

Module 4

UNIT 3

ADVANCED TAILORING
TECHNIQUES FOR RE-
STYLING GARMENTS

Duration: 40 hours



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Overview of the Unit

In this Unit you will learn to take accurate measurements, how to create and alter patterns to upcycle garments, and apply draping techniques to design new garments from old ones by reshaping and restructuring fabric directly on a mannequin. Additionally, you will learn fitting their upcycled clothes to different body types and to make structural alterations in garments.

Expected Learning Outcomes

By the end of this Unit, you will be able to do:

- 1. Take accurate measurements
 - Body measurements : standard and particular
 - Fitting for different types of body
- 1. Pattern cutting
 - Create and alter patterns for upcycled clothes
 - Draping techniques
- 1. Advanced re-styling techniques
 - Altering a garment's: Structure, Volume or Silhouette

Pre-requisite knowledge

Some experience in using patterns would be welcome



Estimated Reading Time
15 minutes

Learning Objective

The goal of the Unit is to equip students with advanced tailoring techniques, focusing on fitting, pattern making, and structural garment alterations.



Target Audience

This Unit targets people/learners/entrepreneurs, young with legal age and adults including: NEETs, low skilled adults looking for a job, professionals already working in the artisanal tailoring area, students graduated by Secondary Schools with fashion design and/or textiles clothing production curricula. A special regard will be given to women with economic fragilities or due to their refugee and migrant condition.

Key concepts

fitting, pattern cutting, draping, structural garment alterations

For this Unit's practical part, you will need a sewing machine, pins, chalk or similar, fabric scissors, paper pattern, measuring tape, pattern making rulers, deadstock fabric and second-hand garments, tread for sewing machine and hand needles

Necessary equipment





03

Teacher's Profile

Expertise in advanced tailoring techniques, plus specialized skills in working with different fabric types

03

Methodology

Small theoretical explanations with demonstrations of hand on pattern cutting, draping and fitting techniques as well as advanced garment alterations, followed by practical exercises..

Overview

Body Measurements

- Standard and Particular measurements
- Taking accurate body measurements
- Fitting for different body types

Pattern Cutting and Draping

- Create and Alter patterns for upcycling
- Draping Techniques for upcycling

Fabric Manipulation - Advanced Garment Alterations

- Altering a garment's structure; volume; silhouette using fabric manipulation





Body Measurements

01

Standard measurements

Every flat pattern is created according to a standard measurements chart.

By using standard measurements, you can reduce clients size uncertainty. But while they can help us accurately find a size that may fit on a customer, they're not a perfect nor exhaustive tool for fashion tailoring.

This measurements cannot account for individual fit preferences (loose vs. tight) or differences in fabric (stretchy vs. stiff).

02

Particular measurements

When using patterns to create garments you may need sometimes to work with particular measurements to make custom clothing. In this case you will need to take your client's particular measurements but also work with a standard size chart and combining the most similar standard size with his own particular measurements.

This way you can work with standard patterns and be able to fit a standard size into a particular figure.

Taking accurate body measurements

Basic Notions

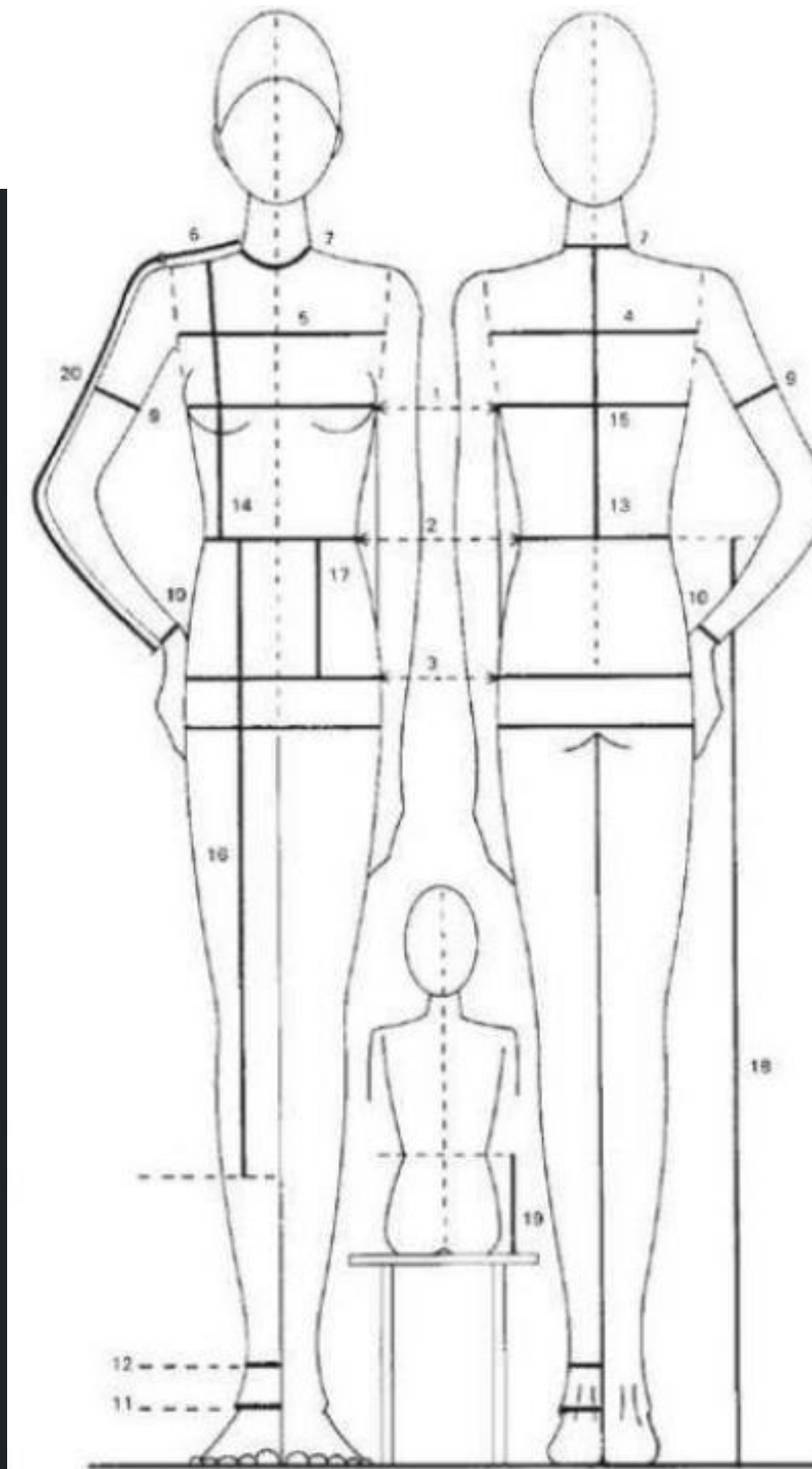
The list of individual measurements should be carefully checked against the list of standard measurements and any great deviation accounted for.

