



# Unit I: Introduction to Print Design

## Unit Overview

This unit will introduce basic ingredients for print design development to enable students to develop new and effective designs using relevant reference materials. Further, they will also learn to ideate design, select colors, set repeats and plan layouts to enhance prints.

## Learning Outcome

After completing the unit, the students shall be able to –

- Understand the basic requirement for print design development.
- List the historical printed textiles.
- Identify the pattern, repeat and layout.
- Identify the influencing factors for design development.

## 1.1 History of Print and Printed Textiles

The impact of Fashion can be observed in textile usage of any period, irrespective of wealth, class and different sections of the society. When we look at old prints, we notice that at every level of the society, prints provide a commentary on the interplay of Fashion, technology and social change. From older days, textiles provided the means by which ever large sections of the community could participate in these rituals of decorating, when other things were expected to last a generation or more, renewed textiles kept abreast of Fashion.

A designer's job is to combine skills, taste and imagination to produce good designs. This book will guide students for idea generation for printing on the cloth. A textile design begins with an idea on paper and ends on printed cloth. All around the world billions of mtrs. of fabric is being produced by number of Print Houses. Each print house requires regular supply of new designs and it is extremely difficult to judge the number of designs that are used in their production.

Since 1980, computer revolution has also affected the professional practices of textile design industry and there has been number of innovative developments in the printing process. However, the three skills required by the designer – idea generation and conceptualization is still being done in a traditional manner. With the advent of newer technology, the designs development is being done by various advanced methods.

Fashion, styles and therefore textile pattern change from season to season, year after year. Students of textile design should have keen interest in world art and cultures that is easily accessible nowadays. Understanding regional art and culture gives deeper insight of Regional Textile design development.



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In order to work in the field of Textile design, students must know the historical development to gain sensitivity towards its development. Following points show a brief overview of historical developments in printed textiles.

- During 5000 B.C., Egypt, Flax was used by the early Egyptian cultures along the Nile to make linen like fabrics.
- During 3000 B.C. in India and in Peru, Cotton was produced simultaneously in these two almost disconnected parts of the prehistoric world.
- During 2640 B.C. in China, Silk was first cultivated and woven. By 1400 B.C. silk production in China was at its peak.
- During 2000 B.C. in Peru, Clay cylinders were used to print border patterns.
- During 1500 B.C. in Mexico; Peru, Tie-dyeing, batik (a wax resist technique), and block and small roller printing were developed; a finish for glazing of cotton fabrics was also perfected during this period.
- During 450 B.C. in Greece, Animal figures were painted on clothing using pigment dyes.
- During 500-600 in Persia, Patterned cloth was printed in red, black, and powdered gold.
- During 1100 in Europe, Fabric printing was done at various levels simultaneously in several countries.
- During 1300-1600 in Europe, The era of great weaving, which includes tapestry, damask, and silk embroidery, was at its peak. Fabric printing declined during this period.
- During 1676-1771 in Europe, Cloth printing works started in England, Holland, Germany, Switzerland, France, Ireland, and Scotland. The factory at Jouy, France, founded by Oberkampf in 1759, where the famous Toile de Jouy fabrics are designed and printed were among the best printing setup.
- In seventeenth century Europe, the design and manufacture of woven or embroidered designs had achieved high level of quality and prints were often made as cheap version. European companies started trading with Asian countries including hand painted designs from India known as "Calicos" or "Chintz". The imagery on these fabrics often in the form of "palampores" was popular and due to its increased demand, traders have encouraged manufactures to produce these in large volumes.
- During 1712 - In U.S., George Leason established the "Calico Printing Works" in Boston. During the next 150 years, more than seventy print works were established throughout New England and the mid-Atlantic states.



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- During 1785 in England, Industrialized roller printing was developed.
- During 1900 in England, William Morris design were popular for printed fabrics and wallpaper in the Art nouveau Style, which were greatly admired and were influential in the U.S. Today, William Morris considered the forerunner of modern design in textiles.
- During 1900, screen printing was introduced as a new technique to reduce cost implication of copper roller printing.
- In 1929, France, the age of synthetic chemical fibers began with the introduction of rayon, the so-called silk substitute. Although its development began in 1884, it was finally perfected in 1929.
- It has been said that Indian subcontinent is the most original, creative and prolific source of patterned textile production in the world.
- Twenty-first century: Digital revolution was considered far more significant than the invention of writing or printing. Digital technique provided exciting new possibilities for development of print design.

