

Review of Literature

2. REVIEW OF LITERATURE

The literature for the study on “**Design Development using Computer Aided Software’s for Surface Embellishment on Khadi Silk Saree**” has been reviewed under the Following headings:

- 2.1 Khadi
 - 2.1.1 History of Khadi
 - 2.1.2 Khadi as Freedom Fabric
 - 2.1.3 Khadi –The Hand Woven Cloth and Its New Avatar
 - 2.1.4 Khadi Fabric in Fashion World
 - 2.1.5 Designers Views on Khadi
 - 2.1.6 Traditional Indian Sarees
 - 2.1.7 Design Features on Sarees
- 2.2 Design Source
 - 2.2.1 Fashion and Fabric in India
 - 2.2.2 Designing of Textile
- 2.3 Design Development
 - 2.3.1 Pre-requisites in Surface Designing
 - 2.3.2 Types of Design
 - 2.3.3 Elements of Design
 - 2.3.4 Principles of Design
- 2.4 Balinese History and Culture
 - 2.4.1 Bali Painting History
- 2.5 Computer Aided Designing
 - 2.5.1 Design Development Using CAD
 - 2.5.2 Advantages of Using CAD
 - 2.5.3. Software Packages
 - 2.5.3.1. CorelDraw Software
 - 2.5.3.2. Photoshop Software
- 2.6 Surface Embellishment
- 2.7 Contemporary Uses of Traditional Textile Designs

2.1. Khadi

Khadi the word derived from “Khadder” means hand reeled, hand spun hand woven cloth, whether of cotton, silk or wool fabric, Khadi evokes a sense of nationalism, peace and simplicity among Indians as it is closely associated with India’s freedom movement led by Mahaatma Gandhi. Khadi also stands for Indian culture and represents a way of life as well as a model for economic development of Indian villages. The textile that used to be associated only with the freedom movement and the father of the nations has now stepped out of the closet. A Khadi identify growing in prominence as it comes with the tag of high fashion. As a result, Khadi is the preferred fabric with more people opting for this fabric says Radhakashya (2011).

2.1.1 History of Khadi

Khadi has its roots in the freedom struggle of India. Khadi, the home spun cloth was central to Gandhi’s vision of self-reliance and self-sufficiency. Hence the first true Indian designer was Mahatma Gandhi when he urged the people of India to wear khadi garments. India’s rendezvous with textile dates back to ancient times when the Aryans in the Vedic period produced their own cloth. In fact, khadi (which means any cloth that is hand woven) had a most presented with a khada charkha in their wedding trousseau to encourage spinning of the yarn. Even though khadi symbolized the political ideas and independence itself but to this day most politicians in India are seen only in khadi clothing, the Indian flag is also allowed to be made from this material only (www.weaverstudio.com). It evoked tellingly the fact that in the postindustrial oral self-worth and self-sufficiency was acknowledged as a compensation of human labour. It is suitable to every skin type and also saves individuals from ultraviolet rays just like a sunscreen. It also helps check body odour. It doesn’t cause any allergies or irritation to the body. It is totally nonpolluting and does not recklessly destroy natural resources both in terms of raw materials and

energy. The yarn produced by the charkha (spinning wheel) is considered to be fine than that produced by any machine, tell Sujata (2006).

2.1.2. Khadi as freedom fabric:

Indian cloth, khadi was the pride and glory of many ancient and medieval trades. After industrial revolution, the execution of a power house of cloth market, desiccated Indian textile. Khadi is the proud and emotive symbol of India's Independence struggle. This khadi evokes a sense of nationalism, peace and simplicity among Indians as it is closely associated with India's freedom movement. By popularizing khadi as the attire of India's freedom fighter, Gandhiji sowed the seed of a sustainable economic. As a symbol of swadeshi or self-reliance it evoked immense response from the Indian people during the freedom struggle as part of the non-co-operative movement, explains Nayak (2005).

2.1.3. Khadi –the hand woven cloth and its new avatar

Khadi cloth is made from natural fibers like cotton, wool, silk or combining them. Thus, it is an eco-friendly cloth and heritage cloth. Khadi cloth is very comfortable to wear. The wearer will feel coolness in summer and warmth in winter. This is possible because of porous fibers which are given a very gentle treatment during khadi processing. However, apart from the traditional users of khadi, there is a large section of consumer, who prefers khadi cloth as a fashion material. Its bright colours, softness and exquisite design, have made khadi cloth a place of pride in the world of fashion bees and bells, both in India as well as in foreign countries, states Joshi (2008).

Khadi means any cloth that is hand spun, and hand woven. Khadi fabrics are different from handloom in a way that it is completely handmade, whereas yarns for the handloom fabrics are processed at mills. Yarns of a khadi fabric are made through a spinning wheel, the charkha. Khadi fabrics that were generally

considered as the second skin of the swadeshi revolutionists changed its uniqueness. It underwent a metamorphosis from that of a patriot's fabric and a farmer's apparel, to become a fashion fabric says Ezekiel (2005).

Today, khadi fabrics are not just restricted to cotton, and have many aspects. Khadi blends with other fibers to make raw silk khadi, matka khadi, poly khadi, tussar silk and many more. The fabric that was initially available only in a single almond hue is now presented in 30 alluring shades. The fabric has gained a global industry that promotes the fabric in a way; never before, khadi apparels are worn by the run way models displaying an array of out fits from bridal saris to beachwear; made from khadi fabrics. The cloth has grabbed the eyeballs of international fashion designers, sprawling elaborate designs exclusively for khadi fabrics (fibre2fashion.csilk.com).

