India has been renowned for its printed and dyed cotton cloth since the 12th Century and the craft flourished as the fabric received royal patronage. Though the earliest records mention the printing centers in the south, the craft seems to have been prevalent all over India. The earliest centers for block printing seem to have been located in what are now the states of Andhra Pradesh and Gujarat. From these centers, the craft appears to have spread gradually with the migration of craft workers to other areas. Centers such as Sanganer in Rajasthan rose to prominence in the 18th Century. Other centers such as Serampur developed even later, becoming the hub of block printing in West Bengal only in the 1940s. Now, there is the increasing phenomenon of block printing units being set up in urban areas including Calcutta and Jaipur city.

There can be no explanation for the initial urge to add embellishment to cloth than the desire to bring colour design, vivacity and an identity to something, which is plain and austere. Colour gives character and conveys a message, design tells a story or serves a need and pattern brings harmony. The tradition of decorated textiles is as rich as the woven one with a vast range of dyed, printed and embroidered fabrics (Jaitly, J., 1990).

The Indian handicrafts thrived, through the ages helped by a vigorous folk tradition begin culture and an age when individualism was cherished and details and precision valued. Man’s yearning to
adorn the best had introduced grace and elegance into the monotony and darkness of everyday life with the help of handicrafts (Pal, M.K. 1997).

The art of printing, dyeing and painting separately or in combination to produce attractive fabrics of rich colours and patterns is very ancient in India with different procedural techniques, ingredients and equipment producing exclusive fabrics which were known. The values of resist, natural dye and natural chemicals were appreciated all over India (Gillow, J., 1991).

Printing and painting on cotton are the arts for which Indian textiles have been chiefly famed abroad. In the painting of cotton the dyes and mordents are applied free hand with a brush with results in an individual drawing with human and serous touch. In printing however the use of wooden block and modern screens inevitably restricts the designs to repeats (Irwin, 1956).

Dyeing and printing is carried out through our India but the excellence of work done in Rajasthan especially in Jaipur and Sanganer does not have any comparison. Rajasthan has the richest heritage of textile art and craft. The important centers in the desert belt are Jaipur, Sanganer, Bagru, Pali and Barmer (Playne, 1922).

Raja Man Singh was very friendly with Mughal emperor Akbar. His strongly forged link between Rajputs and Mughal empire remained intact till eighteenth century, thus enabling the state to retain its independence of culture and to assimilate the art and learning of the Mughals in it (Irwin, J., 1971).
SANGANERI PRINTING

Sanganer have been renewed for their precious pattern and colouring for at least two hundred and fifty years. The local artisans and people have continued to keep the art alive. In certain places it has flourished in recent times with some modifications due to a spurt in the export market (Rita Kapoor, R.; Jain, R., 2000).

Sanganer is appreciated throughout the world for its famous Sanganeri prints. The patronage of erstwhile ruler encouraged the artists to bring sophistication and fineness to their pieces. The styled designs in lovely and delicate shades with wide range are a class by themselves. Sometimes the patterns are so artistically executed that the fabric gives the look as embroidered rather than printed. Sometimes the patterns are so artistically executed that the fabric gives the look as embroidered rather than printed. Sometimes the prints of Sanganer are finished with colour applied by means of tinsel process and the product is most elegant (Pal, B.H. 1984).

Sir George Watt giving a vivid picture of Sanganer art describes, as “The nature, feeling and colour reciprocity as also the technique in printing are all perfect while the absence of machine regularity gives a charm that places those goods above the beyond anything as yet accomplished in Europe. It has been observed that is the quaintness and harmony in the Indian textiles that fascinates but the skillful treatment of the Sanganeri Calico-Printers is quite as wonderful as the good are beautiful (Pal, B.H., 1984).
The traditional Sanganer Colour is most often prepared by vegetable dyes i.e. dyes obtained from flowers and other natural extracts. Although due to the purpose of earning more money, people of Sanganer have also started the use of synthetic dyes for dyeing of fabric.

Sanganer prints are very beautiful and unique. A distinct feature of these prints is the use of variety of designs in the same piece of cloth in such a way that they are beautifully harmonize (Chattopadhaya, 1975).

Sanganer printing does not only in Sanganer but in Jaipur also (Dharmija, 1970).

