

## Lotika Varadarajan's Research Engagements on Textiles of the North East –A Retrospective

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Lotika Varadarajan speaking at an exhibition titled 'objects, identities, meanings' on north eastern material cultures, against the backdrop of her documentation of north east textiles. this event, organised by north east forum and centre for community knowledge, ambedkar university delhi, was one of the last she attended, in September 2017. source: lvrc archives, cck, aud. *Photo Courtesy: Author*

"..it is important to project the innate dynamism of culture as a process which is projected from the past coevally into the present and the future....The contemporary crisis in study of cultures in India is the lack of congruity between the traditional and the industrial technologies, leading to fission, not fusion, of cultural traditions.." <sup>1</sup>

Lotika Varadarajan (1934-2017), an ethno-historian, polymath and researcher of cultural transmission of community traditions, undertook study of traditional textile arts and culturally specific traditions and techniques in India through her ethnographic research methods, historical enquiries and documentation from the late 1970s onwards. The quote above, from her 2007 publication, 'Role of Oral and Non-verbal Processes in Indian Development' captures some of her research concerns, of wanting to develop indigenous perspectives of historicizing the technological innovations in weaving, dyeing, looming traditions in India against the background of associated community held beliefs, rituals, practices, knowledge systems, cross-cultural interactions and influences, as evident in traditional oral, visual and material cultures.

The geographical range of her research covered Kashmir to Tamil Nadu, Gujarat to North-east. Along with authoring of 13 books and 125 articles on community traditions related to textiles and maritime knowledge, Dr. Varadarajan has been a Tagore Fellow at the National Museum, studying the masterpieces from the National Museum costumes collection as well as a founding member of Textiles and Clothing Research Centre (TCRC). The archives of Lotika Varadarajan's research collections, currently housed at Centre for Community Knowledge, Ambedkar University Delhi, offers insight into her rich documentation, bibliographic and archival sources related to textile traditions of the Indian subcontinent, especially of traditions belonging to the tribal communities of the North East India. Her research on the North-East indicates the story of indigenous techniques, aesthetics and cultures. This note intends to detail some of her research engagements related to textiles of the North East.

Lotika Varadarajan recalls her sensitisation to stories of nature contained in Khasi folklore, through observations and interactions as a child.<sup>2</sup> She grew up in Shillong and her father was a forest officer serving in undivided Assam. In 1950s and 1960s, while the North-eastern states of India were being carved out, the country was also steering towards new understandings into the ethos related to studying traditional communities and their artistic traditions, which in turn was reflected in the policy formulations related to traditional arts and artisans, new social, cultural and educational institutions and research thrusts of its time. In engaging with indigenous textiles of the north east, she remarks that traditional textiles are “essentially culture specific and have been greatly moulded by ecology and language which have spilled across existing political boundaries”<sup>3</sup>.

After completing her doctorate in history at Heras Institute of Indian History and Culture, St. Xavier's College in University of Bombay, she went on to teach at the University of Bombay. A few lectures from this period indicate her research orientation, especially on approaches to documentation and importance of oral testimonies in historical research. Eventually she went on to develop a working method in historical enquiry that included ethnographic research documentation of traditional techniques.

### **Historicizing silk and sericulture amongst the North-East communities**

In one of her early works on 'Silk in the Northeastern India'<sup>4</sup>, she attempts to define the different categories of silk worms and their regional diffusion in India within a chronological framework. In this chapter, she reviews the different kinds of silk producing worms – *Altacus ricini* producing *eri*, *Antheria Assamensis* producing *muga*, *A. mylitta* producing *tasar* and *Bombyx mori* also referred to as mulberry silk – and methods of traditional and commercial silk production in North East India.

