



# *Hati Puthi*: the medieval Assamese manuscripts on elephant training and treatment

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## Abstract

The elephant capturing, taming and its treatment are old practices in Assam. The manuscripts written in medieval Assam describing this tradition are popularly known as *Hati-Puthi*. But unfortunately, most of them got lost in the womb of time for various reasons and the few that were preserved incomplete. In the present work, the investigator have collected digital copies of four such incomplete manuscripts from Jorhat, Titabor, Guwahati and Majuli districts of Assam and these have transliterated from Kaitheli script to modern Assamese script. They have been used to compile a complete *Hati-Puthi* in modern Assamese script and then translated into English as a complete manuscript. The similarities and differences among the manuscripts have been discussed and the final work is compared with a published work on animal care called *Hastividyārnavā*. A comparison between the ancient units mentioned in the manuscript and the units used presently is worked out. The flora and fauna used in the treatment of various diseases of the elephant are also identified.

**Keywords** Ancient measurement · Flora · Fauna · *Hati-Puthi* · *Gajendra Chintamani* · Kaitheli script

## 1 Introduction

The elephant capturing, taming and its treatment are a very old practice in Assam. According to Mahābhārata the king of Prāgjyotiṣpur (ancient name of Assam) possessed a large no of elephants. It is said that the *āśrama* of sage Palakapya, author of *Hastyāurveda* was on the bank of river Lauhitya of Assam. The Chinese traveller Yuan Chwang, mentioned in his travelogue about the practice of elephant keeping by the early rulers of Assam. The *Arthaśāstra* of Kauṭilya and the *Raghuvamśa* of Kālidāśa also mention about of large number of elephants kept by the early rulers of Assam. In 1228 CE, a group of Shan people from Southern China entered Assam under prince Sukapha and established a new kingdom.

These Shan people were later known as ‘the Ahoms’. They also had a different tradition of taming elephant in Shan plateau. Surprisingly, these Shan people used elephant for ploughing rice fields. Prince Sukapha brought a small contingent of elephant with him. Thus Assam became a melting pot of traditional elephant lore from several distinct

cultures. The historian, Shihabuddin Talish, who accompanied Mir Jhumla in his invasion of Assam during the middle of the seventeenth century CE, mentioned about a large number of elephants, abounding in the hilly regions and forests of Assam. He praised the cleverness of the riders and the elephant capturers. During the Ahom rule, a tribal group known as the ‘Morans’ developed special expertise in elephant capturing, taming and treatment. As the early rulers and the Ahom kings of Assam kept large number of elephants for defence purpose, a traditional science for taking care of elephants developed. This traditional knowledge was documented in the form of several manuscripts, popularly known as *Hati-Puthi* or elephant book. The most popular *Hati-Puthi* is a published one known as *Hastividyārnavā*. But there are several other *Hati-Puthi* manuscripts are preserved in different parts of Assam.

We have collected digital copies of total four manuscripts of *Gajendra Chintamani* written on Sanchipat and one published work, i.e. *Hastividyārnavā* (Borkaith, 1734). The four manuscripts are preserved in J.B. College, Jorhat; Auniati Satra, Majul; private collection, Titabar and Gharmora Satra, Lakhimpur (Figs. 1, 2, 3 and 4). All the four manuscripts were found to be incomplete. In this project, all the incomplete manuscripts have been compared and a near complete manuscript has prepared