Bust - measure the figure at the fullest point of bust, do not allow the tape to fall at the back.

Waist - take this measurement round the waist, make sure it is comfortable. After taking the waist measurement tie a string firmly round the waist; this allows the following vertical measurements to be taken accurately.

Hips - measure the widest part of the hips approx. 21cm from the waistline.

Back Width - measure the back width 15cm down from the neck bone at the centre back. Measure from armhole to armhole.



Taking accurate body measurements

Basic Notions

Chest - measure the chest 7cm down from the neck point at the centre front (armhole to armhole).

Shoulder - measure from the neck to the shoulder bone.

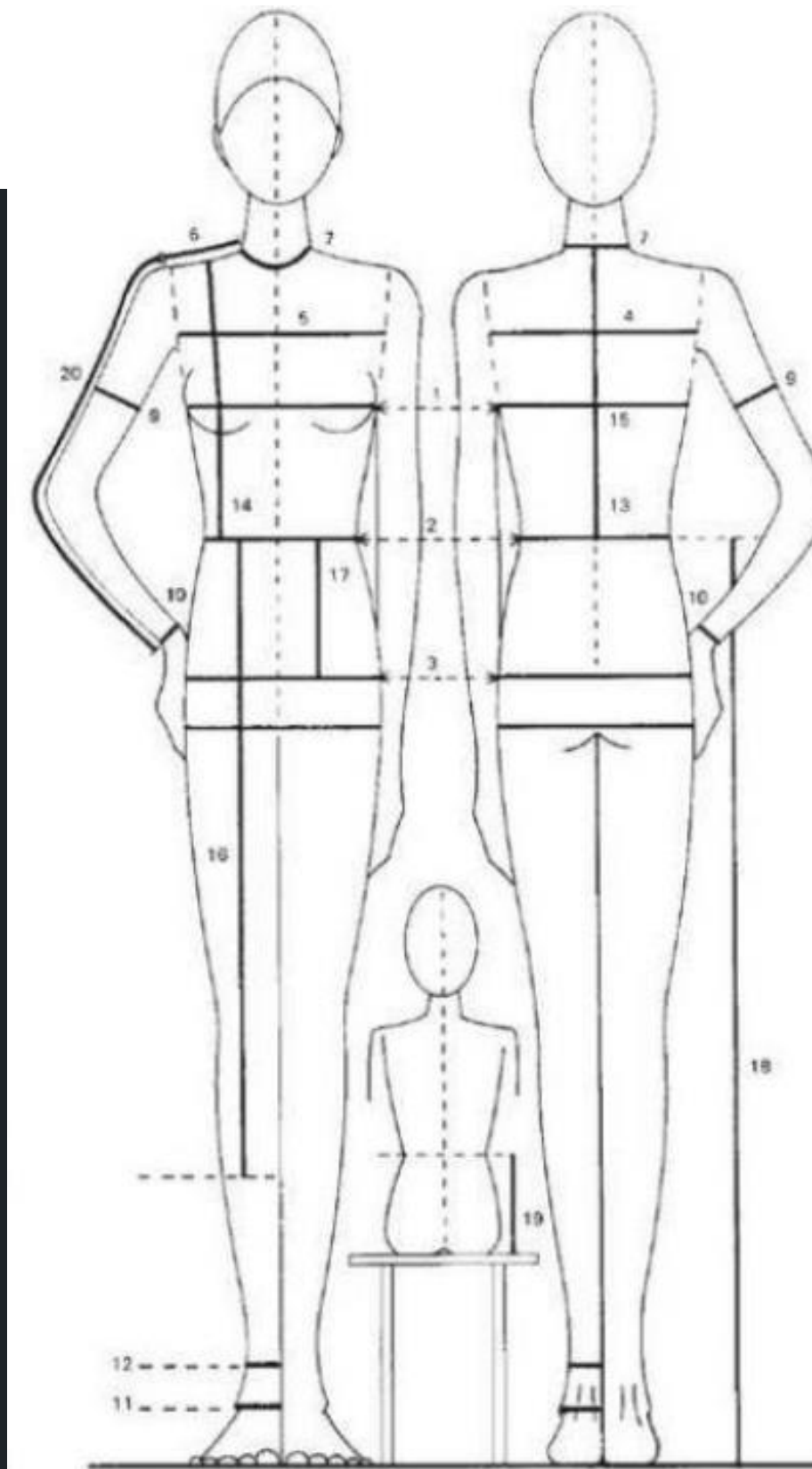
Neck Size - measure the base of neck touching front collar bone.

