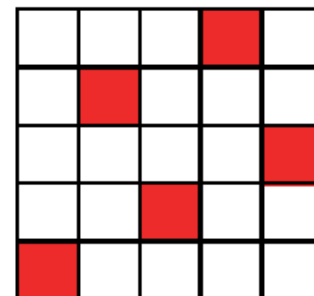
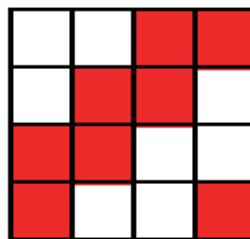
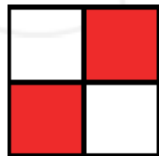


Color weave effect
in
production process

Woven Fabric Structure.

- ❑ Woven fabric can be produced by interlacement of two set of yarns; i.e warp yarn placed vertically and weft yarn placed horizontally.
- ❑ All weave structures are created from a binary system (that is a warp over or under the weft yarn at crossover areas, infinite number of weave can be formed. This distribution of interlacement is known as “weave pattern”.
- ❑ Three type of Weave pattern, that are known as basic weave are Plain-Twill-Sateen weaves and their derivatives. Their characteristics are Simplicity, small size, ease in formation and recognition.



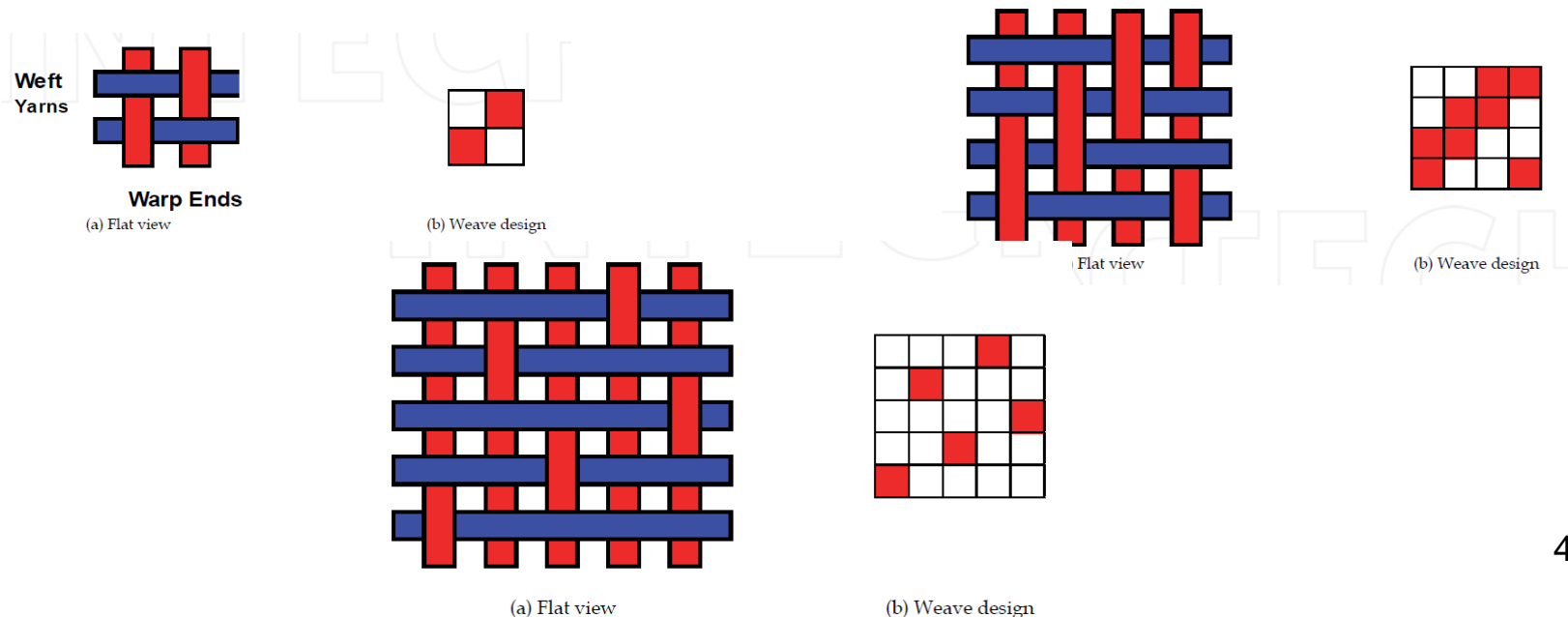
Sectional Warping

Function of this process is to assemble a group of color warp yarns onto a beam in sheet form. In this process, color yarn is first wound onto a conical drum and then on beam beam.