The products of Sanganer continue to charm of their own. An innate feeling for beauty, a sense of colour and pattern, infinite patience and the accumulated experience of centuries rare excellence (Jain, J. and Jain, K., 1935).

Sanganer printed clothes are made up items are much in demand and adorn humble swellings as well as sophisticated homes in Indai and abroad (Jain, J. and Jain K, 1935).

Several modes of printings are to be seen in Sanganer famous of them are direct block printing and the modern method of screen printing. Printing displays an extensive variety of but as whereas dyeing shows a variety of colours (Kothari, G., 1995).

**DECORATIVE MOTIFS**

The History of the development of motifs adopted by the printers of Sanganer is obscure. These motifs were not very large in number in
the oldern days. But the facts that most of them are derived from the flora and fauna and are natural in origin is borne out of their very names of nomenclature, although such panorama does not generally exist in locality. There had been frequently migrations of chhipa (name of the locality) population from one area to the other in the entire belt of Uttar Pradesh, M.P. Rajasthan, Gujarat and Punjab in those days. Natural calamities search for better market and habitation may be the causes of such migrations. The craftsmen brought (with them the traditional techniques, styles and motifs to the new places of their settlement. These factors also perhaps explain as to how such motifs had come to be used at Sanganer (Mohanty, B. and Parsad, J., 1983).

Also blocks of the motifs were being seldom made locally were being obtained from different places inhabited by expert block makers like in Pethapur, Farrukhabad, Mathura, Jaipur, Kalol, Delhi etc (Mohanty, B. and Parsad, J., 1983).

A comparative study of the evolution and lay out of motifs clearly reveals a change from the old tradition and style. In the old style, the motifs mostly floral and vegetative in character were being arranged in a linear pattern and were comparatively smaller in size; whereas in the later periods different geometrical motifs and forms of arranging motifs like circles, semi–circles, squares, cones etc. were introduced whereas the former was the need for the outside markets (Mohanty, B. and Parsad, J., 1983).
It is concluded that motifs printed at Sanganer are of flowers like poppy, iris and rose. Somber colours and fine lines are characteristics of Sanganer printing (Kothari, G., 1995).

Motifs based on lotus, iris, rose, poppy water-lily, narcissus marigold, sunflower Chinese rose, chrysanthemum, champa and many other such flowers are printed on Sanganer Chhint. A number of old prints were exhibited in an exhibition titled “Indian Art at Delhi” in the beginning of the present century. Sir George Watt who prepared the catalogue of the exhibition wrote obviously many of Sanganer designs portray flowers that are not likely to have been seen by the calico printers, nor by the block engravers of Rajputana, however there seems every reason to believe that the craft has been handed down for centuries and has come to us in all the purity of original inspiration (Ahivasi, D, 1976).

Maharaja of Jaipur Maharaja Sawai Jai Singh have great encouragement to the dyeing and printing industry. Sawai Madho Singh during his reign organized an exhibition of fabrics dyed and printed in the state of Jaipur to enhance the craft. Also during that time people of all communities whether rich or poor Zagiradar Maharajas all used to wear the cotton dyed and printed in all traditional styles. (Sujas, 1998, Maharashi, 1994).

With the passage of time the industry flourishing from being a local supplier to international suppliers fabrics produced acquired a position of sophistication and speak volumes today.
Although a lot has been jotted down by various authors in praise of Sanganer dyeing and printing yet there is little information available about the intricacies involved in actual processes of employing motifs, designs and colour combination to produce a characteristics Sanganer print on the textile dyeing and printing.

With the present national and international awareness of environment ecology and pollution control, vegetable dyes appear to be the ideal choice since they are non-toxic and quite safe. As vegetable dyes are used in the colouration of traditional textile of India they are intimate ingredient of textile heritage of India. Its continuity willhelp in keeping touch with the glorious past of India.

At present Sanganer continues to support a large hand block printing industry which produces mostly unremarkable and inexpensive goods for the domestic as well as for exports (Rita Kapoor, R.: Jain , R.,2000).

**BAGRU PRINTING**

Two hundred years after the birth of the Sanganer village of Jaipur by Prince Sangaj in sixteenth century, a few Muslim printers of cheepa community of Sanganer settled in Bagru and started block printing at Bagru. (Indian Express, 1983; Sujas, 1998).