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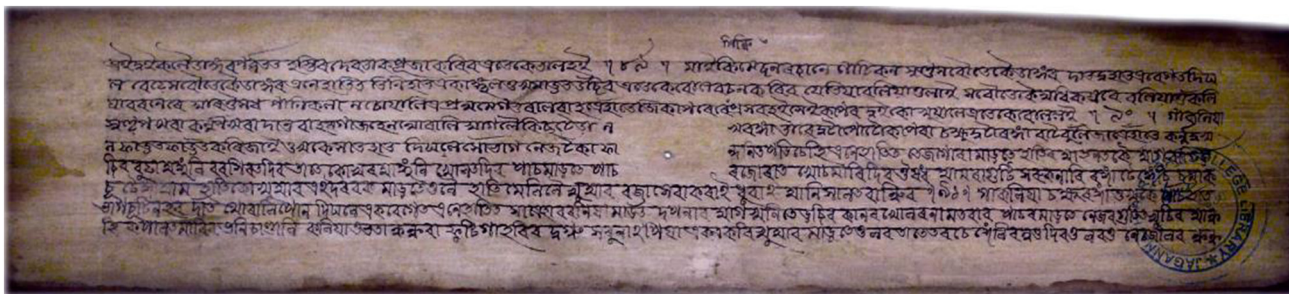


Fig. 1 A folio of manuscript preserved in J. B. College, Jorhat, Assam



Fig. 2 A folio of the manuscript preserved in Auniati Satra, Majuli, Assam



Fig. 3 A folio of the manuscript preserved in private collection in Titabar, Jorhat, Assam

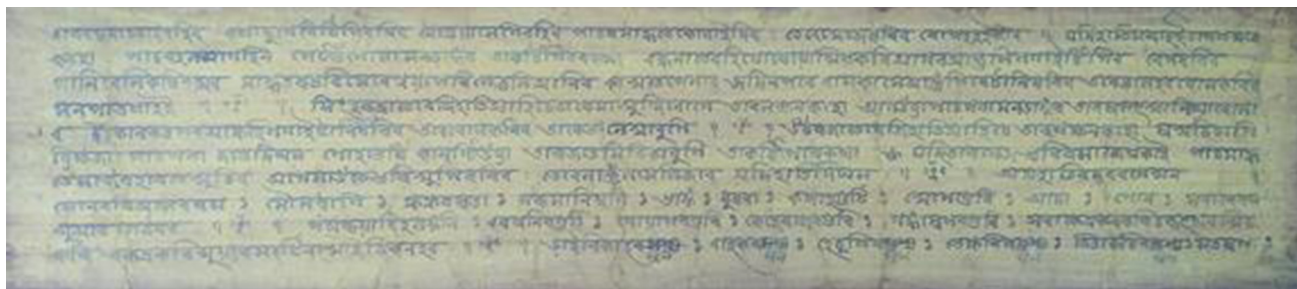
and translated into English. Apart from this, identification of some organic and mineral substances mentioned in *Gajendra Chintamani* has also been studied. The works was accomplished under the chapters—(i) Introduction (ii) Comparison of *Hati-Puthis* (iii) Units and measurement (iv) Fauna (v) Flora-mentioned in *Gajendra Chintamani* and (vi) Conclusion.

## 2 Discussions

It needs to be motioned that a paper called, ‘*Basumotir kakat*’ (the Earth’s paper) is found in in the beginning of the manuscript in which a story about the birth of elephant from pig is portrayed. Like *Rāmāyana* and *Mahābhārata*, the book also extensively describes the birth of a creature







**Fig. 4** A folio of manuscript preserved in Gharmora Satra, Lakhimpur, Assam

from other species; animal or organism, inanimate objects like mountain, river or rocks, which though, has no value in present time, yet was sufficiently reliable at that time. The manuscript describes a total of 148 types of tuskers depending on the source of birth, i.e. locations, objects, events and their features. It mentions the features of different types of elephants and their sizes, how to discipline them after capturing from the forest and how to train them. There are differences in sizes and features of each type of elephant. Although the stories described in the book pertaining to the birth of the elephants are mythical, yet the book beautifully explains the different kinds of elephants differing in size and feature.

It explains not only the external size of the different kinds of the tuskers but also the characteristics and the physical dimensions such as a single tusk or no tusk (*mora hati* or dead elephant) with their species names. Several animals are cited in the book to explain the dimension of elephants as the basis for comparison.