Dart - standard measurement (use Bust to find the correspondent measurement on the standard table)

Top Arm - the arm must be bent, measure the biceps.

Wrist - take the wrist measurement with slight ease.

Nape to Waist - measure from the neck bone at the centre back to the string tied around the waist.



Taking accurate body measurements

Basic Notions

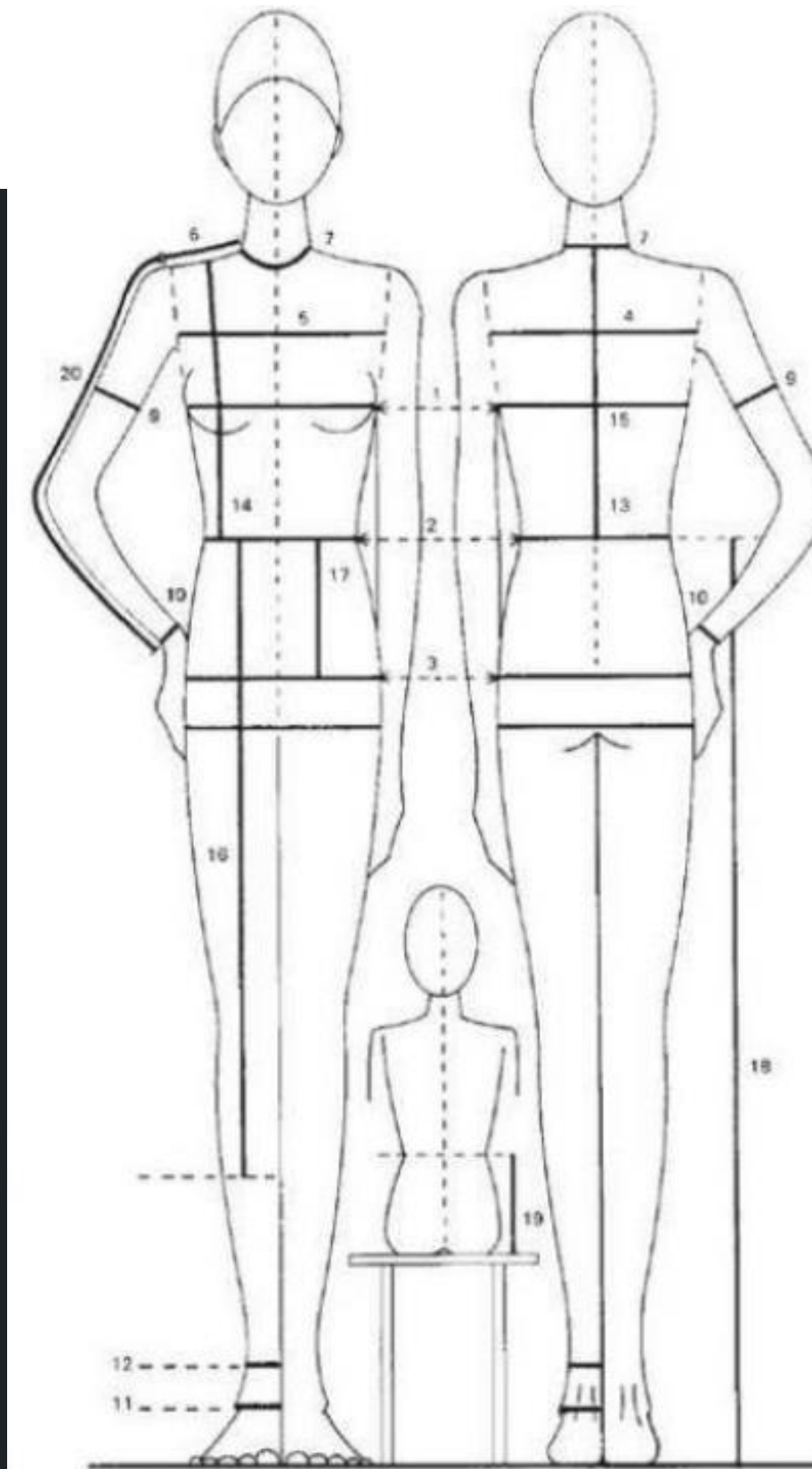
Front Shoulder to Waist - measure from the centre of the front shoulder over the bust point to waist.

Armhole Depth - standard measurement (use Nape to Waist to find the correspondent measurement on the standard table)

Waist to Floor - measure from waist to floor at the centre back.

Body Rise - the subject should sit on a hard chair. Take the measurement at the side from the waist to the chair.

