

CHAPTER – II

BACKGROUND OF SILK AND BELL METAL INDUSTRY

The various products manufactured from silk and bell metal is provided esteem position in the Assamese society. These products used to represent the rich Assamese culture before the world community. Both the industries are the indigenous industries of Assam. As such in this chapter, the background of the silk and bell metal industry is discussed so that we can have an idea about these industries of Assam.

SILK INDUSTRY

The silk industry was there in Assam from the pre-colonial period. The region was ideally suited for sericulture as it possesses all the natural conditions conducive for rearing a variety of silkworms on a commercial scale.¹ Assam occupied a prominent place as the centre of the four varieties of domesticated silk, namely, *muga*, *eri*, *pat* and *tasar*.² *Muga*, *eri* and *tasar* silk constituted the non-mulberry culture, while the *pat* silkworm constituted the mulberry culture.³ But, *tasar* was not reared in Assam during the pre-colonial and colonial period, though it occurred in the wild state.⁴

There were also some other varieties of wild silkworms in Assam which were not commonly used like *ban muga*, *deoruga*, *salthi*, *ampatoni*, etc. Even the *muga* silk

¹ Priyam Goswami, *Indigenous Industries of Assam Retrospect and Prospect*, Anshah Publishing House, Delhi, 2005, p. 89

² Prabin Baishya, *The Silk Industry of Assam*, Spectrum Publications, Guwahati, 2005, p. 38

³ Ibid. p. 39

⁴ Rai Bhupal Chandra Basu Bahadur, *The Silk Industry of Assam*, Assam Secretariat Printing Office, Shillong, 1915, p. 1

had two special varieties, namely, *champa* and *mezankuri*.⁵ Although, both domesticated and wild varieties of silkworm were there, it is very difficult to say when and how the silk industry started in Assam. There are different opinions amongst the people regarding the entry of the silk industry in Assam. Even the date of the introduction of silkworm into India has been the subject of research and discussion with the question still seems an open one.⁶

Historical evidence shows that silk was first discovered in China and its authentic reference is said to be found in the chronicles of Chou-King (2200 B.C.) where the silk figured prominently in public ceremonies as a symbol of homage to the Emperors.⁷ According to some Chinese historians the silk products were used in the period of the myths. Silk is mentioned as being in use in the making of sounding chords for the musical instrument called *kin*, which was a sort of lyre with 27 cords.⁸ Further, it is said that mulberry cultivation in China was taught by Emperor Chin Nong around 2800 B.C. and the silk industry developed in the Chang-Tong province.⁹

Actually, many fascinating legends are woven around the discovery of silk in China, but none is as widely accepted as the story of the Chinese queen His-ling Shih or Silingihi, wife of the Emperor W'hang, who ruled over China in about 2500 B.C. Another legend is there related to the Chinese queen Seling-Chi, the wife of the celebrated Emperor Huang Ti. It has been mentioned by L. Liotard that Seling-Chi has discovered silk earlier than Silingihi. Infact queen Seling-Chi is credited to have

⁵ Sudeshna Purkayastha, *Indigenous Industries of Assam: 1870-1925*, KP Bagchi and Company, Kolkata, 2005, pp. 5-6

⁶ L. Liotard, *Memorandum on Silk in India, Part-I*, Superintendent of Government Printing India, Calcutta, 1883, p. 1

⁷ *Manuals on Sericulture, Volume-II*, Central Silk Board, Bangalore, 1987, p. 1

⁸ L. Liotard, op. cit. p. 1

⁹ *Manuals on Sericulture, Volume-I*, Central Silk Board, Bangalore, 1987, p. 2

invented the loom by 2640 B.C. For her deep devotion towards the development of the silk industry, the Chinese people after the death of queen Seling-Chi raised altars in her memory and she was worshipped as the ‘Goddess of the Silkworms’.¹⁰

It is generally believed that from China the silk culture¹¹ gradually entered to other parts of the world. As stated by L. Liotard that “From China as a centre, the silk industry gradually radiated, till it covers, at the present day, a number of very widely-distributed areas of very diverse climatic conditions”.¹² It was in about 140 B.C. that silk culture entered India via Tibet through the famous Silk Road.¹³ From about 2000 B.C. the Chinese Emperors started exporting silk fabrics with caravans along a network of trade roads across Asia, the so-called Silk Road. The Silk Roads were also connected to India¹⁴.

But it was the mulberry culture that has entered India from China via Tibet in about 140 B.C.¹⁵ Another opinion is there that mulberry and other silk culture had originated in the lower slopes of the Himalayas and as such might have originated

¹⁰ Mahua Bhattacharjee, *Silken Hues, Muted Voices: Women in the Silk Industry of Assam*, DVS Publisher, Guwahati, 2014, pp. 42-43

¹¹ The term silk culture here refers to the process of silkworm rearing, reeling and spinning and weaving of the produced silk.

¹² L. Liotard, op. cit. p. 1

¹³ Mahua Bhattacharjee, op. cit. p. 44

¹⁴ In the North-West, the Silk Road took turn from Bactra (Balkh) in Northern Afghanistan through Kabul to Taxila (now in Pakistan) and further South to the port of Barbaricum near Karachi in Pakistan or Barygaza, located at modern Bharuch in Gujarat. Another silk route led through Sichuan into Tibet and through several river tracks and mountain passes into Sikkim and further on to Bengal in India. There was also another silk route from Chengdu in Yunnan province in China through Burma to the North-Eastern part of India (Assam and Manipur) and this route further continued to Taxila. (cited in Ole Zethner, Rie Koustrup, and Dilip Barooah, *Indian Ways of Silk Precious Threads: Bridging India's Past, Present and Future*, Bhabani Print & Publications, Guwahati, 2012, pp. 73-75)

¹⁵ S. N. Chowdhury, *Mulberry Silk Industry*, S. N. Chowdhury Publication, Dibrugarh, 1984, p. 10

either in China or India or in both the countries at the same time.¹⁶ Wild silk has been used by the people in the Indian sub-continent since ancient times.¹⁷ References of silk in old Indian scriptures indicate that Indian people cultivated some varieties of silk independently of China.¹⁸ The *Vedas* are the oldest sacred religious text of the Indo-Aryans. One of the *Veda*, *Rig Veda* mentions about “urna” which is considered as a product of silk. Another Indian scripture *Manusmriti* refers to “cloths made of silk”.¹⁹ Some Indian authors mentions that the Vedic terms like *Suklambar*, *Pitambar*, *Pitakouseya* or *Pitabasa* meant white silk, yellow silk and yellowish brown silk respectively.²⁰ In the epic *Ramayana*, the wedding gifts of bride Sita included, among other things the fine silken vestments of diverse colour.²¹ In the other epic *Mahabharata*, it is mentioned that King Yuddhisthira received cloths woven from thread spun by silkworms as a gift from the feudatory princes.²²

In addition to the Hindu scriptures, references to several varieties of silk have been also found in the *Arthasastra*, a treatise on state craft and public administration written by Kautilya somewhere in between 321 B.C.-300 B.C. Kautilya in this famous work mentioned about the silk fabrics like *dukula*, *khauma* and *patrona* of Vonga, Kashi, Pundra, Magadha and Suvarnakudya as well as *kauseya* of China which were worthy in value and collected as well as preserved for the royal exchequer.²³ Further, Kautilya has stated in the *Arthasastra* that “*magadhika paundraka sauvarnakudyaka cha patrona..... tasang sauvarnakudyaka shrestha*” which implies that “*patrona*

¹⁶ Prabin Baishya, 2005, op. cit. p. 4

¹⁷ Ole Zethner, Rie Koustrup, and Dilip Barooah, op. cit. pp. 86-87

¹⁸ Rajat K Datta and Mahesh Nanavaty, *Global Silk Industry*, APH Publishing Corporation, New Delhi, 2007, p. 16

¹⁹ Ibid.

²⁰ Prabin Baishya, 2005, op. cit. p. 4

²¹ Rajat K Datta & Mahesh Nanavaty, op. cit. p. 16

²² Ibid.

²³ Prabin Baishya, 2005, op. cit. pp. 4-5

produced in the country of Suvarnakudya is the best".²⁴ Suvarnakudya, according to the *Arthasastra*, also manufactured *dukula* of fine quality.²⁵ K. L. Barua has interpreted *dukula* as *muga*, *khauma* as *eri* and *patrona* as *pat*.²⁶ While, Kautilya in his *Arthasastra* has stated that Suvarnakudya is located in ancient Kamarupa and was famous for its silk industry. Some historians of Assam had identified Suvarnakudya with the village Sonkudiha located a few miles south of the Nalbari town.²⁷ But this identification is debatable.

As the silk culture is believed to have originated in China and spread from there to all parts of the world, there is an opinion that the silk culture in Assam also had entered from China at some point of its history. Chang K'ien, a Chinese military man, political officer and explorer of 2nd century B.C. made it very clear in his report that there was a trade route from Assam to South-West China through which Chinese manufactured goods like silk cloth and bamboo flutes came to India to be exported again from India through her North-Western trade routes into Central Asia. Through this route, the knowledge of rearing silk worm and producing silk as well as weaving silk into cloth may very well have first come to Assam and India.²⁸ There is evidence that Assam formed a highway not only for trade but also for the exchange of ideas between India and Burma and South-West China from at least the closing of the 1st century B.C.²⁹

²⁴ Prabin Baishya, *Small and Cottage Industries: A Study in Assam*, Manas Publications, Delhi, 1989, op. cit. p. 66

²⁵ B. N. Mukherjee, *External Trade of Early North-Eastern India*, Har-Anand Publications, New Delhi, 1992, p. 32

²⁶ K. L. Barua, *Studies in the Early History of Assam*, Sahitya Sabha, Jorhat, 1973, pp. 232-233

²⁷ Prabin Baishya, 2005, op. cit. p. 64

²⁸ Suniti Kr. Chatterji, *The Place of Assam in the History and Civilization of India*, Gauhati University Publication, Guwahati, 1970, p. 32

²⁹ Ibid. p. 15

The *Periplus of the Erythraean Sea*, a 1st century A.D. Greek work on navigation of the Arabian sea and on the trade by sea between India and Egypt and the Roman world gives indication of the business done by the *Kirata* or Mongoloid tribesmen of various groups linking up India with Tibet and China. This volume of trade was being carried on between North-Eastern India and South-Western China for centuries though formally Indians and Chinese had no official or widespread knowledge of this trade.³⁰ Pliny too speaks of silk trade between China and India carried on through the Brahmaputra Valley in the 1st century A.D.³¹ The *Kiratas* as per the ancient records used to live on the Himalayan borders and also in Assam. According to *Kalika Purana*, the present Assam was being ruled over by Ghotoka, a *Kirata* chief when Narakasura invaded the country. In the *Mahabharata*, it is mentioned that King Bhagadatta (son of Narakasura) of *Pragjyotisha* has joined the battle of Kurukshetra with a strong army of *Kiratas*.³² Even, the *Periplus of the Erythraean Sea* and Ptolemy's *Geography* called the land including Assam as *Kirrhadia* after its *Kirata* population.³³

The pre-colonial trade of Assam with the neighbouring countries shows that the exports from Assam to Tibet and China included lac, *muga* silk, *eri* cloth and dry fish, while Assam imported woollen cloths, gold dust, rock salt, cow tails, musk, Chinese silks and Tibetan smoking pipes.³⁴ This commercial transaction not only indicates about the existence of trade relationship between China and Assam, but also

³⁰ Ibid. pp. 31-32

³¹ B. K. Barua, *A Cultural History of Assam (Early Period), Volume-I*, Lawyer's Book Stall, Guwahati, 1969, p. 103

³² R. M. Nath, *The Background of Assamese Culture*, Dutta Baruah & Co., Gauhati, 1978, p. 13

³³ H. K. Barpujari, (ed.), *The Comprehensive History of Assam, Volume-I*, Publication Board Assam, Guwahati, 2004, pp. 60-61

³⁴ S. K. Bhuyan, *Anglo-Assamese Relations: 1771-1826*, LBS Publication, Guwahati, 2008, pp. 54-55

establishes the fact that the Chinese silk and the Assam silk had a reciprocal demand which further proves that Assam had its own variety of silk. One must therefore have the ground to believe that Assam silk is a native one which developed quite independently of China. Further, T. C. Hodson in his book *The Meitheis of Manipur* makes an interesting statement that silk insects originated in Manipur wherefrom it went to China.³⁵ This statement again indicates the fact that indigenous varieties of silk did exist in the North-Eastern part of India. A legendary story is too related to the origin of silk in Assam. According to the story a poor Brahmana widow gave birth to three sons after the death of her husband and was excommunicated by the society for her alleged unchastity. In her distress, she sought help from a holy hermit, who taking pity on her, changed her three sons into three silk worms, namely, *eri*, *muga* and *pat*.³⁶