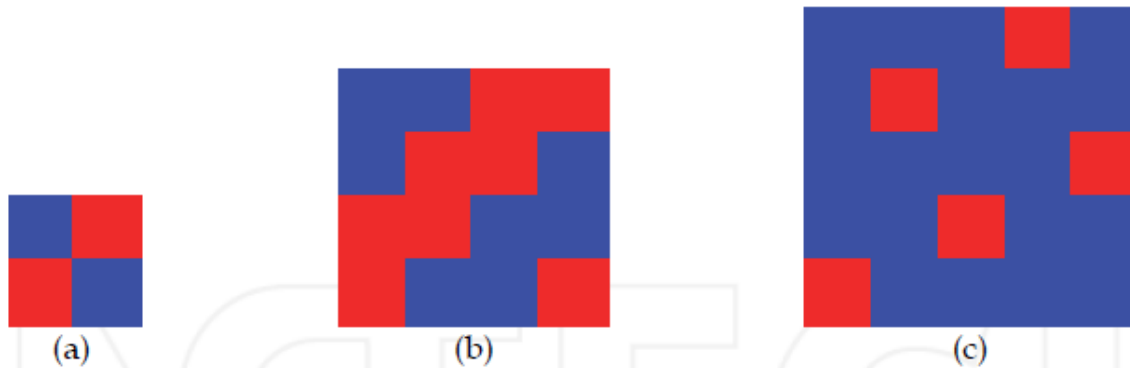
Primary elements of woven color effect

- ❑ In woven design from colored yarns, a colored pattern is consequence of two possible arrangement where warp is over weft or vice versa.
- ❑ Thus the primary elements of woven fabric design are
 - ❑ Combination of weave and
 - ❑ Blending of colors using such weaves.



Color Effect Presentation

In Figures (a, b, c) all the squares of the weave design presentations are painted using the color of warp (Red) and weft yarns (blue). This is known as color effect presentation.

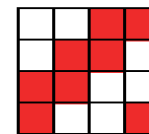
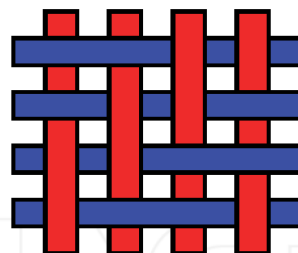
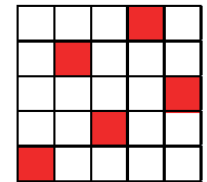
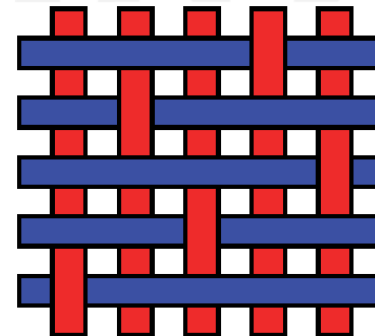
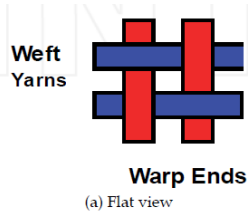


Weave relates specially to the structure of fabric, and color is differently related to effects of weave and form.

