusks of the color of *ketaka* (*Pandanus odoratissimus* L.f.),

245. –having a spotted white complexion is an elephant that is a partial incarnation of the Moon. This elephant makes the king victorious on the battlefield.

246. An elephant, the hair on whose body resemble the fire-flame in color, the hair of whose tail is brown, whose eyes, roof of the mouth and the opening of the trunk are of a brown color,

247. –is a partial incarnation of Agni and is indeed a fire on the battlefield. He invariably reduces the entire army of the enemy to ashes (inflicts total destruction on it).

248. An elephant, the color of whose body is dark and that of the eyes and the ears is whitish, whose nails shine like a burning wick of a lamp and whose body is solid and fleshy,

249. –is a partial incarnation of Agni and Maruta. He is short-tempered and swift. The only defect he has is that he does not care for a goad.

250. It is, however, a merit under the guise of a defect during wartime, as this elephant causes fear to the enemy's soldiers by his huge size.

251. If an elephant has a trunk that gradually tapers from the middle of the tusks up to its tip that is red in color and has long, shapely toes,

252. –if the fountain of water blown out from the trunk is fragrant, breathing is long and steady, trumpets sound like thunder and body is strong and free of folds,

253. –if the whole body is covered with soft and very short hair dark like collyrium, complexion of the entire body is uniformly of the color of a sword or a blue lotus,

254. –if the tusks are round, strong and shining like a golden *ketaka* (*Pandanus odoratissimus* L.f.), built is long and tall with a depression in the middle and temples are resounding(?) temples are –(*badakumhaka* is the word used which is not clear),

255. –if the lip is without hair, —(the word appears to be describing the even and attractive temples. The word *sagda* however, is not intelligible), the face is very beautiful and attractive to eyes,

256. –if the eyes are honey colored, eyelashes are reddish at the corners, ears are with skin-folds, strong, soft, expansive, similar to each other, without holes,

257. –and without (prominent) veins; temples sound like drums, are round, raised, and similar, resembling the breasts of Lakshmi,

258. –if the forehead is beautiful and shapely (use of the dual number for forehead is without justification), back is broad and even, neck is short and straight and shoulders are big and muscular,

259. –if the arms (front legs) are long, straight, solid and gradually taper downward, and if the feet resembling the shape of a tortoise have smooth, beautiful nails shining like the Moon,

260. –and numbering twenty or eighteen (as is characteristic of the Asian elephant as against the African one that is stated to have fourteen nails-four each on the front and three each on the hind toes), if the chest is broad, stomach is firm and breasts are very small,

261. –if the penis is not drooping and the abdomen resembles that of a hog, backbone is of the shape of a bow to which a string is attached and if the tail is long and thin,

262. –if the spots or the thin lines on the body are of the shape of a conch, wheel or mace, the elephant is a partial incarnation of Vishnu.

263. He is venerable and deserves to be revered with sacred and ceremonious bath. He succeeds in every mission and sanctifies the nation. He is a giver of jewels and of prosperity in the form of wealth and grains.

264. An elephant, always fond of holy food, not having any skin-folds, healthy, steady and brave is a partial incarnation of god.

265. An intelligent, efficient, passion-prone, fickle and clever elephant is to be traced to the species of the Gandharvas and is only to be viewed when tied to a post.

266. He who loves to be in water, is short-tempered, extremely timid and always tempted by food is an elephant born of the spiritual essence of a Brahmin.

267. An elephant that is disciplined, brave, always full of energy, powerful, skilled in warfare, never scared on the battlefield and is composed has the characteristics of a Kshatriya.

268. An elephant that needs to be controlled with a rod, is lowly, foolish, fond of dirty food, quarrelsome and brave has in him the essence of Shudras.

269. An elephant that is treacherous, cruel, crooked in gait and does not eat when in the state of intoxication has the spiritual essence of serpents.

270. The last three types are animals of *rajasa* characteristics. A *rajasa* is one in whom *pitta* (bile) predominates, who is prone to the disorders related to bile and has a higher body-temperature.

271. An elephant that always deviates from the right path, is thoughtless and conducts himself arrogantly belongs to the species of the *pishachas* (spirits of the dead).

272. One who wanders at will during nights, is a habitual killer of human beings, and is swift and strong is an elephant born with demonic essence.

273. These two (stated above) are the *tamasa* type of elephants. Animals of this type have a constitution dominated by *vata* (wind). An elephant of this type is very dry, sleepy and swift.

274. An elephant whose hair on the body and tail are white, whose complexion is white, eyes are white right from the birth, hails from the family of *Airavata* (the Indra's elephant).