The different opinions regarding the origin of silk industry in Assam makes one thing very much sure and certain that the silk culture of China might have an indirect influence over the silk culture of Assam, but it is a well established fact that an independent silk culture did exist in Assam. P. C. Choudhury observes that “the art of sericulture and rearing of cocoons for the manufacture of various silk clothes were known to the Assamese as early as the *Ramayana* and the *Arthasastra*”.³⁷ Both Kautilya and Banabhatta spoke highly about the silk manufactures of Assam. The evidence from the *Arthasastra* of Kautilya and *Harshacharita* of Banabhatta proves that in the art of the rearing silkworms and the weaving of the finest silk textiles, the weavers of *Kamarupa* had a reputation equal to those of China.³⁸

³⁵ H. K. Barpujari, (ed.), Volume-I, op. cit. p. 254

³⁶ B. C. Allen, *Monograph on the Silk Cloths of Assam*, Assam Secretariat Printing Office, Shillong, 1899, p. 6

³⁷ P. C. Choudhury, *The History of Civilisation of the People of Assam to the Twelfth Century A.D.*, Spectrum Publications, Guwahati, 1987, p. 339

³⁸ *Ibid.* p. 343

History as well as tradition is silent as to the origin and date of introduction of the *eri* and *muga* silkworms in Assam. Neither of these two varieties of silkworm is known to be cultivated outside the State nor at any greater distance than the neighbouring districts of Bengal which are ethnically as well as in respect of climate closely allied to Assam.³⁹ As a matter of fact, Assam is the original home of *eri* silk, while in *muga* silk production she holds monopoly in the world.⁴⁰ These two varieties of silk in Assam are therefore considered as being of local origin. *Eri* and *muga* silk are known to the outside world under the name of 'Assam Silk'.⁴¹

The other variety of silkworm reared in Assam is the *pat* which is however also found outside Assam. An element of uncertainty is there regarding the history of the *pat* silk in Assam. Actually, the rearing of the *pat* silkworm in Assam is restricted by custom to a particular caste and is regarded with contempt by the rest of the population which seems to point it as being introduced from outside.⁴² The cultivation of *pat* silk in Assam was confined to a section of the *katonis* or *jugis* caste.⁴³ In an Assamese pamphlet entitled *Jugi ba Katoni Jatir Itihash*, the author Madhavram Das mentions that the *katonis* of Assam are the descendants of the *jugis* who were from priestly class and earned the royal displeasure because they seceded from orthodoxy and denied the supremacy of the Brahmanas. As such they were denounced as out caste and persecuted by King Ballal Sen and his successors which resulted in their being driven out of Bengal. Some of them came to Assam and brought with them the knowledge of the mulberry or *pat* silkworm from Bengal.⁴⁴

³⁹ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 3

⁴⁰ Prabin Baishya, 2005, op. cit. p. 38

⁴¹ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

⁴² Ibid. p. 3

⁴³ Mahua Bhattacharjee, op. cit. pp. 46-47

⁴⁴ Rekha Kalita, *The Sericulture Industry of Assam*, PeeGee India, Guwahati, 2013, pp. 11-12

Of these three varieties, the *muga* used to be the most common, the *eri* was also reared in great quantity and the *pat* was the least common.⁴⁵ *Muga* silk is produced by an insect known to science as *antheraea assamea*. This scientific name has got relevance as this silkworm is not known to be cultivated outside Assam.⁴⁶ The Assamese name *muga* is said to have been derived from the amber colour of the silk and the name is even frequently used to denote silk in general like *eri muga* meaning *eri* silk and so on. The genuine *muga* being distinguished as *sompatia muga* which means silk yielded by the worm that feeds on the *soom* leaf. The *soom* tree furnishes its favourite food, but in Lower Assam it is extensively bred on the *sualu* tree. Infact, the *soom* and the *sualu* trees are the chief food plants of the worm yielding common *muga* silk, other than the *champa* and *mezankuri* variety. Leaves of some other forest trees like the *dighlati*, *patichanda* and *bamroti* can also be eaten by the *muga* worm in its mature stages in case of insufficient supply of its staple food plants.⁴⁷ While the *muga* worm, assumes the *champa* and *mezankuri* variety when it is fed on the *champa* or *chapa* and the *mezankuri* or *adakuri* tree respectively.⁴⁸

The *muga* insect is a polyvoltine and produces 5 broods of worms in a year.⁴⁹ These broods are in succession and are distinguished by vernacular names roughly denoting the months in which the worms are bred and their cocoons are spun. The names of these broods are *katia* in October-November, *jarua* in the coldest months from December-February, the *jethua* in the spring from March-May, the *aharua* in June-July and the *bhadia* in August-September. But it is only in few parts of the

⁴⁵ Francis Hamilton, *An Account of Assam*, DHAS Publication, Guwahati, 1987, p. 61

⁴⁶ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

⁴⁷ E. Stack, 'Silk in Assam' in *Notes on Some Industries of Assam From 1884 to 1895*, Assam Secretariat Printing Office, Shillong, 1896, p. 13

⁴⁸ Ibid. p. 21

⁴⁹ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

Assam (Brahmaputra) Valley that this regular succession of broods is maintained.⁵⁰ Again there is a belief that the *muga* silkworms of the Garo hills which are of wild variety provides better yield of cocoons than the local variety of *muga* silkworms.⁵¹ There is a folk song where it is stated that I have started rearing the *katia* variety of *muga* silkworm brought from the Garo hills. Hence, I am telling you in the month of *magh* (mid-January to mid-February) that I am going to get married in the coming month of *bohag* (mid-April to mid-May). The song is:

garo paharore mugakoi katia
katia puhiboloi lolu
ahabar bohagat biakhon patimei
*etiai maghote kolu*⁵²

The *muga* silkworm is reared in open air, but its hatching and spinning of cocoons is done indoors for which the worm is commonly regarded as semi-domesticated worm.⁵³ Being reared outdoor, the rearers other than the infection caused by disease also had to protect the *muga* worms from the attacks of different birds when the worms are fed on the trees.⁵⁴ This aspect of *muga* silkworm rearing has been depicted in a bihu song⁵⁵ which is:

kaorir xotoru muga chungiya
bohibo je nidie dalot
mure xotoru mure aai-bopai
phuribo je nidie gaot

⁵⁰ E. Stack, op. cit. p. 13

⁵¹ S. N. Chowdhury, *Muga Silk Industry*, Directorate of Sericulture, Government of Assam, Guwahati, 1982, p. 27

⁵² *Census of India, 1961, Volume-III, Assam, Part VII-A, Selected Handicrafts of Assam*, Delhi, 1966, p. 27

⁵³ E. Stack, op. cit. p. 13

⁵⁴ S. N. Chowdhury, 1982, op. cit. p. 21

⁵⁵ Songs sung to celebrate the Assamese festival of bihu.

The literary meaning of the song is that the enemy of the crow (it symbolises bird) are the *muga* rearers who do not allow them to sit on the branch of the *soom* or *sualu* tree. Similarly, my enemy is my parents who do not allow me to move around in the village.⁵⁶

The *muga* silk is reeled from the cocoon in the form of a continuous thread. It is greatly valued for use in embroidery and artistic weaving as a substitute for gold thread.⁵⁷ There is a belief that the *muga* silkworm rearing is much more profitable than the paddy cultivation. A proverb is there:

aahu kheti aahukal, muga kheti kapal bhal

The proverb means that one who does the *aahu* variety of paddy cultivation has to face problems. While, one who rears the *muga* silkworms used to have a better luck.⁵⁸ The traditional centres of the *muga* silk industry are Dhakuakhana, Dhemaji, Dibrugarh, Lakhimpur, Sibsagar, Jorhat etc.⁵⁹

Eri silk is obtained from a silkworm known as *attacusricini*. The vernacular as well as the scientific name of the insect denotes its connection with the *era* or castor plant which is its principal food plant.⁶⁰ It feeds also on trees like the *keseru*, *gulancha* and *gamri*. Even the *eri* worm on its later stages can thrive on the common *bogri* or *ber* tree, if other food is not procurable in sufficient quantity. The *eri* worm is a multivoltine and is reared entirely indoors.⁶¹ It produces 6 or 7 broods in a year. The

⁵⁶ Praphulladatta Goswami, *Bihu Songs of Assam*, Lawyers Book Stall, Guwahati, 1957, p. 44

⁵⁷ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

⁵⁸ Anil Barua, (ed.), *Janapriyo Asomiya Fokora Jojana*, Gyandeeep Publication, Guwahati, 2012, p. 12

⁵⁹ S. N. Chowdhury, 1982, op. cit. pp. 13-15

⁶⁰ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

⁶¹ E. Stack, op. cit. p. 6

rearing of the *eri* worm is more widely spread than that of the *muga*. Custom permits every class of people to rear the *eri* worm. As such barring the settlements of the tea labour, there is hardly any village in the Assam Valley, where it is not found. The *eri* is soft to the touch and remarkably durable which make *eri* cloth particularly suitable for rough wear.⁶² The *eri* cloth provides warmth to the body. Infact a proverb is there:

doir pani, erir kani

The meaning of the proverb is that the curd is known for its coolness, while *eri* cloth is known for its warmth. If we eat curd we will feel cold, whereas if we wear *eri* cloth our body will have warm feeling.⁶³ Ericulture is mainly practised in Kamrup, Goalpara, North Cachar, Karbi Anglong, etc.⁶⁴

The *pat* worm is a *bombyx* and is similar to the common silkworm of Europe, China, Japan and Bengal. It feeds exclusively on the leaves of the mulberry tree.⁶⁵ The *pat* included two distinct species, the univoltine *bombyx textor*, called *bor polu* or large worm and the multivoltine *bombyx croesi*, called *horu polu* or small worm. Both the species are reared indoors on the leaves of the mulberry, called *nuni* in Upper and *meshkuri* in Lower Assam. The smaller kind of *pat* silkworm, i.e. *horu polu* gives a white silk, which is reeled into a coarser and less valuable thread than that of the larger *pat* silkworm, i.e. *bor polu*. But as the smaller kind of *pat* silkworm is multivoltine, yielding 4 broods in a year, it finds greater favour with the cultivators. The *pat* silk was traditionally considered as a much rarer and more valuable article

⁶² Rai Bhupal Chandra Basu Bahadur, op. cit. p. 1

⁶³ B. C. Allen, op. cit. p.10

⁶⁴ S. N. Chowdhury, *Eri Silk Industry*, Directorate of Sericulture, Government of Assam, Guwahati, 1982, p. 8

⁶⁵ Ibid. p. 2

than either *eri* or *muga*. Like the *mezankuri* variety of the *muga* silk, the *pat* silk was rather an article of luxury.⁶⁶ The value provided to the *pat* silk items is reflected beautifully in this proverb:

fota houk singa houk patar tongali

kona houk kuja houk bhuyar puali

The meaning of the proverb is that the *tongali* (waist cloth) may be tattered and torn but as it is made of *pat* silk it is very valuable. Likewise, the son of Bhuyan (a landlord with royal powers) may be blind or lame, but has got qualities for which he must be respected.⁶⁷ The cultivation of *pat* silk was traditionally confined to a section of the *katon* or *jugi* caste.⁶⁸ The chief *pat* growing areas are Kamrup, Darrang, Sonitpur, Nowgong, etc.⁶⁹

The method of rearing the silkworm is a traditional one which has been handed over from one generation of rearers to the next as a legacy. This traditional silk rearing method in Assam is surrounded with certain beliefs which at time seem like superstition, but its scientificity cannot be totally ignored.⁷⁰ The *muga* rearing being an outdoor activity is done mostly by males, while *eri* and *pat* rearing being done indoor is carried on mostly by female. The other activities like spinning, reeling, weaving, etc are traditionally feminine activity. However, now a day with commercial production of silk items, male participation in these activities has distinctively increased. Both male and female rearers observed certain practices like abstaining