Khadi silk is a natural protein fiber, which is woven into textiles. The shimmering appearance of silk is due to the triangular prism-like structure of the silk fiber which allows silk cloth to refract the incoming light at different angles thus producing different shades. The tradition of wearing silk sarees in marriages by the brides is followed in most parts of Southern India. Silk is worn by people as a symbol of royalty while attending functions and during festival. Silk is elegant, soft, luster and beautiful. Its good absorbency makes it comfortable in warm weather. Its low conductivity keeps warm air close to the skin during cold weather, describes Karolia (2008).

As today's youngsters demand more of khadi clothing because of its solitary looks and increasing demand. Khadi cotton is already being extensively used as a base material for salwar, suits, saris, shirts, sumptuous and designer clothing made out of sumptuous and designer clothing made out of khadi fabric is also liked by the people, as hand work done on the entire coterie makes it looks more exclusion (www.wikipedia.com).

The most common outfit made out of khadi fabrics are the khadikurtas. They are designed in their own unique way, depending upon the type of khadi fabric used. Khadikurtas are mainly made from khadi silk, which in itself is expensive clothing. It gives the wearer a rich and royal look. But this fabric gets shrink nearly 3% after the first wash and apparels like kurtas, jackets and blouses of saris requires lining to ensure the longevity of the clothing. Earlier traditional clothes were made after dyeing khadi fabric in earthy colours, but now designers have indulged in dyeing fabric in striking colours like baby pink, turquoise, lime green, etc.

New opportunities for khadi were created when Indian economy was opened to world markets. The post multi-fiber agreement regime also enhanced the growth of exports. Depending on the style and pattern, these apparels are seen in store racks in a price range of Rs 400-2500. There is a good demand for khadi products both in the domestic and international markets (khadi-n-crafts.blogspot.com).

2.1.4. Khadi Fabric in Fashion World

Khadi over the decades has moved from a freedom fighters identity fabric to a fashion garment. The 'fabric of the freedom movement' is turning a craze among today's generation. Today there is such an increasing demand for khadi cloth. Gone are the days when only politicians and poor wore khadi, the rising cloth and fashion sense amongst youngsters and globalization has given khadi new life. Khadi is already in fashion in metropolitan. People are realizing its advantages and even adopting it in their clothing. Hence, khadi has made a comeback and, it capitates too (Fiber2Fashion.com).

2.1.5. Designers Views on Khadi

Khadi has been silently making inroads into the fashion apparel market

emerging as the choice for both Indian and foreign designers. Apart from the usual khadikurtas and short kurats, trendy kurtas with kantha and kalamkari prints are available today. Designers give a fresh lease of life to the fading fabric recently. Fashion shows of khadi are held, top models and designers wearing khadi and walking on ramp are increasingly been seen. Khadi is also a life style product .it is used to make durries, upholstery, cushion covers, towels, bed sheets, bags, mats and curtains.

Khadi fabrics are elegant and come in various attractive designs. It's easy adaptability to a range of designs make it amenable to both formal and informal looks as well as Indian and western style. Designers agree that khadi can lend itself to almost any look or cut. Fashion designers are however, confident that khadi has a huge potential. Khadi goods have come a long way both in terms of quality and design. The fashion houses succeed in ability to adapt their khadi products to contemporary tastes

The availability of variants of khadi like muslin khadi, mutkakhadi and hand-woven khadi provides the freedom of experimentation to the designers and makes it a really suitable buy for all kinds' of occasions (www.Designer.com).Khadi with rough texture, uneven finishing, and above all, the dull designs made khadi rather attracting the failed to appeal to the fashion –conscious.Khadi's latest avatar, however, is brightly coloured and gossamer fine. For a long time the use of khadi was confined to only a few items like Punjabis kurtas. Designers have recently begun experimenting with a whole variety of khadi products including saris, salwar kameezes, and even western dresses. To add a fresh look, old fashioned workmanship has been blended with modern style to find new, subtle ways to evoke the spirit of khadi. Yet another design in khadi is the Nehru jacket looks like vest with a zipped front, shoulder flaps and two-plus-two pockets on either side. Khadi has not been left out in the trousers segment too, there is an array of carpenter pants, leisure cargos and combat trousers complete with spacious pockets and double stitches.

2.1.6. Traditional Indian Sarees

Historically, the Hindu woman's dress has evolved from contact with other cultures. The sari continues to remain the preferred and most important item of dress for most Indian women. The Indian sari provides a good means by which it can be said that clothes offer a clue to people's culture, this strip of material about 45" wide and five to nine yards long, dates back to Vedic times that is 2000 to 1000 B.C. Today the sari bears witnesses to the increasing freedom of Indian women tells Chishti (2002).

The Hindu lifestyle is governed by ancient beliefs and traditions. Ancient lawgivers prescribed the correct for religious activities and social behavior. Women of all castes wear the sari, but the style, ornamentation, and geometrical, floral motifs used are influenced by the caste of the wearer and the region where the wearer lives, states Mehta (2009). A good quality sari made of expensive fabric will be broader and longer than one that is less costly, the less expensive mill-made, describes Sodhia (2009).

Sarees are woven in silk, cotton and artificial fibers. "The sari undoubtedly is the most sensuous garment ever" "And the best thing about it is that conceals as much as it reveals". Sari is of varied length from 5 yards to 9.5 yards tied loosely, folded and pleated, it can be turned into a working dress or party wear with manual skill, says Bansal (2008). The common materials for a sari are silks, cottons, chiffons, organzas and georgettes, and the common types of saris are Kanjeevaram (Traditional South Indian saree). What one need in their collection is not a particular sari but superb blouses to go with it, because the blouse can make or break the look of a sari (www.sareemuseum.com).

