

DEPARTMENT OF FASHION TECHNOLOGY AND
COSTUME DESIGNING

FABRIC STRUCTURE & DESIGN
VI – SEMESTER

P. Andal ,Head ,
Department of Fashion Technology

HONEY COMB WEAVES

Synopsis

- The honey comb weaves derive their name from their partial resemblance to the hexagonal honey comb cells of wax in which bees store their honey.
- These weaves form ridges and hollows which give a cell like appearance to the textures. Usually single cloths are made by progressively lengthening and shortening both warp and weft floats to form ridges and hollows on a square pattern, to give a cellular appearance.
- Both warp and weft threads float somewhat on both sides, which coupled with the rough structure, renders this class of **fabric** readily absorbent of moisture.

TYPES OF HONEY COMB WEAVES

- The weaves are classified into two types
 1. Ordinary Honey Comb or Honey Comb Proper.
 2. Brighton Honey Comb

Characteristics

- ❖ **Honey comb weaves has the following characteristics:**
- ❖ Cell like appearance with ridges and hollows
- ❖ Single line crossing a single line or double line crossing a double diagonal line
- ❖ More warp and weft floats
- ❖ Honey comb fabric has moisture absorbent due to floats.
- ❖ Ordinary honey comb weave constructed with pointed draft and Brighton honeycomb weave Constructed with straight draft system.
- ❖ A reversible fabric having similar effect on both sides.

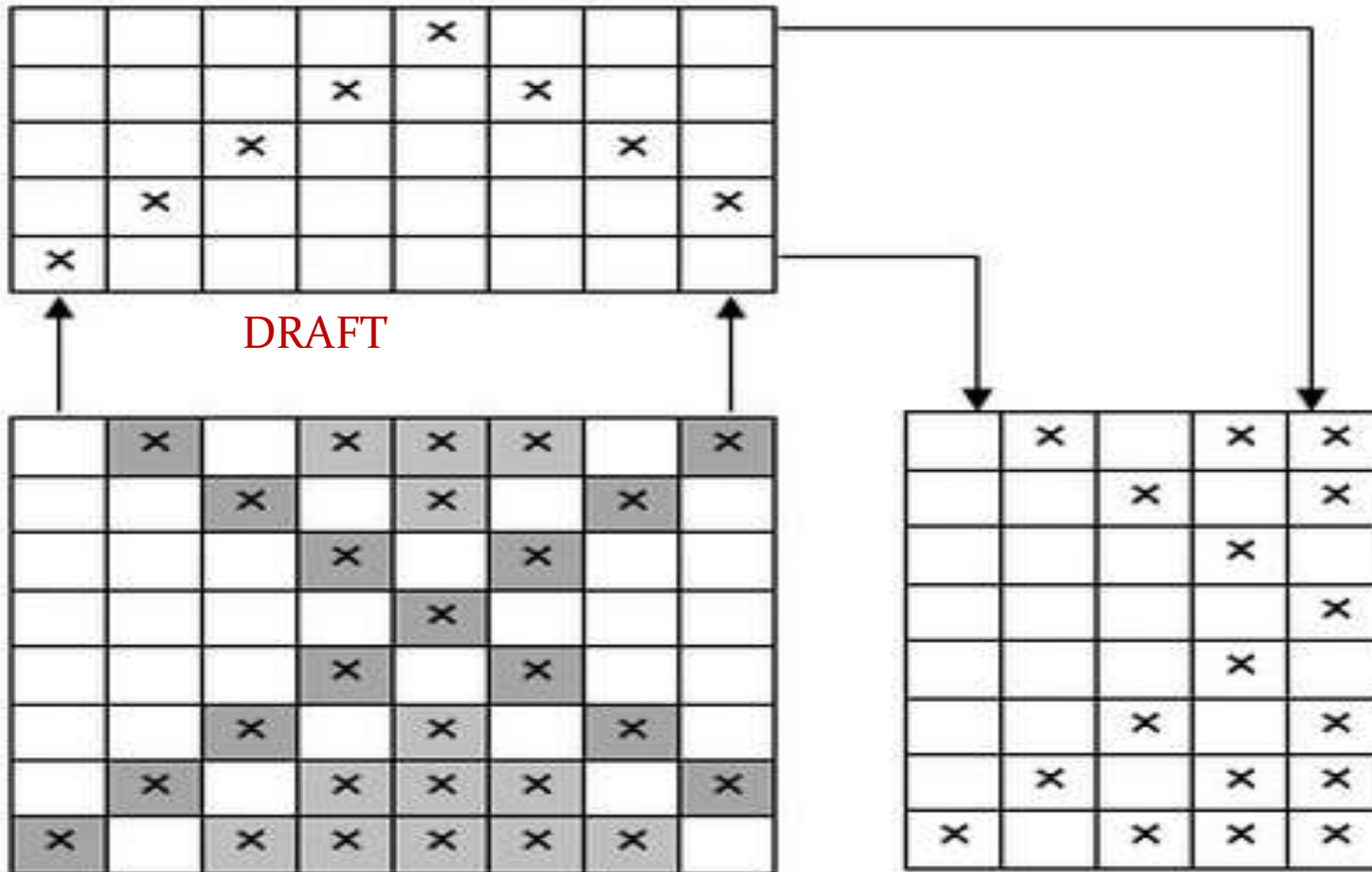
- The smallest repeat size of ordinary honey comb weave is 6 x 4.
- The smallest repeat size of Brighton honey comb weave is 8 x 8.
- The surface of the honey comb weave is rough due to ridges