⁶⁶ E. Stack, op. cit. pp. 21-23

⁶⁷ P. R. T. Gurdon, *Some Assamese Proverbs Compiled and Annotated*, Assam Secretariat Printing Office, Shillong, 1903, pp. 57-58; *Census of India, 1961*, op. cit. p. 33; Anil Barua (ed.), op. cit. p. 105

⁶⁸ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 2

⁶⁹ S. N. Chowdhury, 1984, op. cit. p. 6

⁷⁰ S. N. Chowdhury, 1982, op. cit. p. 14

from oiling, trimming their hair, shaving, manicuring their nails, etc during the rearing period. Further, the females during their menstrual period refrain from doing any kind of sericulture related activity.⁷¹

Actually, the *eri*, *muga* and *pat* silkworm are considered by the Assamese people as a *doyang bostu*, i.e. sacred being as per their tradition. As such these silkworms during the rearing process should be handled with utmost care and reverence. The silkworms should not be touched or even looked at by the outsiders as there always remains the problem of evil eye or evil mouth. It is because of the belief that if a person with evil eye or mouth utters a single word of praise after looking at the broods of silkworm reared, the whole broods may get affected by some sort of disease resulting in ruining of the entire brood. Even, the rearer himself or herself should not touch the worms until he or she has washed and put up clean cloth. This rule had its origin in a sense of cleanliness.⁷²

For instance the silkworms (*eri* and *pat* both reared indoors) used to get their first morning meal of leaf only when the rearer used to have bath and change of clothes. This normally used to be done only after few hours of sun rise. Further, the rearers are also prevented from consuming *khar* (alkali) and many other kinds of food as well as from doing such things which are considered as ceremonially impure.⁷³ To protect silkworms from diseases, the rearers used to worship the deity who presides over the destiny of silkworms. Besides, there are charms for driving away or counteracting the influence of evil spirits on the silkworms.⁷⁴ These beliefs are widely

⁷¹ R. Chakravorty, P. Dutta and J. Ghose, 'Sericulture and Traditional Craft of Silk Weaving in Assam' in *Indian Journal of Traditional Knowledge, Volume-9*, 2010, pp. 381-382

⁷² Rai Bhupal Chandra Basu Bahadur, op. cit. p. 5

⁷³ E. Stack, op. cit. p. 8

⁷⁴ L. Liotard, op. cit. pp. 9-10

popular even today in the Assamese society and are depicted in some bihu songs. In one such bihu song we found references of *muga* silkworm being infected by disease and the rearer going to temple for worshipping the deity in order to get rid of the disease. The song is:

muga puhisilu phutuka ulale

gharoloi aahilu gusi

hitahit heruai gossain gharoloi goi

*kali di thoi aahilu chaki*⁷⁵

The manufacturing process of the silkworms involves three steps (1) Rearing, (2) Reeling and Spinning and (3) Weaving.⁷⁶ The rearing of the *muga*, *eri* and *pat* as already mentioned involved a simple process being reared on trees either indoor or outdoor. The life-cycle of every silkworm reared in Assam, namely, *muga*, *eri* and *pat* passes through four well defined stages, namely, the (1) the egg or seed, (2) the worm, (3) the cocoon or rather the chrysalis inside the cocoon and (4) the moth which may be either a male or a female. However, there may be one or more life-cycles in the course of a year.⁷⁷

The *eri* seed cannot be reeled but can be spun into thread in the same fashion as cotton. This is because *eri* silk cocoon is open at one end for which the silk does not form into a continuous filament.⁷⁸ B. C. Basu narrated three distinct processes of spinning *eri* silk. Two of these processes involve the use of spindle (*takara* or *takuri*) with little difference in the steps for twisting the thread. The third process involves the

⁷⁵ Praphulladatta Goswami, 1957, op. cit. p. 43

⁷⁶ Sudeshna Purkayastha, op. cit. p. 6

⁷⁷ Rai Bhupal Chandra Basu Bahadur, op. cit. p. 2

⁷⁸ Labanya Mazumdar, *Textile Tradition of Assam: An Empirical Study*, Bhabani Books & Fabric Plus Pvt. Ltd., Guwahati, 2013, p. 20

use of spinning wheel for twisting the thread. The *muga* and *pat* silk can be reeled and the reeling processes of the two varieties are the same with the only difference being that the *muga* is not boiled before reeling. The reeling apparatus in Assam is a simple machine known as *bal* or *bheer*. Another kind of reeling apparatus is the *uni* used by the reelers of Sipajhar in the Mangaldai sub-division. The last step of silk manufacturing is weaving, but before being fit for weaving, the silk yarn has to pass through various processes like sorting, dyeing, sizing, twisting, warping, degumming, pirning, washing and bleaching.⁷⁹

Assam had a great wealth of indigenous dyes, yielding all the colours as required by the weavers. But there was no special class to be solely engaged with the dyeing practices. The yarns were dyed by the weavers with the indigenous dye.⁸⁰ The weaving of silk has been an age-old tradition in Assamese society with the style of weaving being so unique that every one falls in love with it. There was hardly any woman in Assam who does not know the art of weaving. For the Assamese women, weaving was a past time, rather than a professional occupation.⁸¹ Weaving happened to be a part of their household activity. Every Assamese household used to have at least a loom where the female folk of the household used to weave the required dress materials for the family. A woman expert in weaving was called *tatati* or *bhajini* and she used to get respect as well as admiration in the society. While, the woman without having weaving skill was called *akhaji* or *ghasuri* and was an object of scorn and ridicule in the society.⁸²

⁷⁹ Ibid. pp. 8-9

⁸⁰ Ibid. p. 97

⁸¹ Rekha Kalita, op. cit. pp. 10-11

⁸² Birendranath Datta, *A Study of the Folk Culture of the Goalpara Region of Assam*, Gauhati University Publication, Guwahati, 1995, p. 260

Unlike, the *tanti*, *jugi* and *jalahs* of Bengal, a unique feature of the Assamese society was the absence of any particular caste reserved for weaving.⁸³ Essentially a feminine craft, the traditional skill in handloom weaving has been handed down from generation to generation to Assamese girl from a tender age at home making them expert weavers. The Assamese women are hereditarily good weavers. Testifying this tradition there is a proverb:

makotkoi jiek kaji dheki thurere bote paji

The meaning of the proverb is that the daughter is more skilful than her mother in weaving skills; even she can manage to weave with a *dhekirthura* (a wooden instrument used for grinding) which is an arduous task.⁸⁴ Another proverb is there which shows that how deeply the women are involved in their weaving. The proverb is:

tini godhuli torise tat

ujutit vangise poyekor dat

The proverb means that the wife spends her time in weaving in the loom and she continues weaving even in the evening time and accidentally her husband gets tripped up in the loom and breaks his teeth.⁸⁵

W.W. Hunter described that every Assamese household possessed a loom and weaving was carried on by women of the family principally for domestic use.⁸⁶ It was

⁸³ *Gazetteer of India, Assam State, Sibsagar District*, Government of Assam, Shillong, 1967, p. 163

⁸⁴ P. R. T. Gurdon, op. cit. pp. 66-67

⁸⁵ P. R. T. Gurdon, op. cit. pp. 79-80; Anil Barua (ed.), op. cit. p. 84

⁸⁶ W. W. Hunter, *A Statistical Account of Assam, Volume-I*, Cambridge University Press, London, 1879, p. 57

rare to have an Assamese family without a loom which was as precious to the Assamese maiden as life itself. There is a folk song that the loom also wept along with the members of the family on the departure of the bride after marriage:

bargharat kandile make bapeke

moralat kandile bhani

barir pasfale kande tatar shale

aideuk bia diya shuni

The song literarily means that on the departure of the girl as bride on the day of her marriage, the parents started weeping in the dwelling house; the younger sister wept in the marriage pandal; while the loom in the backyard of the dwelling house also took part in the weeping.⁸⁷

In some parts of Upper Assam, it was customary for the bride to bring with her the loom and all other accessories while coming to stay with her husband in his parental house.⁸⁸ Actually, the loom and its accessories were very much dear to the Assamese women. As such these were compared with the festival of bihu in a bihu song. In the song the bobbin of *muga* silk and the shuttle is considered as very dear to Assamese women, but dearer still is the festival of bihu and one cannot live without celebrating it. The song is:

otikoi chenehar mugare mohura

tatokoi chenehar maku

tatokoi chenehar aamare bihuti

*napati kenekoi thaku*⁸⁹

⁸⁷ *Census of India, 1961*, op. cit. p. 2; Lakshmipriya Devi Changkakati, *Asamar Tatasal*, Asam Sahitya Sabha, Jorhat, 1993, p. 1

⁸⁸ Labanya Mazumdar, op. cit. p. 106

⁸⁹ Praphulladatta Goswami, *Folk Literature of Assam*, DHAS Publication, Guwahati, 1965, p. 17

Once upon a time weaving was considered as an important quality of an Assamese girl. The proficiency in the art of weaving made an Assamese girl more eligible for marriage.⁹⁰ Earlier in ordinary circumstances, a girl was not chosen by any bridegroom unless she knew the art of weaving. An Assamese folk song mentioned below depicts such a picture. The song is:

aaru beli koisila gamocha dim buli

aeibeli katisa paji

tumare gamocha aamake nalage

tirota aani lom kaji

The song literally means previously you promised me a *gamocha* (towel); but now you are preparing the slivers only; so I do not want your *gamocha*; rather I shall marry an expert girl who is good in weaving and other activities.⁹¹

There has been an age old tradition in the Assamese society that grown up girls should present a self woven *gamocha* to her beloved as a token of love and also to her elders as a symbol of respect on the eve of the Bohag Bihu⁹². For this occasion a special type of *gamocha* known as *bihuan* is woven by the girls with a unique type of design. The motif of weaving a *bihuan* has been very beautifully expressed in this Assamese song:

moromor digh di chenehar bani loi

hepahar asure boa

sopunor phoolere fulam morey bihuan

mon di abeli loa

⁹⁰ S. K. Bhuyan, *Studies in the History of Assam*, Bani Mandir Publication, Guwahati, 2009, p. 73

⁹¹ *Census of India, 1961*, op. cit. p. 1

⁹² It is the bihu celebrated in the Assamese month of *Bohag* (mid-April) to welcome the Assamese New Year.

The meaning of the song is do take the *bihuan* with all your heart which I have woven with the warp of my love and weft of my affection. The *bihuan* is being bordered with my tender desire and adorned with dreamy flowers.⁹³

Even today weaving is regarded as a sacred operation amongst all the communities of Assam, both tribal and non-tribal. It is something far more important than mere production of fabrics for daily use. As such it is considered as a craft with religious significance. Certain taboos and observances are related with weaving which have to be maintained by the weavers. For instance, the weavers of Hindu community worshipped Lord Biswakarma as the God of this craft. In every step of the weaving process which includes the starting of a complicated design, the weavers pray Lord Biswakarma for successful completion of the work.⁹⁴

Then in Lower Assam, the young weavers used to perform some weaving related task on the last day of the Durga Puja i.e. *doshomi* puja with a belief that Goddess Durga will bless them to be a skilled weaver. But during the celebration of occasions like Bihu, Durga Puja, Biswakarma Puja, etc weaving is not generally undertaken. Among the non-tribal Assamese people, warping is not done on Thursday. Then any weaving related activity is not undertaken on the day of the full moon and on the day of a death in a village. If there is a death in a family, then weaving is done only after the *shraddha* ceremony is over. During the menstrual period, no weaving is undertaken. While, weaving cloths for religious rituals the weaver must maintain the ritual purity.⁹⁵

⁹³ *Census of India, 1961*, op. cit. p. 8; Labanya Mazumdar, op. cit. p. 117

⁹⁴ Jugal Das, *Asamar Loka-Kala*, Assam Publication Board, Gauhati, 1968, pp. 71-72