Sarees were designed for the Indian women keeping in mind her structure and physique. The Indian saree can also be worn in several ways and its manner of wearing as well as its colour and texture are indicative of the status, age,

occupation, region and religion of a women. Traditional Indian Sarees are included as a part of Designer sarees. Most of the women in Indian wear sarees. Some of very famous types of Indian sarees are silk sarees. Today there is wide range of bridal wedding sarees collection available in the market (www.articlesbase.com/designersarees). Wedding sarees are available in very attractive colour combinations with heavy embroidery and patchwork all over the saree. The designer wedding sarees are designed to add grace and elegance to one's personality.

2.1.7. Design Features on Sarees

Sari fabric is highly structured with a sophisticated vocabulary. The fabric is divided into three areas; the longitudinal borders, the end of piece and the field. Traditionally each area communicated a woman's social and family status, as well as her regional identify, because certain colours and motifs were region and community specific. Borders usually extend the full (longitudinal) length of the sari. The sari's field is also embellished according to regional rules and in many parts of India is traditionally unadorned with designs woven, embroidered or printed onto it only when the sari has been made for a wedding reports Ray (2008).

The word itself spells luxury and class. Silk has been intermingled with the life and culture of the Indians. The sari is almost synonymous with the world silk; it is the traditional costume of Indian women since time immemorial. The artistic and aesthetic sense of Indian weavers is not content with striking colours they choose for the fabrics but lies in their mastery over the creation of floral design, beautiful textures, fine geometry and the durability of such work states Rai (2008). Indian sarees are epitomes of class, cultures and grace. If draped perfectly, they simple accentuate the body shape and make it even more alluring. Saries or sarees are available in lovely silks, soft cottons, chiffons, georgetts and in ample varieties with the embroidery patterns and block prints. Designer sarees with

embellishments, manglorean silk sarees, tussar silk sarees, kotasarees, kanjeevaram silk sarees and cotton sarees are flooded in the market. Bridal sarees or wedding sarees are mind blowing and extremely rich in colour and design. Usually they come in various shades of red. The saree blouses which are worn along with the saree are extremely stylish and attractively designed. India fashion is simply smart as convenience and gets precedence, Indian fashion has changed and adapted to the changes of time explain Neelima (2009).

2.2. DESIGN SOURCE

2.2.1. Fashion and Fabric in India

India has a rich, diverse and unique textile tradition. India has had strong traditions in the making, dyeing, printing and embroidering of cloth as is evident from historical records. The array of textiles varies from place to place by factors like geography, climate, and local culture, social customs availability of raw materials etc. The extraordinary ranges of Indian textiles reflect the cultural richness and adaptability of the country.

India has a varied textile heritage, where each region of India has its own unique native costume and traditional attire. While traditional clothes are still worn in most of rural India, urban India is changing rapidly, with international fashion trends reflected by the young and glamorous in the cosmopolitan metros of India. Fashion in India is a vibrant scene, a nascent industry and a colourful and glamorous world where designers and models start new trends every day.

Fashion in India has become a growing industry with international events such as the India fashion week and annual shows by fashion designers in the major cities of India. The victories of a number of Indian beauty queens in international events such as the Miss World and Miss Universe contests have also made Indian models recognized worldwide. Fashion designers such as Ritukumar, RituBeri,

RohitBal, Rina, Dhaka, Muzattar Ali, Satyapaul, Abraham and Thakor, TarunTahiliani, JJ Valaya and ManishMalhotra are some of the well-known fashion designers in India.

Fashion in India covers a whole range of clothing from ornate clothes designed for wedding ceremonies to pret lines, sports wear and casual wear. Traditional Indian techniques of embroidery such as chikhan, crewel and Zardosi and traditional weaves and fabrics have been used by Indian designers to create Indo – western clothing in a fusion of the best of east and west.

2.2.2. Designing of Textile

Textile design associates itself in making creative stylish and contemporary designs. Textile design requires special skills to create innovative designs.

The necessary skill follows

- a) Creative ability
- b) Technical skills
- c) Commercial awareness of textile industry
- d) Research and data handling
- e) Critical evaluation and interpretation of materials
- f) Quick decision making ability

Textile design is the process of creating designs for knitted, woven or printed fabrics, Mullick Premlate (2006).

2.3. DESIGN DEVELOPMENT

2.3.1. Pre-requisites in Surface Designing

Design is about relating elements, whether they are similar or contrasting and visually arranging an interesting unity with them. Shapes, forms, colours and texture all combine to become a unified whole which is commonly called a design.

There are two basic divisions of designing in the field of clothing; they are Structural Design and Decorative Design says Shailaja (2006). **Structural Design** may add a decorative quality if emphasized by colour contrast or row of top stitching to outline the basic garment parts. In apparel, structural design is more important because it is the fundamental component of design. These designs will be simple and well defined about their construction, colour, thread and trimming to be used, describes Wilson (2001). **Decorative Design** the development of a more decorative design from a basic one can be successfully accomplished by the use of lines, colours or materials, to enhance and enrich these structural lines. In dress design, as in any other design, this close relationship holds between the structural lines and these added to embellish them and that only shapes in harmony with it are introduced as a part of the decorative design, reports Sarkar (2010).

2.3.2. Types of Design

- **Naturalistic Design** also referred as realistic motif depict real objects in a natural manner may be flora-fauna, utility articles, sculptures, architecture, human figure or any other for that matter is a derivative of the nature. Most of the printed and woven textiles have naturalistic motifs or design as their source of surface decoration says Wilson (2006). The theory behind implanting of natural motif is to confine to its size, shape or form, colour and texture as close as possible tell Naik (2008).
- **Conventional Design** print is one that depicts some real creature or object excluding flowers which are a family into themselves. Conventional are more attention getting than most geometrics or floral. Conventional are also called novelty prints for their easily identifiable images tending to be more vulnerable than natural motifs to the public's passing moods. Delightful as some of these characters can be, they are more like trademarks, logos and copyright signs than artworks; describe Susanmeller and Joost (2005).