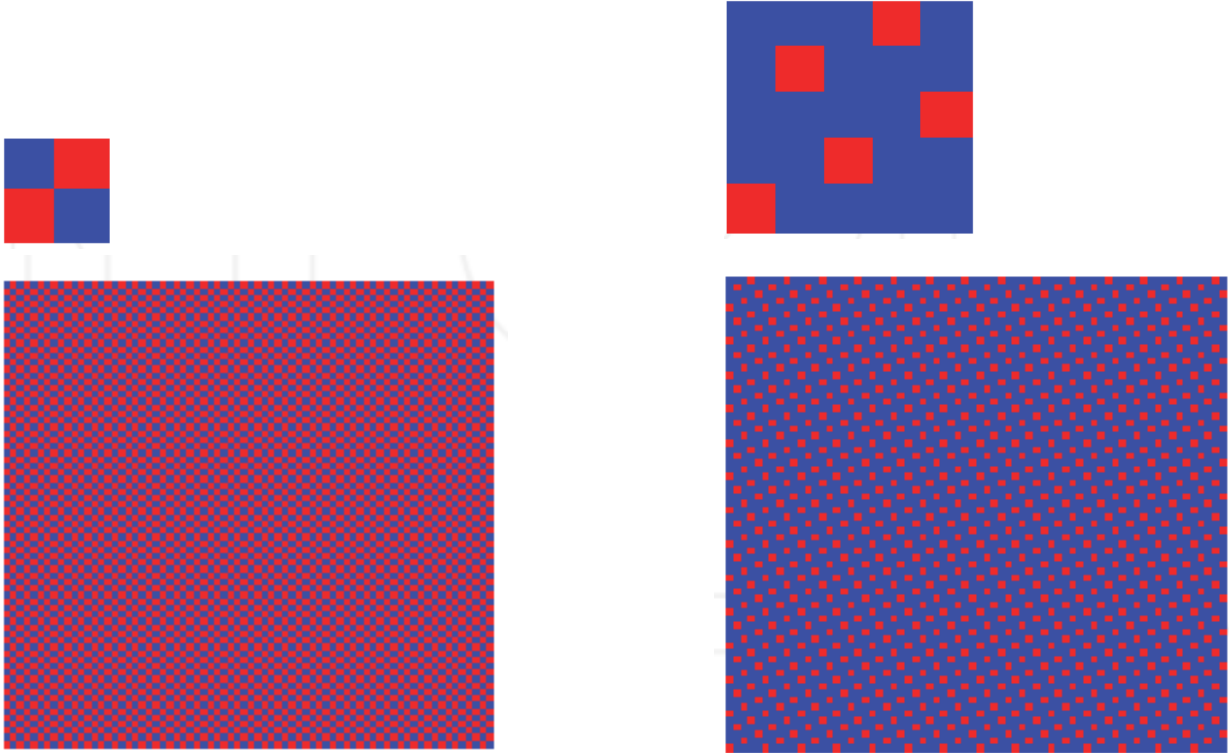
The methods of utilization of color in woven textiles depends upon the composition of the weave design to be woven and the structure parameters of the cloth.

Color Effect

- Further it should be pointed out that a square in the design paper represent extremely small size area in the woven cloth.

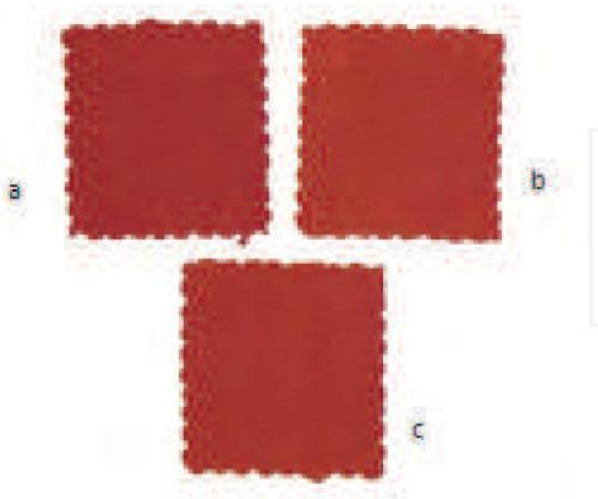


Color Simulation of Plain and Sateen weave



Color Ornamentation and Figures production

- ❑ **Color and ornamentation in woven fabrics is imparted through the predetermined placement and interlacement of particular sequence of yarn.**
- ❑ **A solid color is produced by employing the same color in warp and weft. On the other hand different color may be combined to produce either a mixed or intermingled color effect in which the composite hue appears as a solid color.**