Sleeve Length - place the hand on hip so that the arm is bent. Measure from the shoulder bone over the elbow to the wrist bone above the little finger.



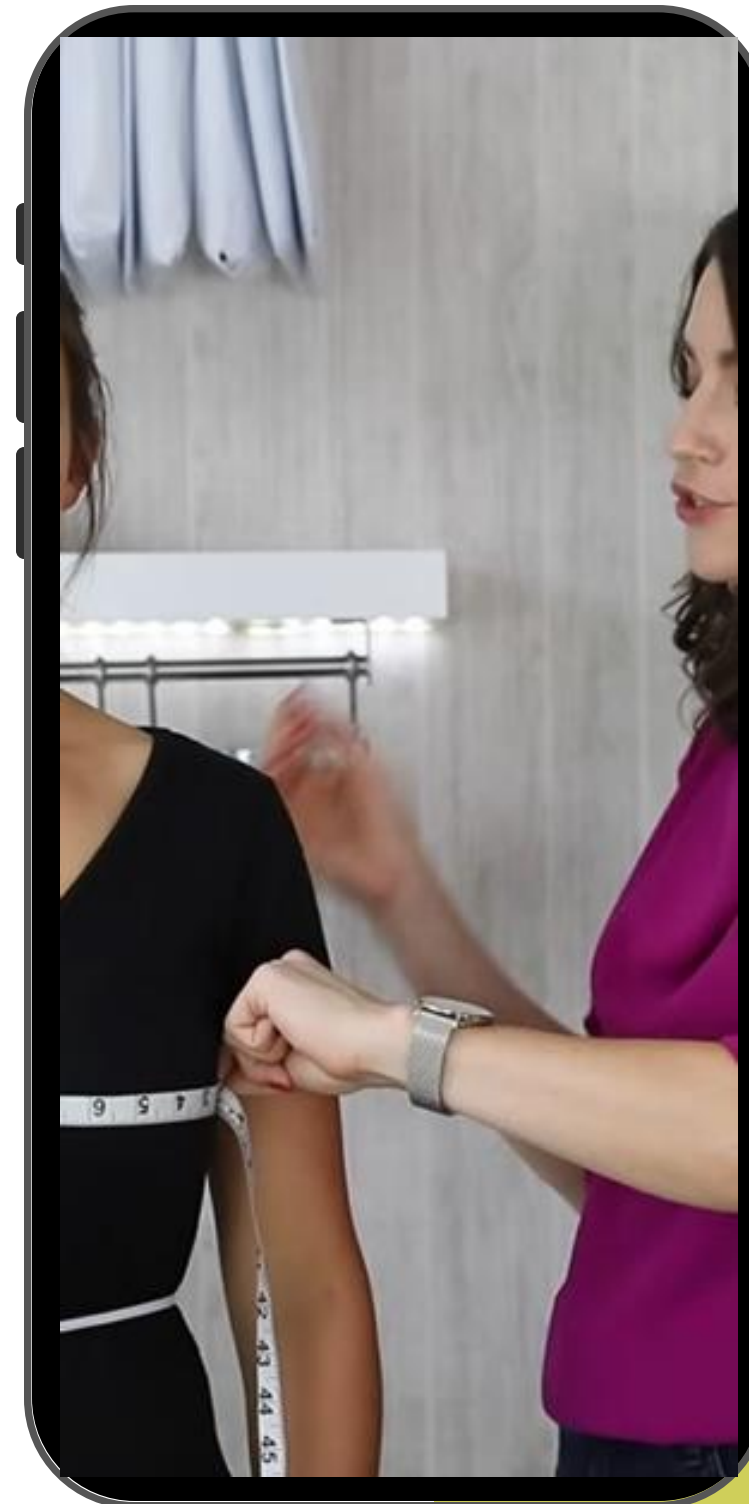
Taking accurate body measurements

In this video you will watch how to take body measurements. This is the perfect video for learning how to take fitting, dressmaking and sewing measurements. This video also shows us some tips and shows you how to measure circumference as well as length measurements for the body, legs and arms.

Watch here



<https://www.youtube.com/watch?v=oOQMeXW8ewc>



Fitting for different body types

Great subtlety of cut and fit are required when creating simple, yet fashionable, clothes which will fit the body. Fashions that depend on a perfect figure often have a very short life. Easy fitting shapes can fit a wider range of figure types and can be made in a smaller range of sizes (e.g. small, medium, large).

Good designs that work with different figures can be more easily adapted and consequently can achieve a more lasting use.