Tribal people (banjaras) of Nagaur used to go to Dishawar through Bagru. In the very beginning, a cheepa family that settled in Bagru started printing clothes for these banjaras about eight generations ago. These banjaras used to leave their cloths for printing while going to Dishawar and collected their printed cloths while returning back to Nagapur.
The art of hand-block printing of Bagru is not more than 150 years old and it was in about 1943 that Bagru started printing of ‘Sanganeri Prints’. Bagru fabrics became famous throughout the country only in 1975. Now it has its unique place as ‘Bagru Prints’.

The ancient Bagru ‘jajams’ that is the floor covering were known all over the country. They were made of thick handloom cloth and were used as darries of village carpets. These jajams had big geometrical designs. It has been stated, in one of the leaflets produced by the Thakur of Bagru village that the cloth printed at this village was fast in colours.

Before 1975, the work of craftsmen of Bagru went unnoticed. With the Government aid, it gained popularity and during this period the samples of the hand printed textiles went to foreign lands.

The small scale industries department of Rajasthan helped these printers in various ways by which the productivity increased and the quality improved gradually.

Few changes were made in the prints, the motifs were rearranged to give variety. As a result, two colours-red and black used in Bagru Textiles gave the impression of having different shades.

Dealers from U.S.A. Japan and Europe placed large orders for them. The upshot was that Bagru textiles which fetched not more than rupees ten thousand in the domestic market annually brought in two crores in the year 1978-79 (Indian Express 1983).
COLOURS, FABRICS AND MOTIFS USED IN BAGRU FOR PRINTING

Colour is kin, fabric the subject and
Motif the maid!

(Chisti and Sanyal, 1989)

COLOUR USED

As the artisans were close to the nature, they seemed to have reached in a subtly sensitive manner to various aspects of nature, for instance colour which is so crucially significant in the creation of crafts. They seemed to have developed their own science of colours. They related colours in order to form a kind of harmony through regular or diffused or composite reflections. For the contrasts chosen may be steep but not harsh, daring but not unsettling, with tender colour interposing.

Inspite of seeming conservation, the Indian craftsmen have been remarkably flexible in colour combinations, perhaps boldly borrowing from nature. They are free from the rigid code of matching the West adheres to. The craftsman’s eye seems to swing between delicate undertones and strong overtones, from the youthful to the mature while a tonal balance is maintained (Chattopadhyay, 1985).

The desert belt which stretches from Sind, now in Pakistan, Kutch and Kathiawar in Gujrat, right through Rajasthan and covering parts of Haryana, coming upto the edge of Delhi, has a bold and robust tradition of intense sun-burnt colours and strong linear patterns. The brilliant red, the deep yellow ochre, the vivid lime green and the bright blue of the limpid lakes are the colours invariably used here. They are further accentuated by the use of contrasting colours (Dhamija, 1970).
The main colours used in Bagru are red and black. A few other colour are also used but not in general. Formerly natural dyes indigo madder, pomegranate rind and turmeric were used as colouring material. Synthetic alizarin and indigo have however since replaced madder and indigo. Congo red is used for brightening the red colour and pink colour. Direct yellow colour is used for yellow in prints. However, other natural dyes continue to be used along with the traditional processes for preparation of mordants, resists and colours.

For preparing the red colour dye-bath synthetic alizarin lumps are used. The bath is prepared by mixing dhawai ka phool (flower of Woodfordia floribunda). For blue colour, synthetic indigo is used. Harda solution is used for dyeing yellow as well as for mordating for the black colour which is printed. Another yellow colour is obtained from pomegranate skin (Monhanty, Chadramouli and Naik, 1987).

In Bagru, cloth printed with Dabu had background mostly in blue, green and also sometimes red. Among the newer vegetable colours, prominent are kasis vitriol, ratanjot, madder and the bark of the acacia (Babul) tree, (Bhagat, 1995; Kothari 1995).

