

Reweaving an Old World cotton

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Written specially for Vikalp Sangam website

“The thread of Kala cotton is hard to weave. An amateur cannot do it. You have to be skilled. Among us, weaving is in the bloodline.”

Narayan Valji Vankar is a traditional weaver living in Mota Jamthada village in the Kachchh district of Gujarat. As per what he can remember of his family tree, all his ancestors have been engaged in weaving wool or cotton yarn into fabric on handlooms. Narayan gave up weaving cotton decades ago because the availability of cheap, mill-made cloth had destroyed all demand for it. But recently, he has been able not only to revert to this activity, but also to get a better price than he does for his woollen and acrylic shawls. And the cotton used is suited to the local environment, organic and what has been grown in Kachchh for centuries. This is the story of Kala cotton.



Narayan Valji Vankar with woven kala cotton cloth

, photo Adam Cajka

A matter of a centimetre

‘There are trees which grow wild there, the fruit of which is a wool exceeding in beauty and goodness that of sheep. The Indians make their clothes of this tree wool.’

Herodotus, 500 BC

Cotton clothes. It is incredible, if we pause and think about it, if we contemplate the steps that go into converting that planty wool from the soil into a cover for our body, how the steps have changed over time, and what it has meant for the landscape.



Kala cotton picked from the fields, photo Vinay Nair

Records show that cultivation of cotton in India goes as far back as 5000 years BCE. Of the four species of cotton existing in the world, two are indigenous to Asia and Africa and are called 'old world' (or desi) cottons. These species have been traditionally grown in India. They have a short staple (fibre) length while the new world cottons (from America and Egypt) have a longer staple length. The difference between the staple lengths is about a centimetre – but what a difference that has made to the history of the fibre!



Kala cotton in the fields, photo Vinay Nair

With time, a lot has changed in terms of the varieties grown, the way cotton is grown and the places where it is grown. During the time of British East India Company, there was a massive transformation of India from a high-profit producer and exporter of indigenous cotton goods to Britain in the 17th and 18th century, into becoming, by the mid-19th century[i] a mere producer of raw cotton fibre of a non-indigenous variety for British textile mills, and a helpless consumer of imported finished products. This change was brought about through high tariffs imposed on Indian textile workshops and restrictions on import of Indian finished cotton goods into Britain[ii]. In order to meet their need for cheap, raw, long-staple cotton, a large-scale rapid shift was brought about in Indian agriculture in the 19th century, from the cultivation of predominantly short-staple indigenous varieties of cotton to long-staple cotton (over 32 mm in length), which suited British mills. The imposed agricultural shift to long-staple cotton meant that areas where cotton was being grown under natural conditions, i.e. rainfed cultivation areas, now required additional resources such as artificial irrigation and chemical inputs for the cultivation of a new type of cotton. In post-independence India, this was continued through the introduction of hybrid cotton varieties, especially during the era of agricultural intervention popularly known as the Green Revolution. And further, since 2002, it is the genetically modified cotton (Bt cotton) variety that predominates the cotton cultivation landscape of India. As of 2010, 85% of area under cotton cultivation in India is devoted to cultivation of Bt cotton varieties[iii].

Kala cotton

The scale of change has been such that few areas remain where cotton is still grown under natural conditions. Some pockets of Adesar in Kachchh are one such area. Receiving very low rainfall and with few means of artificial irrigation, the villages in this region still adhere to the age-old practice of growing short-staple rainfed cotton. The varieties being grown belong to the *Gossypium herbaceum* species of old-world (or desi) cotton, with a staple length of 22-23 mm^[iv]. These are referred to as Kala cotton.