She delves into botanical and entomological information that points to optimum silk production linked with ingestion of leaves on specific host plants. While the *B. mori* thrives on mulberry, the *muga* worm (*Antheria Assamensis*) feeds primarily on plants, many of which are native to north eastern flora such as *Champa (michelia champaca)*, *Soom (machilus odoratissima)*, *Soon Haloo (Tetranthea macrophylla)*, *Digluti (T. doglottica)*. While hypothesising that China seems to have been home to *Bombyx mori*, her inquiries suggest that the diffusion of the mulberry silk worm could have been through the western route through Khotan and Gilgit as well as through the eastern route of Yunan and Bramhaputra. The Bodo community of Assam, who have traditionally been associated with silk weaving, could have been the intermediaries in the Chinese trade and provided the fillip to the development of wild silk in Northeastern and Eastern India. She points to Yuan Chuang's text dated 629 AD that references *kauseya* (generic sanskrit term for silk) that was a product of wild silk worm, and *Yuktikalapataru*, a 11<sup>th</sup> century text, that divides silk worms into castes, to identify a potential historical time period during which mulberry silk rearing from the *Bombacide* groups of worms might have been introduced in eastern India.

In another instance, she foregrounds certain historically discussed factors, one of them being that the *muga*, *eri* and *tasar* are indigenous to North East India. Literary references, including the Arthashastra, point to the eastern region as the main source of indigenous silk and silk production. The silk worm, *Attacus ricini*, that produces the *eri* silk primarily feeds on castor plants. The Assamese term *eri* and Bengali term *arindi* are possibly corruptions of sanskrit word for castor, *eranda*.<sup>5</sup> In tracing the history of silk, she brings to attention that India, not China, was the place of origin of the *tasar* moth. She also traces several Sanskrit, Jain, Prakrit, Chinese texts between 2<sup>nd</sup> century and 11<sup>th</sup> century to analyse possible etymological convergences and to decipher traditional methods for bleaching, rearing, reeling and spinning silk in the eastern regions of India.

### **Documentation and Investigations into cultural contexts: tribes, textiles, technologies**

To review indigenous weaving traditions, technologies, processes and products against a historical background, Lotika Varadarajan has made observations on methods of technological refinement from within communities, and transmission of skill through oral and non-verbal processes. Documentation of textiles and craft traditions from the North Eastern states began as a part of the 'Fibre and Loom' project at National Institute of Design in 1980. This project facilitated the research documentation on textiles of communities across India, particularly in Manipur in the Northeast, and their traditional dyeing, weaving and looming technologies.<sup>6</sup>

Through membership to several learned bodies, she was able to conduct ethnographic research on North-East textiles. For three weeks in February 2005, a field visit was undertaken to Guwahati, Assam and Mizoram to do the groundwork for framing a project on the documentation of the Traditional Knowledge Systems of the Northeast on behalf of Indian National Trust for Art and Cultural Heritage (INTACH), New Delhi. Subsequent trips and study tours in 2006 and May 2007, along with members of the Crafts Council, provided opportunity to undertake research on knowledge traditions of weaving communities across the north eastern states. A book chapter on 'Cultural Tourism and the Crafts and Textiles of the Northeast'<sup>7</sup>, has been published, inclusive of photo documentation and research into looming techniques.

Documentation of select textiles traditions of tribal communities from regions in Meghalaya, Nagaland, Mizoram, Manipur, Arunachal Pradesh and Tripura are in the context of their living traditions. She enquired into belief systems from a pre-Christian era in an attempt in finding local identities and cultural roots. Speaking of the textiles of the north eastern region, she observes that "while pattern and motif can enjoy transposition across communities, these are modified to fit the local repertoire and enjoy symbolic attributes both in terms of conferment of rank as well as performance of rites of passage"<sup>8</sup> For instance, most weaving operations are performed by women. The Ao naga women are not allowed to weave during the agricultural season but may spin yarn at this time for later use; the Ao naga men usually wear items woven by their wives and purchased items would need to be brushed five times with stinging nettles to avoid bad luck.<sup>9</sup> In Mizoram, colourful plume hangings were added to *hnawkhal*, male attire, to signify the status of the head hunter. She also notes that there exist taboos associated with blue dyeing particularly for women in their reproductive years and relatively fewer numbers of women are initiated by their mothers into the intricacies of this practice.

