

Chapter 5

SUMMARY AND CONCLUSION

Culture had played a major role in defining our present; it has outlined our belief, value, preference, and community norms which has grown and evolved in its extensive course of journey. This journey has created several cultural products in different forms and in different regions. Textiles is one of the most celebrated cultural products. Right from everyday needs to special occasions; traditional textiles had made our life content, simple, safe, confident, luxurious, socially and emotionally valuable. To people, it had been perceived as commodity or work of art or craft or all of these. Artisans have created masterpieces to day-to-day usage-based textiles. We experience traditional textiles as an open-ended process which had tendency to adapt, adopt and evolve. However, this process is slow, that is why we realized it over a period of time. During its journey; textiles had added, reduced, appropriated, eliminated several components in it, that is why it exist today. Also, the aesthetic fineness perceived by artisans hold our attention, expands our imagination, open new views, refines our sensibility, knowledge, brings new ways of thinking, makes us more sublime and uplifts our soul. Overall, it talks about life, life skills and lasting values that motivate us to be a better human and above it to create a well knitted society.

In recent period, many traditional textiles are disappearing due to lack of support. Losing them will be like losing the effort of several decades, it had taken centuries to buildup. In the process of making of textiles as well as change; stakeholders like artisan, consumer and place as well have played an imperative role. With the changing relation; the connectivity between artisan, consumer and the nature of place; directional effort was needed. To sustain the existence of mutual relation between different craft component, critical analysis was needed. In review several generic components of craft like supply of raw material, quality of raw material, marketing, promotion, new design development, product communication, operational issues, process-based issues and many more were found. However, in context of *Mashru* design development was found as one of the crucial components to sustain this relation. Hence, for *Mashru*, new design development was considered.

Again, for new design development, holistic picture of *Mashru* was needed; *Mashru* was studied from multiple perspective to identify the design element, process element, technique and material element as well intangible motivational element behind it to understand what to

uphold in new design development. For *Mashru* it becomes more important because its pliable structure was solely fashioned by religious belief – a thin cotton layer separating body with silk. Historically also, it was found that *Mashru* was a trade textile, a luxury/opulent textile, textiles for tribal, textiles for Hindus and Muslims both. So, in this view, artisanal expressions were shaped by multiple factors like customary practices, visual languages of the neighboring crafts, trade items in fashion - locally or globally, aesthetics and cultural practices of the presiding kingdom. Overall, it was basically determined by the specify of context, not just availability or lack of competency and craftsmanship. However, at present in new design and development of *Mashru* for this study; competency and craftsmanship were given huge importance due to lesser number of artisans well versed with various *Mashru* techniques.

In addition to above discussion, it was found that ornamentation and function had played an important role in defining relevance of craft in real-time context. Ornamentation added certain order of aesthetics, at the same time it also reflected the prognosis and belief of maker, without it, certain level of efficacy could not had been attained. Specially for *Mashru*; stripes, chevron, definite *Buttis* are its characterization and core component of ornamentation and its veracity talked about its qualities which encompassed its functional facets. Artisan had the ability to ritually transform *Mashru* relevant, researcher had the ability to understand contextual need. Hence, with collaboration of researcher and artisan, both tried to realize it together by sharing knowledge and skill of each other to cater present day need; making *Mashru* religiously, functionally, socially, commercially and overall, substantially meaningful.

While moving with product diversification of developed *Mashru* fabric, researcher comprehended that *Mashru* was such a fabric in which diverse products were made since long time. Probably it is the most diversely used fabric. In addition to product diversification, its extensive market diversification was also observed. However, in its due course of journey, certain groups were added and certain were left. Similarly, certain new products were added and certain were left. The beauty of product diversification in *Mashru* is supported by the fact that it had been shaped for royal as well as for common populace. Therefore, in this study researcher had utilized cheaper - rayon, to medium - cotton to expensive - silk raw material; employed time saving technique (woven satin stripes) to time taking techniques (*Ikat*, extra weft) resulting in varying order of detailed and complex expression (like single to dual coloured *ikat*; plain satin stripes to stripes embellished with brocade; heavily ingrained extra weft *asharfi* motif). The use of diverse material and extent of intricacy and time consumption determined their positioning for diverse segments.

5.1 Objectives of the study

1. To trace the historicity of *Mashru* textile.
2. To document the production process of *Mashru* textile & its existing status.
3. To document the designs and motifs of *Mashru* textile with its significance.
4. To design and develop new *Mashru* fabrics.
5. To promote *Mashru* through product diversification of developed fabric.
6. To analyze market acceptability of developed *Mashru* fabrics in terms of yarn, colour, design and aesthetics.

5.2 Methodology adopted for the study

Research design is the planning according to objectives of the study. For this study it was planned, taking into consideration availability and limitation of resources like time, finance, skill of artisans at various levels of work. In general, this study was qualitative, descriptive in nature and mix of several methods like case study, exploratory and experimental. The various methods were adopted according to the objectives of the study and nature of data. For analysis of designs and motifs; visual analysis approach was also considered. For new design and development Bricolage approach of research were executed. The study was carried out under four phases. First was documentation of *Mashru*, second was design innovation, third was product diversification and fourth was analysis of acceptance of *Mashru* fabrics. During this journey, researcher experienced numerous fallouts both desirable and undesirable in character like inapproachability of few weaver during field work and sample development process, unprofessional attitude of weavers, delay in sample development, rigid attitude towards modification of design. However, few artisans like Janak Bhai of Patan was very active, though he is very old. He was very punctual, dedicated, enthusiastic, willing to explore more in newer material and techniques. His attitude and response were commendable. There were few unavoidable and sorrowful situations also like one of the weavers from Kutch-Bhuj who was developing designs passed in-between due to Corona.

Phase 1

Selection of Locale

For exploring the history and documentation of *Mashru* various villages of Kutch-Bhuj – Godhra, Don, Bhujodi and the town of Mandavi, and the town of Patan from Mehsana district

were selected. These centers were the few places where *Mashru* weaving were still carried out to certain extent.

Selection of respondents

Number of weavers involved in *Mashru* were very less, that is why snow ball non probability random sampling technique were selected. Total number of selected *Mashru* weavers were fourteen; four from Kutch-Bhuj and ten from Patan. 1trader cum master weaver from Mandavi, 1 weaver from Godhra, 1 weaver from Bhujodi, 1 weaver from Don, and 8 weaver and 2 master weavers from Patan were selected for acquiring primary data.

Method of data collection

For secondary data, it was collected from research articles, review articles, books and magazines, survey report of government, newsletter, blogs, websites and monographs. For getting first hand and authentic data related to *Mashru*, the data were elevated using interview schedule, focus group discussion, participatory observation, case study, photography and video. Case study method was adopted for senior master weaver; focus group discussion for master weaver, weaver and *rach* maker; interview schedule for old artifact collectors, retailers, NGO working on *Mashru*; participatory observation, photography and video were simultaneously used with other tools for to get more reliable data as well as for visual documentation of facts and processes.

PHASE 2- Design and development of new fabric in *Mashru*

Selection of design categories, colour and material for *Mashru*

After visual and technical analysis of collected *Mashru* samples and pictures in terms of colour, motif, pattern, layout, material and technique; mainly three variations were observed. Therefore, researcher moved ahead with them – stripe, *Ikat* and *Butti*. During study it were found that earlier *Mashru* were made in both silk as well as cotton warp. Therefore, researcher selected cotton, different variety of silk & presently used rayon as warp for new design development. Colours were limited to traditional palette as colour was the core component forming the visual sensibility of *Mashru*. Changing the colour was just resulting an anonymous lustrous satin fabric, far from the essence of *Mashru*.