In a meeting in Adesar in 2012, farmers told us that in earlier times, cultivation of Kala cotton was widespread, since it grows without too much attention, and with little additional cost. They used to stock rooms-full of harvested cotton as insurance against difficult times. The

Pratharia Ahir

community traditionally sold the harvested cotton just before

baisakh ki teras

(towards the end of April), the day when marriages are fixed. This type of cotton was earlier being grown across Kachchh (in the blocks of Bachau, Rapar, Abdasa, Mundra, Mandvi, and Anjar) but now is restricted to certain villages in Rapar and Bhachau. The reasons for this reduction in cultivation are many, a lack of demand for short-staple cotton and high crop-damage by bluebull (Nilgai) being the major two. Also, since the processing units for ginning (separating the fiber or lint from the seed), spinning (converting the fiber into yarn) and weaving (converting the yarn into cloth) are hardly available for this staple-length anymore, this kind of cotton is sold at extremely low prices, and used only for filling up mattresses, or adding fibre to denim cloth. The practice of weaving it into cloth, as was done earlier in India, has sadly been lost.

Repairing a broken thread

Can we bring back what has been lost? Khamir^[v], an organisation in Kachchh working on supporting local crafts-based livelihoods, asked this question in 2007 and after a few years of research, innovation, and collaboration with other like-minded groups in the region have arrived at an answer. These organisations (like Satvik, which promotes ecological agriculture, and Setu, which networks local communities) share a common objective of supporting local livelihoods with a cultural and ecological perspective. The idea was to capture different steps of weaving cloth out of Kala cotton, from the stage of growing the plant to the point of marketing the final product, in such a way that farmers and weavers are also benefited by the process. As a result, starting with an exhibition in Delhi in December 2011, Khamir has now developed a range of garments created out of Kala cotton. They have also enabled the supply of fabric and yarn made from Kala cotton to markets within India and abroad. The significance of such an attempt is manifold.

First, it brings to our attention an aspect of life that is most often ignored - what is the ecological cost of what we are wearing? Kala cotton is grown under natural conditions, with a pattern of crop rotation and inter-cropping, demanding no artificial irrigation or chemical inputs. The boll encapsulating the cotton fiber is closed, aiding in protection against the wind and allowing it to grow even in drought-like conditions^[vi]. Its need for water is very low, with one good day of seasonal rain being sufficient for a harvest, and 2-3 showers promising the farmer a good harvest. Its leaves, boll, and seed can be fed to cattle, stems used for firewood. Besides, natural dyes are better-absorbed by Kala cotton, according to one report^[vii]. All of this becomes especially important when compared to ecological costs of the lucrative Bt cotton, which is being grown by most cotton farmers who can afford irrigation, in Kachchh, and all over India. There is high resource use (and greenhouse gas emissions) for pumping and supplying water, and for the fertilizer, not to mention the ecological implications of pesticides and water-exploitation in a drought-prone area, and if the environmental cost of its manufacture, transportation and application are taken into account.

Second, it focuses attention on another, often neglected question - what is the process that goes into creating the final fabric? In the case of Kala cotton, the process that has evolved supports local rain-fed farmers and handloom weavers, two sets of communities that are being otherwise hard-pressed to abandon their present occupations because of economic challenges. Khamir does the following^[viii]:

- 1) buys Kala cotton from farmers at a 15% premium over the market rate of Kala cotton to support its sustained cultivation;
- 2) engages women's groups in nearby villages to have the cotton fibres separated from the encapsulating boll;
- 3) engages an Organic Certified ginning unit, where the cotton fibre or lint is separated from the seed; the seed is sold in the open market, often to farmers;
- 4) engages a small textile manufacturing unit for the spinning of fibre into yarn; some fibre is sold to a khadi unit as well.
- 5) carries out the process of dyeing the yarn at its own facilities, using natural as well as eco-friendly dye options;
- 6) sends the yarn to traditional weavers who create the cloth and finished products like shawls and stoles on their looms.
- 7) engages local people to stitch garments from the fabric and markets them using its own facilities.

It wasn't as simple as it looks. Streamlining this process took time and a lot of challenges emerged at each step because the chain had been broken so long ago. The craft of home-based spinning of the fibre into yarn had been lost and it took time to carry out research and leading to a collaboration with a Gandhian NGO to spin the thread using a slower machine that works with lower volumes of fibre. At the stage of weaving, there were many hurdles to be crossed. The yarn made with short fibres is harder to weave, breaking often in the process. It requires a loom with specifications different from those of the standard ones in common use now, and initially there were issues of shrinkage and of a lack of smoothness in the fabric. But through unrelenting effort, over a period of time, the process has dealt with these challenges, and now offers a good range of Kala cotton garments (shirts, shawls, dupattas) and fabric.