- **Geometric Design** may be composed of entirely the geometric shapes and forms or a design may be constructed on a geometric foundation. The design or pattern, which is repeated or multiplied indefinitely by either weaving or printing must shown an exact repeat, no matter how elaborate says Wilson (2001). In a woven, the repeat is always shown or represented in a rectangular basis. It is always embedded in a geometrical form and shape. It is necessary to state here that the geometrical constructions drawn with ruler and compass are less becoming than the ones drawn with much freedom, which are the direct outcome of the artistic skill and sense of beauty (Naik, 2008; Wilson, 2006).
- **Abstract Design** When no object is represented with life-like or realistic exactness but is expressed by pure design. It is known as an abstract design, which is non- representational, in it there may be symmetrical forms, geometric figure, variety, rhythm, repeated all over the pattern, any or all of the points or principle of good design tells Mullick (2006). The form of the real object is used in such an unrealistic shape and irregularities, that probably no one would possibly recognize are to identify it. Using circles, lines or dots or paint brush limes across a surface where each shape bears little resemblance with one design, identifies Sumathi (2005).

2.3.3. Elements of Design

- **Lines** A line can be thought of as points so close together that they lose their individual identity and form a new entity. Lines act as border between ideas, concepts or steps in a sequence. Since lines can be straight, curved, or irregularly shaped, one can also think of a line as the track of appoint in motion depicting various forms, says Davis (2008). Vertical lines can stop eye movement implying mass and give volume to a structure. They also equate to power and strength. Horizontal lines symbolize rest and

relaxation. Diagonal lines are dynamic and action-oriented, they portray dimensions and directions, explains Prakash (2004).

- **Shape and Form** A shape is defined as an area that stands out from the space next to or around it due to a defined or implied boundary, or because of differences of value, colour or texture. It is formed when a line encloses an area. These line enclosures create an illusionary focus termed as shapes says Sodhia (2005). Shapes can vary endlessly and can suggest physical form and direct eye movement based on the directional movement of lines. Shapes define figure, create ground relationships and relate forms and figures identify Pundir (2007).
- **Colour** is the most important part of designing. The primary colours are red, yellow and blue. They are called primary because they are not mixture of other colours. Mixing any two primary colours results in a secondary colour. The colour wheel is created when the primary and secondary colours are placed in a circle. Colours directly across from each other on the colour wheel are called complementary colours says Tate (2004).
- **Texture** defined as the surface characteristics of a material that can be experienced through the sense of touch. In visual images, actual textures can be used such as cloth; boxes, small objects and a natural item tell Davis (2008). Textures are of two types: tactile and visual. Tactile textures can be felt with a touch and is found in natural material as well as solid materials like stone, silk etc. Visual textures are seen due to surface or ornamentation like printing, embroidery, smocking etc., explain Sodhia (2008).

2.3.4. Principles of Design

The principles of design are useful in creating different forms of expression in an artistic manner, which are pleasing and attractive to the eye.

- **Balance** refers to a visual attribution of weight, form a central area. Balance implies a sense of equilibrium pleasing balance brings about a satisfying relationship among all design parts to produce visual harmony tell Sumathi (2005). The concept of balance is twofold: symmetrical and asymmetrical balance. Symmetrical balance can be described as having equal “weight” on equal sides of a center line. Formal balance or symmetry is achieved by identical interests or details or design placed on either side of an imaginary centerline. The elements are arranged equally on either side of a central axis, the result is bilateral symmetry. This axis may be horizontal or vertical. It is also possible to build formal balance by arranging elements equally arranging a central point, resulting in radial symmetry describes Pandir (2007). Asymmetrical balance is also called informal balance. Informal balance or asymmetry required effect. Informal balance must be arranged in such a way or manner as to give each part of relative degree of importance, and invite the eye to travel without interrupting the overall design. Asymmetrical balance involves placement of objects in a way that will allow objects of varying visual weight to balance one another around a central point identify Davis (2006).
- **Emphasis** involves the concentration of interest in the selected area of design with other center of interest subordinated. Emphasis as such should not be placed at an area that one wishes to minimize attention drawn on. Designers often create emphasis partially through the careful arrangement of line, texture and colours. It could also be called as focal point. Every design needs some note of interest that catches the eye or attracts the attention on a specific area of the garment explain Tate (2004).
- **Harmony** is otherwise called unity. If the principle of proportion, balance, rhythm and emphasis are creatively, the resultant design is said to have the harmony. Unity means that all elements of the design work together to produce a successful visual effect state Mckelvey and Munslow (2003).

- **Proportion** is size between parts and whole is defined to as proportion. For any design, an artist or a designer should aim for a sense of order of unity among the principles of designs describe Diamond (2008). Proportion includes planning of the basic shape within a design. It may involve the scale of the forms within the design like diversion of space to create attractive space relationship where the variety of shapes, sizes and the general idea of unity of principles of designs are to be expressed. If the principles of design that involves a phasing relationship between all parts of the design with respect to each other (Gupta, 2008).
- **Rhythm:** Directs the movement of the eyes as one uses the details of a design. Therefore a rhythmic pattern needs to be established to give a costume unity. Rhythm is most effect when it is experienced in a quiet way. It is the repeated use of lines or shapes to create pattern uniform. It is the repetition of the same space and is known as the order lines of rhythm state Diamond (2006).