Table 5.1: Detail of selected design categories of *Mashru* fabric with selected designs and raw material

Design category 1- stripe				
Design 1	Design-2	Design-3	Design-4	Design-5
Raw material: Rayon warp with cotton weft	Raw material: Mulberry silk warp with cotton weft	Raw material: Cotton warp with cotton weft	Raw material: Korea silk warp with cotton weft	Raw material: <i>Tasar</i> Silk warp with cotton weft
Design category 2 – <i>Ikat</i>				
Design 6		Design 7		
Raw material: Mulberry and <i>tasar</i> Silk warp combination (<i>tasar</i> incorporated in <i>Ikat</i> and mulberry in solid-colored stripes) with cotton weft		Raw material: Cotton warp with cotton weft		
Design category 3 – <i>Butti</i>				
Design 8				
Raw material: Cotton warp with cotton weft				

Exploration and selection of designs for weaving of *Mashru* fabric

Including all category of designs, more than hundred designs were explored looking into different variations like thin-thick stripes, different pattern in either half, *ikat* in single or double colour, light to dense *ikat* pattern, *butti* with stripes or without stripes, *butti* in single to multiple colour etc. Researcher showed all developed designs under each category to textile experts. Each design was numbered to know the preference of experts. The experts included for this were faculties, students, weavers, potential buyers and retailers of related field. Five designs from each category were selected on the basis of highest number of preferences. Later its feasibility was reevaluated with artisans and *rach* maker; all selected five designs were developed in category one; two in category two and one in category three within possibilities and limitation of research. Overall, eight designs were woven. Lack of availability of complete value chain of *Mashru* techniques, weaver's and *rach* maker's competency in diverse techniques, width of loom, availability of advance support like dobby in either center enabled two and one design development in second and third categories consequently.

Selection of weaver, sourcing of raw materials and fabric weaving

Weavers were selected on the basis of their competency and skill, as there were six warp materials and multiple weaving and ornamentation techniques involved, it was difficult for any weaver to handle all set of yarn and technique. Among all rayon and cotton were most easily manageable, as artisans of Patan and Kutch-Bhuj had been using it since long whereas other warps like Mulberry silk, *Tasar* silk, and Korea silk was difficult for the weavers of both the regions. There was only one artisan in Patan who used to weave in Mulberry silk occasionally on the basis of order, therefore researcher approached him and he agreed for that. Other major challenge was *Tasar* and *Korea* silk weaving as the material was completely new to this place. For *Tasar Mashru*, one of the artisans in Kutch-Bhuj agreed; but the output was not satisfactory. Hence, again the same artisan of Patan who agreed for Mulberry silk *Mashru* was convinced for it and he agreed for it on trial basis and that worked. Later, Korea silk sample was also given to the same weaver. Along with material extra weft and *Ikat* was also challenge for them as it was an obsolete technique for both the centers. However, again one weaver from Patan and one from Bhujodi were convinced for *Ikat* and extra weft *Mashru* sample weaving. For *Butti* design development, the selected weaver was not traditionally from *Mashru*; as he was competent in supplementary weft therefore, he was selected and then he was trained for weaving *Mashru* fabric. Selection of weaver and convincing them to work with varied material and technique were a tedious task for *Mashru* weaving. Yarns were procured locally as well as from other states like Bihar, Karnataka and Orissa.

Table 5.2: Sourcing, processing, place of weaving and weaver's detail

Design No.	Warp Yarn	Place of Sourcing	Place of dyeing	Place of warping	Place of weaving	Name of weaver
Design 1	Rayon	Patan	Patan	Patan	Patan	Janak Bhai Khatri
Design 2	Mulberry silk	Bangalore	Bangalore	Bangalore	Patan	Janak Bhai Khatri
Design 3	Cotton	Bhuj	Bhujodi	Bhujodi	Bhujodi	Babubahi Manodia
Design 4	Korea silk	Nuapatna (Orissa)	Nuapatna (Orissa)	Nuapatna	Patan	Janak Bhai Khatri

Design No.	Warp Yarn	Place of Sourcing	Place of dyeing	Place of warping	Place of weaving	Name of weaver
Design 5	<i>Tasar</i> silk	Bhagalpur (Bihar)	Bhagalpur (Bihar)	Bhujodi	Patan	Janak Bhai Khatri
Design 6	Mulberry silk & <i>Tasar</i> silk	Bengluru & Bhagalpur	Mulberry silk- Bangalore, <i>Tasar</i> - resist dyeing at Surendranagar, Gujarat	Bangalore & Surendranagar	Patan	Janak Bhai Khatri
Design 7	Cotton	Nuapatna (Orissa)	Nuapatna (Orissa)	Nuapatna		Janak Bhai Khatri
Design 8	Cotton	Bhuj	Bhujodi	Bhujodi	Bhujodi	Harish Hemraj Manodia

Researcher experienced that due to lack of practice of certain techniques over long period, had watered the craftsmanship that existed. Development of easy-going design in view of vast competition and lack of actual remuneration had led to downfall of their skill and willingness. It needs to sustain, upgrade existing skills. Certain new skilling is also needed to create the workforce that can sustain the complete value chain of the craft. For certain stages of production like *rach* making, more people need to be trained. In addition to it, upgradation of existing infrastructure is also crucial like facility for silk dyeing, resist dyeing, silk warping and installation of dobby.

PHASE: III Product diversification

After analyzing the developed fabric in terms of fabric hand feel, texture, drape, fabric thickness, pattern, and colour, researcher associated it with several end uses which were suitable as per the fabric characteristics as well as the novelty in the product application. Actually, researcher observed that *Mashru* were already used into wide product line and well as groups of people in past. Therefore, need of reestablishing that and market diversification were needed to extend the scope for its consumption.

For product diversification digital rendering were done. For product diversification digital rendering on specific products were done in order to visualize the fabric on a greater number of products, in different styles. Leveraging technology for this objective were helpful in fabric draping, visualizing garments on models and furnishing in varied setting with essential prop without actually getting them stitched and fabricated.

PHASE: IV Assessment of market acceptability of developed fabrics

Evaluation of developed *Mashru* fabrics

Opinion schedule was framed to access the market acceptability of developed fabrics. Total three hundred thirty respondents were included that encompassed people from textile and related fields, who could be potential customer to give feedback from design, technique and cost perspective. Questions related to demographics, educational background, knowledge in traditional textiles as well as different parameters related to developed fabrics were asked. It was conducted through online mode due to ongoing COVID 19 Pandemic. However, it has also posed certain limitation to respondents in terms of actual physical feel of the fabric to closely experience innovation based on material and technique.

5.3 Result and Discussion

5.3.1 Historicity of *Mashru* textile

5.3.2 Production process of *Mashru* textile & its existing status

5.3.3 Designs and motifs of *Mashru* textile with its significance

5.3.4 Design and development of new *Mashru* fabrics

5.3.5 Promotion of *Mashru* through product diversification

5.3.6 Evaluation of developed *Mashru* fabrics

Phase 1

5.3.1 Historicity of *Mashru* fabrics

Commonly known to be born as a permission to wear silk for Muslims, it had been practiced in India since ages. Owing to its journey in different countries, it was named varyingly like, *Mashru*, *Alcha*, *Qutni* and many more. Historicity of *Mashru* fabrics were majorly traced under five components i.e., origin, evolution, identification of fabrics similar to *Mashru*, its centers of production and history of silk, cotton, rayon and polyester *Mashru* textiles.