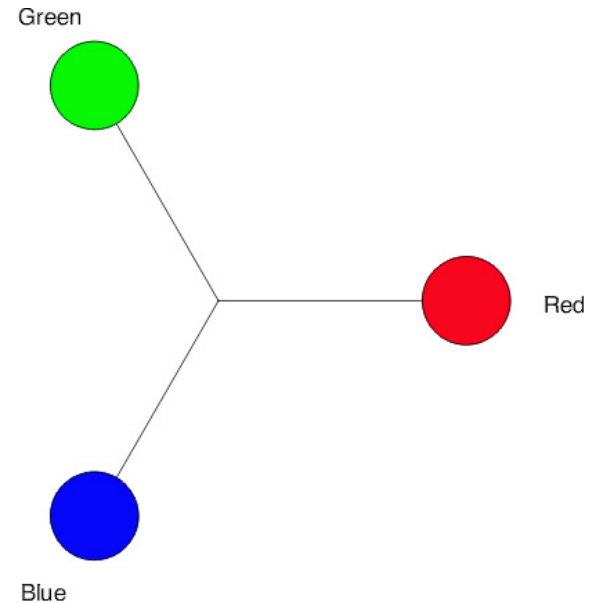
Composite Pattern and Figures production

- ❑ Figured ornamentation is created through the selection of different groups of colored yarn, placed in the warp and/or in the weft.
- ❑ Color and ornamentation in woven fabrics is imparted through the predetermined placement and interlacement of particular sequence of yarn.



Additive Color Mixing

Figure shows the three primary colors that computer monitors use to create all the possible colors displayed. They are called the **light primaries** because they are created colors by mixing light sources of these colors.



Additive Color Mixing (Color of Light)

This mixing process can be represented by laying out all of the possible color mixtures around in a circle.

As you move in a circle from one primary to the next, you add more of the primary you approach and less of the one you are moving away from.

When you are 180 degrees away from a primary, you have none of it mixed in. This color is the complement of the primary.

Primary

Red

Green

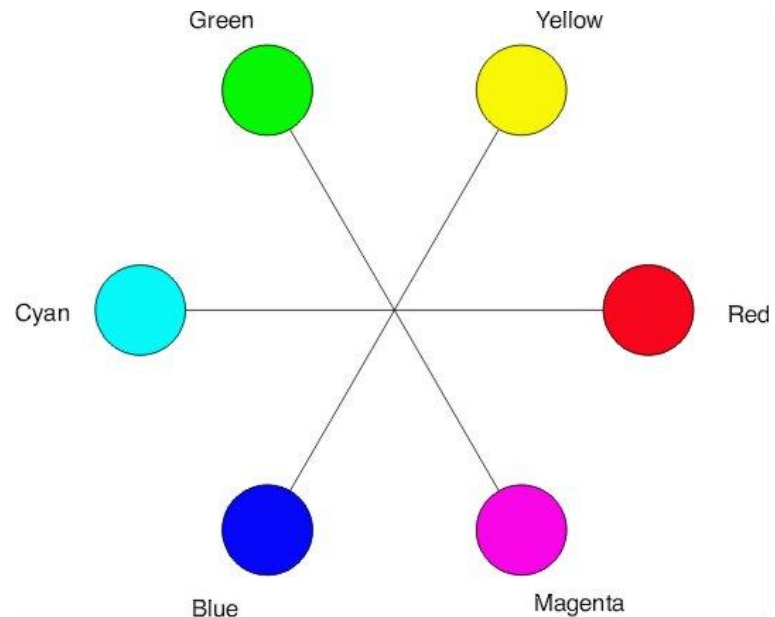
Blue

Complement

Cyan

Magenta

Yellow



SUBTRACTIVE COLOR SYNTHESIS

The dyes, pigments, emulsions, and inks (process colors) used in photomechanical reproduction are cyan, magenta, and yellow. A single complementary produces its own color.

Two complementary in equal strengths produce a primary color because each absorbs a primary--e.g., magenta and yellow absorb green and blue, respectively, leaving red to be seen.

Primary	Primary	Combined
Color	Colors	Color of the
Absorbed	Unaffected	Subtractive Complementary
Red	Blue & Green	Cyan
Green	Blue & Red	Magenta
Blue	Red & Green	Yellow

Subtractive Color Synthesis uses paints, dyes, inks, and natural colorants to create color by absorbing some wavelengths of light and reflecting or transmitting others.