**FABRIC USED**

Reja, is a thick coarse cloth woven in Rajasthan. The distinction of caste and region in a costume are shown through the printing and dyeing of this very cloth. The reja cloth is presently being used only for making floor spreads or padharnas. With the change of time the weaving of cloth has also changed tremendously. Formerly, where hand woven coarse reja was used.
The mill made long cloth or pharad has taken its place. As these prints became popular in the lands abroad newer experiments were tried out with cloth to provide the customers according to their demands. Today, we have printing on a number of different fabrics which were not in use earlier. In 1978 Bagru prints were started on mulmul cloth. Later in 1985 another successful experiment was carried out by printing khes and durries and in the year 1986 silk sarees were printed. However, good printing cannot be obtained on fine cloth and the colour also is visible on the reverse of the cloth. But at the same time it is also true that exquisitely fine designs can be printed on fine cloth with better results, as it is not possible on coarse fabric (Kothari, 1995, Maharshi, 1994).

**MOTIFS USED**

The decorative motifs in the Indian crafts go deep in to the earliest time. As the tribal crafts are not always crude or archaic therefore they have a pattern of their own which within a rigid circumference laid down by a hoary tradition has attained a perfection. These folk forms have crept into new emergent creations so inexplicably that in many cases the dividing line between the two is either thin or almost non-existent. Tribal fabrics are superb because in folk art nothing is accidental or freakish. Every detail has a meaning and a symbolic significance though some of these may have been forgotten. Basically the folk art reflect the physical environment as well as the raw material on which the craftsman works. The craft was motivated by utilitarian and ritualistic factors and sometimes by individual creative impulses.
It may not however be easy to find a satisfactory or uniform explanation for the meaning of the motifs as some are described as ageless and they seem to be true of all times like lotus, the serpent, the elephant, the chakra, certain trees and many more (Chattopadhyay, 1963).

Traditionally, motifs printed at Bagru are large with bold lines because these were meant for the peasant society. The customers, printers and block makers of this centre, took aspirations from the wild flowers, buds, leaves and printed geometrical patterns. Usually motifs there consisted of flowers, buds and leaves composed in form of a cari (mango), pan (betel leaf), katar (dagger) and jhumka (earring). When Bagru printing started at that time common patterns printed by the local people were coriander (hara dhania), chaubundi, chakri, dakh and neem leaves (Kothari, 1995).

The many new influences that kept flowing into the country touched each facet with a delicate finger leaving a deep impression of it’s own beauty. The impact came from Central and West Asia, Persia and Greece. The flavour of the Persian influence has been a strong and abiding one, as under the Mughal rulers. Persian crafts and craftsmen were patronized and introduced in to India. The Indian craftsmen as usual rose to the occasion and blended with subtle ingenuity the old and the new and the new style was created which is still with us to delight our hearts and our senses, The Mughal inspired floral prints of Bagru came from a different court influenced tradition. Bagru products which were mostly aimed at local, rural women, also reflected in its design the Persian influence so prevalent
in Rajasthan that dates back to the seventeenth century (Chattopadhyay, 1963, Gillow and Barnard, 1991).

Some of the traditional motifs used in Bagru in printing are illaichi buti, bichu buti, cari buti, dhatura buti, dhania buti, kachnar buti, guldaudi buti, pankhi buti, genda buti, paan buti, katar buti dupatti buti, mirchi buti, jadhpul buti, surajmukhi buti, hathi buti, machi ki bel, gulab ki bel, chauphooli bel, kamal phul ki bel sugga bel, kalash ka kangura, kali ka kangura, leheriya and Sanganeri buti (Sujas, 1998).

With the changing taste today many old forms are forgotten and new motifs are created. A remarkable feature of the traditional printing is that animals are not printed on fabric meant for costumes. But in the present day-cultural hotch-potch, these traditional crafts are only a matter of fashion. Foreign buyers order patterns and colour schemes of their choice, all these influence printing industry. Recently with growing interest in ethnic designs, printing motifs patterned after mandana floor decoration, became very popular, Japanese took them with great delight and Indian ladies favoured them for a salwar suit (Phadke and Sharma, 1993).

**TOOLS AND TECHNIQUES USED IN BAGRU**

The technique used to print cotton in Bagru is very interesting. Two prints are made in Bagru- Bagru prints and Dabu prints. The basic difference that lies in these is that Bagru print has a pale yellow background of harda whereas Dabu prints has dark background colours such as green, blue, red, black and yellow as resist of dabu paste is applied to it. The dabu is used to save one or two colours as
required in the design and this method is also called as ‘iha’ by the local people.