5.3.1. a. Origin of *Mashru* fabric

Behind the origin of *Mashru* fabric, several views were observed in primary and secondary sources.

First opinion reflecting *Mashru* to be an outcome of Muslim belief

Ali (1900); Desai (1988), Fatma (2010); Dhamija & Jain, 1989 and Kacker, 1994; stated that it was originated from Persian word meaning permitted, approved, cleverly woven where its exclusive construction with silk and cotton in satin weave prevent silk to touch wearer's skin. *Mashruh* textile came from Deccan and Gujarat, the places where Islam was propagated either by force or willingly. *Mashru* had '*ruh*' of cotton that is suitable for summer. Its satin weave construction enabled air circulation for skin. Both, Islamic religious view and the practical application of this fabric were found behind its origin (**Sanghvi, 2020**).

Second opinion reflecting *Mashru* having Indian origin

On basis of name

Its name was derived from Sanskrit word '**misru**' meaning mixed (**Buhler, Fischer & Nabholz, 1981**). According to **Agrawal (2006)**, *Mashru* probably derived its name from Sanskrit word '*alasa*' meaning 'swan-footprint patterned creeper', that can be related to *Khanjari* pattern. Before *Mashru*; *Alacha* or *Alaja* were the names commonly used for this fabric. Gujarat was the major port of trade for Indian and Arab merchants. The original Sanskrit names given to ancient Indian trade textiles were often mispronounced by Arab or other foreign traders. Thus, the latter 'sa' of '*alasa*' turned into 'cha' and therefore in the trade jargon this fabric we referred to as *Alacha*. With the spread of Islam, later group of mixed fabrics was referred to as *Mashru* (**Kamal, 2017**). According to one of the most significant hereditary weaver families of Patan, *Mashru* means a fabric made of mercerized cotton. Cotton is an indigenous fiber crop of Gujarat which is known as *rooi* in Hindi and is considered as *rooh* (soul) of Gujarat, a staple fiber of Gujarat and mas refers mercerized. Therefore, its name is *Mashru*. Earlier both warp and weft were of cotton & later cotton warp were replaced by silk.

On basis of fusion of Indian and Persian culture

Naqvi (1983), reflected about Persian-silken variety that in its journey Persian textile culture picked up more primarily Indian characteristics by quantity as well as variety by producing

larger variation of cotton admixtures which were principally silken. So, *Mashru* is likely an Indian innovation.

Third opinion reflecting *Mashru* having Indian origin on basis of techniques

Mashru fabric is about multiple bright colour, satin weave, brocade and *Ikat*. According to **Brett & Irwin (1970)**, in context of colour; the Greek physician Ktesas (5th century B.C.) accounts in the *De Animalium Natura* IV that among *Persians* bright coloured Indian textiles were very popular. He further extended that it is believed that the art of dyeing with the usage of mordants was developed in India and was taken from here to Egypt. In context of brocade textiles, **Fatma (2010)** stated that what relation *Banarasi* brocade enjoys with *Iranian* brocade is not clear as the reputation of brocade was already established in India. These imported crafts might have come to India along with arrival of Muslims in India. Possibly Indian artisans might have efficaciously tried to learn such overseas crafts. **Gillow & Barnard (1991)** mentioned that in *Jataka's* illustrative stories of Ajanta cave paintings, fine patterns of resist techniques of printing, tie and dye, *ikat* as well as brocade weaving can be witnessed. This gave a view that resist and brocade technique had existed during first and second century, leading towards the possibility of *Mashru* being originated in India long back in contrast to maximum secondary documents claiming its arrival after 13th century onwards. *Mashru* can be designated as the symphony of double-niche associated with *patola* and *Ashawali* because of its technical resemblance to them, although actual element varies considerably. Overall, the basic idea behind these comparison and analysis from material, technique and weave aspects are that the precursors needed for *Mashru* production were already there in India before Sultanate period (13th century) and that also in Gujarat-in Ahmedabad and Patan itself.

Fourth opinion reflecting *Mashru* having Indian origin on basis of architectural evidence

In primary study, certain *Buttis* and stripe motifs of *Mashru* like *Barashahi*, *Saatdhani*, *Kakini*, *Kataria*, chevron & few triangle-based motifs were found inspired from the famous monument of *Rani Ki Vav* of Patan. The construction of this monument dates back to period of 1090 A.D., prior to arrival of Muslim invaders.

Opinions related to origin of *Mashru* in Western India

Fatma (2010) revealed that the earliest samples of *Mashru* fabric came from Western India. From secondary sources it was clearly evident that Western India was the place from where it was exported to various nations. This infers the possibility of origin of *Mashru* in Gujarat.

Aurangabad had been centre for *Mashru* production. From researcher's observation, possibly, it can be assumed as continuation of tradition that had existed for millennium, whose traces can be witnessed in form of Ajanta painting.

From above discussion in the view of its name, fusion of Indian & Persian culture, construction techniques, architectural evidences and many more it can be assumed that *Mashru* possibility originated in India and that also in Gujarat in contrast to major textile historians stating it having foreign origin. The spread of Islam possibly strengthened its propagation under name of *Mashru* -a newer name getting more popular compared to older one.

5.3.1. b. Evolution of *Mashru* fabric

Indian belief of '*Vasudhav Kutumbkam*' and '*unity in diversity*' had nurtured wide variety of textiles. Profoundly embracing this belief, Gujarat had molded textiles in analogy of incomparable outside requirement as well as groundbreaking design impetuses within India like hovering Islamic influence and accompanied sway of foreign craft, craft men, and trade.

Heredity of *Mashru* were connected with the weaving tradition of the 'Tiraz factories of Caliphates' (**Dhamija and Jain, 1989; Hatanka 1996**), 'Ottoman Aleppo' (**Dhamija, n.d**). Possibly originated in India during the beginning of 13th century with Muslims conquest in North India (**Desai, 1988; Hatanka, 1996**) and establishment of Delhi Sultanate (**Hatanka, 1996**). Between 13th & 16th century North western part of India came under Turko-Afghan regime, that lead migration of artisans from Persia to India. The Mongol subjugation of Central Asia directed to profound Persian distinctiveness in Delhi Sultanate period. Introduction of Mughals in India further helped in attaining greater height to these existing crafts (**Calico Museum of Textiles, India, 1996**). Abul Fazal had listed this fabric under silken stuff in Jaipur records, during reign of Sultan Ahmed Shah – founder of Ahmedabad (1411-1443); these fabrics were probably woven in India (**Balgopal, as cited in Kacker, 1994**). Possibly brought to India from the Ottoman empire through commercial & cultural contacts from sixteenth century onwards & that formed the basis of Indian *Mashru* production (**Murphy & Crill, 1991**). *Mashru* fabrics (i.e. mixed textiles) with red silk warp and cotton weft have been mentioned in Varnaka texts from Gujarat (**Moti Chandra as cited in Kacker, 1994**). In the image of Shah Jahan seated in peacock throne painted in 1635, visual indication of striped *Mashru* were found. Possibly one of the earliest examples of *Mashru* (**Hatanka, 1996**). A scenic description dated between 1834-1839 about the attire of local residents of Mandavi outlined that it consisted of *Mashru*, assuring the prevalence of *Mashru* during early nineteenth

century (**Marianna postans, 1839**). *Mashru* constituted as one of the most significant of Indian textiles (**Watt, 1904**). Till the beginning of 20th century, *Mashru* were woven and used in many regions of our country (**Buhler, Fischer & Nabholz 1980, Ali 1900**). **Irwin (1996)** had also described about *Alacha, Alleja, Allegais, Elatches: Turkialcha, alacha*, ‘stripes’ as mixed cloth of cotton-and-silk usually striped red-and-white or blue-and-white, sometimes flowered or embellished with gold and silver thread. A handloom cloth responding to the identical name (*alaicho, elaicho*) is still accessible at Ahmedabad today and Gujarat *alachas* usually combined a higher proportion of cotton. The *Mashroo* or *Mashru* fabric has been woven in Kutch and Patan for many centuries (**Murphy & Crill, 1991**).