Steps of Honey comb weave construction

- The stages of constructing an ordinary honeycomb weave are as follows –
Construct a 1/a Z twill starting in the bottom left-hand corner.
- Then a similar one running in the opposite direction and starting one square down from the top left-hand corner,
- so that there will be a clean intersection of the twill lines.
- The one of the two diamonds produced, leave a row of stitching points and then lift the remainder of the diamond solid

- The extended view of the Honeycomb weave is shown in the fig
- prominent diamond shapes on the fabrics created by the long floats of ends.
- Honeycomb weave having a repeat size of 8×8 is shown with their drafting and lifting plan.
- The design can be produced with pointed draft and thus the lifting plan resembles the left hand side of the design. .

Honey Comb Weave

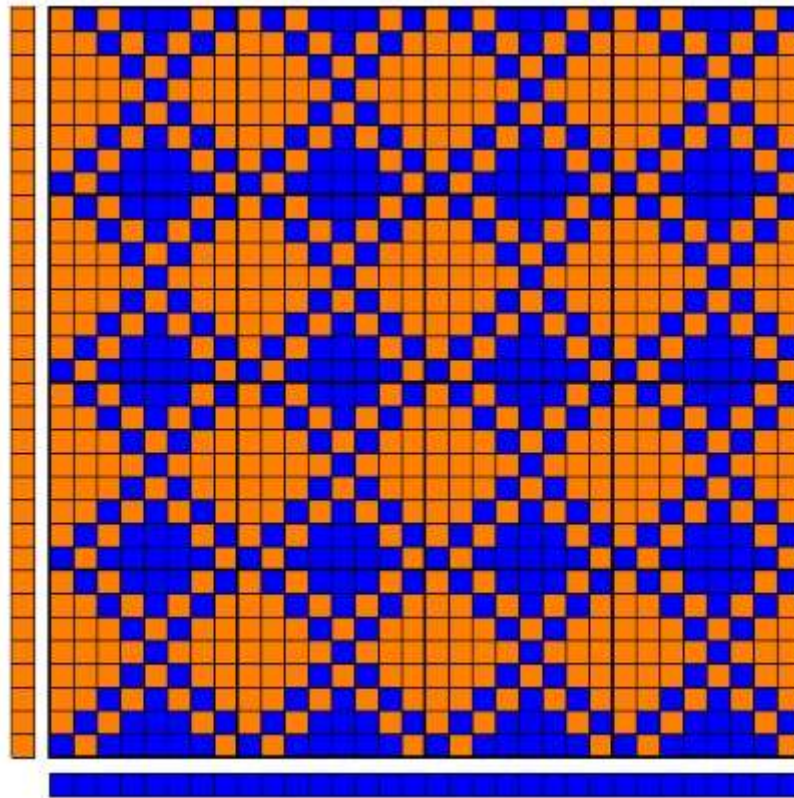


DRAFT

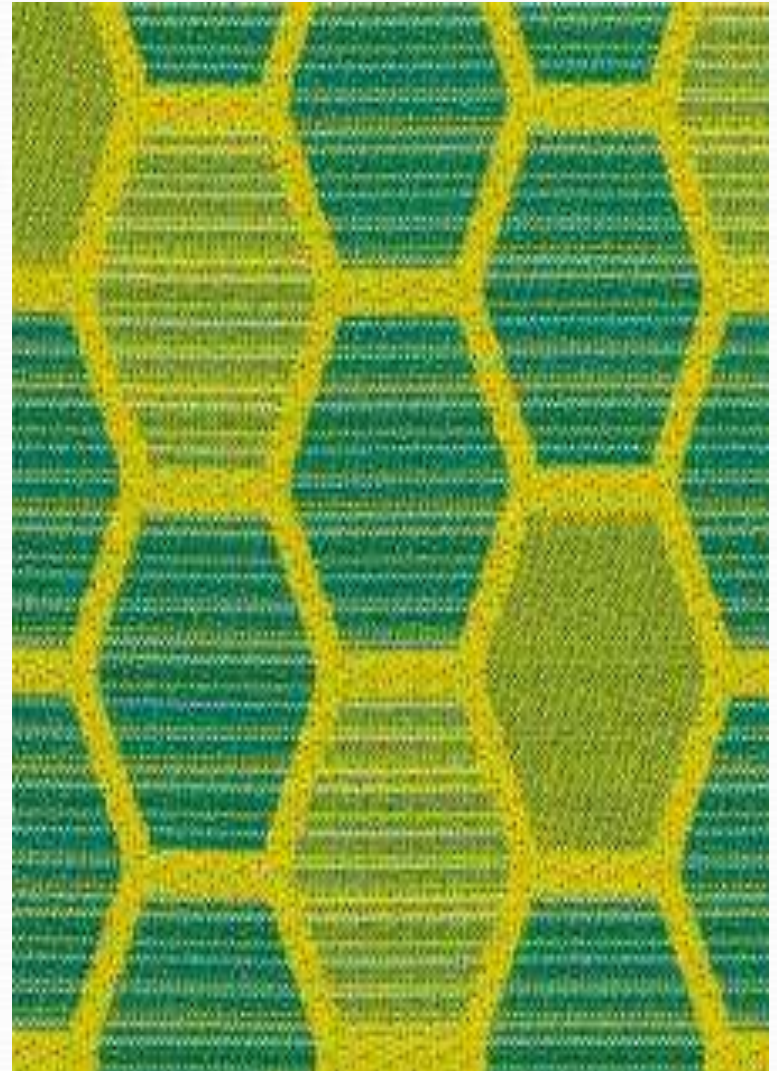
