

Pattern language

- ◇ Pattern language consists of a series of symbols which all sewers can follow to lay templates out and assemble products correctly.
- ◇ Failure to follow pattern language can lead to an inferior end product.
- ◇ Tailors' tacks are used to transfer critical placement points by hand.
- ◇ The straight of grain on a fabric runs parallel to the selvedge edge and runs the length of the fabric. Accuracy in applying this rule is critical if the end product is to drape or hang correctly.
- ◇ The strength in a fabric is along the straight of grain line.
- ◇ Bias cutting means laying the templates out diagonally on the fabric. This allows more stretch in the final product.
- ◇ The bias allows garments to hang or drape better, and fit is also improved. Lay plans can be wasteful.
- ◇ All fashion and textiles products are made from several shaped pieces. A lay plan maps out the most economical way to cut out all the pieces.
- ◇ On plain fabrics, templates can be placed in opposite directions to make best use of the fabric.
- ◇ On one-way patterns and pile fabric all templates must be laid in the same direction to avoid mismatching patterns and colour shading. More wasteful, but necessary.

Construction processes

Finishing edges

- ◆ Hems are used to finish the lower edges of garments including sleeves and trouser legs.
- ◆ Facings are used to finish shaped edges such as necklines.
- ◆ Binding conceals raw fabric edges and can also be used to join and finish a seam.
- ◆ Piping consists of a covered length of cord that is inserted into a seam or along an edge. It is both decorative and functional.

Joining seams

- ◆ Different fabrics require different types of seams to join fabrics together. Some seams are stronger than others.
- ◆ A plain seam is the most common seam type. The raw edges on the seam allowance need to be neatened, for example overlocked or a zig-zag stitch.
- ◆ The standard seam allowance in textiles is 1.5cm or 15mm.
- ◆ A French seam conceals all raw edges and should be used on sheer fabrics.
- ◆ Double-stitched seams are strong, and so should be used on heavy-duty products.

Shaping techniques

- ◆ Various shaping techniques are used to shape and add fullness to products - essential in allowing garments to fit a body.
- ◆ Shaping methods include: darts, princess line seams, gathers, pleats, tucks, casings, elastic.

Machinery used in industry

- ◆ Hot notch markers are used to transfer critical points on a template such as a pocket placement. They bore and seal a tiny hole through the fabric to mark the critical point.
- ◆ Fabric spreading machines automatically lay out several layers of fabric on long cutting tables.
- ◆ A lay plan designed using a CAD program is sent to the cutting table and is automatically cut out with laser cutters.
- ◆ Straight, round or band knives are used for hand cutting around templates where laser cutting is not an option.
- ◆ Automated die cutters are used to cut small complex shapes from several layers of fabric such as the small pieces found in a bra.
- ◆ Laser cutters can cut intricate shapes in fabric that cannot be done by hand. Laser cutters can also engrave designs onto fabric.
- ◆ Additive manufacture is used to print 3D shapes, layer by layer, to create a prototype product or finished products such as components and accessories.

CAD/CAM in Industry

- ◆ CAD - any form of digital design for overall styling, embroidery, laser cutters, print designs, lay-planning and pattern grading.
- ◆ CAM - automated operations including 3D printing, fabric printing, embroidery machines, fabric spreading and cutting machines, laser cutting.