From above references, it is clear that evolution of *Mashru* in India was mainly documented post invasion of Muslim invaders in India. It was extensively popular in past which gradually narrowed down approaching towards 21st century.

5.3.1. c. Identification of mixed textiles similar to *Mashru* within India and globally

The prohibition of pure silk not only gave birth to *Mashru* but many other mixed textiles too. Many textiles which were primarily of pure silk or pure cotton like *Doriya* were also influenced by it and at places or at times they were made as mixed textiles. Many a times different variety and quality of the same textiles were named differently like ‘*Barad i kaminar*’ which was actually a cheaper variety of *Mashru*. Few textiles like *Ilayecha* which were documented as a specific variety of mixed textiles are sold as design variety of *Mashru* at present in Gujarat. Overall, these evidences suggest the possibility that many of the mixed textiles among *Sangi, Garabhasuti, ShujaKhani or Sufi, Gulbadan, Ghalta, Satin or Atlas, Charkhana, Doriya, Doroi, Daryai, Dara’i, Ilayecha, Alchah, Alijah, Khara, Khara i ata’I, Taja e haft rang* accounted in different sources possibly belonged to *Mashru*.

Kutnu textiles are similar to *Mashru*. *Kutnu* weaving is practiced in Gaziantep of Turkey, earlier Gaziantep was known as Aiantab where it was transferred from Aleppo (**jirousek, n.d.**). In terms of colour, techniques, width, denting order and visual sensibility, they share huge similarity (**refer Table 4.2**). A colorful satin fabric with silk warp, cotton weft widely used in the Islamic world was called *kutnu* in the Near East, and *Mashru* in Northern India and Pakistan’ (**Charlotte, 2004**).

5.3.1. d. Centers of *Mashru* production

From study it was analyzed that *Mashru* were produced in several centers throughout the country like Agra, Azamgarh, Banaras, Ahmedabad, Surat, Patan, Kutch-Bhuj, Hyderabad,

Mysore, Chamba and Aurangabad where there was strong Muslim influence. Broadly, looking into the its major center of production, it was seen as *Deccani*, *Banarasi* and Gujarati *Mashru*. Gujarat were the most prominent center of *Mashru* amongst all at present.

5.3.1. e. Exploring historicity of *Mashru* textiles in diverse material

Mashru is very practical and functional fabric suitably made as per climatic condition, religious beliefs and physical surroundings. It had specific context, culture and construction which had made it exist so long. *Mashu* fabric is very diverse in character, along with encompassing different techniques of production, it was and had been woven in diverse material as well. Among all, though it were most popular as admixture of silk and cotton but had been made with silk and tasar, rayon and cotton, cotton and cotton also; and presently the cheap imitations are available in polyester and cotton admixture also. **Watt (1903) and Fatma (2010)** stated *Mashru* to be made in pure silk, mixture of silk and cotton and just cotton also. **Edwards (2011)** stated that among the rural communities of Kutch, polyester *Mashru* had developed as staple fabric in certain caste dresses and for specific rituals. From historicity perspective silk and cotton *Mashru* are older compared to rayon and then to polyester. Overall, it is narrating journey of *Mashru*, discernible in form of different material with respect to time.

5.5.2 Documentation of the production process of *Mashru* & exploring its existing status

Traditionally, *Mashru* reveal about specific technique, patterns, stripes, forms, color, texture, composition, local perceptions and chronological transformation specifically related to it. Technically, it is enabled by its production process under various stages. Both in Patan and Bhuj; fly shuttle pit loom and table loom are used for weaving *Mashru* fabric.

Manifold relevance of production process of *Mashru*

➤ Social relevance of Production process of *Mashru*

Generally, weaving process is considered as men's task and women are involved in associated processes. Unmarking this trend of past, it is also woven by women. In Patan it is clearly apparent by huge women participation whereas in Kutch-Bhuj still it is men dominating act and women are associated with allied pre- and post-weaving task. This indicates the transformation of social ecosystem at grass root level.

➤ **Economic relevance of Production process of *Mashru***

Involvement of women, especially in weaving gave them decision making power and also economic empowerment. Furthermore, the decentralized nature of production process created earning opportunities while staying at home.

➤ **Cultural relevance of Production process of *Mashru***

Though weaving and allied processes are the foremost task in artisan's life but at times it also turns into a virtuous means of socialization; especially for Kutch-Bhuj weavers. This gives an amusing environment for music, dance, gossip, food etc. Traditional setup gives a very encouraging and experiential learning environment to weaver's children also, enabling them to learn at early age through observation and hands-on work. Usually by the age of 14-15, children start contributing in family weaving work.

➤ **Environmental relevance of Production process of *Mashru***

Production of *Mashru* was very ecofriendly. Most of the processes were controlled by hand; letting minor consumption of energy. Also, in finishing of the woven fabric only natural ingredients and complete hands-on process are used except dyeing.

➤ **Creative relevance of Production process of *Mashru***

Weaving gave a sense of content and satisfaction to artisans. They actually enjoyed the process, among many weaver's; researcher felt that they had strong urge for new design development, after experiencing the positive outcome, they are influenced with change and also ready to take it forward. They had an innate quality of absorbing elements from surrounding and put it forth in the visual language of *Mashru*. Creativity was a major factor of happiness and pride among them while stating 'this is my work'.

Stages of production process of *Mashru*

Mashru is still produced in traditional manner. It is producing valuable product from very indigenous technology. The basic stages of *Mashru* were similar to other handloom fabric. Its major steps of production included *Taani* preparation, *Rangai*, mending of damaged yarns, *Pavaat*, *rach* preparation, *Saandhani*, *weaving* and *Kundi*.

Its unique features lied in carving of design through *naksha* by *rach* maker and its finishing process that brings an extraordinary gleam by *Kundiwala*. The *naksha* of pattern were drawn by *rach* maker and was installed on loom. This process is both art and science where artisans are creative as well as precisely calculative. This was the process to envisage motif and pattern onto woven fabric. For *Mashru* weaver, weaving was like meditation - coordinating eyes, legs

and hand with numerous shafts and is only possible in state of complete balance. Due to discontinuity of certain techniques in *Mashru* fabric making, its value chain had gown down.

Gaps identified in production process of *Mashru*

In *Mashru*, its *value chain* previously comprised of broad range of techniques. It was able to hold product efficiency and aesthetic diversity so that it can create best proposition. However, gap in it degraded its quality outcome. The beautiful brocade, *ikat* and use of pure silk are no more into use.