### 1.2 Traditional Indian Textiles

Cotton had been woven in India since long before Christ, but it was under the great Moghul Dynasty ( 1525 -1707) during which the beautiful cotton muslins reached their highest development. Although silk had been cultivated and woven from the earliest times, it was the fine cotton cloths that were by far the most prized.



Fig 1.1 Kalamkari print



Indian hand painted cotton came to Europe in the late sixteenth century. East India company was given permission to import these painted 'calicoes' or 'chintz'. The decorative design and colours of these fabrics were very popular among the rich at court. The popularity of these fabrics compelled many European textile manufacturers to reproduce Indian chintz fabrics to match the increasing requirement. The styling and decorative forms formed the basis of dress fabric and furnishing designs throughout Europe in the seventeenth and eighteenth centuries. The Floral style of sprigs, bouquets and trails are still very popular and are used in varied forms.



Fig 1.2 Kalamkari print

The Indian cotton fabrics (palampores) brought over to Europe were used mainly for bedcovers. The designs were of two distinct natures, one which included border patterns and other 'Tree of life' patterning. The other form of the 'Tree of life' symbol was the pinecone or seed with the tree inside, which was popularly called as 'paisley' form.

India has exported vegetables dyed and printed fabrics to most parts of the world since ancient times. The excavation at foster near Cairo revealed fragments of block printing, resist dyed, painted and mordant-dyed fabrics from India. Egypt was for centuries an importer of Indian cotton goods, and Cairo was the centre of trade between the east and the west.

The discovery of a fragment of madder dyed cloth in Mohenjo daro proves that the art of vegetable dyeing in India existed even before 2000 BC. Even the printed fabrics discovered in central Asia can be dated back to the 8th century and can be traced back to the printing centres of India. A wide variety of techniques were used in different parts of the country. The technique of cotton dyeing was the basis of the printing process (one of the most prominent traditional techniques) well known as Bagru printing, Bagh and Kalamkari.



Fig 1.3 Bagne print



Fig 1.4 Corner of Bagru printed table cover design

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Fig. 1.5 Bagru printed table cover design

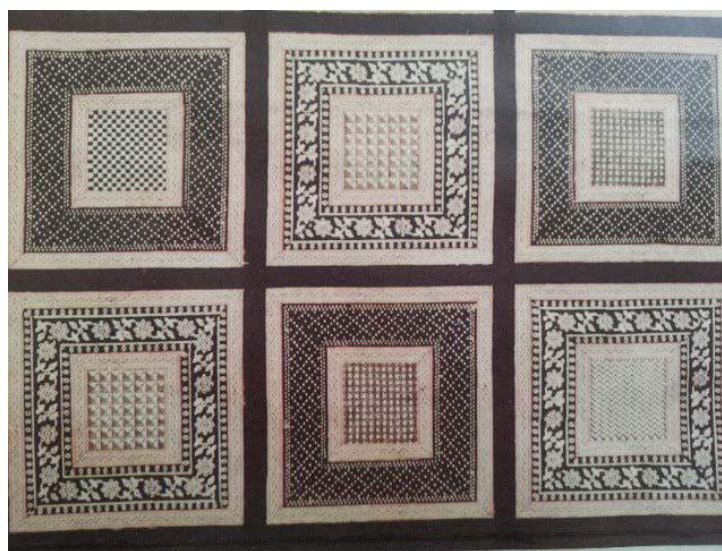


Fig. 1.6 Bagh printed table cover design

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### Field work:

In order to know the historical references, students should visit Museum and exhibitions to understand the rich heritage of printed textiles. Teachers should show textiles from other regions of the world to give them base understanding of design intricacy, colours and printing methods.

### 1.3 Design and Art

In contemporary design scenario, one can find interesting mix of Design and Art. This interesting mix reveals the scope of the imagination and skill of contemporary textile designers. Since centuries design remains an interesting reflection of that period events and happening, popularly called as Art movement.

These art movements have also influenced textile designers. Some of the popular art movements are, Neo- classicism, Art deco, Art nouveau, Bauhaus, Arts and Craft movement, Chinoiserie, Cubism, Expressionism, Ethnic, Folk and Pop art.

Henri Matisse, David Hockney and Henry Moore are some of the well known fine artists who have designed printed textiles.