The north-eastern communities with varied divergences in village and tribal organisations provide insight into use of natural products for textiles and their place in customary rituals. She studies their use of local plant fibres such as *tasha* by Digaru Mishmi of Lohit district in Arunachal Pradesh or the *Lotu* grass by the Chekesang of Leshemi village in Phek, Nagaland for the *bakha*, male wrist bands, worn as a mark of prestige by men.<sup>10</sup>



Male singers in chakhesang, in ceremonial dress. note feather ornamentation in ear and fold in lower garment of singer on right. 2007. source: LVRC Archives, CCK, AUD  
Photo Courtesy: Author

Hand painted panels and embroidery can be found, variations in textures signifying status. Among Ao Nagas pigment was secured from the sap of the *tangko* tree mixed with strong rice beer and ash of the leaves of the same tree, applied by men with a pointed bamboo stick. In Nagaland, two basic colours are said to be used primarily from native plants, shades of blue are derived from *mosak*, *strobilanthes flaccidifolia*, while red is secured from a range of roots including that of *Rubia sikkimensis*. Yellow dye, amongst Angamis, was secured from dried orchid while the bark of the *dzu du* tree, *Quercus lanceaefolia*, was used for dyeing in black. In earlier times the fibre of *vaiza*, *hibiscus macrophyllus*, was utilized to make the *hnawkhal*, Mizo male attire.<sup>11</sup>

Importantly, much of her observation research is guided by local sources. She quotes several researchers from the north east, cites archival and library sources found in the north east region, conducts her observation in several weaver's cooperatives and leaves behind a range of source material – bibliographies, addresses of resource persons, organisations, weavers, locations of looms, documentation of material and oral histories for future researchers of the region. For example, while describing the traditional wear of Ao Nagas, she cites Alemchiba Ao descriptions of men's shawl and kilt, the female *neikhro*, and the inner loin cloth.<sup>12</sup>

Lianhmingthanga's work informs her of the historical progression of Mizo textiles from plain white cotton garments worn by both sexes in early times to the rich repertoire of weaves currently in evidence, owing to introduction of dyeing in 1700. In the case of *naupuakpuan*, carry-cloth used for holding infants, it was earlier believed that those woven from local *jhum* cultivated cotton were stronger and better textured.<sup>13</sup>

### Innovations in weaving and looming technologies

In the article published in Marg Magazine, 'Fabric and Tradition – Textiles of the North East', she notes that the backstrap loom, also known as the foot braced and loin loom, has the most widespread usage in all the North-eastern states. While the loom remains largely the same throughout the region, minor variations have been introduced in some locations. She suggests that "rather than dwelling on surface appeal and patterning, greater weight will be given to technical processes and procedures"<sup>14</sup>

In Nagaland, the Lothas used to separate the seeds by rolling the cotton on a stone base with a stick. The context is changing in present times and the *nakrong*, a ginning contrivance imported from the plains, has now been widely adopted. Through her documentation, she notes that in the context of pre-loom procedures practiced in the Chakhesang Women Welfare Society, Pfütsero, transfer to bobbin was greatly facilitated by the introduction of an ingenious contrivance developed at the Weavers Services Centre, Imphal. She observes the loin loom, especially at Chakhesang Women Welfare Society, Pfütsero, detailing the actions involved in the looming techniques, and their descriptions in local languages.



Them bu, Loin loom. Work shed of Pi Manghlimthangi, Model Veng, Aizawl. 2007.source: LVRC Archives, CCK, AUD, Photo Courtesy: Author

Amongst Mizos, she observes that while there has been a massive shift from the traditional Mizo loin loom, *them bu*, to the frame loom in contemporary times, the former may still be found in some areas. She notes the addition of the *tukrek*, the raddle which served as a warp spacer to the Mizo loin loom. The Mizo method of extra weft patterning, classified as *jamdani* in mainstream Indian textile vocabulary, is practiced widely in the Northeast. Among the innovations which have made an entry into Mizo weaving is the Burmese fly shuttle frame loom (*zo*). This was found to be much better suited to local conditions than the heavier Indian prototype.