⁹⁵ Labanya Mazumdar, op. cit. pp. 110-111

Weaving though was a part of the household activity of the Assamese women, yet it had an economic significance. Agriculture was the main occupation of the Assamese people where women folk assisted the male in sowing, harvesting, etc. But there were various other subsidiary occupations with weaving being one such. As such, the male members in a family used to make loom for their women in the homestead.⁹⁶ A folk song is there where the newly married bridegroom tells his bride that in the paddy field you will assist me in sowing and harvesting, while I will do the ploughing. At home I will make the loom where you will weave the required cloths. The song is:

tumi kori jaba ruwoni, dawoni

moi bai jam hal

tumi boi loba rihakoi, mekhela

*moi pati dim shal*⁹⁷

The women by weaving provided the cloths for a family and the surplus of woven cloth could be sold fetching an additional source of income for the family. Different types of dress materials were woven by the weavers for both male and female. As such there are folk songs depicting weaving of different silk garments by the weavers. One such song is:

baru tenehole moi jao bhotiai

aanugoi pat mugare xuta

tumi boi loba chadar mekhela

muku boi diba churiya chola

⁹⁶ Ibid. p. 33

⁹⁷ Lakshmi Priya Devi Changkakati, op. cit. p. 1

The meaning of the song is I am going out to bring for you the thread of *pat* and *muga* silk with which you will weave for you *chadar* and *mekhela* as well as *churiya* (wrapper) and *chola* (shirt) for me.⁹⁸

The throw-shuttle loom and throw-shuttle loin loom (also called country loom) constitute the traditional types of loom in Assam. These looms have very simple devices, but each type possesses certain special features.⁹⁹ The throw-shuttle loom is known as *tat shal* in local language. This *tat shal* is again of two types *chang tat* (platform loom) and *matiya tat* (ground loom) with the differentiation made on the basis of placing the warp yarn horizontally at a height or ground level respectively. The parts and accessories of the *tat shal* are made locally with indigenous materials, mostly bamboo and wood. Some of the important parts and accessories of the *tat shal* are: *gari*, the rollers; *ras*, the reed; *maku*, the shuttle; *nasni*, the pulleys; *sal-bari*, the pulley-bar; *ba*, the heald; *ba-chunga*, the bamboo pipe for winding the heald; *putal-bari*, the temple; *garka*, the pedal; *paghe*, the bobbins made of bamboo sticks; *chorki*, the reel for winding the yarn; *notai*, another reeling device; *peta*, the pirn; *karoni*, the leage; *jatar*, the spinning wheel; etc.¹⁰⁰

The Assamese women in the plains used the throw-shuttle loom, while the throw-shuttle loin loom is very common amongst the women in the hill areas of Assam. For the throw-shuttle loin loom, a warp of manageable length and breadth usually of about 6 yards x 18 inches is prepared in a circular form and woven with bamboo tube shuttle. One end of the circular warp is fastened to the wall of a house and the other end is attached to the waist of the weaver with a cotton or leather belt.

⁹⁸ Ibid. p. 15

⁹⁹ Labanya Mazumdar, op. cit. p. 100

¹⁰⁰ Birendranath Datta, op. cit. pp. 263-264

No reed is used for heating up the weft. Various colours schemes are adopted in the warp. Even, different figures of animals and natural views are decoratively weaved in the articles produced in this loom. But, articles produced in the throw shuttle loom are narrower and long strips are stitched lengthwise to form a whole piece of cloth.¹⁰¹

The existence of two varieties of traditional looms, one for the plain and the other for the hill showed the popularity of silk weaving all over Assam, both among the tribal and non-tribal communities. Silk weaving was a status symbol and the Assamese womenfolk were proud of weaving fine fabrics out of the homespun *eri*, *muga* and *pat* silk. Infact, weaving persists as living craft in both tribal and non-tribal communities. Designs and motifs of the silk garments are influenced by the elements of physical environment like flora and plants, animals; cultural norms, ceremonies; festival, etc. A difference between tribal and non-tribal communities in terms of weaving could be seen in the form of traditional patterns persisting more among the tribal communities than the non-tribal one.¹⁰²

With weaving of silk being widely practised over the length and breadth of Assam, many silk garments are woven which are used by the people in their daily life as well as on festive occasions. The Assamese society is an intermixture of different tribes, hills and plains and also of non-tribal people. As such, the garments woven are of different variety. Though the different communities in Assam have diverse silk textile items with specific distinctive characteristics, a certain degree of unity among the various silk textiles is certainly observable. But amidst the varieties, some

¹⁰¹ R. Das Gupta, *Art of Medieval Assam*, Cosmo Publications, New Delhi, 1982, pp. 196-198

¹⁰² Labanya Mazumdar, op. cit. pp. 146-147

garments are common though their name differ from one tribal community to the other one. These garments are:¹⁰³

- *Mekhela* – It covers the lower part of the female body from waist down to the ankles.
- *Riha* – It is used on the top of the *mekhela* covering the breasts and upper portion of the female body.
- *Chadar* – It is used to wrap over the *mekhela* alone or *riha* and *mekhela*.
- *Gamocha* – A towel.
- *Dhuti* – It is used as a wrapper for covering the lower part of the male body from waist down to the ankles.
- *Churiya* – It is used as a wrapper for covering the lower part of the male body from waist down to the knees.
- *Panjabi* – An upper garment for the male.
- *Kameez* – An upper garment for the male.
- *Celleng* – It is used as a shoulder cloth.
- *Barkapor* – It is like a shawl.

The silk garments are the most adorable, valuable and respectable dress material in Assam. The socio-cultural factors have forced the tribal as well as non-tribal population of Assam to continue with their textile traditions which included silk garments.¹⁰⁴ In every social occasion and festival, Assamese women prefer to wear silk dresses which signify their social status as well as maintain their position.¹⁰⁵

Nirmalprabha Bordoloi in one of the songs composed by her praises the beauty of

¹⁰³ Labanya Mazumdar, op. cit. p. 81; H. K. Barpujari, (ed.), *The Comprehensive History of Assam, Volume-III*, Publication Board Assam, Guwahati, 1994, pp. 208-209

¹⁰⁴ R. Chakravorty, P. Dutta and J. Ghose, op. cit. p. 378

¹⁰⁵ Labanya Mazumdar, op. cit. p. 154

Assamese women wearing silk dress along with traditional Assamese jewellery. The song is:

sonowali buta bosa asomiya pat
jikimiki kore chua sonali dehat
dugdugi, gaamkharu, thuriya chomoke
mekhelar patolit mayur jilike

The song literally means the Assamese *pat* silk cloth has been designed with golden thread embroidery which is shining in the body of the woman also wearing traditional Assamese ornaments like *dugdugi*, *gaamkharu*, *thuriya*, etc. Even the lower portion of the *mekhela* is embroidered with peacock design.¹⁰⁶

In a marriage, an Assamese bride must wear a *muga* or *pat mekhela*, *chadar* and *riha*. At the time of the *joran* (vermillion ceremony in a marriage) it is a custom for the bridegrooms' family to offer silk clothes to the bride. It is by wearing the *mekhela*, *chadar* and *riha* provided by the bridegroom's family that an Assamese bride used to sit for the marriage. The bride's family also used to provide the bridegroom with silk *dhuti*, *panjabi*, *celleng* and *gamocha*. It is only by wearing the dress provided by the bride's family that the bridegroom has to come to the bride's house to perform the marriage ceremony.¹⁰⁷

Infact there are many *bianam* (songs related with marriage) where there is mention of silk. One such song is:

koinai pindhile kingkhar par mekhela
maake achile sai
ainu mane garhe mor ai borone
namani jilato nai

¹⁰⁶ Lakshmi Priya Devi Changkakati, op. cit. p. 23

¹⁰⁷ Jogesh Das, *Folklore of Assam*, National Book Trust, India, New Delhi, 1972, pp. 64-65

The meaning of the song is that the bride is wearing the *mekhela* having a *kingkhap* design and her mother is looking at her. With the dress and her complexion, she is looking the most beautiful than anyone else.¹⁰⁸

It is not only at the time of marriage, even after the attainment of puberty by the girl in Assamese society, silk *mekhela* and *chadar* along with gold ornaments are offered to the girl during the ceremony held to observe it. The ceremony is called the *tuloni bia* and is considered as the first marriage of the girl.¹⁰⁹ There are bihu songs where we found reference of this tradition of the Assamese society. One such song is:

jetiare pora gate muga chadar khani lola

boioxot aamatkoi xoru

tetiare pora tumaloi aaxa kora

etia kenekoi ero

The meaning of the song is that although you are younger to me in age, but from the day you for the first time wore the *muga chadar*, I have a desire for you which I cannot ignore now.¹¹⁰ Silk other than providing us different dress materials is also connected with the food habits of the Assamese people, particularly amongst the tribal communities. Pupae of the silk moth have been regarded as a great delicacy and dietary staple. The pupae have high rich nutritional value with proteins, carbohydrates, fats, vitamins, etc. Different delicacies could be prepared out of it. The silk rearers used to have an additional income by selling the silk pupae.¹¹¹

¹⁰⁸ Praphulladatta Goswami, 1965, op. cit. p. 59

¹⁰⁹ Jogesh Das, op. cit. p. 61

¹¹⁰ Praphulladatta Goswami, 1957, op. cit. p. 45

¹¹¹ Bandana Mahan, *Silk Industry in the Socio-Economic Life of the Tai-Ahoms of Dhakuakhana, Lakhimpur, Assam*, (An Unpublished Thesis), Department of Anthropology, Gauhati University, 2013, p. 135

The silk industry in the pre-colonial period received the royal patronage from the dynasties that ruled over ancient and medieval Assam. The manufacture of silk was economically gainful and the silk cloth was accepted in the royal treasury as payment of revenue since circulation of coins was not widespread.¹¹² The earliest historical dynasty to rule over ancient Assam was the Varman dynasty (350 A.D.-650 A.D.). The last ruler of this dynasty, King Bhaskaravarman (600 A.D.-650 A.D.) offered presents to King Harshavardhana of Kannauj which as mentioned in the *Harshacharita* included among many other articles, a considerable quantity of silk fabrics some of which were very much polished and white.¹¹³ Banabhatta in his *Harshacharita* too mentions that the *abhoga* umbrella sent to King Harshavardhana by King Bhaskaravarman was wrapped in *dukula*.¹¹⁴ This depicts that the silk products had a high reputation and were presented as royal gifts during the Varman period.

By the 9th century A.D. silk products became popular among the tribals and the lower castes of the Hindu communities in Assam.¹¹⁵ Sualkuchi as we all know today is regarded as the 'Manchester of the East' for its silk industry. It was during the 11th century A.D. that the tradition of silk weaving started there. The Pala dynasty ruled over ancient Assam from 900 A.D. to 1100 A.D. A ruler of this dynasty, Dharmapala (1035 A.D.-1060 A.D.) patronised greatly the silk culture and brought 26 weaving families from Tantikuchi to Sualkuchi which was then known as

¹¹² D. Sen, *Ethnic Elements in the Silk Industry of Assam*, NEIHA Proceeding Volume, 5th Session, Aizwal, 1984, p. 72

¹¹³ H. K. Barpujari, (ed.), Volume-III, op. cit. p. 112

¹¹⁴ Mahua Bhattacharjee, op. cit. p. 44

¹¹⁵ D. Sen, op. cit. p. 72

Siyalkuchi.¹¹⁶ Tantikuchi was probably another village of weavers in Kamrup where later on during the 16th century A.D. Srimanta Sankardeva himself acted as the headman of a professional weavers' guild being appointed by the Koch King Naranarayan (1540 A.D.-1587 A.D.).¹¹⁷ Further, the *katonis* who reared *pat* silk also flourished during the Pala period.¹¹⁸

Although silk products were presented as royal gifts, yet silk culture was not popular amongst all the sections of the Assamese society in the ancient period. The Hindus who entered Assam from distant places of Central India were reluctant in silk culture as in their society this profession was considered as a degraded pursuit. But the Ahoms during the medieval period popularised silk culture in Assam. As such the Ahom period in medieval Assam from 1228 A.D. to 1824 A.D. was considered as the most developing period for silk culture in pre-colonial times. During that period sericulture as a profession on the basis of caste grew in Assam. Silk production was taken as a planned professional pursuit. Silkworm rearers and weavers were regularly taxed and were categorised into specific *khels* or groups for assignment to the nobility including the king's household and the *satradhikaras* or head of the *satras* to produce for them their necessary silk cloths.¹¹⁹ The Ahom King Suteupha (1268 A.D.-1281 A.D.) appointed 1000 *paiks*¹²⁰ from the Chutia and the Kachari community to rear silk

¹¹⁶ R. Kalita, op. cit. pp. 21-22

¹¹⁷ B. K. Barua, op. cit. p. 108

¹¹⁸ Mahua Bhattacharjee, op. cit. p. 44

¹¹⁹ J. Gogoi Nath, *Sericulture and Cotton Manufactures in Assam in Medieval Times*, NEIHA Proceeding Volume, 14th Session, Jorhat, 1993, p. 173