© Ms. Vidhi Khandelwal.,  
Textile Design  
department,  
(2009- 2014) Collection  
inspired from Art  
nouveau movement





### 1.3.1 Art movements

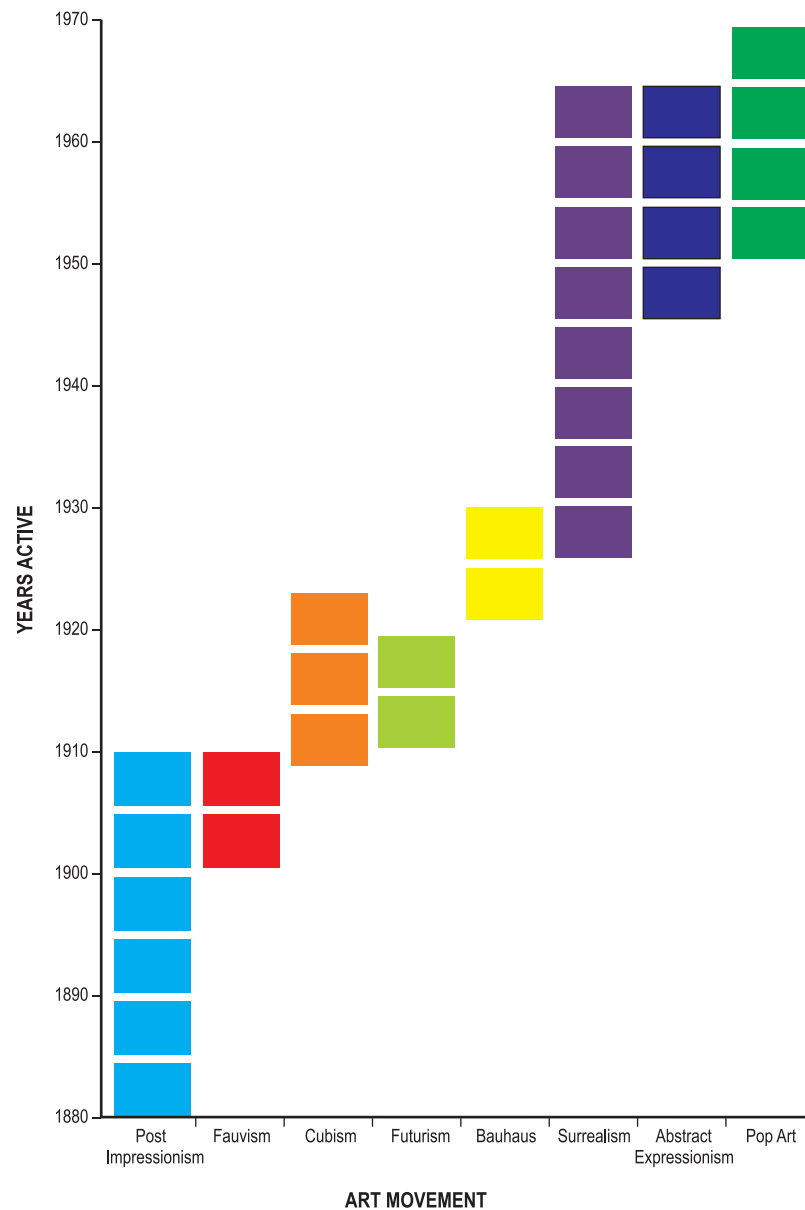
- Abstract Expressionism - a New York school of painting popularly known for freely created abstractions was the first school of American painting to develop independently of European styles.
- Impressionism - a school of late 19th century French painters who pictured appearances by strokes of unmixed colors to give the impression of reflected light.
- Pop Art - a school of art that emerged in the United Kingdom in the 1950s and became prevalent in the United States and the United Kingdom in the 1960s. It imitated the techniques of commercial art (as the soup cans of Andy Warhol) and the styles of popular culture and mass media.
- Pointillism - a school of painters, who used a technique of painting with tiny dots of pure colors that would blend in the viewer's eye. (Developed by Georges Seurat and his followers in late 19th century France.)
- Art deco - a style of design that was popular in the 1920s and 1930s, marked by stylized forms and geometric designs.
- Art nouveau - a French school of art and architecture popular in the 1890s, characterized by stylized natural forms and sinuous outlines of objects such as leaves, vines and flowers.
- Avant-garde - a creative group active in the innovation and application of new concepts and techniques in a given field (especially in the arts).
- Constructivism - an abstractionist artistic movement in Russia after World War I, industrial materials were used to construct nonrepresentational objects.
- Cubism - an artistic movement in France beginning in 1907 that featured surfaces of geometrical planes.
- Expressionism - an art movement in the 20th century, which emphasized the artist's subjective expression of inner experiences.
- Fauvism - an art movement launched in 1905 wherein work was characterized by bright and nonnatural colors and simple forms.
- Futurism - an artistic movement in Italy around 1910 that tried to express the energy and values of the machine age.
- Minimalism - an art movement in sculpture and painting that began in the 1950s and emphasized extreme simplification of form and color



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- Surrealism - a 20th century movement of artists and writers (developing out of dadaism) who used fantastic images and incongruous juxtapositions in order to represent unconscious thoughts and dreams
- Symbolism - an artistic movement in the late 19th century that tried to express abstract or mystical ideas through the symbolic use of images.