DESIGN

PEG PLAN

HONEY COMB STRUCTURE



Honey comb fabric



HONEY COMB WEAVE - END USES

- ❖ Due to moisture absorption properties these fabrics are suitable for
 - Hand towels,
 - glass cloths,
 - dispensed roller towels and bath mats.
- ❖ Coarse cotton qualities it is also used for quilts and soft furnishings.
- ❖ Finer qualities for shirts and brocades. In conjunction with the newer textured yarns, it is produced in very coarse qualities for cellular blankets.

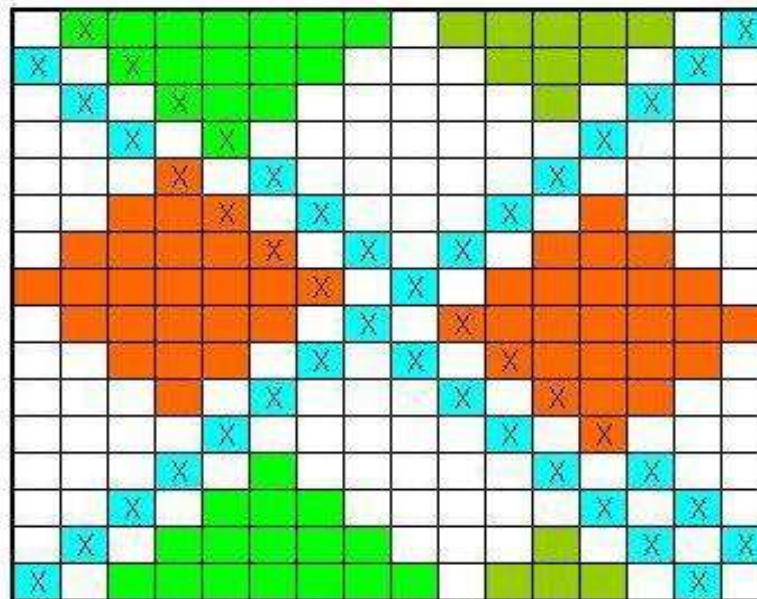
Brighton Honey comb

- Characteristics of Brighton Honey Comb Weave:
- These cloths have face appears different from back side of the fabric. Hence it is non-reversible
- Draft is constructed by straight drafts only
Repeat size of the design, it is a multiple of 4
- Length of longest float is $N/2 - 1$, where N is the repeat size
- A single diagonal line crosses a double diagonal line
- Fabric surface: Rough.