There are 17 types of *makhundi* (female elephants) as mentioned in the manuscript along with their characteristic and size. It also describes the guiding principles involved in the selection of a specific *mahout* (elephant rider) who must be born on a particular month of specific zodiac sign to ride an elephant. The particular types of elephant to be used for royal purposes by the persons such as the king, the queen, the ministers and also the tasks to be performed by an elephant are also mentioned. It is worth mentioning that, though the stories depicted regarding the birth of the elephants and the issues of choices of their specific *mahuts* are superstitious, yet it has a great practical utility.

Several *mantras* (chants) written in the *Tai-Ahom* style have been found and use of several words of *Tai-Ahom* language is indicative of the fact that the writer Prithuram could belong to the *Tai-Ahom* community. While the manuscript classifies the *hatishal* (elephant enclosures) into three categories as the good, medium and young, it also describes the measurement of the posts and doors of the enclosure along with the chains for fastening the elephants. It also elegantly describes the measure of the length and breadth

of the *hatishal*, the size and direction of the doors for the passage of the elephants, the direction in which the elephants are to be tied up along with the best type of wooden posts for this purpose. Moreover, the book also explains the activities required to be done for a blessed journey and the actions that would invite misfortune during the entry of the elephant into a house.

In the *Kāmandakīya Nitīsāra*, instructions are provided as to what things are necessary to be done with the help of the elephants when they proceed for wars, how to recuperate from difficult terrain places and emergency situations using them.

The elephants are divided into four groups as *bhadra* (gentle), *mṛiga* (hunter), *manda* (inferior) and *miśra* (mixed) and it is also suggested that *śukula* (white), *raṅga* (red), *svaṛṇa* (golden) and *kalia* (blackish) soils are best suited for keeping elephants. The manuscript quotes Vyāsa telling the king Yudhiṣṭhira that eight kinds of elephants called *supratika*, *airāvata*, *punḍarika*, *vāmana*, *kumuda*, *añjana*, *puṣpadanta* and *sārvabhaum* with blessed signs are suitable for taming, depending on their features and external sizes. Significantly, a person named Halayudh informs Prithuram about the eight types of elephants in Sanskrit verses in order to amuse. Besides elephants, Halayudh, also mentions about the horses with blessed features pointing to fact that there is a possibility of the existence of literature on equine like *Gajendra Chintamani*, as it was a common practice of using horses for warfare and transportation purposes at that time.

The manuscript mentions that those elephants which do not have good features are termed as condemned (*nindita*) and are not to be domesticated. Sanskrit verses are also occasionally used in the manuscript. It mentions the process of training the elephants after they are captured from the forest. It says that the date and the day of beginning of the training is to be ascertained by calculation and the process must be started by following a set of associated holy rituals and principles with extreme serenity on the part of the performer. The manuscript also refers to the religious aspects of the process and instructions regarding the assignments to be undertaken after capturing the elephants. It mentions some



of the equipment like *ankuśa* or *ankuhi* (short stick with a sharp, curved, finger-length metal hook at the tip, used to control and direct elephants), *cayaṅga* (a type of rope), *jon-gamari* (sharp pointed stick), *geji* etc. involved in the process of training and taming elephants. It was noted that the author of collected manuscript used limited number of nouns from Tai language indicating that there may be some input of knowledge coming from Shan plateau of Southern China and Northern Burma on elephant caring during medieval time. The establishment of such link will be of great significance.