Fitting for different body types

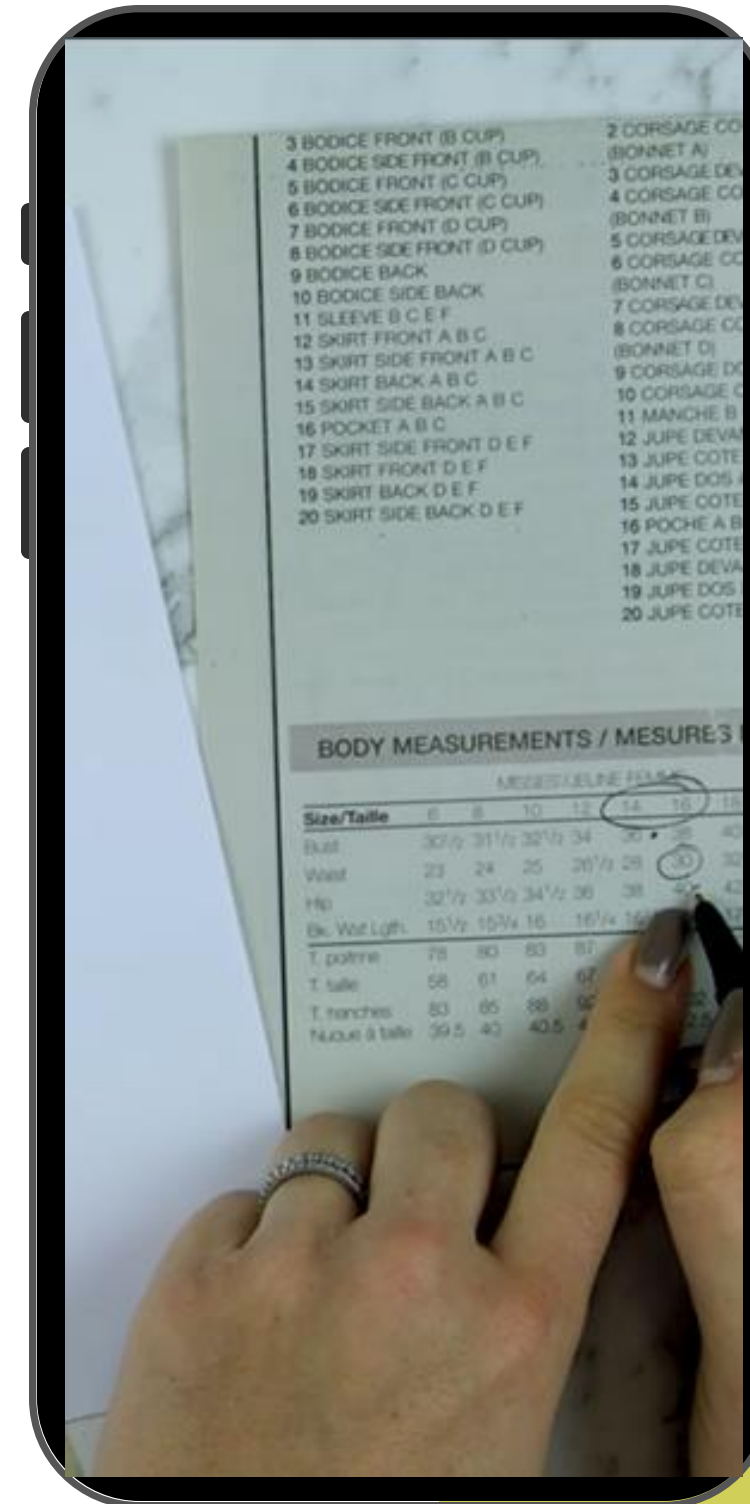
This video shows us three examples of garments, each with a different amount of ease: 0cm ease, 4cm ease and 9cm+ of ease, so that you can see how they sit on the body.

I also share how to find how much ease a dressmaking pattern has and how to work out how much ease you would personally like in a pattern.

Watch here



<https://www.youtube.com/watch?v=PCByJe5cgTc>



Fitting for different body types



Problem	What to look for	Solution
High Bust or Low Bust	strain and wrinkles show across high bust line or fabric sags on normal bust line and pulls at dart point.	Mark dart point at the higher/lower level required, resew dart to this point.
Hollow Chest	the fabric sags across the chest area.	Determine the amount to be removed. Lower front neck and shoulder point this amount.
Hips larger or smaller than standard on a dress	cut up the side seam of the dress, work out the difference between your hips and the standard hips for your bust size. Add or subtract one quarter the difference to back block and one quarter the difference to front block from hip line to hem line. Shape in to meet waist point.	
Large Abdomen or Buttocks	garments pull across the figure, drag at the crotch in trousers, or a skirt hem will rise at centre back or centre front.	Add required length to the centre back or centre front waist line and at crotch on trousers. If the garment still distorts extra width can be inserted by slashing the pattern vertically
Sway Back or Front below waist	trousers or skirts sag just in front	Reduce the 'waist to hip' length the required amount at centre back or centre front.

Pattern Cutting and Draping

01

Pattern Cutting

Flat pattern cutting is the method of creating a 2-dimensional pattern on a flat surface. Typically using paper to create the pattern, the pattern cutter will usually use blocks - a standard pattern based on specific measurements - to draft or draw out the pattern.

02

Draping

Draping is a 3D method to bring a pattern to life – using calico fabric, or in some cases the final fabric. To drape on the stand the pattern cutter will use a mannequin to manipulate the fabric around it and use pins to hold it together until they get the desired result. By doing this, they will get more of an idea of how the fabric will hang and react to the pattern they want to create.

Pattern Cutting

Basic Notions - Types of Pattern

Three different types of pattern are used by designers when drafting patterns. It is necessary to know the difference.

The Block Pattern - is the basic pattern that is used as a basis for all adaptations. The block pattern is traced or 'wheeled onto pattern paper to produce the working pattern.

The Working Pattern - is used for marking out the basic style lines and design features (e.g. pockets, collars, buttonhole placings). Pattern sections are traced off and may be further adapted. Complicated styles may need a number of trials at this stage.

The Final Pattern - is the pattern from which the garment will be cut. It must be clearly marked with all the information required for making up the garment. Before commencing any adaptation the following points should be considered.