¹²⁰ The *paiks* were adult able-bodied males in between the age group of 16 to 50 except the King, Nobles, three chief Counsellors, priests, high-caste persons and people employed in respect of able occupations, who were liable to provide compulsory services to the state, civil or military. (cited in H. K. Barpujari, (ed.), *The Comprehensive History of Assam, Volume-III*, p. 36)

moths in order to increase the production of silks like *pat*, *mezankuri* and *muga*.¹²¹

The manufacture of silk cloth was extended to all the sections of the Assamese society including those of the upper castes by the Ahoms rulers.¹²² The credit of making weaving universal among all the classes and castes is attributed to Momai Tamuli Barbarua, a minister of the Ahom King Pratap Singha (1603 A.D.-1641 A.D.) who made it obligatory on the part of every Assamese household to spin and weave.¹²³ It was compulsory for every woman to spin at least two bundles of silk thread per head each night before going to bed. For execution of this order weekly and bi-weekly vigilance was enforced.¹²⁴ The system subsequently proved its usefulness. It kept the families self-sufficient in their garment requirements and the surplus substituted the payment of revenue to the State by coins and widened the scope of income by trade.¹²⁵ Later on, Queen Sarveswari, the wife of Ahom King Siva Singha (1714 A.D.-1744 A.D.) greatly encouraged spinning and weaving by the ladies and also imported designs and patterns from other parts of India.¹²⁶

A Department of Weaving was established by the Ahom kings and silk weavers were maintained to supply clothes to the royal wardrobe. In return for their services, they received rent-free lands and other favours.¹²⁷ Elaborate arrangements were made for keeping sufficient quantity of silk clothes of different varieties in the

¹²¹ Sarbeswar Rajguru, *Medieval Assamese Society 1228-1826*, Asami Publication, Nagaon, 1988, p. 294

¹²² Mahua Bhattacharjee, op. cit. p. 47

¹²³ H. K. Barpujari, (ed.), Volume-III, op. cit. p. 114

¹²⁴ S. K. Bhuyan, *Swargadeo Rajeswar Singha*, Publication Board Assam, Guwahati, 1975, p. 262

¹²⁵ D. Sen, op. cit. p. 74

¹²⁶ S. K. Bhuyan, 2009, op. cit. pp. 76-77

¹²⁷ B. K. Barua, op. cit. p. 105

Ahom royal store for presentation to foreign courts and dignitaries.¹²⁸ There was bulk purchase of silk clothes from the weaving families by the State and it was recognised as a substitute of monetary payment of revenue. The encouragement given to spinning and weaving resulted in the concentration of silk production centres.¹²⁹

Infact the silk of Assam was transformed into a commercial commodity by the Ahom rulers. The Ahom King Suhungmung (1497 A.D.-1539 A.D.) during the Mohammedan wars provided the first facilities to the artisans for rearing and manufacturing of silk in a commercial scale in order to solve an economic deadlock in the Ahom kingdom. He encouraged the artisans to produce more silk cloths which would solve the problems of constant supplies of uniform to the troops and payment of revenue to the State under a money short economy. Then Ahom King Pratap Singha played an instrumental role in raising the commercial value of the *pat*, *muga* and *eri* silk by transforming it into a commodity of trade. By issuing a circular, he entrusted 50 families of weavers in Sualkuchi to produce finest silk for the Mughal Emperor of Delhi. Silk tradition thus began to grow by leaps and bounds in Sualkuchi and in present times this place is a top most centre of silk production in Assam.¹³⁰

Rudra Singha (1696 A.D.-1714 A.D.), the illustrious Ahom king of Assam discouraged the dependence of Assam for specialised royal robes on distant provinces. He even prohibited the importation of any kind of silk garments in Assam. Thereafter, he made necessary arrangements for the manufacture of the best quality of silk for the tailoring of the royal robes. This provided an incentive to the silk weaving families as it was lucrative to supply royal robes. The weavers and manufacturers of

¹²⁸ E. A. Gait, *A History of Assam*, Surjeet Publications, Delhi, 2003, pp. 271-272

¹²⁹ Mahua Bhattacharjee, op. cit. p. 48

¹³⁰ D. Sen, op. cit. pp. 74-75

silk and silk robes attained a great proficiency and started to compete with their rivals of China, Tibet, Bhutan and Burma.¹³¹ The Ahom King Kamaleswar Singha (1795 A.D.-1810 A.D.) even deputed an envoy to the Deva Raja of Bhutan with presents that included fine quality of silk and silk robes.¹³²

During the reign of Rudra Singha, the *riha* and *mekhela* together was specified as the dress of the Assamese women to bring about uniformity in the court costume for the ladies in Assam.¹³³ This *riha* and *mekhela* along with *celleng* was worn on festive occasions.¹³⁴ Among the silk clothes, decorative fabrics like *kingkhap*, *gomcheng*, *karchip* and *sisupat* were considered as aristocratic and most prestigious. *Karchip* and *sisupat* were prepared out of the *mezankuri* silk. *Kingkhap* and *gomcheng* were imported from China and these were very popular during the Ahom period. *Kingkhap* in black colour was known as *gomcheng*.¹³⁵

The Ahom rulers though patronised silk industry, yet they imposed certain restrictions on the use of silk clothes. Everybody could not use all the silk clothes without maintaining any distinction. Distinction in wearing dresses and garments had been maintained between the high and low sections of the society.¹³⁶ *Pat* and *muga* items were generally used by the upper classes and were not allowed to be worn by common people. It was the *eri* items that were used generally by the common people.¹³⁷ The two varieties of *muga* silk, namely, *mezankuri* and *champa* were of

¹³¹ S. K. Bhuyan, (ed.), *Tungkhungia Buranji*, DHAS, Guwahati, 1968, pp. 32-53

¹³² Ibid. p. 164-165

¹³³ S. K. Bhuyan, (ed.), *Harakanta Barua Sadar Aminar Asam Buranji*, DHAS, Guwahati, 1962, p. 65

¹³⁴ R. Das Gupta, op. cit. p. 189

¹³⁵ Labanya Mazumdar, op. cit. pp. 28-29

¹³⁶ Sarbeswar Rajguru, op. cit. p. 172

¹³⁷ J. Gogoi Nath, op. cit. p. 174

special category with the former constituted the dress of the higher ranks and the latter of the members of the Ahom royalty.¹³⁸

The silk products caught the attraction of the foreigners who visited Assam at different times and they noted it down in their records. The English traveler Ralph Fitch visited the Koch kingdom situated in western Assam during the days of King Naranarayan and praised its silk and textile industries.¹³⁹ Tavernier, a French traveler of the 17th century, has noted that silk in Assam was locally produced on some trees and its stuffs were very excellent. The Mohammedan historians compare the silk of Assam with that of China because of its excellence.¹⁴⁰

During the pre-colonial period, the prominence of the silk of Assam even reached outside its boundary. Since the time of the Mohammedan wars, the silk of Assam has become a costly commercial commodity. The English East India Company after establishing its capital in Fort William at Calcutta realized the commercial value of the silk of Assam and found it as an exportable commodity to Europe. They visualized a good future for the industry because the silk cloths of Assam had reputation for consistent quality and competitive price. The Court of Directors in London repeatedly investigated the affairs of indigenous silk trade in Assam through the authorities at Fort William. Their aim was to manufacture silk cloth in Assam through their own agencies. But it was difficult since manufacture of silk cloth was carried out within homesteads by women.¹⁴¹

¹³⁸ H. K. Barpujari, (ed.), Volume-III, op. cit. p. 114

¹³⁹ D. Nath, *History of the Koch Kingdom (c. 1515-1615)*, Mittal Publications, Delhi, 1989, p. 150

¹⁴⁰ J. Gogoi Nath, op. cit. p. 173

¹⁴¹ D. Sen, op. cit. pp. 72-73

However, a French company was successful in opening a factory¹⁴² at Goalpara by securing permission from the Ahom King Rajeswar Singha (1751 A.D.-1769 A.D.).¹⁴³ But in 1769, the British authorities objected the export of silk from Assam by the French traders which compelled the Ahom Government to stop the trading rights of the French in Assam and their factory at Goalpara was closed.¹⁴⁴ Actually even before the Company assumed the power in Bengal in 1757 the British traders had commercial contact with Assam.¹⁴⁵ The commercial potentiality of the *pat*, *muga* and *eri* silk was well known to the British. Hence, they objected the French commercial endeavour in Assam and looked forward for the earliest opportunity to extend their trade beyond the borders of Bengal to Assam.

The most vital importance of silk industry in pre-colonial Assam was that it provided the basic need of clothing to every section of the Assamese society. Generally silk items were woven for domestic consumption with only the surplus being traded. Still, Walter Hamilton in the last decade of the Ahom rule in Assam noticed that silk cloth though formed a significant part of the clothings of the natives and a part of it was also exported.¹⁴⁶ The importance of silk industry in pre-colonial Assam can be well examined from the fact that after the occupation of the region, David Scott had written to the Government of Bengal that of all the commodities available in Assam, silk was likely to be the most profitable.¹⁴⁷

¹⁴² The word factory here refers to an establishment of traders for carrying on business in a foreign land.

¹⁴³ S.K. Bhuyan, 1975, op. cit. p. 83

¹⁴⁴ S. N. Sen, (ed.), *Fort William India House Correspondence, 1767-1769 A.D., Volume-V*, National Archives of India, Delhi, 1949, p. 236

¹⁴⁵ Mahua Bhattacharjee, op. cit. p. 50

¹⁴⁶ J. Gogoi Nath, op. cit. p. 174

¹⁴⁷ Priyam Goswami, 2005, op. cit. p. 25

BELL METAL INDUSTRY

Like the silk industry, the bell metal industry was also there in Assam from the pre-colonial period. The industry had a prominence amongst the traditional metal industries of Assam. Bell metal is a form of bronze. Basically it is an alloy of copper and tin. The two metals are mixed together and their proportion is 80:20 i.e. 80% of copper and 20% of tin.¹⁴⁸ The bell metal is locally called *kanh* and the bell metal industry is known as *kanh udyog*. The bell metal artisans are called *kanhars*. A large number of products are made out of the bell metal by using the traditional method.¹⁴⁹

The bell metal smithy was not practised like silk culture all over Assam. As such there were few places where bell metal industry existed. The main centers of the bell metal industry in pre-colonial Assam were Sapatgram, Bilasipara, Raha, Titabar and Sarthebari in the Brahmaputra Valley. While in the Barak Valley, the bell metal industry was there in Kharilpar, Lakhipur and the Manipuri villages of the Cachar district. The highest concentration of bell metal artisans, however, was in Sarthebari situated in the present day Barpeta district.¹⁵⁰

According to the archaeologist the bell metal or bronze civilization developed in an area in the Southern part of Russia.¹⁵¹ The bell metal smithy was learnt by the Indians around 2000 years before the birth of Jesus Christ. In the due course of time the knowledge of making product out of bell metal entered the Indian sub-continent.