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## 1.4 Reference Material

The print design business is complex & demanding and the designer has to regularly look out for references to “ideate” and “be inspired”. This is a fundamental skill to start your journey of designing involving an in-depth study for innovative and creative design development.

Designing trend in style, colours, themes, techniques change constantly. In order to keep up with these changes, one must be aware of various reference materials. Every design student should record relevant information for present and future use. Research provides creative investigation which leads to ideation and inspiration. This process keeps up with the changing trends to provide creative food for design development.

Each designer uses ones own understanding of reference material. These individual ideas to create unique designs make each designer different from the others. With the advent of internet, research is not limited to regional journals and books. One can research specific information, using this medium. Though this tool is available with us, however, each student should learn the ethical methods of using this resource.

Students can regularly update their knowledge by reading Newspapers, Magazines, Books, visiting Museum, Gallery, Exhibitions, Websites and collecting regional fabric swatches.

## 1.5 Design, Layout, Color and Repeat

Designing a textile requires knowledge of layout, color, tracing and painting techniques as well as correct use of art material, supplies and reference material.

Following fundamental methods should be adopted for successful development of print designs:

**Design:** Designing can be defined as relating and visually arranging components or elements to create effects. Space, Line, Shape, Form, Colour, Value and Texture are the design elements with which artists and designers work to create a design. Students should gather related reference material for idea and inspiration to start designing prints. On achieving the idea, students can sketch on the paper to finalize the design.

### Layout (Laying out of Design):

Layout is the process of planning the repeats to create continuous flow in all directions. Students should select the layout depending on the design requirement, e.g. for home furnishings, a large repeat size needs to be planned for an effective layout. Through experience, students can learn to put designs in interesting layouts to convert a good idea into a good design. The design can be put in All-over, Tossed, Free Flowing, Stripes, Border, Set, Scenic and Patchwork layouts.





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Fig 1.5.1. All over layout



Fig 1.5.2. Border layout



Fig. 1.5.3 All over layout



Fig 1.5.4 Patch work layout





## Repeat

The unique characteristic of designing textiles is that, unlike other commercial art forms, a design must be prepared to be printed over and over again in a continuous flow, without apparent break/interruption in the pattern. These days, with a use of computer software, setting repeats has become easy and fast.

The repeats are planned/selected to accommodate selected printing process. Repeats of block printing would vary in sizes in comparison to Roller screen printing. The vertical repeat or the repeat's length, must fit into the size of the screen to achieve desired results.

Half drop, Mirror, Brick, Border, Stripe and Square are some of the popular repeats. These styles can be merged together to achieve interesting patterning.



Fig 1.5.5. © Ms.Nikita Malik, All over repeat pattern, Textile design, New Delhi



Fig 1.5.6. Colour palette



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**Colour:** In achieving desired results, color selection plays an important role in improving the overall appearance of the design as its usage makes or breaks a design.

In textile industry “Colorist” is employed to provide colour directions and further color-ways for the textile pattern as right color combination greatly influence design success.

Students can paint color charts to develop color selection sensibility.

## Exercise

- 1 Fashion, styles and textile patterns change from \_\_\_\_\_ to \_\_\_\_\_.
- 2 East India company was given permission to import \_\_\_\_\_ or \_\_\_\_\_.
- 3 The two forms of ‘Tree of life’ symbol was the \_\_\_\_\_ with the tree inside which was popularly called as \_\_\_\_\_ form.
- 4 The most prominent traditional technique of cotton dyeing was well known as \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- 5 \_\_\_\_\_, a style of design that was popular in the 1920s and 1930s, marked by stylized forms and geometric designs.
- 6 Layout is the process of planning the repeats to create continuous flow in all directions.
- 7 In textile industry \_\_\_\_\_ is employed to provide colour directions.

## Short answer questions

1. Describe Traditional Indian printed Textile?
2. Describe Impressionism movement ?
3. Describe basic requirement for textile design development?
4. Describe the role of repeat setting in design development?
5. Describe the role of layout setting in design development?