2.4. BALINESE HISTORY AND CULTURE

Balinese art is not in the class of the great arts like great Chinese painting - the conscious production of works of art, for their own sake, with an aesthetic value apart from their function. Again, it is too refined, too developed, to fit into peasant arts nor is it one of the primitive arts, those subject to ritual and. Tribal laws, which we call "primitive " because their aesthetics do, not conform to ours. Their art is a highly developed, although in formal Baroque folk-art that combines the peasant liveliness with the refinement of the classicism of Linguistic Java, but free of conservative prejudice and with a new vitality fired by the exuberance of the demoniac spirit of the tropical primitive. The Balinese peasants took the flowery art of ancient Java, itself - an offshoot of the aristocratic art of India of the seventh and eighth centuries, brought it down to earth, and made it popular property.

Although at the service of religion, Balinese art is not a religious art. An artist carves ludicrous subjects in the temples 'or embellishes objects of daily use with religious symbols, using them purely as ornamental elements regardless of their significance. The Balinese carve or paint to tell the only 'stories they know - those created by their intellectuals, the religious teachers of former times. While there is debate about Bali's prehistoric history, there is ample proof of a well developed Megalithic culture. Nevertheless, good documentation about Balinese culture does not begin to emerge until the 8th or 9th century A.D. At this point the Balinese had already begun to practice various forms of Buddhism imported from India and there is evidence of Hindu influences as well. From the 10th to 11th century, Hinduism continued to merge with local customs. Through intermarriage, Javanese culture began to permeate royal court life and later spread to the villages.

- The Hindu Majapahit Empire of Java conquered Bali in the 14th century. (The Majapahit imposed a caste system on Bali with themselves on top and the original inhabitants of the island on the bottom.) By the beginning of the 16th century Bali became a sanctuary for Hindus forced out of an increasingly Islamicized Java. As the Majapahit Empire crumbled, there was a huge influx into Bali of Javanese noblemen and craftsmen.
- Examples of Indonesian bronzework can be found from as far back as 500 B.C. Rich agricultural land allowed the people of Java to focus energy on the arts. Jewelry in gold, copper and silver has been found in graves from the second millennium B.C. Bali was settled in the 1300s A.D. by Java's Majapahit Empire. Hindu artisans such as bead makers and metalsmiths fled Java for Bali as Java became more Islamic in the 1500s. Dutch explorers of that time remarked on the metalsmithing art of the Balinese, bringing knowledge of the artisans on this tiny island to Western culture. For themselves, the Balinese prefer gold jewelry. Demand from Western culture for silver influenced designers and metalsmiths to work in silver for export.

2.4.1. Bali Painting History

Balinese traditional painting was restricted to ceremony aspect such as religious part, calendar and leather puppet (Balinese: wayang). This period was before 1920 and called as Kamasan or Wayang Style. Wayang itself is two dimensional drawing that characterized a Hindu-Buddhism epic such as Mahabharata and Ramayana. The paintings were used on temple or palace as ornament. They illustrated many stories about religion and Bali life. Usually it is a piece of paintings that tell a story. The name of Kamasan style itself was taken from the village name where it originated.

The material used in Kamasan style is also traditional material from mineral and vegetables or plant resources. Also they use white bone, soot, or stone. Bamboo used as tool to painting and the media (canvas) usually traditional canvas from wood, tree leaf, or cloth. In 1920, there were Western artists who visited Bali. This has changed the rule on Balinese art painting. An introduction of new canvas from Western material, inks and paint, has changed the style into modern art painting.

Modern Traditional Painting

In this period three villages have predominated the Balinese art such as Ubud, Sanur and Batuan. The art has been performed or done by musicians, dancers, carvers and painters. The painters have used paper canvas and ink. However each village has their own style. Ubud Painting has more open spaces and explores human figures, meanwhile Sanur is more about erotic scene and animals. Batuan has less color but tended to be busier.

Ubud Painting

Ubud has renowned as art kampung or village in Bali. They are surrounded by palace family and house. There are so many artists who live here. Ubud has all kinds of artwork that commonly in Bali.

Batuan Painting

This village is about 10 kilometer to the South of Ubud. However the intensity of western influency is not as big as in Ubud. Their painting often more dark and present legendary scenes.

Sanur Painting

Sanur is a well-known place as beach resort. The famous wester artist, Le Mayeur de Mepres was lived here. Their style is more lighter than Batuan and paint an animal creature object.(www.wikipedia.com)

2.5. COMPUTER AIDED DESIGNING

CAD originally means Computer Aided Drafting or Designing because of its original use as a replacement for traditional drafting. Now, CAD means Computer Aided Design. To reflect that, modern CAD tools do more than just drafting. CAD is used to design, develop and optimize product, which can be goods used in other products. CAD has become an especially important technology, within the scope of Computer Aided Technologies. It enable designers to lay out and develop work on screen, print it out and save it for future editing, saving time on their drawing (www.en.wikepedia.org/wiki/CAD).

Modern CAD systems (also often called CAD/CAM system) are based on Interactive Computer Graphics (ICG) Interactive Computer Graphics denotes a user oriented system which the computer is employed to create, transform and display data in the form of pictures or symbols expresses Groover (2007).The term “Textile Designer” no longer has a simple definition- the role comprises a myriad of description and creativity explains Parvathi (2007).

Implementation of CAD technology through adaptation of modern designs and colour combination and also through efficiency and economic of reproduction has

been revolutionizing the textile industry and the textile designing in particular. To unleash the creativity of the textile designers, the virtually “no limit” solution for designing and manufacturing is a must, in today’s context, not only to increase productivity and also to meet the rapid changing mood of the customers for the fashionable designs both nationally as well as internationally explains Mitre (2007).