¹⁴⁸ Panchanan Neogi, *Copper in Ancient India*, Indian Association for the Cultivation of Science, Calcutta, 1918, p. 28

¹⁴⁹ B. Choudhury, 'Prospects and Problems of Bell Metal Industry of Assam and Impact of Globalization on it', in Loknath Das, (ed.), *Baane*, B.B.K. College Teacher's Journal, Nagaon, 2004-05, p. 49

¹⁵⁰ D. D. Mali, *Economic Problems and Planning in Assam*, Omsons Publication, New Delhi, 1989, p. 100

¹⁵¹ B. Kalita, *Shangkata Sarthebarir Kanh Shilpa*, in 'Dainik Asom', Guwahati, July 13, 2008, p. 5

Bangladesh, Pakistan and India are very much rich in bell metal smithy. During the Gupta period, the Kurkihar centre for brass metal and bell metal in Bihar was known throughout the world and history records that two distinguished artisans Dhiman and Vithpal taught the bell metal smithy to the artisans from different countries.¹⁵² Other than Assam, bell metal industrial centres are there in Kerala, Orissa, Madhya Pradesh, Chhattisgarh, West Bengal, Bihar, Tamil Nadu, Manipur, etc. This shows that the bell metal smithy is a handicraft or a metal craft of national significance.¹⁵³

The history of the bell metal industry in Assam is a subject of research. There has been dearth of source material in this regard. Apart from the non-availability of source material, a key problem in knowing about the entry of the bell metal smithy in Assam is that the bell metal industry has got almost perished away from its traditional centres, except in Sarthebari.¹⁵⁴ Hence, it cannot be authentically said when and how the bell metal smithy has entered Assam. As per a belief it was during the Mauryan period that bell metal smithy entered Assam and this belief seems to be very popular even today in Sarthebari. Satnath was the earliest *kanhar* of Sarthebari who established a bell metal producing unit, i.e. *garshal* there during the Mauryan period.¹⁵⁵ This may be true as Sarthebari was then a renowned centre of trade and commerce situated on the bank of the river Chaulkhowa. It was the great devastating earthquake of 1897 that destroyed the Chaulkhowa river system.¹⁵⁶

¹⁵² Birinchi Choudhury, *Bell Metal Industry of Sarukshetri Block in Barpeta District of Assam: Its Problems and Prospects*, UGC Funded Research Project, 2006, pp. 4-5

¹⁵³ Kamaladevi Chattopadhyay, *The Glory of Indian Handicrafts*, Clarion Books, New Delhi, 1985, pp. 136-144

¹⁵⁴ K. B. Deka, *Kanh Shilpa Nagari Sarthebari*, Gyanodoi Book Stall, Sarthebari, 1994, p. 66

¹⁵⁵ Ibid. pp. 70-71

¹⁵⁶ Anil Raichoudhury, *Namoni Asomor Madhyashrenee*, Barua Agency, Guwahati, 1998, p. 24

Another belief is that the forefathers of present day bell metal artisans migrated to Assam in the Gupta Age probably from Nepal. This was possible because the geographical boundary of the ancient Assam stretched bordering Nepal in the eastward as described in the *Kalika Purana*, *Yogini-Tantra*, etc.¹⁵⁷ Even, references of bell metal utensils and ornaments are found in the *Kalika Purana*.¹⁵⁸ Further, many believed that the knowledge of making bell metal products was learnt by the people of Assam from the Muslims.¹⁵⁹ But one has to judge out to what extent this belief is true. Till now we have got no evidence in this direction. It is sure that the entry of the bell metal smithy in Assam is thousand or several hundred years older than the entry of Muslims in the State. This is testified by the presence of *lota* (water pot) made of bell metal among the list of presents sent with the royal envoy Hamsavega by King Bhaskaravarman to King Harshavardhana in the 7th century A.D.¹⁶⁰ The word *kanhar* also has been derived from the Sanskrit word *kamsyakara*.¹⁶¹ Actually Muslim artisans used to make brass metal products. They are expert in brass metal smithy and are known as *moriyas* which is itself a community. They have settled in Assam after the invasion of General Turbak in the 16th century A.D.¹⁶²

¹⁵⁷ B. N. Sabhapandit, 'Historical Account on Metal Manufacture: A Case on Assam', in R. D. Choudhury, (ed.), *Bulletin of the Assam State Museum, No. VIII*, Guwahati, 1986, p. 18

¹⁵⁸ Dinesh Baishya, *Traditional Science and Material Culture of Early Assam*, EBH Publishers, Guwahati, 2009, p. 325

¹⁵⁹ K. B. Deka, op. cit. p. 67

¹⁶⁰ Copy of the *Proposal Submitted by Asom Samabai Kanhar Sangha Ltd.*, Sarthebari to the Government of Assam, 31.6.1969

¹⁶¹ Satyendranath Sarma, *A Socio-Economic and Cultural History of Medieval Assam*, Government of Assam Publication, Guwahati, 1989, p. 311

¹⁶² Ananta Deka, *Bell and Brass Metal Industries in Assam: Present Status and Prospects for Development in the Changing Market Environment* (An Unpublished Thesis), Department of Geography, Gauhati University, 2012, p. 69

With the various beliefs, a clear idea cannot be provided regarding the entry of the bell metal smithy in Assam. It is a highly debatable issue. But from its very beginning, the bell metal industry greatly flourished in Assam. It is needless to say that the products of bell metal industry became popular both inside and outside Assam. Ruling dynasties of Assam used to provide the needed royal patronage to the bell metal industry. Even, the *Zamindars* of Abhayapuri, Gauripur and other areas used to give special place to bell metal works and provided encouragement to the *kanhars*.¹⁶³ Apart from the royal patronage and support given by the nobles and aristocrats, love of people for native crafts, customary value put on such articles, social status and prestige attached to metallic utensils and the growth and spread of *Satras*, temples and other religious institutions directly encouraged the manufacture of bell metal products in Assam.¹⁶⁴

The use of bell metal was known in Assam from its early period and various utensils and artefacts were made out of it.¹⁶⁵ With due royal patronage and encouragement received from the people, the bell metal products of Assam by the 7th century A.D. enjoyed the reputation of being royal gifts. The *Harshacharita* mentions about the existence of the bell metal industry in Kamarupa during the 6th and 7th century A.D.¹⁶⁶ The kingdom of Kamarupa earned a good amount of foreign currency by exporting bell metal utensils to Nepal, Bhutan, Tibet and other countries.¹⁶⁷ The export of bell metal utensils at different times to different countries like China and

¹⁶³ Geeta Deka, *Sarthebari Anchalar Loka Sanskritik Adhyayana (Kanh Shilpar Bisesa Ullikhana Saha)* (An Unpublished Thesis), Department of Folklore, Gauhati University, 2006, p. 176

¹⁶⁴ B. N. Sabhapandit, op. cit. p. 16

¹⁶⁵ Dinesh Baishya, op. cit. p. 325

¹⁶⁶ Puspa Gogoi, *Ahom Jugur Sthapatya Aru Bhaskarjya*, Chumphra Prakash, Dhemaji, 1985, p. 37

¹⁶⁷ P. C. Choudhury, op. cit. p. 347

Tibet and to the neighbouring state of Bengal is also known from the accounts left by the foreign writers.¹⁶⁸ Even today, the bell metal utensils are used in their religious activities by the Buddhist people of our neighbouring countries. It has become a tradition for them to take the bell metal utensils from Assam.¹⁶⁹

The bell metal industry also continued to flourish in Assam in the Salastambha and the Pala period. The Koch kings of Assam also gave honour to the bell metal smithy.¹⁷⁰ The *Katha-Guru-Charit* supports the existence of the working on bell metal in the kingdom of Kochbehar.¹⁷¹ In the *Darrang Rajvamsavali*, there is a reference of offering utensils made of various metals which included bell metal along with gold, silver and copper to the Kamakhya temple by the Koch King Naranarayan.¹⁷² Chilarai, the brother of the Koch King Naranarayan, once offered a pair of *chappals* (sandal) made out of bell metal to Sankardeva when the latter visited the kingdom of Kochbehar.¹⁷³ Sarthebari, the most noted centre of bell metal works was flourishing well during the rule of the Koches.¹⁷⁴

During the Ahom period the bell metal smithy got more patronage and the industry developed in different parts of Assam as references of it are found in the *Buranjis*.¹⁷⁵ Further, Sarthebari developed as a specialised centre of bell metal

¹⁶⁸ B. C. Handique, *Purani Asamar Shilpa*, LBS Publication, Guwahati, 1959, p. 19

¹⁶⁹ K. B. Deka, op. cit. p. 68

¹⁷⁰ Maheswar Bhuyan, 'Sarthebari Asom Aru Bharatvarsha', in P. K. Deka, (ed.), *Smritigrantha*, Kohi Ram Das Birth Centenary Committee, Sarthebari, 1982, p. 122

¹⁷¹ Sarbeswar Rajguru, op. cit. p. 330

¹⁷² P. Chaliha, *Purani Asamar Karikari Shilpa*, Assam Prakashan Parishad, Guwahati, 1998, p.56

¹⁷³ B. C. Handique, op. cit. p. 18

¹⁷⁴ D. Nath, op. cit. p. 151

¹⁷⁵ Puspa Gogoi, op. cit. p. 37

smithy.¹⁷⁶ Other than the royal *karkhanas* in eastern Assam, the metal workers of Sarthebari in medieval Assam were known for their skill in metal-casting.¹⁷⁷ The *kanhars* during the Ahom period made the bell metal locally by mixing copper and tin. But, copper was not found in plenty in Assam and substantial amount of it was brought to Assam from China.¹⁷⁸ The bell metal was also procured from the great annual bazar held at Chauna where traders of Assam, Tibet, Bhutan, and China usually exchanged their commodities.¹⁷⁹

The Ahom period has been regarded as the golden period for the bell metal industry in Assam. The *kanhars* were given due respect by both the rulers and the ruled. The daily required utensils in the Assamese family along with the *bortop* (cannon) and *borhilo* (cannon ball) required in the battlefield were made out of bell metal.¹⁸⁰ The cannons were made by mixing bell metal with other metals.¹⁸¹ Sculptures and ornaments were also said to have been made of bell metal during that time.¹⁸² But interestingly till today, we have not found any sculpture and ornaments made of bell metal. The reason for this is not yet known. There might be some bell metal sculpture and ornaments in the personal possession of some Ahom family whose forefathers constituted the aristocratic section during the Ahom period. However, utensils like *kahi*, *bati*, *ghati*, *lota*, etc and *bortop* as well as *borhilo* made of bell metal are there preserved in different museums of the State. During the Ahom

¹⁷⁶ Sanjeeb Kakoty, *Science, Technology and Social Formation in Medieval Assam*, Foundation Books, New Delhi, 2012, p. 163

¹⁷⁷ A. Guha, 'The Medieval Economy of Assam', in Irfan Habib and Tapan Raychaudhuri, (ed.), *Cambridge Economic History of India, Volume I: C.1200-C.1750*, Cambridge University Press, London, 1982, p. 494

¹⁷⁸ Sarbeswar Rajguru, op. cit. p. 329

¹⁷⁹ Satyendranath Sarma, op. cit. p. 311

¹⁸⁰ B. Kalita, 2008, op. cit. p. 5

¹⁸¹ B. C. Handique, op. cit. p. 17

¹⁸² Dinesh Baishya, op. cit. p. 325

period there was abundance of bell metal products in well to do Assamese households as indicated in this proverb:

betiye bhangile kitora gargaon pale goi batora
ghoiniye bhangile kahi thole muchukai hanhi

The meaning of the proverb is that when the maid servant broke the stand of the *dheki*, the news spread to Gargaon (Ahom capital city); while, when the wife broke a dish the husband gave only a smile.¹⁸³

Mostly a variety of utensils or wares were made of bell metal in Assam from the earlier times. During the Ahom period, some new elements were introduced by them in the shapes and designs of the utensils. These newly shaped and designed utensils of the Ahoms had similarities with the utensils of the neighbouring countries like Tibet, Burma, Siam and even distant Indonesia. The basic difference was that each plate or bowl had a little stand at the bottom, ranging from about a couple of inches to about a foot in height. These vessels had a general prefix 'Ban' before its actual name like *ban bati* (bowl with a stand), *ban kahi* (dish with a stand), etc.¹⁸⁴

The *raheila bati* (bowl made at Raha) and *titabaria lota* (water pot made at Titabar) of the Ahom period were famous for their artistic beauty. The Ahoms also made and used a special type of mirror from the bell metal. During the time of the Ahom King Rudra Singha, the Assamese bell metal smithy did attract people both inside and outside the country. During his rule, the bell metal industry achieved more development.¹⁸⁵ Then Ahom King Siva Singha was astonished looking at the artistic skill of Jeudhan Kanhar of Sarthebari who made a pair of *bhortal* and fixed them in a

¹⁸³ P. R. T. Gurdon, op. cit. p. 80; Anil Barua (ed.), op. cit. pp. 114-115

¹⁸⁴ R. Das Gupta, op. cit. p. 166

¹⁸⁵ Puspa Gogoi, op. cit. p. 37

wooden tiger in such a way that it roared like a real tiger while it is moved. He presented it to king Siva Singha who gave him the title of *kanhar choudhury*, a *tamrapatra* and 400 *bighas* of revenue free land being pleased with his artistic skill.¹⁸⁶

The bell metal industry in Assam is practiced in a well organised structural framework which still continued to remain the same. The whole system of working in bell metal industry is organised on a co-operative basis as it is a huge labour intensive work involving only male labour.¹⁸⁷ Four to six *kanhars* together used to establish a unit of production called *garshal*. One of these *kanhars* used to be the master craftsmen called the *ojha-kanhar* and the other *kanhars* used to assist him are called the *palis*. This system of working on a co-operative basis is hence known as the *ojha-pali* system. The *ojha-kanhar* used to govern the *garshal* and the quality of the items produced there used to depend on his artistic skill and technical expertise.¹⁸⁸

The *garshal* is established in the premises of the *ojha-kanhar*. The tools of production as well as the *garshal* are owned by him. He also used to manage the raw materials required like copper and tin for making bell metal or scrap metal along with charcoal, pan, etc. The *ojha-kanhar* also used to take all the responsibilities of a *garshal* regarding its technical and commercial aspect. He further distributes the specific works among the *palis* on the basis of their skill and expertise. The *palis* are entrusted with the works like melting the scrap metal, hammering the solid metal on anvil, cleaning and polishing the products, etc. As such, while dividing the profit of the *garshal* among the *kanhars* in the form of wages, the *ojha-kanhar* used to receive

¹⁸⁶ D. D. Mali, op. cit. p. 101

¹⁸⁷ P. Chaliha, op. cit. pp. 49-50

¹⁸⁸ Bhabananda Deka, *Asamar Arthaniti*, New Book Stall Publication, Guwahati, 1963, p. 101

half a share more than the *palis*. This half a share is provided as depreciation charges for his tools, sheds as well as for bearing the risk of taking out the raw materials.¹⁸⁹

The *kanhars* are united through a mutual contract for a period of six months. A year is divided into two working periods of six months each which is locally called as *khep*. The *kheps* starts from February to July and then again from August to January. After every *khep* of six months, the *kanhars* have the option to reshuffle the contract or remain in the same contract for the next *khep*.¹⁹⁰ This method of having contract for every six months had its origin in tradition which is continuing amongst the *kanhars* as a legacy.