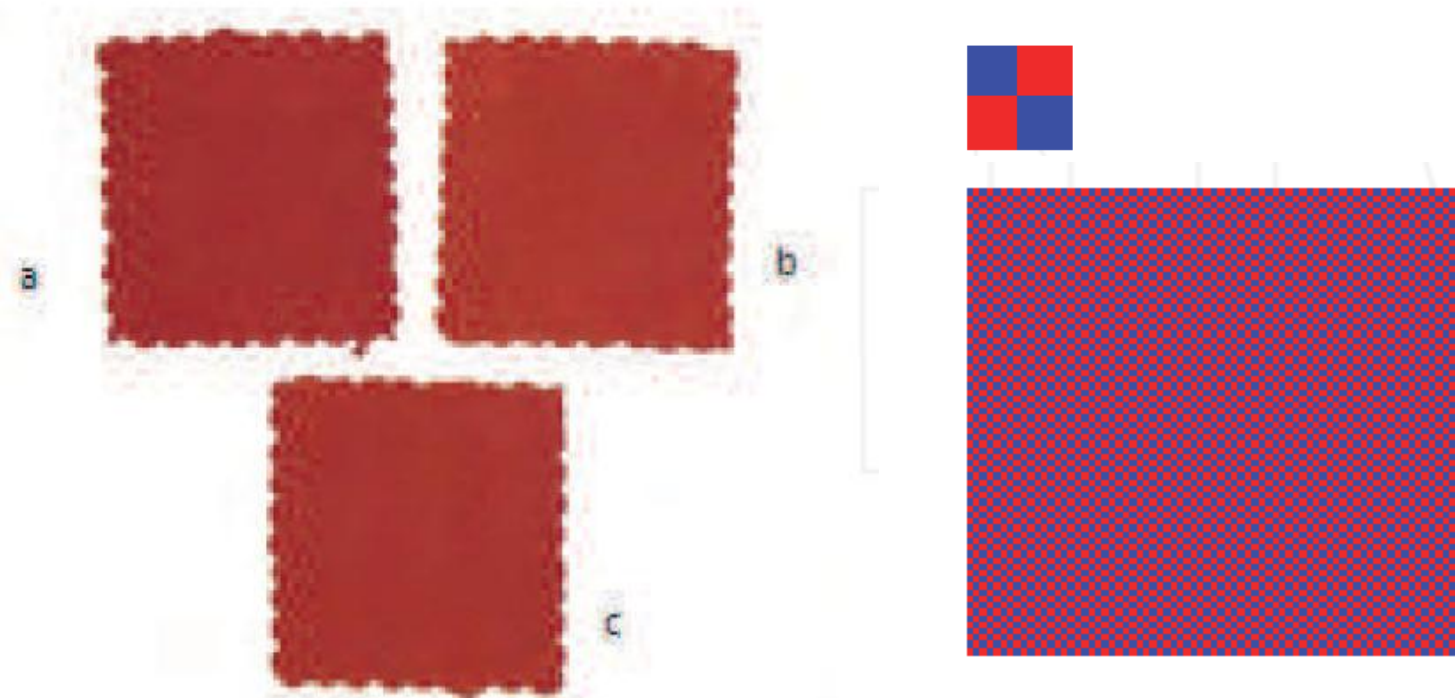
A combination of all three complementary produces black (full strengths) or gray (lesser equal strengths) because all colors are subtracted.

$$1 \text{ Cyan} + 1 \text{ Magenta} + 1 \text{ Yellow} = \text{??}$$



Optical Color Mixing or Partitive Color Mixing

- ❑ Optical color mixing is also known as “Partitive color mixing” because optical combine additive and subtractive color mixing phenomenon.
- ❑ This is an effect method of creating mixtures that appear to vibrate and mix at particular distance when small area of color are juxtaposed.



Optical Color Mixing or Partitive Color Mixing

□ Optical or Partitive color achieved in woven fabrics does not follow the same rules as “Additive and Subtractive color mixing” Because the individual yarns are not completely opaque and moreover the fabric are made from blends of several colored yarn with different weave effects.