275. Fit to be used in war, short-tempered, skilled in warfare, is an elephant belonging to the family of *Pundarika* (a quarter-elephant, presiding over the southeast direction) and has crane-like eyes, short bristles and a big head.

276. An elephant having dark complexion, well-built body, black hair, thin belly, big spots and a bow-shaped backbone hails from the family of *Pushpadanta* (an elephant, presiding over the North west quarter).

277. Very long and broad in physique, having fire-like complexion, golden eyes and speedy gait is an elephant belonging to the family of *Vamana* and is always tempted by water.

278. An intelligent elephant of huge size, having a complexion resembling that of a white water lily, thin bristles, pigeon-like eyes, and peaceful demeanor, belongs to the family of *Supratika*. (name of a quarter-elephant presiding over the north-eastern quarter).

279. He who possesses smooth tusks and tail, attractive trunk and raised and big buttocks originates from *Anjana* (name of the guardian-elephant of the South).

280. A fierce elephant with broad head, short ears and trunk, small root of the tail and loud trumpeting sound is of the family of *Sarvabhauma* (name of an elephant presiding over the North).

281. He who has a complexion of a white water lily, fat body, affectionate and reddish eyes, and wide and black tip of the trunk is an elephant of the family of *Kumuda* (name of the quarter-elephant believed to be guarding the southern quarter).

Training

282. Examining thus the captured elephants with great care, the king should approve only of those possessing the best characteristics rejecting those not having these.

283. After the approved elephants are tied to posts the king should commence their training by experts who eventually communicate with them with words and indications of feet-movements and goad (of the mahout) to teach them when to attack for killing and when to desist.

284. An auspicious day and place should be fixed for the purpose and making the elephant stand facing an auspicious direction (generally the East), eminent priests should recite mantras from the Samaveda.

285. The king should worship the elephant ceremoniously, with curds, *durva* grass (*Cynodon dactylon* (L.) Pers.), rice grains, flowers, sandal paste, saffron, etc. for four days.

286. Then the elephant will recollect the fact about his birth, that he originates from Samaveda, and feeling happy with his domestication will stop brooding over the lost happiness of living in forest.

287. On an auspicious day, the hind legs of the elephants should be tied securely and firmly without causing injury to them with leather chains.

288. Seven trainers holding probes in hands should stand around the elephant; three in the front, two at the sides near the ears and two at his back.

289. Well-trained cows should be made to stand at the two sides. Then all the probe-holders should control the elephant.

290. The keeper should teach him words everyday, tirelessly and by force if necessary, to make the elephant understand what he is ordered to do with them.

(The words used for the training of the elephants appear to be derived from Sanskrit, Kannada, Marathi and perhaps from some dialects).

291. For ordering the elephant to come, words like *ehi! ehi!* and for ordering him to move away, *hede! hede!* should be uttered by the trainers, expert in training elephants.

292. The word used for ordering the elephant to move to the sides is *fapa* and for making him sit the word, *vishu* should be uttered distinctly.

293. The expert trainers should say, *nahnu*, for ordering him to stand and the word *vapdihara* is uttered twice to make him withdraw the trunk.

294. For lifting his trunk up the elephant is ordered *bhariha* and for clinging to posts etc., *hijja! hijja!*

295. For lifting the forequarter of the body the words *bhale! bhale!* should be uttered and for bending the hind foot, the trainer should say, *kih! kih!*

296. The elephant-keeper should utter the words, *de! de!* for begging the elephant for something. For hitting with the trunk, the order is *hehaiya*, uttered twice.

297. For making the elephant swallow the morsel, the order is *dwir! dwir!* and that is to be repeated till the morsel is fully swallowed. For abandoning the same it is, *churu! chuda!*

298. For warding off the elephant, the expert trainers should order, ‘*Ma, Ma*’ and for striking the ground with the tusk, they should say, *higa! higa!*

299. In order to make the elephant strike an outward blow with the trunk, *hu! hu!* are the words to be used and for making him walk slowly, the order is, *lecha! lecha!*

300. For calling the elephant, he should be addressed with the words, *iccha bhubha* and for making him take an object, *ghe! ghe!* are the words to be uttered.

301. This is the elementary training in the language. Once the elephant masters it, he should be employed for other tasks.

302. The trainer standing in front should gently prick the elephant’s trunk with the probe. Scared by that, the elephant stands with his trunk withdrawn.

303. Persons standing near the head should prick the elephant on the two sides of the chin. Scared by that, the elephant stands raising his head.

304. Persons standing at the side near the ears of the elephant should then goad him at the bottom of the ears. Frightened by them the elephant raises his ears.

305. Frightened by the pricks of the probe, if the elephant moves backward, persons standing at the back should prick him with the goad.