Competent *rach* makers to handle intricate pattern and diverse weave technique no longer exist. Also, their lesser number (two in patan) is a matter of concern. They are also in the old age of their life. It is extremely needed to be addressed to transfer it to next generation to sustain it. Resist dyeing is no more done in either centers. Silk dyeing is also no more done in either center except one household in Bhujodi. Number of weavers competent to handle silk yarn is just one in either centers. The weaver from Patan, competent in this is above seventy years of their age. This number also needed to be increased to restore the true silky satiny appeal of *Mashru*.

5.3.3 Documentation of the designs and motifs of *Mashru* with its significance

5.5.3. a. Classification of *Mashru* and its features

Traditionally *Mashru* were found woven in three variety with characterizing features of stripe, *Ikat* and *Butti*. These were further divided on the basis of nature of stripe, placement of stripe, whether stripe was alone or with *Buttis*, similarly *Butti* and *Ikat* with stripe or without stripe.

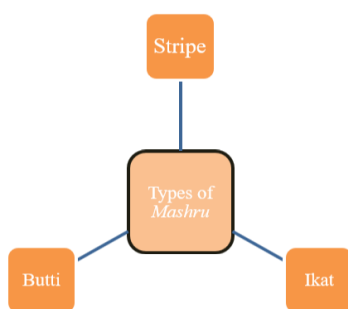


Fig. 5.1: Types of *Mashru*

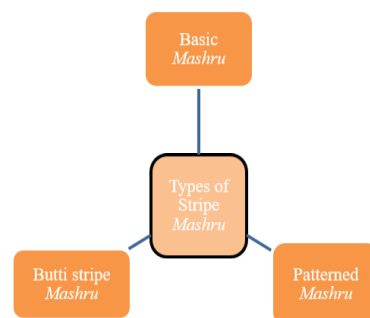


Fig. 5.2: Types of stripe *Mashru* on basis of nature of stripe pattern

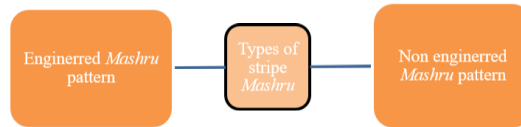


Fig. 5.3: Types of stripe *Mashru* on basis of placement of pattern

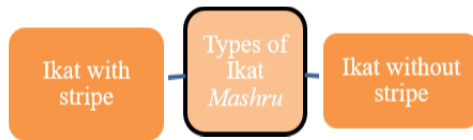


Fig. 5.4: Types of *Ikat Mashru*

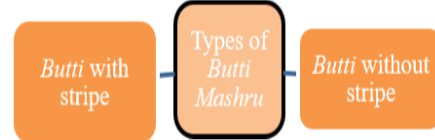


Fig. 5.5: Types of *Butti Mashru*

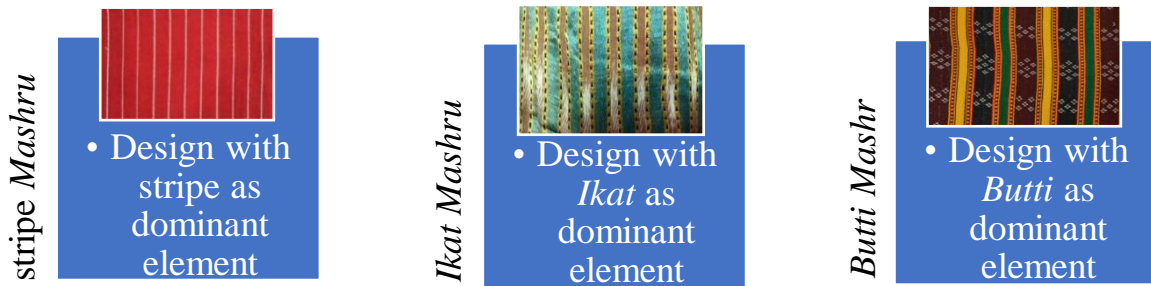


Fig. 5.6: Types of *Mashru*

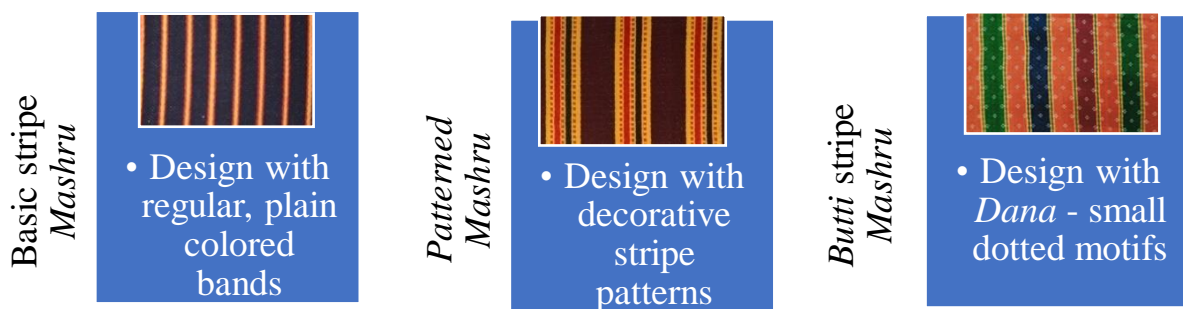


Fig. 5.7: Features of stripe *Mashru* on basis of nature of stripe pattern



Fig. 5.8: Features of stripe *Mashru* on basis of placement of pattern

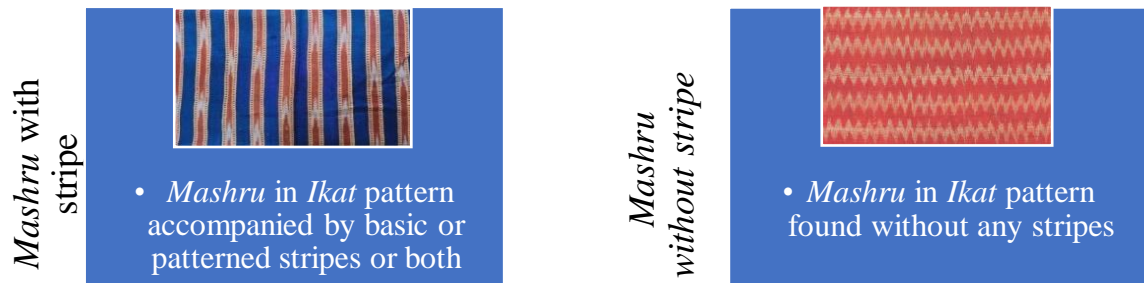


Fig. 5.9: Types of *Ikat Mashru*



Fig. 5.10: Types of *Butti Mashru*

Table 5.3: Features of different *Mashru* variety

Features of <i>stripe Mashru</i>	Features of <i>Ikat Mashru</i>	Features of <i>Butti Mashru</i>
Multicolor band placed next to each other or as single coloured base separated by thin and thick stripes.	Warp <i>Ikat</i> stripes with or without multicolored vertical bands usually in dark bright base	<i>Buttis</i> engrained in satin woven ground with or without stripes or in combination with stripe and <i>Ikat</i> together.
Intensely patterned design with thin and thick color band often giving conflicting retinal images	<i>Ikat</i> used in <i>Mashru</i> are mostly simple.	Motifs created by supplementary warp and continuous or discontinuous supplementary weft or ground yarn weave float.
Strong linear treatment of colors in broad band intensifying depth of the color	<i>Ikat</i> usually accompanied by contrast coloured basic satin or geometric stripe	Motifs placed against the vibrant, lustrous, bold & luxurious background creating sparkling & starry effect, disposing poetic sensation.
Immediate and unchecked simultaneous visual contrast created by stripes	Extraordinary lust and lucidity created by <i>Ikat</i> in satin weave.	Motifs often intensified with golden & silver yarns.
Series of varying range of colour contrast from very steep to very light with varied setting of linear patterns	Lesser use of <i>Ikat</i> in <i>Gujarati Mashru</i> compared to <i>Mashru</i> of other production centers	Size of <i>Butti</i> varying from small to medium size.
Geometrical stripes made by supplementary warp yarn like <i>Khajuri</i> , <i>Kataria</i> (chevron) and <i>Kakini</i>	Common use of <i>Khanjari</i> (chevron) pattern	Placement of <i>Buttis</i> in staggered manner.
Simplicity of pattern & its lustrous elegance	Use of single or double coloured <i>Ikat</i> patterns	Motifs often found in geometric symmetrical, or in naturalistic and stylistic form.
		Use of lighter-coloured motifs like yellow, cream against dark base or vice versa.
		Very often use of horizontally serrated motifs
		Motifs brocaded in twill structure (usually in older samples)
		<i>Meenakari</i> effect in motifs (usually in older samples)
		Less pronounced illusion of depth in motifs and omission of any figural representation.
		Auspicious numbered motifs like seven - <i>Saat-dhani</i> , five - <i>Paanch-dhani</i> , twelve - <i>Barashahi</i> .
		Floral motifs reflecting Mughal sensibility

5.3.3. b. Meaning and Significance of *Mashru* fabric and its motifs

Mashru originated from Persian word meaning permitted. It was devised to wear silk fabric while abiding the proscription of pure silk by Muslims. So, *Mashru* can be understood as a tangible opportunity that allowed Muslims to be luxurious and sacred together in form of a fabric while bringing practicality and balance between materialistic desire and sanctity together. It was found significant from multiple dimensions - culturally, socially, emotionally, and economically. With its tangible significance; contextual intangibles were also of utmost importance. Its skill transference from generations, local value, trade value that existed so far, psychological satisfaction that it had added to local inhabitants life who were devoid of colours in arid zones, self-sustaining system that were created at local level, interdependence of communities that were created by it, ritualistic usage that were subjected to it, the complex weaving system that were perfected within minimum resource, sociocultural evolution, community belief that were reflected in form of material, form and function. So, from multiple dimensions it was found very meaningful and significant.