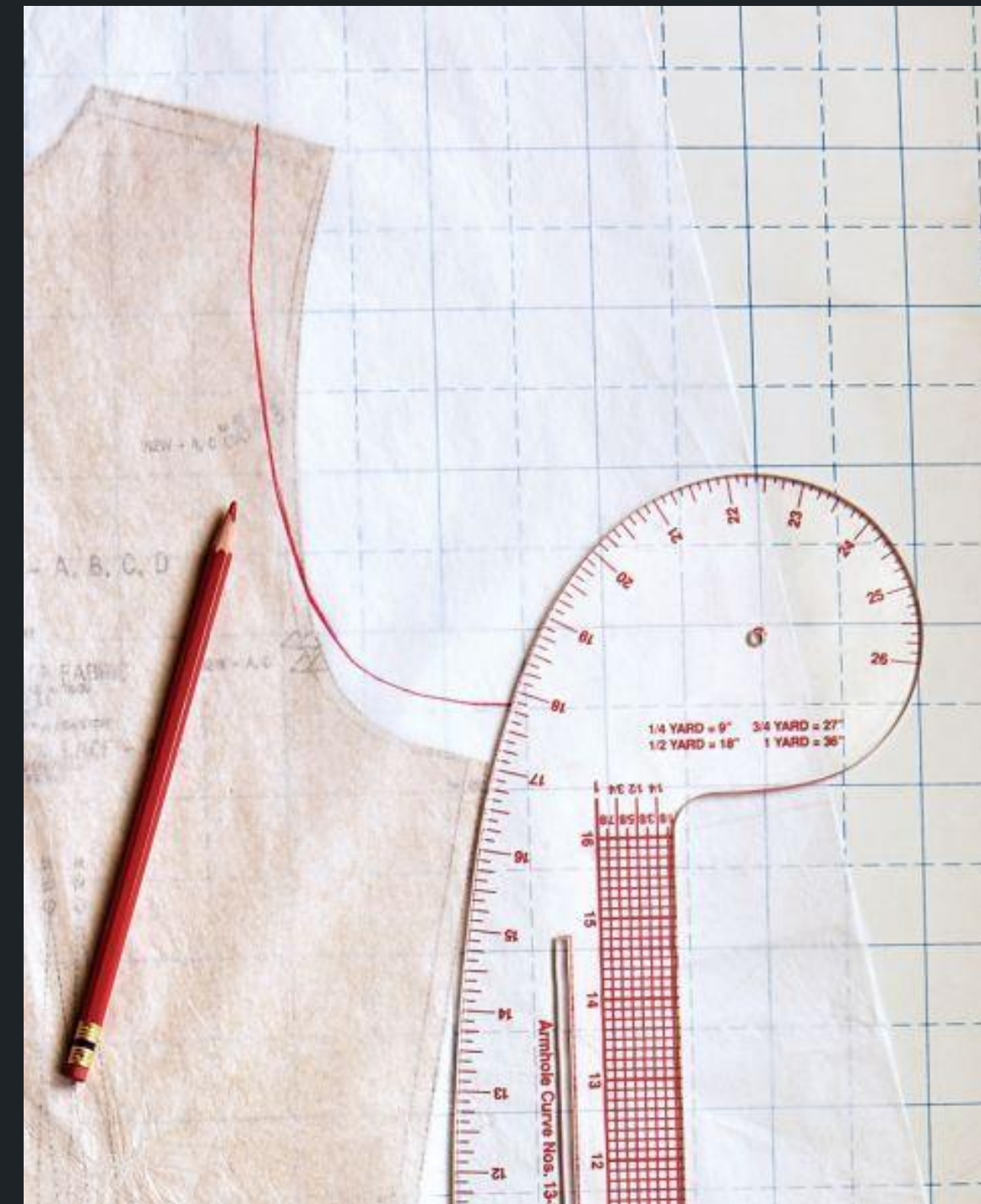
1. Choose the correct blocks; (e.g. if a baggy trouser style is required use an easy fitting trouser block).
2. Decide the length; lengthen or shorten the block.
3. Decide if any easy fitting is required;

Pattern Cutting

Basic Notions - Curves and Lines

When drafting patterns it is essential that lines and curves are smooth, any uneven lines will show as unsightly bumps on the finished garment.

1. When a curved line meets a straight line it must run into it smoothly.
2. Neck and armhole curves must be perfect. Make sure all design curves are beautifully shaped, especially where they meet a fold line. French curves are very useful for drawing curved lines.
3. Pattern pieces that are 'cut and spread' can give an uneven outline. Draw it as a smooth even line.
4. When a dart is machined the base of the dart is drawn upwards; this creates a 'V' shape. Compensate for this by shaping the base of the dart downwards on the seam (4).
4. When the working pattern is completed the darts and seams of a close fitting bodice can be shaped to give a better fit.
5. To avoid sharp points at the bust shorten the length of the bust dart and front waist dart by 2cm.



Pattern Cutting

Basic Notions - FORM



COMPOSITION- The pattern of a garment is normally composed by two or more components. Where the components are joined the pattern will have a seam, but the original shape remains the same. This will make the a two dimensional pattern to be transformed in a three dimensional garment.