306. Thus the elephant learns to stay at one place and acquires the right posture (an attitude in fighting). When brought under control thus, the trainers should teach him the rest of the skills.

307. After this one of the watchful trainers, holding large leathern pouches in his hands should stand in front of the elephant while he is poised in an attacking attitude.

308. After flapping the pouches in front of the elephant the trainer should hold before him one of the pouches. The driver should instigate the elephant to strike at the pouch with words, *hu! hu!*

309. Instigated by the driver, the elephant, uncoiling his trunk, will strike at the pouch held before him with an outward stroke of the trunk.

310. After this, the driver, with words already taught, should make the elephant lift the trunk and strike the pouch hard with an inward stroke of his trunk.

311. Then the trainers standing at the two sides, holding similar pouches in hands should attract the elephant towards themselves.

312. The elephant will then repeatedly strike one pouch with an outward stroke of the trunk and the other with an inward stroke.

313. In the same manner, three, four, or five skilled trainers should stand before the elephant showing their pouches to him one after the other.

314. The rider should instigate the elephant to strike one pouch with an inward stroke and another with an outward, in due order.

315. Thus the elephant will acquire skill in striking. Later he can strike men, camels, elephants, and horses as required.

316. Then the expert trainers, well versed in putting up with the fastening by the elephant's trunk should instruct him. Holding in hand, rice, raw sugar, a piece of a sugarcane or anything liked by the elephant-

317. –the trainer should tempt him and when the elephant stretches his trunk for it, should get himself clasped with it.

318. When clasped tightly with the trunk, he should give the morsel held in his hand. Then loosening the noose of the trunk, he should lift it up and go away.

319. When the elephant can be fully trusted in the matter of clasping (without harming the trainer), the trainer should order him to catch him with his trunk, blindfold. He should then, carefully save himself by turning and twisting his limbs and escape without harm.

320. Ultimately when pricked with the goad, and pained by the whipping, the elephant is ordered with words like *higa! higa!*, he will hold his trunk firmly and

321. –place his mouth on the floor and stand with his front legs bent, encircling the trunk around the body of the person.

322. Afterwards a figure of man made of leather should be thrown before the elephant's tip of the trunk, with his intention of killing aroused.

(As the words *varma* and *nirakriti* used here do not make sense in the present context, the words *charma* and *narakriti* respectively, have been borrowed from the Mysore edition for the purpose of translation).

323. Then the elephant, striking the effigy hard with his trunk, piercing it with his pointed tusks and also stampeding and pounding it with the front and hind parts of his body

324. –will reduce it to powder, being already trained to kill. Thus trained, he can kill living beings like Kritanta (God of Death).

325. A leathern cube filled with a little sand should be fixed on a rod. This is known as the target. (Here too, the word *charma* from the Mysore edition is accepted for the purpose of translation, in place of the word *karma* used in the text).

326. The elephant's attention should be drawn towards the target by holding it before his trunk and shaking it for making noise. Then at the instance of the rider the elephant attacks and destroys the target with his tusks.

327. The elephant trained to strike with the tusks will attack it by various forceful strokes from upward, downward and sideways to destroy it finally.

328. The elephant should then be released from his earlier place of confinement and made to walk on the roads as the driver presses his big toes against his sides.

329. He should be made to run after a person tempting him with a morsel held in hand. The trainer should also teach him to move in circles by using thrusts on the hind parts.

330. When thus trained to distinguish between a target to be killed and the one not to be killed, the elephant can kill on the battlefield several men, horses and elephants, single-handed.

331. The king should employ only such elephants in the army, as have auspicious marks, as belong to good species and as are properly trained in all the tactics (of war).

Discussion

Habitat

Contents of the verses 172 through 179 indicate presence of elephants almost all over the Indian subcontinent in the 12th century AD. In the late 16th century AD, according to the *Ain-i-Akbari*, the Mughal ruler, Akbar, drew his supplies of elephants from regions of Agra and Allahabad in Uttar Pradesh, central India and Bihar (Blochman, 1927); however by the end of 19th century AD, elephants ceased to inhabit these regions (Watts, 1890). At present the elephant habitat in India is in (i) Northwest: Dehradun, Bijnor, and the Nainital Tarai; (ii) South: Western Ghats in the states of Karnataka, Kerala, and Tamil Nadu; (iii) Central: southern Bihar, southern Bengal, and Orissa; and (iv) Eastern: northern Bengal, Assam, and other states of North-East (Daniel, 1998).