PHASE 2- Design and development of new fabric in *Mashru*

5.3.4 Design and development of new *Mashru* fabrics

Design and development in *Mashru* were needed to re-hold its affectionate and recognized place locally, globally; to reestablish its fine skill and to sustain livelihood of artisans. Right from place of origin to existing socio-political system to consumer behaviour; everything was found influencing *Mashru*. Hence for design and development of new *Mashru* fabrics, factors related to its different aspects were covered like background of Gujarat, need behind design innovation, traditional technique and its visual vocabulary. The approach for this was to bring artisan's and designer's knowledge together to bring balance between craftsmanship and commercial craft production. The basis considered for innovation in designing were colour, material, techniques and product variation in terms of width, weight, texture and hand feel. Researcher observed that bright, saturated colours like red, green, yellow, purple, orange was few specific characterizing colours of traditional *Mashru*. Therefore, these colours were selected to maintain its visual sensibility. Similarly, in selection of material also the basic philosophy of togetherness of silk & cotton in distinct layers were followed by taking different silk variety like mulberry, tasar and Korea in warp along with prevailing cotton & rayon warp. To understand the influence of these raw materials & techniques in design innovation & its feasibility for *Mashru* fabric; Donald Norman's (2004) Levels of Emotional Design Theory

and Casey Stannard and Kathy Mullet's research article "Yarn Design Characteristics Which Influence Craftsmen to Consume Either Artisan Brand Yarn or commercial yarn" were referred to understand preference of yarn by the artisan looking into the levels of design characteristics of the yarn. Later it was applied for new *Mashru* development considering artisan's perception towards different yarn like hand feel, texture, suitability of count and their willingness and competency to undertake it. Stripe, *Ikat* and *Butti* were selected as the three designing categories on the basis of primary variable found during analysis of its prior samples. On the basis of production feasibility; 5 designs in stripe, 2 designs in *Ikat* and 1 design in *Butti* were considered for development.

Innovation through material, technique & quality was assumed to be helpful in varied product positioning. In secondary study it was observed that previously handloom fabric was made in different variety according to market segment. Therefore, *Mashru* fabric in different width, count, density and material were made. During primary and secondary study also, certain gaps were identified that researcher targeted to meet with aforesaid solution. These gaps were underutilization of existing varieties as well as infrastructure, limited product line availability, lack of finer variety, gap between product and its functional requirement and lack of broader fabric width that can support wider product possibility option.

Design explorations & its execution of selected designs

Under predefined categories; the play of variations like half and half, thin stripes, thick stripes, combination of thin and thick stripes, broader repeat patterns, fewer colours to multiple colours, simple to complex *Ikat* patterns having one colour or two colour, lesser *Ikat* stripes to more *Ikat* stripes within patterns, narrow stripe to broad stripes, one or two or more *Ikat* stripes together, *Ikat* with plain stripes in varying thickness with or without geometric stripes, *Buttis* with stripe or without stripe were explored to create an extensive array for selection. Later, designs were selected with the help of experts and discussion with weavers & *rach* makers, they were taken forward. During discussion with weavers for development of selected designs; execution of designs at local level with available craftsmanship, within existing tools and techniques were targeted to maximum extent of possibility. Apart from regular dyeing of silk as well as resist dyeing of silk & cotton, every process was managed locally. Yarns were sourced locally as well as from other states and fabrics were developed in Patan and Bhujodi considering mapped skill and infrastructure. All rayon, silk, *Ikat* samples were woven in Patan and Cotton stripe and *Butti* were woven in Bhujodi. This entire process gave the complete

picture of either centers in terms of possibility and challenges and what needs to be done at either center for complete cluster development. Entire process was very challenging, intriguing and experiential for researcher as well as weavers involved in it.