The cloth to be printed is soaked in cold water mixed with cow dung on the preceding night and the next morning the cloth is washed thoroughly. After another wash, for the next two days, this cloth is soaked in harda water for ten to fifteen minutes, so that it turns yellow. For forty meter length of cloth, about one kilogram harda powder and some till oil is mixed in water and cloth is soaked in this mixture. The cloth is thereafter dried in sun and is left till the cloth becomes hot. The upper side of the cloth absorbs the printing well and is called as harda-ka-pasa.

The first colour taken up for printing is red. The outline is first drawn in red by printing blocks. Red colour is known as beggar and is prepared by mixing one kilogram gum, hundred grams of alum and hundred gram of ochre (greu) in three litre of water and paste is formed which is poured in the tari or saj, which is a wooden pot 10”x12” in size. A bamboo tati is placed over this pot over which a gunny or felt is spread which absorbs the colour and oozes it up.

Some designs also have ‘chirai’ work in black and are printed in between red outlines. For preparing black colour, iron, khurtal and jiggery (gur) are mixed in a 5:1 ratio and are left in an earthen pot for 15 days for fermentation. Thereafter, gum is added and left to settle for another couple of days and then printing is done with this paste. After printing, the cloth is dried for two days in sun and it is kept in a
shaded place after being folded for another three days and on the sixth day, it is washed in water.

To make beggar appear red and to make the black colour fast, the cloth is dyed in ghan. For this purpose, water is heated in a large copper tub. Dhavada flowers, al wood and sakur are added to this water, locally known as “chala dena”. This dyeing takes about two to three hours.

After dyeing to obtain better and shining results, it is essential that the cloth is given a thorough wash and its folds and creases are removed properly, for which the cloth is soaked for fifteen to twenty minutes and then given a thirty minute scrub (khulai) so that it gets cleaned. Then the cloth is left for drying after being dyed.

If Dabu print has to be made, then to start up resist paste called dabu is applied on the cloth with wooden block, in order to keep the area white or to preserve the particular colour printed earlier. At Bagru, dabu of moth-eaten wheat, gum, lime, oil and black clay is made. Lime makes the paste thick, oil brightens the colours, black clay holds the paste together and gum helps in washing away the resist paste after printing and final dyeing is done. In order to prepare paste of two killo of moth-eaten what two hundred and fifty grams of lime, two hundred grams of gum and fifteen to twenty grams of molasses and oil. All these are mixed together and stored in an earthen pot and then applied with wooden blocks and earthen pot is kept over a wooden trolley.
After the application of dabu, the cloth is dyed in blue. For blue dye, the cloth is soaked in a nine feet deep pitcher for fifteen to twenty minutes and then it is taken out. It is quickly dried by two people holding the cloth lengthwise and billowing it in the wind. Then it is soaked once more. This process is repeated half a dozen times. Then the cloth was washed in clean water and dried. If after dyeing it blue, one wants to make it green, it is to be stirred with a stick in alum solution and then it is soaked in a solution of pomegranate skins and the cloth is rinsed out without a wash, and left for drying (Kothari, 1995).

**COMMUNITIES ENGAGED IN DYEING AND PRINTING**

In the vast flowing river of craft,

The skilled enhance their lives,

Count you to find.

A single day of skillful

a year of the unskilled.

(Chisti and Sanyal, 1989)

In order to fulfill the necessity, work relating to manufacture of fabric, its production and ornamentation was assigned to certain communities in society for example, weaver was responsible for weaving a fabric while nilgar (dyer), rangrez (dyer) and cheepa (printer) decorated the fabric by dyeing and printing it for festive occasions and different climatic conditions.

A leaflet printed in Bagru in late nineteenth century while describing the thikana of Bagtru mentioned printing industry in this
village. The cultural environs in Rajasthan are largely based on its Varna-Vyavastha (caste system). Therefore, a number of communities have been engaged in the job of dyeing and printing which are described under:

**RANGREZ AND NILGAR**

Although their job is the same but difference lies only in one aspect that those who dye with Kusum flowers are called rangrez and those dyers who dye with the indigo are called nilgars.