BRIGHTON HONEY COMB STRUCTURE

STRAIGHT DRAFT

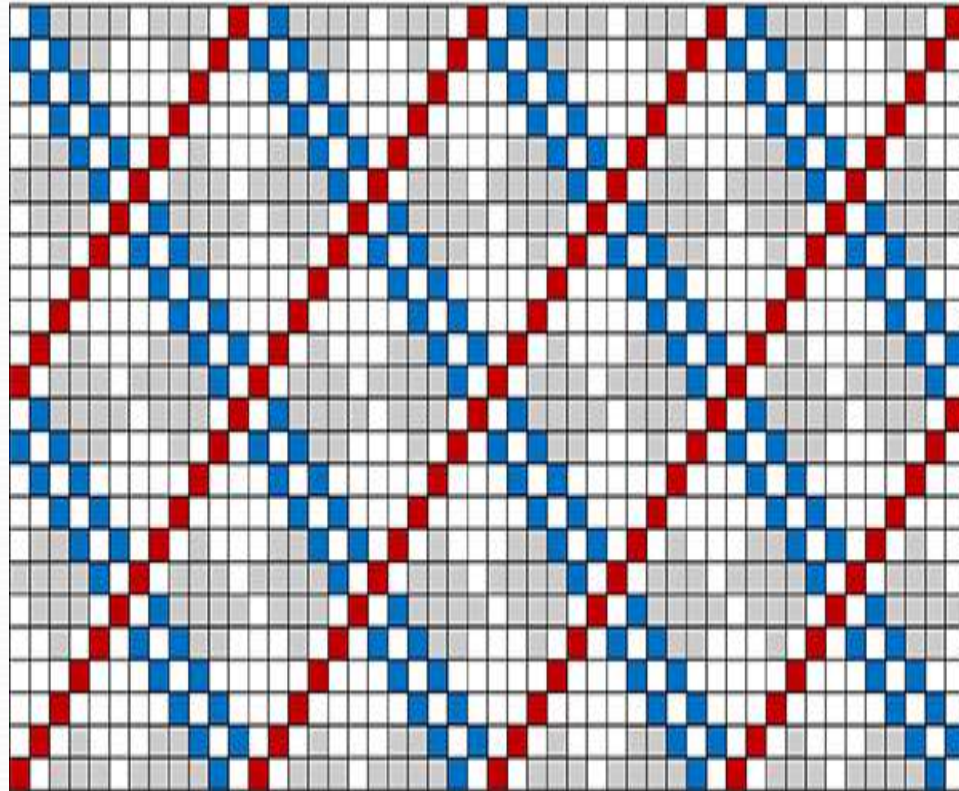
<http://textileweaves.blogspot.com>



BRIGHTON HONEYCOMB (16x16)

PEG PLAN
SAME AS DESIGN

Fabric simulation





Construction of Brighton honey comb weaves

- The construction of Brighton honey comb weaves, a diamond base is first made by insertion of a single diagonal
- Next a double diagonal to cross it.
- Suitable motifs inserted inside the spaces of the diagonals.
- Point to be remembered that the length of the longest float in the motif should not exceed $(N/2 - 1)$, where N is the size of the repeat of the weave.



- **Distinctive features**

- One of the striking characteristics of Brighton honeycomb is that its asymmetry gives it a lively sense of movement, as if the waffle cells were all engaged in a country dance.
- The other important thing to note is that Brighton honeycomb is very clearly two-sided: the face and the back of the cloth are quite different. You can see this very clearly if you use different colors for the cell interiors and outlines, as I have done in this 12-shaft scarf.

QUALITY PARTICULARS OF HONEY COMB WEAVES

Cloth quality particulars for both ordinary and Brighton honey comb weaves

For a heavy cloth

Warp - 2/6s cotton

Weft - 2/6s cotton

Ends/inch - 50

Picks/inch - 20

For a lighter cloth,

Warp - 25s cotton

Weft - 16s cotton

Ends/inch - 88

Picks/inch - 82

- End uses:
- Although the weave is not as popular as the ordinary honeycomb, it is used in
- similar qualities for more decorative end uses such as quilts and brocades and in some
- cases, hand towels and glass cloths. It is also suitable for crockery towels haracteristics of Brighton Honeycomb Weave

Review Questions.

1. What are honey comb weave?
2. classify the honey comb weave?
3. Mention the characteristics of honey comb weave?
4. Mention the characteristics of Brighton honey comb weave?
5. Give the standard cloth quality particulars of honey comb weave?
6. Give the standard cloth quality particulars of Brighton honey comb weave?