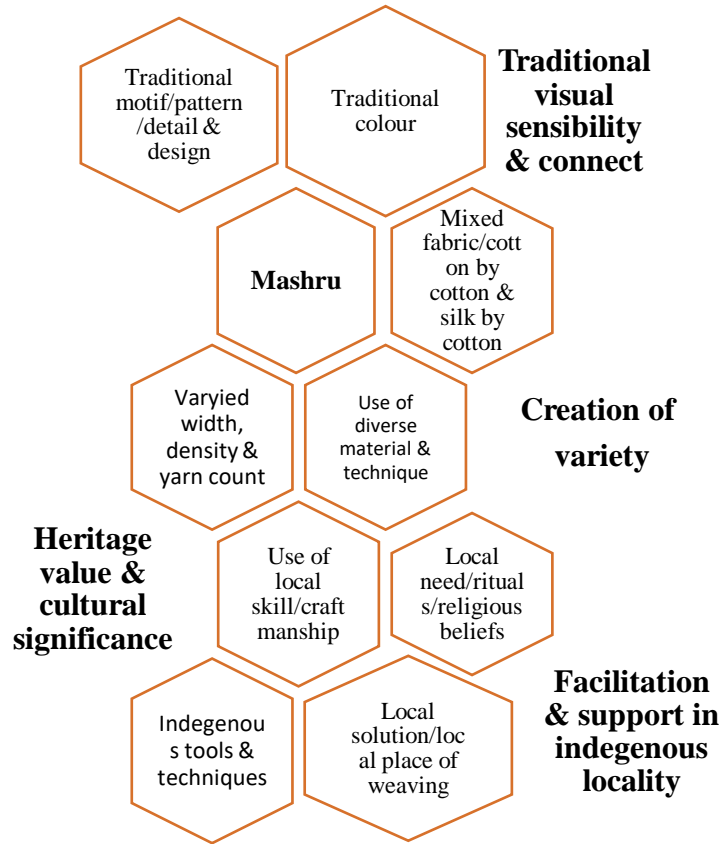


Fig. 5.11: Indicators of traditional *Mashru* used in new design & development

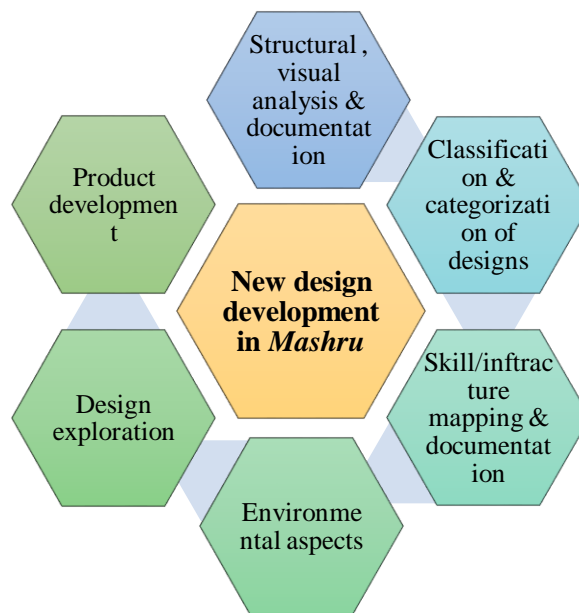


Fig. 5.12: Flow adopted for product development in *Mashru*

PHASE: 3 Product diversification

5.3.5 Promotion of *Mashru* through product diversification of developed fabric

Mashru fabrics developed under the selected categories – Stripe, *Ikat* and *Butti* differed in material and quality. Looking into the hand feel, drape, maintenance needed and material composition; fabrics were digitally rendered into different products. Digital rendering was adopted to showcase larger product possibility for both male & female of multiple age groups and purpose. Few of the major thoughtful application were office wear, casual wear for men and women; casual wear for kids and home furnishing products like curtain, upholstery, bedsheet and bedcover. These applications gave broad potential area for its consumption on day-to-day basis.

Phase 4 Assessment of market acceptability of developed fabrics

5.3.6 Analysis of market acceptability of developed *Mashru* fabrics in terms of yarn, colour, design and aesthetics

Mashru fabric were developed under three categories and in each category number of developed fabrics depended upon production feasibility and resource constraint. Five designs were developed in 1st stripe design category, two designs were developed in 2nd *Ikat* design category and one design was developed in 3rd *Butti* design category. Out of the two designs in *Ikat* category, only one were considered for assessment due to time constraint. So, total eight *Mashru* fabric were made where seven were considered for assessment. These designs were made in five different yarn content.

Table 5.4: Selected design category with yarn content & nature of stripe/*Ikat*/*butti*

Design category	Yarn content variety	Nature of stripe/ <i>Ikat</i> / <i>butti</i>
Category I – Stripe design		
Stripe Design 1	Rayon warp with cotton weft	Half & half stripes
Stripe Design 2	Mulberry Silk warp with cotton weft	Half & half stripes
Stripe Design 3	Cotton warp with cotton weft	Half & half stripes
Stripe Design 4	Korea silk warp with cotton weft	Half & half stripes
Stripe Design 5	<i>Tasar</i> silk warp with cotton weft	Half & half stripes
Category II – <i>Ikat</i> design		
<i>Ikat</i> Design 6	Mulberry and <i>Tasar</i> Silk warp combination with cotton weft	Regular <i>Ikat</i> stripes in alternate colour
Category III – <i>Butti</i> design		
<i>Butti</i> Design 7	Cotton warp with cotton weft	Full drop repeat

To analyze the market acceptability of developed *Mashru* fabrics in terms of yarn, colour, design and aesthetics was one of the objectives of the study, therefore, opinionnaire was developed to know consumer's choice in context of developed *Mashru* fabrics. The schedule comprised of questions related to appropriateness of colour, pattern, placement, techniques, aesthetics and cost. Schedule was shared digitally with respondents via email and WhatsApp. Total 330 responses were considered for analysis, 6 were discarded due to incomplete nature of responses. Selected respondents included 31 male, 30 females from Gujarat and 88 male, 81 females from other state. Responses were tabulated with reference to male, female and Gujarat and other state to analyze their opinion. Opinion was received from both male & female because *Mashru* fabric is used by both of them.

The finding of the study revealed that maximum respondents were aware about handloom fabrics and were inclined to use it. In reference to *Mashru*, a considerable number of respondents were found aware of it. It was appreciated with varying degree of opinion among both male and female respondents of Gujarat and other state.

5.3.7 Opinion of respondents according to preference given to different designs on selected parameters

On the basis of overall aesthetic appeal of developed *Mashru* fabrics, preference of designs in descending order of acceptance are as follows:

Preference of male respondents of Gujarat:

Design 7 = Design 5, Design 3, Design 2, Design 6, Design 1, Design 4

Preference of female respondents of Gujarat:

Design 5, Design 6, Design 4 = Design 2, Design 7, Design 3 = Design 1

Preference of male respondents of other state:

Design 3 = Design 6 = Design 4, Design 2, Design 5, Design 1, Design 7

Preference of female respondents of Gujarat:

Design 5, Design 6, Design 4 = Design 2, Design 7, Design 3 = Design 1

Preference of overall male respondents:

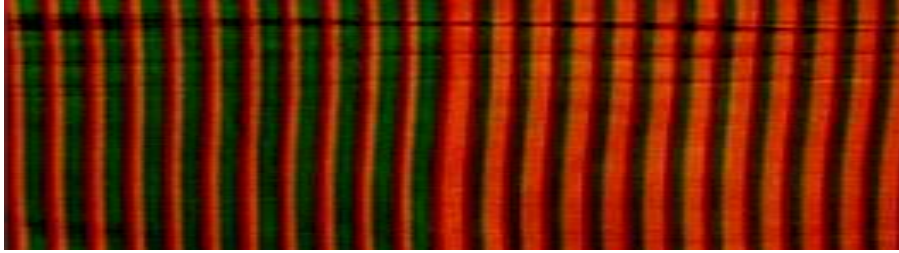
Design 3 = Design 6 = Design 5, Design 2, Design 4, Design 7, Design 1

Preference of overall female respondents:

Design 5, Design 6, Design 7 = Design 4, Design 2, Design 3 = Design 1



A: Category 1: Stripe *Mashru* : Design 1: Rayon warp with Cotton weft



B: Category 1: Stripe *Mashru*: Design 2: Mulberry warp and Cotton Weft



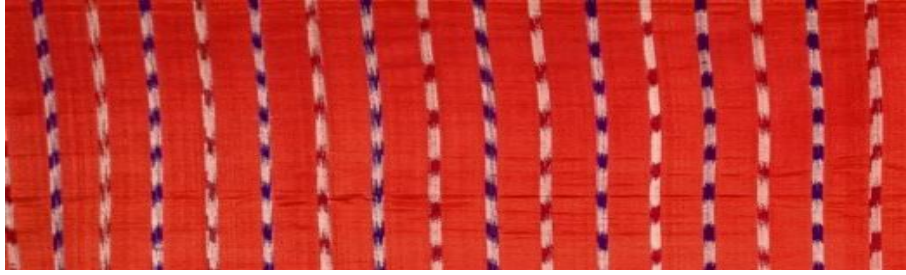
C: Category 1: Stripe *Mashru*: Design 3: Cotton warp and Cotton Weft