Killing of elephant was never approved since the ancient times. Kautilya (c.300 BC) suggested death penalty for anyone killing an elephant and the state owned the tusks from naturally dead elephants. Someshvardeva has mentioned exactly the same rules in verse 180. Even when the population of elephants was manifold compared to the present time, it is worth noting that the punishment for killing an elephant was far more severe than that given to the poachers today.

Ensnaring elephants from the natural habitat

Manasollasa describes five methods of ensnaring; viz., *varibandha* (verses 188–194), *vashabandha* (verses 195–197), *anugatabandha* (verses 198–212), *apatabandha* (verses 213–216), and *avapatabandha* (verses 217–221).

Modern authors (e.g. Daniel, 1998) seem to be completely unaware of the fact that the methods being followed today were developed more than 800 years ago. The *varibandha* method is similar to the current *khedda* method. The *anugatabandha* method is similar to *mela shikar* of Assam today. *Vashabandha*, though not followed currently was mentioned in *Ain-i-Akbari* and the credit for developing the method was given to Akbar by his biographer Abul Fazl (Watts, 1890).

Avapatabandha is the same as the pit traps method today. Contents of the *apatabandha* are not clear, but it appears to be a crude method of catching elephants with specially made ropes. The last two methods were not approved by Someshvardeva, just as such methods were not approved by others (Daniel, 1998).

G. P. Sanderson, a British, in his book “Thirteen Years among the Wild Beasts of India” makes an interesting statement (Shrigondekar, 1925, 1961) about capturing elephants. He states, “Some of the Maharaja’s mahouts who were amongst my following had been accustomed to catch single elephants with trained females, and in pitfalls, but had they never heard of anyone attempting the capture of a whole herd. It was said that Hyder (Hyder Ali of Mysore, 1722 – 1782) had made a trial, but had failed, and recorded his opinion that no one would ever succeed and his (His?) curse will be upon anyone that attempted to do so, on a stone that is still standing near the scene of his endeavors. Consequently all the true Mussulmans who were with me regarded the enterprise as hopeless, though they judiciously kept this opinion to themselves.” This passage further describes about Sanderson’s own determination to make the scheme succeed but the citation ends without stating the result. The British knew the information contained in Manasollasa (Watt, 1891) on the capture of elephant herds following the *varibandha* method, but they apparently preferred to ignore it.

Measurements

Measurements of the desired size of the captured elephants were given (verses 222–225) approximately. 3.1m (10ft 6in or 7 *aratnis*) height, 4m (13ft 5in or 9 *aratnis*) length, and 4.5m (15ft or 10 *aratnis*) girth. It is interesting that Kautilya (300 BC) gave exactly the same measurements in Arthashastra 15 centuries before (Shamasastri, 1961). Elephants larger or smaller than the measurements given above were considered inferior, possibly for the reasons of less utility and also difficulty in training. The British were interested only in height and not other measurements (Watts 1890). In the absence of facilities to weigh elephants, the measurements indicated by Someshvardeva are significant.

Good health and behavior

Contents of as many as 56 verses describe the characteristics of health and behavior. In short, body color—ash-gray, smooth round tusks, smooth and red palate, 18 to 20 toes, honey colored eyes, deep trumpets, good temper, and impressive gait were considered desirable. Elephants were related to deities, castes, etc for the purpose of classification and thus we learn more than one method of classifying elephants.

The Ain-i-Akbari gives the classification as recognized in Akbar’s time into four classes, viz., *Bhaddar*—well-proportioned, erect head, broad chest, large ears, long tail, bold enduring; *Mand*—large, black, with ungovernable temper; *Mirg*—lighter colored; *Mir*—small head, obedient but easily frightened (Blochman, 1927). It is easy to note similar classification in Manasollasa.

It is important to note the contents of verse 274. The elephant described is most likely an albino, as the later authors have mentioned (Daniel, 1998). Someshvardeva does not elaborate its qualities further. The elephant called Airavata (Indra’s elephant), which had white skin, hair, and eyes, is a part of Vedic mythology. Another verse (234) also mentions whitish skin. Shrigondekar (1925, 1961) has quoted Lydekar (Royal Natural History, Volume II, p. 529): “Occasionally so called white elephants are met with, which are really albinos, the dark pigment being absent from a larger or smaller area of the skin; in Burma and Siam such albinos being highly valued and

considered as sacred or royal elephants”. Because the British did not find a white elephant, other than the defective albinos in nature, this is no reason to disbelieve Someshvardeva.

Training

We have not come across any document that describes instructions for training elephants after capture in such a detail as in Manasollasa. Currently the knowledge of imparting basic training is restricted to mahouts and their communities. Though elephants are far less useful in wars today, the knowledge of training them for battles/wars is most fascinating. Elephants, however, are useful for other purposes and thus the knowledge of training methods continues to be useful.

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