### 3 Elephant treatment and care

An important feature of the manuscript even today is that it provides the traditional method of treatment of a variety of diseases of elephants. It mentions the use of different medicines extracted from plants and animals for the treatment of various ailments like ingestion of soil, worm trouble, diarrhoea, dysentery, wounds, scabies and obesity. Surprisingly, it is learnt that even human blood and head were also used in the treatment of elephants. A total 144 of animals are mentioned in the manuscript for the extraction of the medications for different diseases of elephants and animals used to explain the features of the elephants. Out of these, 142 animals have been identified, classified and presented in the final report. Similarly, in case of plants, a total 600 including climbers, shrubs and trees are found in the manuscript. Only 80% of these have been characterized. The list of the plants is mentioned in the final report as well. In this context, a major problem noted was change in the names of the plants. It has been observed that the current name of a plants do not match with the local names used at that time. The dated name of a tree prevailing almost 250 years ago, has witnessed semantic and lexical changes to take a new form in the recent time. Moreover, difference is observed in the local names of a given plant from one place to another within the same province. As the manuscripts provide only the local contemporary names and do not contain any picture or pictorial depiction, the process of identification becomes complicated. Therefore, only about 50% of the plants have so far been identified with the help of various experienced persons.

### 4 Concept of weight and measurement

A different system of measurement in ancient Assam was practiced which is still in use to a limited extent in some parts of the state, particularly among some tribes of the elevated areas of the North-East India. The concept of weight and measurement was not clear in the hilly areas and people used to describe the size and weight by gestures or by comparison. They would express the length of a road with the

help of idioms like ‘the time taken for a betel-nut’ or ‘a day’s roadway’, ‘three days’ roadway’ and so on (Baishya, 2009). The measurement of time was done on the basis of positions of the sun and the moon during day and night respectively. The morning time was referred to as *dhool phaata diya samoy* (early morning or dawn) while the evening was described as *beli paatat boha samoy* (the time of sun set or dusk). Sometimes, the morning was also referred to as *charai puwa* (bird morning). With the beginning of astrological and astronomical studies in Assam in later periods, the precise measurement of time was started.

The ancient Assam did not have a standard unit for the measurement of weight. People used to exchange things on the basis of *Paachi* (bamboo baskets of fixed capacity). But during the later period, people started using some specific units of measurements (Chakravarty, 1889; Deka, 2003, Dutta, 1930, 1964). A comparison between the ancient units mentioned in the manuscript and the units used today is worked out and presented in the coming sub-sections.

#### 4.1 Measurement of weight

4 or 6 grains of paddy = 1 *roti* or *rati*; 6 *rotis* = 1 *anna* (= 729 mg); 2 *annas* or 12 *rotis* = 1 *admoha*; 2 *admohas* or 4 *annas* = 1 *moha* or *siki*; 4 *mohas* or 16 *annas* or 96 *rotis* = 1 *tola* or *bhori* or *atoka* (= 11.6464 g); 80 *tolas* = 1 *ser*.

The *roti* was the smallest unit and three kinds of *rotis* are found. In case of all types of ornaments, 1 *roti* = 187 mg. For jewelers, 1 *roti* = 162 mg. In case of gems, 1 *roti* = 108 mg.

#### 4.2 Weight solid items

4 *got* or *koda* = 1 *gonda* or *moha*; 4 *gonda* or *moha* = 1 *tola* = 96 *roti* (= 11.7 g); 5 *sikis* or 5 *gondas* or 5 *mohas* = 1 *kutchi*; 4 *kutchi* or 5 *tola* = 1 *sotak* (~ 58.5 g); 4 *sotak* or 16 *kutchi* or 20 *tola* = 1 *powa*; 4 *powa* or 16 *sotak* or 80 *tola* = 1 *ser* (~ 936 g); 1 *bhaar* = 2 *ser*, 5 *ser* = 1 *dhara* or *palla* or *pochori* (= 4.68 kg); 8 *pochori* or *dhara* or 40 *ser* = 1 *mon* (= 37.44 kg).

#### 4.3 Weight of paddy/rice

3 *pohai* or half *ser* or 40 *taka* = 1 *kotha*; 10 *kotha* or 5 *ser* = 1 *doon*; 3 *doon* or 15 *ser* = 1 *aadi*; 4 *doon* or 20 *ser* = 1 *pura*; 2 *pura* = 1 *mon*; 3 *pura* or 4 *aadi* = 1 *dhool*.