SHAPE - A garment can fit closely to the figure, be semi-fitting or easy fitting in shape. This is achieved by using the patterns with or without shaping. Some examples of changes of pattern shape are: widening the outline by inserting extra body ease, hidden shapes adding pleats and godets, puff and bell shapes adding width to the design by tucks or gathers and cone shapes by widening the hem line only. The insertion of darts in the right place will give the garment extra fitting to the body.

MOVEMENT - When combining two components to create another (like adding part of the bodice to the sleeves to make a raglan sleeve) be aware that the body must be able to move. It is only on wide full garments that very simplified shapes can be used.

BALANCE - When adding pockets, peplums, panels flaps etc. consider carefully the balance of the design.

EASE - Ease is the room in the garment that allows you to move, sit and breathe, it's the difference between the body measurements and the final garment measurements. Patterns are all designed with different amounts of ease, depending on the design and the function of the garment. (e.g. easy fitting shirt 5 to 7 cm ease; jackets and coats 10 to 20 cm ease)

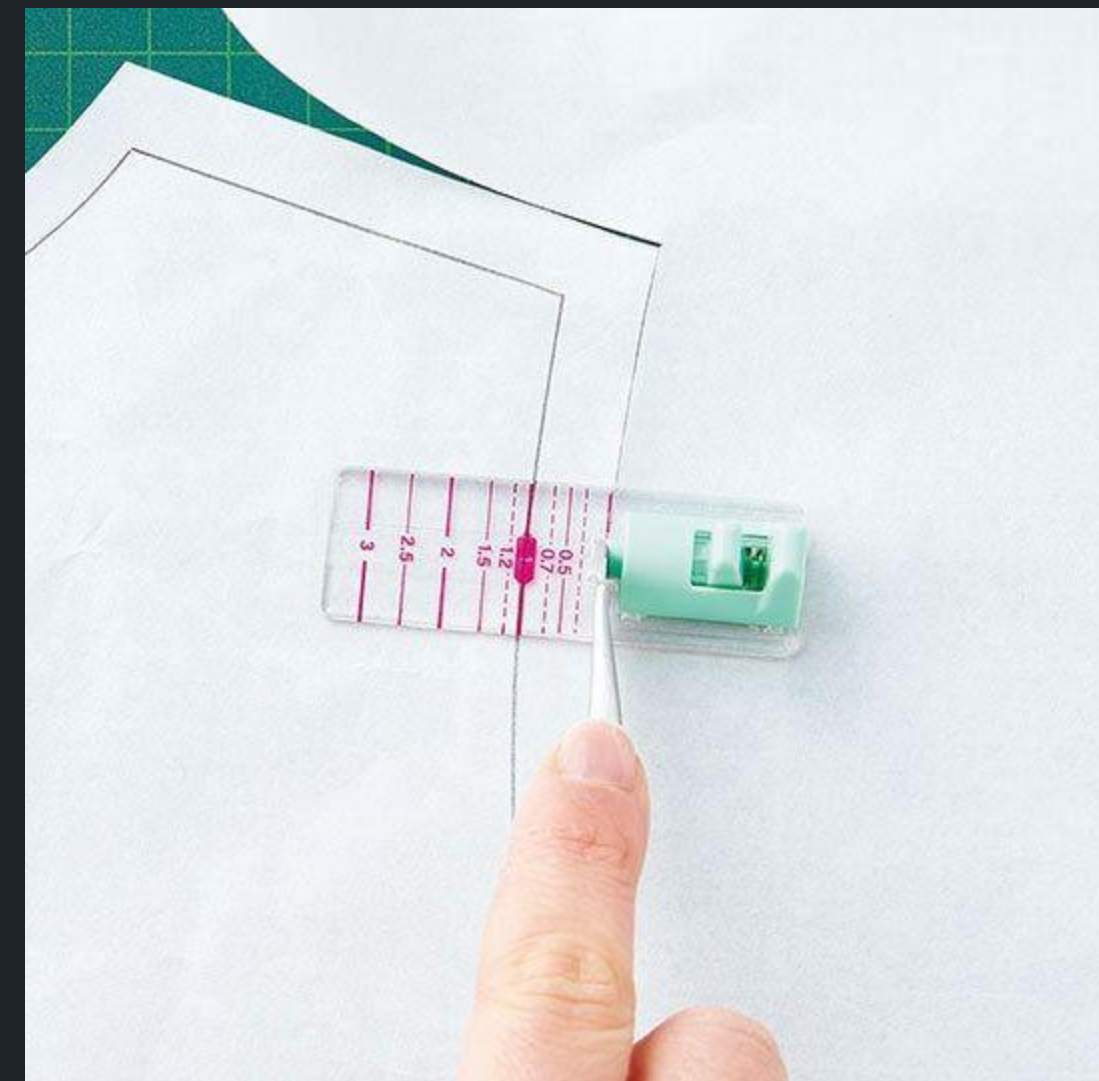
Pattern Cutting

Basic Notions - Seam Allowance

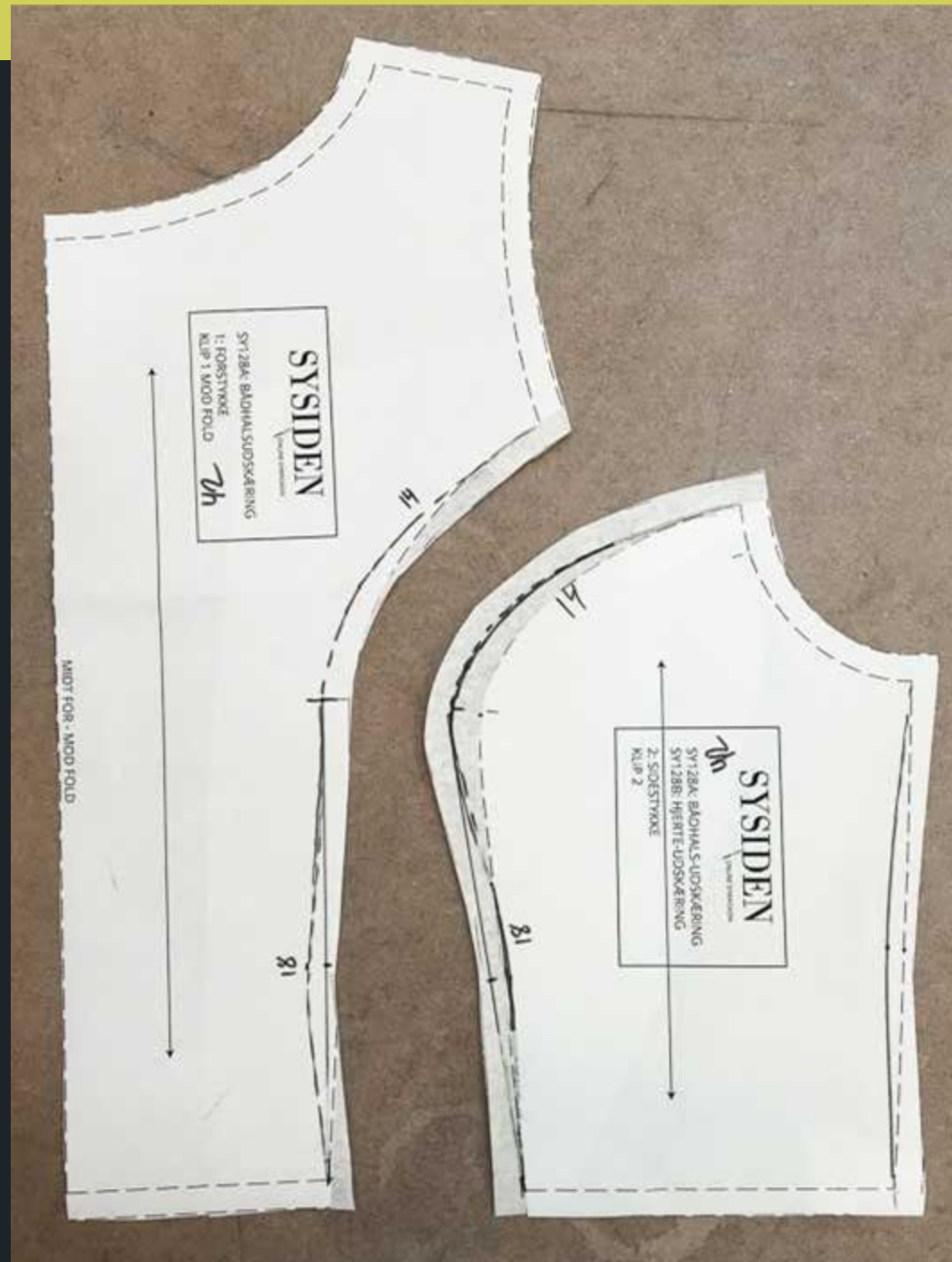
It is better to work with nett patterns (those without seam allowance), especially when drafting complicated styles. The seam allowance can always be added by the end of the pattern making.

Seam allowance widths vary with the type of manufacture and garment. The following examples are a general guide:

- Basic Seams (side seams, style seams) - 1 to 1.5 cm.
- Enclosed Seams (collars, cuffs...)- 0.5cm.