Weaving kala cotton on a handloom in Mota Jamthada, photo Adam Cajka

It must be admitted that there are limitations to what can be achieved by this initiative in terms of directly supporting cultivation of Kala cotton. Out of approximately 4000 individual Kala cotton farmers in Kachchh, Khamir buys cotton from only 160 farmers of the Makhel pocket of Adesar. Other farmers are even now struggling to find a good price for their cotton, and are likely to switch to Bt cotton as soon as artificial irrigation reaches their villages. For Kala cotton to survive, farmers growing it need to be assured of a secure and reasonable economic return. Farming of Kala cotton needs to then become an exercised choice, rather than just the default crop to be relied upon in distressing times in areas where no other crop survives. If the huge current subsidies for chemical fertilizers are withdrawn, or transferred instead to support different stages of organic farming, the economic incentive might make cultivation of Kala cotton a lucrative option. At the market level again there is the challenge of making it 'mainstream' enough, rather than something worn only by a particular section of society (that is willing to pay a higher price for this fabric because of its eco-friendly character, or considers it to be a fashion statement). For all of this to happen, economic motivation alone will not be enough. It will require the social consciousness to change at a large scale and the demand for organic products to rise.

The director of Khamir, Meera Goradia is only too aware of these challenges. Her response is, 'While we believe in certain intangible values of goodness, of responsibility towards fellow beings and towards the earth, we cannot regiment humanity and impose our values on them. Still, we can strive for a world where a diversity of ways of living can coexist, rather than some being forced out of existence.' With regard to that, it can be said that recreating garments out of handloom fabric woven from Kala cotton is a remarkable example, and a statement - of pausing and holding oneself responsible. It is also an example of opening oneself to learnings from the past.

That takes us back to the places where Kala Cotton is grown and the places where it is woven. In Adesar, where it is grown, Mohan Rawa Koli, a Kala cotton farmer from Mangadh village, holds on to his bullock cart even though he now ploughs his fields with a tractor. He says that he is doing this on the advice his grandfather had given to him when he was still a young man: Not to sell the cart, as he may need it again one day when diesel supplies dwindle. And in Mota Jamthada, where Kala cotton yarn is being woven into fabric again, the youngest member of Narayanji's family of

Vankars

(weavers), a two year old girl, wears a frock made of hand-woven, home-stitched, Kala cotton.

The story is based on notes from field visits by the author and her colleagues (Ashish Kothari, Vinay Nair and Adam Cajka) from Kalpavriksh to Kachchh in September 2012, February 2014 and September 2014, and on some existing literature on the topic. Additional inputs for this story were received from Ghatit Laheru and Meera Goradia of Khamir and Anuradha Arjunwadkar of Kalpavriksh.

[i] Santhanam V & Sundaram V, 'Agri-history of cotton in India', Asian Agri-History Vol.1, No.4, 1997 (235-251)

[ii] Source: Wikipedia, History of Cotton

[iii] As per figures given by International Service for the Acquisition of Agri—biotech Applications (ISAAA)

[iv] Three varieties are included in what is being called 'Kala cotton', one traditional variety called V797, and two improved- varieties Guj-21, Guj-14 (Shailesh Vyas personal communication, September 2012)

[v]

[vi]Even during 1986, when Kachchh was undergoing one of the worst droughts in decades, in Makhelin Adesar, Kalyanbhai recalls harvesting Kala cotton produce of 8700 mun (350 metric tonnes).As per information given by ShaileshVyas, Satvik in February 2014. [vii]Shealy S 2011, Documentation- Kala Cotton Initiative of Khamir and Satvik, July, Khamir [viii]Source: shoprevivalstyle.com/weaving Contact the

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