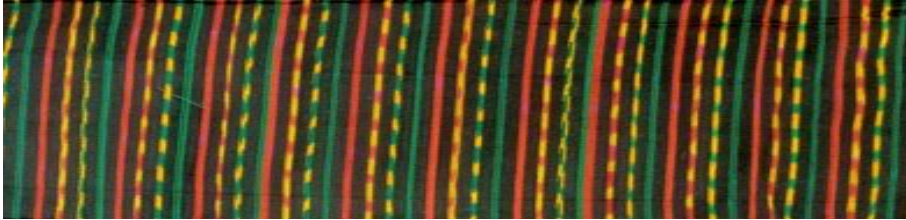
D: Category 1: Stripe *Mashru*: Design 4: Korea Silk warp and Cotton Weft



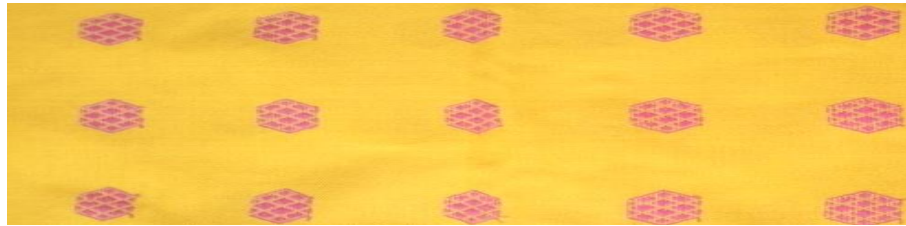
E: Category 1: Stripe *Mashru*: Design 5: Tasar Silk warp and Cotton Weft



F: Category 2: Ikat *Mashru*: Design 6: Mulberry & Tasar Silk warp and Cotton Weft



G: Category 2: Ikat *Mashru*: Design 7: Coton warp and Cotton Weft



H: Category 3: *Butti Mashru*: Design 8: Coton warp and Cotton Weft

Plate 5.1: Woven fabrics under all categories

Conclusion

After entire study it is concluded that *Mashru* was an important Indian handloom textile which is quite functional and aesthetically pleasing fabric that has huge potential to grow. However, at present with the depleting number of artisans it is at the verge of extinction. Its inherent techniques are enough to fulfill variety of design requirement in broader visual language and cost bracket. It can be sustained as fabric for local as well as fabric for elite depending upon incorporated technique, design, material and product positioning. Few of the major concluding points of the study are as follows:

- Historically, *Mashru* had been mainly observed as fabric primarily not originating in India. Though it has grown extensively in past as an Indian fabric. However, from the insight of several primary and secondary data in view of its name, fusion of Indian &

Persian culture, construction techniques, architectural connection with *Rani ni vav* monument of Patan, visual traces of fabric in wall paintings of Ajanta caves, existences of precursor technique of *Ikat* and brocade before arrival of Muslim invaders and many more, it can be assumed that *Mashru* possibility originated in India and that also in Gujarat in contrast to Indian or western textile historians stating it having foreign origin. Earlier, *Mashru* was known differently but with spread of Islam, its newer name *Mashru* became popular .

- Rayon and cotton were the major warp material used at present in Patan and Kutch-Bhuj. In terms of design; mainly stripes and *Danedar* were into practice where certain motifs and pattern like *Dana*, *Kataria*, *Kakini*, *Khajoori* were very common.
- In either center mainly pit loom and frame loom were used for *Mashru* weaving. In Gramshree workshop at Patan, few looms were observed with dobby attachment. Women were actively seen involved in weaving process along with men at Patan.
- The width of the fabric varied considerably in either center. In Patan, it was mostly 36 inches and in Kutch-Bhuj, it was 26 inches. Its reed-pick were also fixed at either center.
- Number of weavers practicing *Mashru* had severely gone down. Furthermore, number of *rach* makers were also very less, just two in Patan.
- In terms of product, only yardages were made at either center. Few of weavers were occasionally making stoles on order basis. The existing *Mashru* variety were found quite thicker.
- *Kundikam* (calendaring) was observed as a must finishing process in Patan *Mashru* whereas in Kutch-Bhuj it was not done.
- On the basis of its characteristic features, it was made in three major design categories – stripe, *Ikat* and *Butti*. Among these, only stripes were into practice & *Ikat* and *Butti* can be majorly seen in archive records. In addition to its basic categories, they were also seen in permutation and combination of each other.
- Its motifs had strong Islamic influence which led to abundance of geometrical and florals motifs majorly. Some of the motifs were taken from Indian monuments also like *Rani ni vav* of Patan. The names of certain motifs were also found similar to *Banarasi* brocade like *Danadar*.
- For new design and development in *Mashru*, researcher developed fabrics by reviving lost techniques as well as optimizing ongoing technique. It was made in three major categories of stripe. *Ikat* and *Butti* where researcher also tried to add new textural

quality by adding Korea silk & Tasar silk in warp. Along with this ongoing rayon, cotton and rarely used mulberry silk were also used in different designs. In one of the *Ikat* fabrics, Mulberry and tasar silk were used together in warp. Overall, fabrics got substantial acceptance among respondents. Respondents were found ready to utilize them for apparel, home furnishing and lifestyle accessories.

- For product diversification, it was digitally shown for men's and women's formal and casual wear, kid's casual and night wear and home furnishing items depending upon product functional requirement and sought theme. Products were digitally rendered to suggest more possibility. Actually, the mixed character of fabric, the varying fabric thickness, diversity of material and texture were functionally and ergonomically found very helpful in utilizing them for aforesaid line of products.

With collaborative approach, a huge possibility lies ahead for *Mashru*. For researcher, it was very experiential journey where we learnt from each other. The fusion of tacit knowledge of artisan and design knowledge of designer were utilized to nurture the growth of *Mashru*. This attempt will help to bring back the lost techniques, designs, variety and material back into usage again. *Mashru* gives immense opportunity to creatively meet consumer's requirement. It is just needed to bring back rigor, attitude and hard work of the artisan back by supporting them. It needs support from different stakeholders in terms of strategic design development, marketing, promotion and awareness among users by disseminating information to like-minded people, to youth to create its awareness about this rich cultural heritage in order to create its market.

Its production in India had dwindled at present. There is dire need to create entire value chain locally in the place of its production. Existing skills needs to be sustained, also there is need to revive lost skill and upskill the existing skill to create an ecosystem apt for the production of its diverse material and technique. In past, *Mashru* textile production had operated through a smooth and well-established chain of exchange and processing between the farmer, home-based weaver families and consumers. This disrupted chain needs to be reestablished. Its infrastructure also needs to be upgraded; doobby attachment, workshop for silk dyeing seemed as essential requirement to execute its diverse technique and material processing.

So, overall, it can be concluded that *Mashru* can be sustained with strategic design development, collaborative designing approach for diverse needs.

Recommendation

- Similar study can be done for other handloom crafts to bring back lost technique as well as to add newer material.
- Further study can be done for new design and development, specifically for *Ikat* and *Butti Mashru*.
- Study can be done to train *rach* makers to incorporate intricate designs.
- The result of this study can be implemented with the help of any public or private institution to implement it on broader level.