There are certain customary rules which the *kanhars* follow in their profession. Prior to starting a new *khep*, the *kanhars* used to worship Lord Biswakarma in the *garshal* with offerings so that they can complete the *khep* nicely without any problem. Besides, Biswakarma Puja is also celebrated in the *garshal*. The *kanhars* personally refrained from working if there is a death in their family and resumes work only after the *shraddha* ceremony is over. The *garshal* is also kept closed on certain occasions like the birth anniversaries of Vaisnava saints like Sankardeva, Madhavdeva, Damodaradeva; Durga Puja; Magh Bihu¹⁹¹ and Bohag Bihu; Deol Puja (Holi); etc.¹⁹²

The *kanhars* along with the production also used to control the marketing of their products. They used to make products as per the demand of the customers and as such had direct relationship with the customers. In return, the *kanhars* used to get the

¹⁸⁹ Prabin Baishya, 1989, op. cit. pp. 247-248

¹⁹⁰ Ibid. p. 249

¹⁹¹ It is the bihu celebrated in the Assamese month of *magh* (mid-January) to celebrate the harvesting season.

¹⁹² Lohit Chandra Deka, *Sarthebaria Kanhar Bachan-Bartan Aru Garshalar Parichai*, Seuji Prakash, Sarthebari, 1995, pp. 27-28

making cost which used to vary as per the items produced.¹⁹³ A very old bihu song is there which testifies the control of *kanhars* both over the production and marketing of the bell metal products. The song is:

tumak tamul dia kanhar bota khani
senairre haturir boal,
juabeli bohagat muke garhai disile
*murdhan behaloi gol*¹⁹⁴

The meaning of the song is the bell metal *bota* where the betel nut is given has the marks of hammering by the *kanhar* who has gone out for trading.

The inhabitants of the neighbouring hilly regions used to come to the plains for buying bell metal products. Sarthebari, besides being a bell metal industrial centre was also a renowned centre of trade and commerce. The *kanhars* of Sarthebari became a connecting link between the inhabitants of the hills and plains through their bell metal products.¹⁹⁵ Titabar and Raha, the bell metal industrial centres were also the *duars* or gateways through which the people of the hills paid annual visits during the winters to purchase bell metal products.¹⁹⁶ There is a folk song where we find reference of a market where the bell metal products are sold. In the market there is a huge gathering of customers which we normally see during cultural performances. But there is no such cultural performance in the market. The song is:

ban batir bazare
dhuila naika bhaira naika
manuh aahisi hajare
*ban batir bazare*¹⁹⁷

¹⁹³ Bhabananda Deka, op. cit. p. 103

¹⁹⁴ Praphulladatta Goswami, 1957, op. cit. p. 48

¹⁹⁵ M. C. Goswami, op. cit. p. 2

¹⁹⁶ Ibid. p. 8

¹⁹⁷ Hemanta Kr.Sarmah, *Kamrupi Lokogeet Sangrah*, LBS Publication, Guwahati, 1991, p. 167

There were no special occupational castes or sub-castes in the Brahmaputra Valley engaged in the manufacture of bell metal products. According to E. A. Gait “They were mostly persons of the *kalita*, *koch* and *kewat* (*Keot*) castes and the word *kashar* tacked on their proper caste name as an indication of the occupation they follow”.¹⁹⁸ But the Assamese called them *kanhars* and not *kashars*.¹⁹⁹ In the Surma Valley, the bell metal manufactures belonged to a professional caste called the *kansari*.²⁰⁰ However, the *kanhars* in the Brahmaputra Valley was not a professional caste, rather a professional class. This again was not a closed community. It was open to anyone who prefers to adopt it. A good physique and a willingness to work hard were the only requisites for an entrant who for learning this metal craft had to join under an *ojha-kanhar* in a *garshal* as a novice.²⁰¹ Actually the bell metal smithy passed away from one generation to another through kinship relation.²⁰²

Many tools and implements were used by the *kanhars* for producing the bell metal products. These tools and implements are even in use today and are all made locally. The tools and implements are:-²⁰³

- *Niyeri* – An anvil. It is an iron block on which the bell metal workers placed the hot bell metal cakes for hammering. In a *garshal*, at least three big and small *niyeris* can be found. The big *niyeri* is used for giving desired shape to the utensils. While, the small *niyeri* is used for smoothening the utensils.

¹⁹⁸ E. A. Gait, ‘Brass and Copper Wares in Assam’ in *Notes on Some Industries of Assam From 1884 to 1895*, Assam Secretariat Printing Office, Shillong, 1896, p. 114

¹⁹⁹ G. N. Gupta, op. cit. p. 39

²⁰⁰ E. A. Gait, 1896, op. cit. p. 115

²⁰¹ M. C. Goswami, op.cit. p. 3

²⁰² Prabin Baishya, 1989, op. cit. p. 247

²⁰³ Lohit Chandra Deka, *Sarthebaria Kanhar Bachan-Bartan Aru Garshalar Parichai*, Seuji Prakash, Sarthebari, 1995, pp. 17-21; Dinesh Baishya, op. cit. pp. 332-333

- *Haturi* – A hammer. It is a piece of iron fixed with a bamboo or wooden handle of one or one and a half feet in length. Generally, one side of the hammer is round and the other is flat. But hammer of different shapes are also used by the *kanhars* as per their requirement. *Haturi* are of different types such as *barhaturi*, *kamorua*, *pahmara*, *mathni*, etc.
- *Sarah* – A plus or pincers. It is made of iron and is used for holding the bell metal cakes tightly when they are heated in the fire and are beaten by hammer to make it thin and expand for giving the shape of utensils. There are different types of *sarah* such as *gal sarah*, *pat sarah* and *poan sarah*.
- *Kati* – A pair of scissors used to cut the thin feat outer layer of the utensils to give them proper shape.
- *Aake* – One side pointed anvil.
- *Dheka* – A block of iron with a contraction in one side which is used to give a shape to circular utensils like *lota*, etc.
- *Chatli* – A bamboo shoot shaped implement made of iron which is used for smoothening the rough edges of the utensils and for polishing them.
- *Reti* – A file, a rasp. It is an implement made of steel having sharp edges which by rubbing used to cut down the hard metal like iron and bell metal as well as used to make the products smooth and small. Locally it is also called *O File* and is of three different types – round file, flat file and four-sided file.
- *Lowal* – A very sharp implement made of iron and steel used for cleaning the bell metal products.
- *Chena* – A chisel like implement used for cutting the metal. *Chena* are of different types like *phool chena*, *julkhanda chena*, *gunashira chena* and *khol chena*.

- *Kharika Chena* – A small chisel also used for cutting the metal. But it is used in the smooth works such as for designing flower, creeper, leaf, etc to decorate the bell metal products.
- *Chak Bhor* – A gimlet. An implement made of steel used for making circular patterns in the utensils.
- *Pak Bhor* – A gimlet used for boring holes in the utensils.
- *Khanta* – A chisel like polishing implement used by the bell metal artisan. It is made of iron.
- *Kund* – A turner's lathe. It is made of wood which turned the bell metal utensils into a circular shape. It is also used for polishing and designing the utensils. Lac is used to fix the utensils to the *kund*.
- *Aak* – An earthen block having a round hole on it to receive melted bell metal.
- *Mohi* – A crucible. It is made of clay where bell metal is melted in fire.
- *Aafar* – The furnace of the *garshal* where *mohi* could be placed.
- *Bhati* – Bellows which is used to provide air to the fire in the *aafar*.
- *Aafar Sunga* – A pipe of bamboo which is used to provide air to the fire in the *aafar*.
- *Pan* – It is a mixture of copper, zinc and borax used for joining the utensils where necessary.
- *Aakar* – A dice made of clay where smelted bell metal is poured for cooling down and taking a solid form. Generally it is circular in shape.
- *Aalebaari* – A bamboo stick for stirring melted bell metal.

- *Gharmara* – An implement where a spike of iron is attached with a bow made of bamboo. The spike of iron is called *ghar*. This tool is used for designing work on the bell metal utensils.
- *Pani Dhol* – A wooden trough containing water.
- *Pata* – It is made of stone used for sharpening the implements.

With these tools and implements, the *kanhars* used to produce bell metal and then manufacture products out of it. For making the bell metal, first of all copper is put in a *mohi* and the *mohi* is heated in the *aafar*. On being heated the copper turns red. It should be noted that copper never melts alone. With the copper being turned red, in the same *mohi* tin is mixed with copper. Both the metals are then heated together in the *mohi* already placed in the *aafar*. Now tin being mixed with copper, both the metal melts down. The smelted liquid is then poured in an *aakar* where the liquid cools down and takes a solid form of bell metal.²⁰⁴ Later on when scrap metal is used the scrap metal are hammered into small pieces and put in a *mohi* which is heated in the *aafar* for melting. The smelted liquid is then put in an *aakar* where it becomes cool and took again the solid form of bell metal.²⁰⁵

The metal workers of Assam usually followed two methods of manufacturing their products. The more popular method, the hammering method, entailed beating out the plates into desired shapes with the help of hammers after heating them in furnace. The second method entailed casting into specific moulds.²⁰⁶ It is by following the hammering method that the bell metal products are manufactured. The bell metal workers with the help of their hammers and furnaces beat out the solid bell metal to

²⁰⁴ Puspa Gogoi, op. cit. p. 38

²⁰⁵ M. C. Goswami, op. cit. p. 8

²⁰⁶ Priyam Goswami, 2005, op. cit. p. 56

any shape they want. After being beaten out to the required shape, the component parts are joined together by using *pan*. The rough vessel is then turned in a lathe, to be chiselled and polished. This process is interesting. The bottom of the vessel is first heated and then fixed to cylindrical piece of wood with resin and when it is fixed, the bar of wood is made to revolve backward and forward with a piece of rope. One man worked at the rope and the master craftsman applied the chisel. Then, the process of polishing is done with the help of lathe and a pad smeared over with an oily polish. Lastly, ornamental decoration is made.²⁰⁷

A large variety of products are made out of bell metal by the *kanhars* of Assam following the hammering method which used to meet the different needs of the people. But now a day all the products are not made. A list of the bell metal products are given below:²⁰⁸

- *Kahi* – A dish made of bell metal. There are various types of *Kahi* such as – *chada kahi*, *cauch kahi*, *julkhanda kahi*, *kardoi siriya kahi* and *jail kahi*.
- *Ban Kahi* – A dish with a stand. Its types are – *cauch ban kahi*, *julkhanda ban kahi* and *jail ban kahi*.
- *Jat Kahi* – A dish with a three legged brass ring.
- *Maihang Kahi* – A dish with a foot used by the Ahoms of rank.
- *Pandhowa Kahi* – A dish with high and broad rim. Its types are – *gota konia bin pandhowa*, *phula pandhowa* and *julkhanda pandhowa*.