Cotton was primarily used in textiles and in the absence of wool, the Naga *kethrora* the Manipuri *lashing phee* and the Mizo *pawnpuite*, served also as blankets; the techniques of all remain different from each other. While the Khasi garments were entirely unstitched in an earlier time, presently they have adopted the frame loom in addition to their traditional loom.<sup>15</sup> She also notes that the Garo garment *dakmanda*, woven on a frame loom, was introduced and popularized in the 1930s.

In Manipur she records simple geometric ornamentation of cloth woven on the loin loom in which the lifting order for patterning on the loom followed that for basketry. Motifs executed thus had a stepped rather than a smoothly curvilinear outline. She suggests that the *akoybi mayek* design was first developed in embroidery before transiting to weaving, which in turn had an interesting implication reflected in Naga ceremonial cloth tradition. A throw shuttle frame loom, the *pangiong*, had been popularized by the Tankhuls since the thirteenth century. Resulting from palace patronage, the Tripura fly shuttle was adopted and introduced to this loom in 1921 and the new model proliferated. Traditional patterns were revived and the sophisticated extra weft *moirangphee* executed on the *yongkham* loom soon became synonymous with Manipur<sup>16</sup>.

Among all the states in which textile traditions were documented, Lotika Vardarajan accorded maximum diversity in woven items to Arunachal Pradesh. The Monpa Buddhists of district Kameng share a common tradition with Sikkim. The product shown of the Wanchu tribe has a contiguity with Mizo products while the *gale* worn by Abor women displays a unique asymmetry. She finds jackets worn by the Mishmis and Apatanis particularly interesting as the entire woven garment is made on the loom.



Loom woven jacket worn by males of Apatani tribe, Arunachal Pradesh. 2009. Courtesy: Indian Museum, Kolkata. Photo Courtesy: Author



Item accession number 1905.1.18.4, listed as Religious hanging, Gobshi, British Museum, London, now identified by Richard Blurton, British Museum, as Vrindavani Vastra. source: British museum. Photo Courtesy: Author

In Tripura, she observes that all tribal groups wear the breast band, *risha/rhea*, and the hip cloth, *pachchra/pinankapor*. Among the Vaishnavite Jomatias, the bride weaves her own wedding *risha* in a red design. The Reang and Noatia hill tribes recreate simple geometrical designs while those of the Tripuri and Chakma are more elaborate. The Chakma bride takes a *risha* containing all the designs on her maternal side so that these can be transmitted to her daughters.

### **Journeys of objects – interwoven cultural histories, trade and other influences**

As a well-travelled scholar, she had a chance to view the textile deemed to be Vrindavani Vastra at British Museum in London. She has also long sustained conversations on the provenance of the heritage textile, 'Vrindavani Vastra', referring to a category of textile mentioned in textual references. Attributed to the 15<sup>th</sup> century Assamese Vaishnavite saint, Shankardeva, the original figured fabric of richly ornamented *muga* silk was said to have been woven in the lampas technique, in conformity with the sample at British Museum dated to the 17<sup>th</sup> century. No authenticated samples of such vastra been found in Assam nor has trace of the weaving community associated with Tantikuci in Barpeta, where the original fabric is said to have been woven. The textile from the British Museum collections, suggesting an Assam provenance due to the presence of Assamese script, is described as different strips of lampas-woven coloured silk stitched in a row. Registers of repeating images illustrate Vaisnava and specifically Kṛiṣṇa-related stories, such as rows of Garuda, various 'avatars', etc. Majority are of images depicting elements of Kṛiṣṇa devotion are associated with Sankaradeva. The said textile has been acquired in the early 20<sup>th</sup> century at Gobshi, close to Gyantse in Tibet. Four strips on the top are of Chinese-style brocade with metal suspension loops added to the original textile, suggesting a possible re-use in a Tibetan context. This textile, attributed to Assamese origin and iconography, is speculated to have been brought to Tibet from further south.<sup>17</sup> The presence of Tibetan ritual borders around the fabric shows that it was treated as a religious artifact even in a land outside its original cultural zone.