**BRAHMAKHATRI**

They perform three jobs-tieing, dyeing and printing. They generally print odnis. Brahmakhatris are Saivite and worship Hinglaz Matta as their family deity.

**BANDHARA**

They also belong to Brahmakhatri. As they do the job of tieing and dyeing of head gears (pagris) and odnis in Jalore and Jaswantpura region of Western Rajasthan, so, they got the name Bandhara. Firstly they tie dye the cloth and then they do printing on it.

**CHADWA**

Chadwa is taken from Hindi word ‘Chadana” which means to put colour to the fabric and hence the person who used to colour to fabric came to be called as Chadwa. These are Muslims and trace their origin from Multan (now in Pakistan) from where they came to Marwad. Their job is to tie head-gears and odnis and dye them with kusum flowers and indigo. They often do printing.
CHEEPA

Cheepa is also a deformation of Hindi world ‘Chapna’ or ‘Chapai’ and the craftsmen who did the work of ‘chapai’ or printing came to be called as ‘Cheepa’. Some trace their origin from Pandarpur and some from Javata. They are further classified into

Muslim Cheepas

Hindu Cheepas

In Sanganer and Bagru, cheepas are called as ‘Namdevi Cheepas’ as they are followers of Saint Namdev- a Maharashtrian saint, and wear a string in his name and are mostly vegetarians.

Muslim cheepas print and dye cloth like Hindu cheepas but they do not dye with indigo. These cheepas use fast indigenous colours like al, haldi, harda, alum, kasis and do not use kusum or indigo.

According to a legend, this art of textile printing was taught by God to Namdev in his dream and later on the passed it to his heirs. But during the reign of Aurangzeb, when Aurangzeb started forcing people to covert to muslims, some of the heirs of Namdev got converted to muslims and thus came to be called as muslim cheepas.

Hindu cheepas worship their family deity Jakhar Matta. They have a tradition in their community whereby sons from the first wife will be cheepa and those from the subsequent wife Darji or tailor, even when they are engaged in the work of textile printing. The cheepa community has been doing the work of dyeing and printing at local levels in Sanganer and Bagru (Kothari, 1995; Sujas, 1998; Maharshi, 1994).
The Cheepa community, widely famous for their superb block printing is divided into several gotras such as Asarmia, Bhanbhoria, Baunlina, Bandhiwal, Bhagerwal, Deosaya, Dhowtia, Gangwal, Jatpara, Jalthalia, Joshi, Kangawa, Kothiwal, Khandewal, Maharaodia, Nagar, Naiwal, Naeewal, Nahar, Railwaria, Siraswal, Saraogi and Teongaria (Mathur, 1986).

Besides this rigid caste system of the society, there are certain taboos also in this trade of printing and dyeing. For example, indigo is considered impure and therefore only nilgar and chadwa communities dye indigo. Similarly printing with mica is done only by chadwa, other are not supposed to do so (Kothari, 1995).

In recent times of fashions and fads the sales appeal has become more important to the consumer than quality. Infact, it is the most important factors in the consumers choice of cloth. The sales appeal depends mostly on appearance of cloth and design, the importance of which has therefore, increased considerably.

As compared to other methods of textile designing namely weaving, painting ‘techniques’ produces elaborate and unique patters in variegated colours at relatively lower cost. However the conventional techniques of dyeing and printing are not very easy to be practiced at home. Hence there is a need to enrich the prevalent textile designs with new design by exploring the non-conventional techniques of dyeing and printing which can be practised easily at home by home markers to dye and print their own fabrics, garments and household.
Competition from modern highly commercialized methods of dyeing and printing, the need is, therefore, felt that not only to investigate the process of Sanganer dyeing and printing but also suggesting ways and means for the revival of this age old textile art and improving the let of printers so that this textile heritage of India can be preserved for posterity.

**AIMS AND OBJECTIVES**

1. To study the finance and annual production of the units.
2. To study the different types of tools and equipments used in dyeing and printing units.
3. To study the various motifs, different fabrics, dyes and other raw material used in Sanganer and Bagru dyeing and printing.
4. To study the methods of dyeing and printing and their techniques of application.
5. To Study the problems faced by the industry and its future prospects.

**LIMITATIONS**

1. The study is limited to 200 units
2. The study is limited to Sanganer and Bagru only.