²⁰⁷ G. N. Gupta, op. cit. p.40

²⁰⁸ E. A. Gait, 1896, op. cit. pp.120-123; Dinesh Baishya, op. cit. pp. 329-330; R. Das Gupta, op. cit. pp. 171-172; Lohit Chandra Deka, op. cit. pp. 1-16; Jugal Das, *Asamar Loka-Kala*, Assam Publication Board, Gauhati, pp. 62-65

- *Bati* – A bowl of bell metal. There are many types of *Bati* like – *chada bati*, *cauch bati*, *bahir konia bati*, *julkhanda bati*, *jail bati*, *bet konia do bati*, *khur konia bati*, *tel bati*, *sijupatia bati*, *raheila bati*, *garo khora bati*, *satriya bati* and *hatikhujia bati*.
- *Ban Bati* – A bowl with a stand. Its type's are – *chada* or *sadha ban bati*, *cauch* or *chuch ban bati*, *julkhanda ban bati*, *bahir konia ban bati*, *jail ban bati*, *lota kota ban bati*, *bet konia ban bati*, *khada ban bati* and *dhakoni ban bati*.
- *Maihang Bati* – A cup with a foot used by the Ahoms of rank.
- *Lota* – A kind of water pot made by bell metal. It is again of different types like – *chada* or *sadha lota*, *chele kota lota*, *chanda lekhia lota*, *bhatow konia lota*, *titabaria lota*, *raheila lota*, *ogi lota* and *dogi lota*.
- *Dagdagi* – A water vessel with a long and narrow neck.
- *Ghati* – A small water pot with a neck.
- *Kalah* – A water jar with a neck. Its types are – *julkhanda kalah*, *chandra pehia kalah*, *chele kota* or *lota kota kalah* and *bhatow konia kalah*.
- *Gagari* – A kind of water jar with a neck.
- *Tekeli* – A small water jar with a neck.
- *Charia* – A round shaped vessel.
- *Bota* – A kind of bell metal tray with a small stand. Its types are – *goal pehia bota*, *kan kota bota*, *chena pehia bota*, *goal mehbari bota*, *chandra pheti bota*, *kardoi siria bota*, *owkholopia bota*, *nag pheti bota* and *chada bota*.
- *Tema Bota* – A kind of bell metal tray with a cover. It is also called *saphura*.

- *Pan Bota* – A bell metal tray for keeping or giving betel nuts and pan. Its types are – *aath chhukia pan bota, kan kota pan bota, tupura pehia pan bota, dhatura phulia pan bota, cauch pan bota, jori pan bota, julkhanda pan bota* and *nag pheti pan bota*.
- *Sarai* – A tray with a stand of both covered and uncovered types.
- *Thal* – A plate. It is also called *pirich*.
- *Bhog Jora* – A metallic water vessel with a spout.
- *Dapon* – A round shaped bell metal object with a handle.
- *Gasha* – A stand for a native lamp.
- *Temi* – A lime pot.
- *Gurguri* – A kind of smoking device.
- *Jhari* – A water pot with a spout.
- *Pikdan* – A spittoon.
- *Tal* – A cymbal which are of different types such as –*bhortal, patital, khutital, khanjurital* and *manjira*.
- *Bhutia Tal* – A cymbal used by the Bhutias and other Buddhists. Its types are – *rumu, chiming, pasang* and *jumu*.
- *Barkah* – A gong.
- *Kah* – A bell.
- *Dobakah* – A big kettle drum.
- *Ghanta* – A bell.
- *Chaki* – A lamp.
- *Bigraha* – An image of a deity.

The large variety of bell metal products used to fulfil the domestic household, social, religious, cultural as well as aesthetic need of the Assamese people. The use of the bell metal products in daily household activities, social occasions, religious rituals, cultural activities and for decorative purposes created a place of pride for these products in the life of Assamese people.²⁰⁹ From birth to death in every social ceremony in the Assamese society bell metal products are required. In *annaprashan* (grain initiation ceremony), the parents of the child have to use new bell metal *kahi*, *bati*, *ghati*, etc for serving rice, dal, curry, etc to the child having *annaprashan*. Then in the *choodakarana* (tonsuring ceremony) and *upanayana* (sacred thread ceremony) mostly prevalent among the Brahmanas in the Assamese society, bell metal products are used in the ceremonial activities. The boy who is going to have *choodakarana* or *upanayana* has to keep a *dapon* made of bell metal with him. Similarly, a bridegroom in accordance with the rules of the society too has to keep a *dapon* with him on the day of marriage.²¹⁰

A marriage ceremony in the Assamese society has many ceremonial functions like *joran*, *panitula* (holy water collecting ceremony), *nowani* (bathing ceremony of the bride or bridegroom), *doraadora* (welcoming the bridegroom), *maandhora* (felicitation ceremony), *koynaadora* (welcoming the bride), etc in which bell metal products are extensively used. In a *joran* ceremony, the bride is offered ornaments and dresses by her in law's family in a *sarai* or *bota*. *Panitula* is a ceremony where the female members of the bride or bridegroom's family used to go to river, pond, etc for collecting holy water to bath the bride or bridegroom. Different types of vessels

²⁰⁹ Lila Gogoi, *Asamar Sanskriti*, Bharati Prakashan, Jorhat, 1982, pp. 92-94

²¹⁰ Birendranath Datta, op. cit. pp. 139-140; Jogesh Das, op. cit. pp. 75-76

made up of bell metal like *kalah*, *lota*, etc are used for collecting the water.²¹¹ A *bianam* related with the *panitula* ceremony is given below:

chotalote ogi-dogi o hori majiate bati
ulai aha boror maak putra aahe rati
ulai ana kanhar kalah bhonga futa chau
*bapur biyar pani tulibo jao*²¹²

The bridegroom is received at the bride's house (*doraadora*) by washing his foot with water brought in a *ghati* and in a *kahi* lamp, incense sticks, etc are brought to do the religious rituals related with the *doraadora* ceremony. During the *maandhora* function when the newly married couple used to felicitate the elders with presents as a mark of respect and the younger ones as a token of love, again the *sarai* or *bota* is used for giving the presents.²¹³

Among the items brought by bride along with her to the in-laws house includes the bell metal utensils. It has become a social custom in the Assamese society to give the bride from her maternal house at the time of marriage all the necessary utensils like *kahi*, *bati*, *kalah*, *lota*, etc made out of bell metal. These bell metal utensils not only show the socio-economic position of the family of the bride but also add an element of prestige to the items brought along with her by the bride to the in-laws house.²¹⁴ As per the wish of the bride her parents use to give the bell metal utensils and mention of this social custom is made in the *bianam* below where the father of the bride asks his daughter what utensils she wants to take from her maternal

²¹¹ Lila Gogoi, op. cit. p. 166

²¹² Biju Kr. Bhagawati, 'A Musicological Exploration of Assamese Wedding Songs: Bianam' in *Sangeet Galaxy, Volume-1*, 2012, p. 15

²¹³ Lila Gogoi, op. cit. pp. 167-168

²¹⁴ Geeta Deka, op. cit. p. 178

house to her in-laws house. The bride says she wants *kalah, cauch kahi, jail kahi, dagdagi, lota, jail bati, ban bati* and *nag pheti bota*. The *bianam* is:

maire pitake kalah dan korila
aru dan korila sonare xofura
usargar xomoyot pitake xudha hoi
mai tuk ki bachan lage o'
cauch kahi lagibo, jail kahi lagibo
o' pita, lagibo dagdagi lota
jail bati lagibo, ban bati lagibo
*o' pita lagibo nag pheti bota*²¹⁵

Again when the bride for the first time enters the house of her in-laws, she is given to touch with her foot a bell metal utensil before entering the house. It is because of a belief that as bell metal products are having pride and prestige, the bride with her foot touching the bell metal product the prestige of the house would get increase along with being richer.²¹⁶ Then in *shradha* (ceremony where offering is made to the deceased person), the family of the deceased use to offer bell metal products to the priest who used to perform the *shradha* and to the nearest relatives to commemorate the deceased in future.²¹⁷ Besides, some well to do people also used to provide the offerings (*pindo*) to the deceased person in bell metal utensils which is mentioned in this folk song:

ongkhi gopal bongkhi gopal
oi ram, gorohoisi kanharehe
batit kori pindo xaane
*oi ram, rajare kunworehe*²¹⁸

²¹⁵ Hemanta Kr.Sarmah, op. cit. p. 136

²¹⁶ Geeta Deka, op. cit. p. 179

²¹⁷ Birendranath Datta, op. cit. p. 141; Jogesh Das, op. cit. p. 77

²¹⁸ Hemanta Kr.Sarmah, op. cit. p. 149

There is a close association of the bell metal products with the religious rituals of the Assamese people. Numerous *satras* (Vaisnavite religious institution) are there in Assam where bell metal products are used in the religious practices. Even in *mandirs* and *dewalois* (both temples) bell metal products are used to perform the religious rituals. Infact no religious ritual is possible without the bell metal products. The *bigraha*, *ghanta*, *barkah*, *dobakah*, *gasha*, etc which used to be part and parcel of the *satras*, *mandirs* and *dewalois* of Assam are made of bell metal. Sacred offerings to a deity are usually made in a *sarai* made of bell metal. The priests often read out religious scriptures before an assemblage by keeping them on a *bota*. The Vaisnavites use *bota* for *thapona* (offerings).²¹⁹ Besides, the bell metal products like *ghati*, *sarai*, etc are also amongst the motifs or designs incorporated in the textiles of the non-tribal people.²²⁰

Cymbals of different types are also made out of the bell metal. These bell metal cymbals are used as musical instruments in various religious and cultural performances. *Bhortal* is a cymbal which is used in performing different types of devotional songs like *nagaranam*, *palnam*, etc. Another cymbal *khanjurital* is used in the *bhaona* (drama), *borgeet* (songs of Srimanta Sankardeva and Madhavdeva) and *satriya nritya* (a Vaisnava dance form of Assam). Then the *khutital* is used in the *ojha-pali* (a dance). Cymbals are also used in the bihu dance, the most popular dance form of Assam.²²¹

There used to be healthy metallic quality in bell metal products and it is believed that having food in bell metal utensils helps the people in recovering from a

²¹⁹ Lila Gogoi, op. cit. pp. 201-205

²²⁰ Labanya Mazumdar, op. cit. p. 131

²²¹ Birendranath Datta, op. cit. pp. 256-257; Jogesh Das, op. cit. p. 137

good number of diseases and in possessing with sound health.²²² Even, eating in bell metal utensils used to increase the memory power.²²³ Further, the bell metal products were looked upon as a resource for bad days as those had greater resale value. Besides, bell metal is pure as it could not be adulterated with any other metal than gold and silver which are both costlier than the bell metal.²²⁴ There is a proverb indicating the fact that the bell metal products are considered as an important and valuable property because of its high resale value. The proverb is:

kaniai kani khai ga kore lahi

lahe lahe besi khale mati bari kahi

The meaning of the proverb is that an opium addicted person use to become lazy in nature and as such to meet his expenses use to sale his land, house and other household articles like *kahi*.²²⁵

The bell metal industry in pre-colonial Assam had a glorious existence. The bell metal products as already stated were required in the socio-cultural and religious life of the people. The products had a demand amongst both the wealthier and weaker section in the Assamese society. There is a folk song mentioned below which glorifies the pride of the bell metal products. The song is:

kanhare gorhai bachan nana dharanar

chikimiki kore bachan nana dharanar

kahi bati lota kalah charia tal bota

jail kahi banbati dagdagi lota

kobai mathe kate kunde shalore shajuli

chikimiki kore bachan meghare bijuli

²²² Geeta Deka, op. cit. p. 178

²²³ Jugal Das, op. cit. p. 61

²²⁴ K. B. Deka, op. cit. p. 72

²²⁵ Anil Barua (ed.), op. cit. p. 48

The meaning of the song is that the *kanhars* makes utensils of different types like *kahi*, *bati*, *lota*, *kalah*, etc involving different stages of production like hammering, smoothening, cutting, cleaning, polishing, etc by using various tools in a *garshal* and these manufactured utensils used to shine like a thunder storm in the sky.²²⁶

²²⁶ Geeta Deka, op. cit. p. 180