According to Shastry CAD software has been used as a way to shorten design cycles. In the earlier days the manual designs were in practice, which consumed most time, effort and error. Time required for design development using textile CAD is comparatively less and also the product obtained is of good quality expresses Arora (2005). After the introduction of CAD, the creation of design became easier, quicker, reproductive and safer, it possible to view the texture of saree and presentation of textile design in multiple colour combination is excellent in CAD opines Roddom (2008).

The demonstrated benefit of CAD include increased productivity, reduced product development time, increased creativity to improve conceptual designs, high product design capability and reduced cost of samples turnaround time says Vijay. The consumer constantly demand innovative changes over existing trends while the real exploration of new design style never dies and goes beyond the dictates of fashion says Nayak (2006).

2.5.1. Design Development Using CAD

Babil (2004) suggest that constant development in any field is essential as it is with the field of textiles. The design and manufacture of textiles is one of our oldest industries opines Colchester (2005). Specialty of Indian textiles is with its design. Perhaps no other country in world could give so many variations of woven designs on textiles than Indian in any part of world history assures Ghosh (2006).

- **Development of Design:** In the textile industry, designing is one part of a system. In this context, design is seen as an equivalent for problem solving says Otto (2008). Design is a creative process which involves art and aesthetics, that could be copied or invented. A design problem is solved with know-how, ingenuity; pattern recognition abilities lateral thinking and brainstorming express Wilson (2001).

Sodhia (2008) says that textiles form a class by them self over which the rest of the world went into ecstasies from time immemorial. With the enormous store of myths, symbols, imaginary and inspiration from other art forms, Indian - crafts never faced a slump or stagnation. Shailaja (2006) express that the source of inspiration for a design is infinite. The primitive people believed that each one is born with an innate sense of design where the children of the civilized saw the world through the eyes of adults giving an illusion for taste and realism. The basic form of design is floral, abstract and geometrical. Translating, reflecting and relating them can modify these design, feels Elffers (2005).

- **Process of Designing** Design of fabric in industry is accomplished in a number of ways, depending largely on the type of fabric states Yates. When anything is designed, it is put together with some intent or goal in mind says Sumathi (2005). Textile designs use traditional and modern textile manufacturing and decoration process to create textiles for clothing. Textile designers may do the following tasks and duties, work with clients to develop design briefs, advice clients on color and yarns, draw the design on paper first and then on computer using textile design software, the textile designer selects the colors and designs for making the fabric, instructs the machine technician to setup machine in a particular way, finishers to adjust the finish to the final textile product and also research textile market for future trends explains Luther (2005).The designer must select the design that exactly depicts the thoughts of his imagination, which should be very attractive and pleasing to others.

2.5.2 Advantages of Using CAD

The important factors in textile design are **Speed and ease of designing a pattern, Repeatability, Flexibility, Variety and Cost**

Speed and Ease of Designing a Pattern In the traditional way of designing the pattern, a square grid graph paper is used. This way of designing is very tedious and requires a great deal of patience and skill. The appearance of the pattern cannot be known unless it is woven. There are certain drawbacks such as time consuming, requires artistic hands, very slow process of design, as it is done manually, and less flexibility, so small changes in a design may require a lot of time and labour in traditional way of fabric designing

Above drawbacks in traditional way of designing have initiated the use of computer, which makes the designing very fast and easy, describes Bogart (2003).

- **Repeatability** of old design is possible within minimum time. To achieve this, there should be a permanent storage media, which requires space and the lower access time, so the obvious choice of media is computer magnetic media.
- **Flexibility** means one can modify the existing pattern without much difficulty. In the traditional way of designing on paper, if any modification is required, the pattern must be erased and redrawn or the whole pattern has to be rejected and a new one has to be redrawn.

Computer can be programmed to generate a variety of different colors and color combinations for a particular design, which can be selected as per needs. As computer is very fast, all this can be done within very less time. Fabric may be produced only after manufacturers get an order. This will reduce the inventories at various stages, and will reduce the cost of production. Rendering and 3-D

modeling can provide presentation of fabric designs generated on CAD systems in room settings and can be mapped onto a 3-D model complete with realistic folds and lighting conditions on models or on furniture, says Jyoti (2009).

- **Variety** is the need of the hour since nobody likes to have all the garments of same design pattern. People always desire changes and variety in every item, what they look, buy a wear. By giving streams of pattern one can give customers a choice to buy from variety can be in the form of a same design pattern with different colors or an altogether different design.
- **Cost** of design should be according to the market it is supposed to serve. Cost of design depends upon the demand and the cost of the product. A motif with different color combination does not cost extra to design. Therefore one could offer a large choice of design to the user. It is possible that the design could be printer in the catalogue important powerful editing tools explain Frings (2002).

2.5.3. Software Packages

Amandeepkaur et al., (2010) point out design can be made faster and more accurately, available for designer's quick access. A few simple design software packages are Adobe Illustrator, Adobe Photoshop, CorelDraw, and Poser among and others. Technical textile designing software has different yarn, fabric and motifs designing options in built in them. The new designed fabric can be easily viewed in a fraction of seconds. The choice of the right fashion designing software helps the designer in the expansion of the creativity achieved at less time. Now-a-days latest designing software's are integrated with looms, dobbies are Jacquards. Wonder waves, Reach technologies, Sumner graphics, Prostyle are few companies dealing with these softwares.

2.5.3.1. CorelDraw Software

Creativity and power come together in CorelDraw. With increased speed, more accurate color control, enhanced vector illustration tools and new Web capabilities, it's a must-have for any designer. Get going quickly with new professionally designed templates and learning materials. Find graphics, fonts and images on your computer faster than ever with new Corel® CONNECT™. Re-purpose and share your creations anywhere with expanded file compatibility. Then output everywhere, from Web banners and animations, to logos, custom signs and more.