During a visit to Guwahati in 2009, she contacted the Weavers Services Centre and succeeded in locating the simple frame two peddle multi lease rod loom in the village of Amtola, District Kamrup<sup>18</sup>, where the weavers helped her with Assamese nomenclature of loom parts and technical analysis to understand and

document the workings of the loom, called the *hāth sāl*. She observes that most weavers there operated the fly shuttle at the time of her research<sup>19</sup>. Lotika Varadarajan opined that shaft and peddle loom with the use of shed sticks in Assam reveal that the tradition embraces a much wider scope and known knowledge of the British Museum textile sample must be revisited through evidences from the field.<sup>20</sup>

Speaking of the travel, trade and congruity in textile patterns between Indian and South-east Asia, she notes, "The evolution of costume and repertoire design were products of the cultural influences engendered and brought into being by centre of power influencing regions. Around 990, the Khmer rule was instituted in Siam. Border designs from the 13<sup>th</sup> century onwards show amalgams of Khmer patterning in Thai ornamental design. The syncretism which had shaped Brahmanical Hinduism and South Asian Buddhism was revealed in what is sometimes called the *devaraja* cult, in which the king became the embodiment of Siva-Budhha. Although when cloth was commandeered by the Thai king for production in India, the repertoire became specialized and could only be worn by royalty." She also notes design affinities to Pallava culture, especially in repertoire from southern Thailand, which notably was an important point of transshipment in earlier trade routes.<sup>21</sup>

### **Academic collaborations and community knowledge**

"When researching on intellectual tradition, technology and vocational practice it is necessary to engage in interactive sessions with community leaders, specialists in a given technology and work practice and identify oral sources to reach spaces and positions which cannot be approached through the written documentary sources."<sup>22</sup>

In 2009, she outlined some of the objectives identified for reviving traditional culture after a workshop in Aizawl. In this context, she discusses Article 31 of the United Nations Declaration on the Rights of Indigenous Peoples, adopted on 29 June 2006 whereby they have the right to maintain, control, protect and develop the intellectual property of their cultural heritage, their traditional knowledge and cultural expressions.<sup>23</sup> Towards the last decade of her life, Lotika Varadarajan spent time assimilating her previous research understandings and attempting to find ways to represent the dynamism inherent in cultural traditions and their transmission. She believed that a significant way forward was to undertake collaborative research with communities and ensure its seepage into mainstream academia. In 2009, she began her association with the Centre for Community Knowledge, Ambedkar University Delhi through conversations regarding interdisciplinary investigations into community heritage and traditional knowledge systems, endorsing the view that the centre should facilitate the starting of Tribal Heritage Centres in collaboration with community members.

She has mentored the workshop on Annotating Material Cultures of the North East at the Indian Museum, Kolkata through Centre for Community Knowledge<sup>24</sup>. The workshop engaged experts to identify and annotate textiles from Nagaland in the Indian Museum collections. Discussions on motifs used in textile designs by resource persons familiar in the Naga repertoire lead to understandings about the 'socio-cultural moorings' and 'identity markers' of communities from the North East. The exercise on Annotating Material Culture also highlighted the importance on insider perspectives to study North-Eastern living traditions. She believed that while the introduction of Christianity, globalization and modernization has led to increasing decontextualization in North Eastern textiles, the same has prompted a search for identity and reinforcing the quest for earlier roots. This must be studied keeping in mind that textiles are living artefacts of community held traditions, techniques and records of cultural movements in history.

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