#### 4.4 Measurement of items

6 *donti* = 1 *kranti*; 4 *got* or *koda* = 1 *gonda*; 5 *gonda* = 1 *budi* or *kudi*; 4 *budi* or 20 *gonda* or 80 *nos.* = 1 *pon* or *anna*; 4 *pon* or *anna* = 1 *chok*; 16 *poon* or 4 *chok* = 1 *kown* = 1 *toka*.



#### 4.5 Measurement of liquids

*Aadha ser* = Half of a *ser* = weight and volume of 468 cubic centimeter water; 1 *koloh* = 7 L (approx.); 1 *powa* = One fourth of a *ser* = 234 cc or 4 *sotak*; 1 *ser* = Weight of 936 g water.

#### 4.6 Measurement of traditional distances or length

3 *jobo* = 1 *anguli* (circumference of an adult finger. 1 *anguli* ranges between 1.9 – 2 cm); 4 *anguli* = 1 *muthi* (4 *anguli* is nearly 3 inches); 3 *muthi* = 12 *anguli* = 1 *beget* (nearly 9 inches or the distance between the thumb and middle fingers when fully stretched apart); 2 *beget* = 1 *haat* (nearly 18 inches); 3 *anguli* = 1 *gira*; 8 *gira* or 24 *anguli* = 1 *haat*; 2 *haat* = 1 *goj* (36 inches).

#### 4.7 Measurement of time

60 *anupol* = 1 *bipol*; 60 *bipol* = 1 *pol*; 60 *pol* = 1 *donda* (one fifteenth of two *prohor* = 24 min); Two and half of a *danda* = 1 *ghonta* or *hora* (hour); 3 *ghonta* = 1 *por* (*prohor*), 8 *por* or 60 *danda* = 1 *din* (day).

### 5 Comparison between *Gajendra Chintamoni* and *Hastividyārnavā*

An attempt was also made to provide a comparison between *Gajendra Chintamoni* and *Hastividyārnavā*. Both the similarities and differences were observed between the two manuscripts. These similarities are that both the manuscripts are 60% identical and are written on *Sanchipat* but incomplete. The religious mythological stories related to the birth of elephants mentioned in both are alike. The types of elephants and elephant enclosures, the measurement of elephant chains and the posts where an elephant is tied are identical. Medicines mentioned for some special diseases of elephants are the same.

The differences include that both the manuscripts are authored by two different persons. While *Hastividyārnavā* is written by Sukumar Borkaith, *Gajendra Chintamoni* is

written by Prithuram. The size of former is 58 × 16 cm while that of later is 43 × 10 cm. The time of composition of the manuscripts is different. The former was composed in 1734 CE while the later one in 1778 CE. The styles of expression of both the manuscripts are different. *Hastividyārnavā* was written as per the direction of the Ahom Lord Shiva Shingha and his Queen Ambikadevi but there is no such mention in case of *Gajendra Chintamoni*. *Hastividyārnavā* contains pictures in 166 pages drawn by two artists namely Dilbor and Dosai related to elephants, other does not have any. *Gajendra Chintamoni* has few Sanskrit verses about horse. Sukumar Borkaith while composing *Hastividyārnavā*, did not take help of others in composing, while *Gajendra Chintamoni* used scribing facility of a person named Sindhuram and the Sanskrit verses are attributed to a person named Halayudh.

The size of *Gajendra Chintamoni* available at Auniati Satra of Majuli, Assam written on *Sanchipat* is 55 × 16 cm. There is no certainty about the total number of pages of the manuscript that was originally composed but now only 332 pages are available. The name of the writer of the manuscript is Shambhunath, but there is no mention of the year in which it was composed. The manuscript collected from Titabor is also written on *Sanchipat* with a total 62 folios (124 pages) and size 42 × 10 cm. Earlier 47 folios had photographs while at present only 15 colour folios are available. There is no mention of the writer, time of writing and the artist. Moreover, unlike the other three manuscripts mentioning the medicines for the treatment of different diseases of elephants, it does not mention any.

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