- **More speed** with new multi-core support
- **More rich content** and professional templates
- **More learning tools**, video tutorials and expert tips
- **More compatibility**, with support for over 100 file formats
- **More color control** and consistency
- **More Web capabilities**, including Flash animation support
- **More output options** for print, Web, digital signs and more.

(www.corel.com)

2.5.3.2. Photoshop Software

With Photoshop Express, it's easy to improve the design. Choose from a variety of one-touch effects, or simply drag your finger across the screen to crop, rotate, or adjust color. Add artistic filters like Soft Focus or Sketch. Designer can undo and redo changes until desired expected result.

Top editing features

- **Basics:** Crop, Straighten, Rotate, and Flip
- **Color:** Exposure, Saturation, Tint, Black and White, and Contrast
- **Filters:** Sketch, Soft Focus, and Sharpen

- **Effects:** Vibrant, Pop, Border, Vignette Blur, Warm Vintage, Rainbow, White Glow, and Soft Black and White
- **Borders:** Rectangle, Rounded, Oval, Soft Edge, Vignette, Rough Edge, Halftone, and Film Emulsion.

Photo shop is also image creation software as well as an editor. Photo shop can create any effect or style needed in a drawing or painting or layout. There are graphic software that can do specialized work faster and more efficient than Photo shop, but Photo shop can do it all in one program. Photo shop works by altering individual pixels in an image as opposed to a vector drawing program that draws with points, lines and objects mathematically. Photo shop is best with images that have complex textures, blends and photo realism, but Photo shop is also very good at vector drawing as long as the image doesn't need to be scaled and you don't need specialized CAD drawing tools. (www.wikipedia.com)

2.6. Surface Embellishment

Surface designing refers to superficial embellishment on the fabric or structural and applied design on any substrate. There are innumerable varieties of decorations that enrich the fabric surface but techniques limited to substrate sources. The yardage of cloth, sometimes chosen for embellishing depends on the specific end use. The most predominating techniques that enhance the consumer acceptance by beautifying the textile materials are dying, printing, painting and embroidery.

- **Hand Painting** involves use of dye or pigment with media applied to textiles are wash fast when used on suitable fabric .Some paints though resemble dyes are not wash fast. Different types of paint have different appearance. Some form hard shiny surface, some plastic based paints form raised surfaces, emulsions used like pigments or designer's gouache are used for fabric painting , states Shailaja (2006).

- **Printing** of a pattern on to fabric by the use of dyes, pigments, or other coloured substances was influenced by a variety of other coloured substances was influenced by a variety of hand and machine processes. Here the design is transferred on a flat substrate using a block or device coated with the dye, by simply stamping onto the fabric the same design is repeated many times across the fabric by pressing this decorates coloured surface against the fabric, which is nothing but printing, says Clarke (2004).

In general, printing is an inexpensive way of creating designs on the fabric than by weaving or knitting with coloured yarns of various kinds and types. The grey fabric, directly taken from the loom undergoes several finishes to improve its luster, softness, drape, hand-feel and ultimately its appearance. Dyeing ads colour to the fabric, an important contribution to fabric decoration. Further the fabric can be made attractive by printing colour and patterns on the finished fabric.

This form of decoration has been in existence since at least for two thousand years.

Embroidery

Embroidery can be applied before and after the construction of a garment and concentrated in specific areas or as part of an overall design. It can be used as an embellishment on the surface of the cloth to enhance the look of the fabric or it can be used in a way that makes it integral to the function of the garment, rather than supply as a decorative addition Contemporary embroidery is based on traditional techniques, Udale, (2008).

The origin of embroidery as of all needle work obscure due to the perishable nature of fabric. Embroidery embraces a wealth of different historical and contemporary techniques. All over the world people continue to develop traditional and innovative methods to decorate garments. Embroidery, the art of

working raised designs in threads of silk, cotton, gold or silver upon the surface of woven cloth with the help of a needle, has been known in India from very early time Kantha and Bengal.

Indian embroidery takes its inspiration from nature and region. The colours, the base theme and the style are reflective of a particular region. Embroidery on velvet, net, cotton, silk etc., the patterns are decided upon on the basis of the fabric and its texture. The stitches depend upon the style and the effect to be produced. Themes and motifs have remained as such for centuries. The patterns have always been floral, animals, geometric and religious. Embroidery is one of the oldest and most accepted styles of surface ornamentation of fabrics and garments, and India is among the leading producer of embroidered fabrics and garments worldwide denotes Sodhia (2009). A characteristic of embroidery is that the basic techniques or blanket stitch of the earliest work-chain stitch, buttonhole or blanket stitch, running stitch, satin stitch, cross stitches remain the fundamental techniques of hand embroidery today.

- **Gold Work**

Gold and metal threads were extensively used in all forms of English and European embroidery. The metal threads being stiff resistant and less flexible were couched over the fabric. In India the gold and silver work on brocades and silk dresses, saris, robes as well as made ups is famous since time immemorial. Earlier this exclusive metal craft was the property of the royals but gradually the manufacture of initiative of gold and silver thread work often termed as zari and the common men enjoyed in with great pleasure. Apart from gold and silver threads, copper and multi colour metal work has entered into the fashion world. In India the gold and silver work is religiously predominant among Islamic communities and is known as ‘zaradosi’.

Ethnic Embroidery

The source for much of the ethnic embroidery that is commercially available in the west is the Indian sub- continent - where embroidery is practiced for centuries to decorate textiles of temples houses, clothing and animals that are worshiped. In India Hindus use figurative images as ethnic motifs whereas Muslims the geometric motifs derived from symbolic images. Many of these textiles are symbolic and frequently used during traditional festivals, functions and a ritual tells Meller (2005).

- **Needle Point**

Needle point is a kind or form of embroidery also called as canvas work since the stitches are closely worked onto a cotton or linen canvas the ground being entirely covered. The embroidery is usually worked with woolen sometimes silk too but recently in cotton as well as synthetic acrylic yarns. Needlepoint craft has very little in the way of heritage of paintings, prints and wall decorative of historical exhibits. As embroidery though there is provision to use good number of variety of stitches, usually 'tent' stitch is solely used giving more emphasis on design and colour effects says Wilson (2006).

- **Machine Embroidery**

There are many domestic sewing machines on the market that are designed for creating embroidery. These range from basic models with a few automatic patterns and the ability to embroider freehand, to sophisticated computerized machines with memory cards and a huge range of automatic patterns. Some sewing machines can be linked to computers. Elaborate pattern can be designed in and load it in the machine and the design is embroidered automatically onto the fabric reports Shailaya (2006).

- **Patch Work and Appliqué**

‘Patch work and Appliqué is sister crafts that have been enjoyed by needle women for centuries. Generations of enthusiastic beginners have been drawn to them by the desire to create unique items and preserve precious scraps of fabric points out Glock (2005). A patch work or “pieced work” is a form of needle work that involves sewing together pieces of fabric into a larger design. The larger design is usually based on repeat patterns built up with different coloured shapes. These shapes are carefully measured and cut, straight-sided, basic geometric shapes making them easy to piece together precise joining makes for patch work that lies flat without puckers explains Neelima (2009).

- **Appliqué**

According to Jones (2002), appliqué in textiles means to stitch one piece of fabric onto another for decorative effect. Pieces of fabric can be stitched on top of a base cloth or a reverse appliqué technique can be applied where the top fabric is cut away to form a pattern and reveal the fabric beneath. Interesting intricate design can be created using many layers of cloth. Fabrics that do not fray are often good for appliqué work. Fabric motifs, such as badges, can be beaded or embroidered, first and then appliquéd on the garment with stitches. Appliqué is one of the simplest and certainly one of the oldest ways of decorating cloth. It has a universal appeal, as it not only a part of the needlework tradition of many nations, but also one of the most popular forms of needle work today. In a busy modern world where many traditional forms of needlework are considered too time consuming for any but a handful of enthusiasts, large ‘appliqué’ designs can be put together in on time with help of a sewing machine says Sarahpare (2006).

Computer Assisted Embroidery

The digital embroidery phased out a challenging edge over simple machine

driven embroidery and focused its success via media of consumer appreciation, acceptance and demand. Digitizing is a term commonly used in the embroidery industry to describe the process of converting a design into a computer programmed that runs the embroidery machine. This process used paper tape with holes punched in it that was fed via tape reader into the machine. The industry has moved to three inch floppy disks or computer networks to transfer information to the embroidery machine.

Originally an embroidery software design program was used with a digitized board. By positioning and clicking the mouse, control points were plotted to define the areas and applying the special functions needed (trims, colour changes etc.). The digitizer converted the art into stitches. The result was a series of digital commands that hold the embroidery machine what to be done. There is a machine that handles every user requirements, ranging from monogramming and sampling through industrial heavy-duty embroidery machines. The embroidery software has several solutions; it creates most complex designs quickly and accurately.

- **Bead work:** Beads can be made from glass, plastic, wood, bone and enamel, and are available in a variety of shapes and sizes. These include seed beads, bugle beads, sequins, crystals, diamond and pearls. Beading adds texture to fabric. Bead work is a needlework craft that was introduced into western India comparatively recently. In the nineteenth century Bhattia and Bania traders from Kutch and saurashtra were based in zanzibae and were engaged in the trade with East Africa. The beadwork motifs portrayed divine and human figures combined with flowers, cradles, racing camels, other animals and birds and were worked in translucent and semi- translucent coloured beads set in a background of whit opaque beads. Colours used in early examples were orange, yellow, green, purple and red say Gillow and Barnard (2005).

The beadwork technique entails first of all making a border of beads for the whole textile, and then attaching a thread to a top corner of the border. Three or more beads are then threaded on to a needle. The needle is then either taken through a bead of the border and pulled tight or over one of the threads of the border and back again through the last bead threaded on the needle with even spacing, the process is repeated until a row of looped beads hangs from the top border of the textile on reaching the far top corners of the border, using the same process and working back in the opposite direction, beads are threaded onto the first row. The process is continued row by row, each row being attached at both the side borders until the bottom of the textiles is reached. Different coloured beads can be worked in to form angular patterns. For example using glass beads on a garment lends the textile a wonderful light reflecting, luxurious quality. Beads can be stitched individually or they can be couched down where a thread of beads is laid on top of the surface of a fabric and stitched with small stitches between the beads says Baranard (1983).

2.7. CONTEMPORARY USES OF TRADITIONAL TEXTILE DESIGNS

When considering contemporary textile design styles in many cases it is possible to trace their pictorial and geometric references to specific locations and perhaps times in the world. Given the evolution of textile tradition and the fact that a rich heritage of textile exchange seems to be natural and that the copying and swapping is continued to this day.

Contemporary designers utilizing the traditional textile skills of their countries are dotted throughout the world of the traditional hand- crafted textiles; Ritu Kumar says they do not exist in the rarefied atmosphere of a museum workshop in an artist's atelies they survive in the vast weaving, printing, embroidery and dyeing belts of the country. There have been episodes in India where the survival of textile craft was at the mercy of social changes say Alka Goel and Pushpa Maurya (2009).