- Hems depth depends on shape and finish - 1 to 5 cm
- Decorative seams usually require more seam allowance.
- Fabrics which fray easily will require wider turnings especially around facings and collars.
- The width of the seam allowance must be marked on the pattern by lines or notches.
- No seam allowance is required on a fold line.
- It is important that seam allowances added to the pattern are accurate and clearly marked



Pattern Cutting



Basic Notions - Pattern Instructions

To enable the garment to be made up correctly the following instructions must be marked on the pattern

1. The garment name/style/model
2. The name of the componente
3. Centre back and centre front
4. The number of pieces to be cut
5. Folds
6. Balance marks these are used to make sure pattern pieces are sewn together at the correct points
7. Seam allowances these can be marked by lines round the pattern or notches at each end of the seam. If a pattern is nett (has no seam allowance), mark this clearly on the pattern
8. Construction lines these include darts, buttonholes, pocket placings, tucks, pleat lines, decorative stitch lines. These lines are marked on the pattern or shown by punch holes
9. Grainlines to achieve the effect you require, you must understand the principle of placing a pattern on the correct grain of the fabric. Mark the grain line with an arrow. Mark the grainlines on the working pattern before it is cut up into sections. Once in pieces it can be difficult to find the correct grain on complicated pattern sections
10. Pattern size

Pattern Cutting

Basic Notions - Fabric Grain

All woven fabrics have warp threads and weft threads.

The warp threads run parallel to the selvedge of the fabric and are the strongest, the weft threads run across the fabric and are weaker.

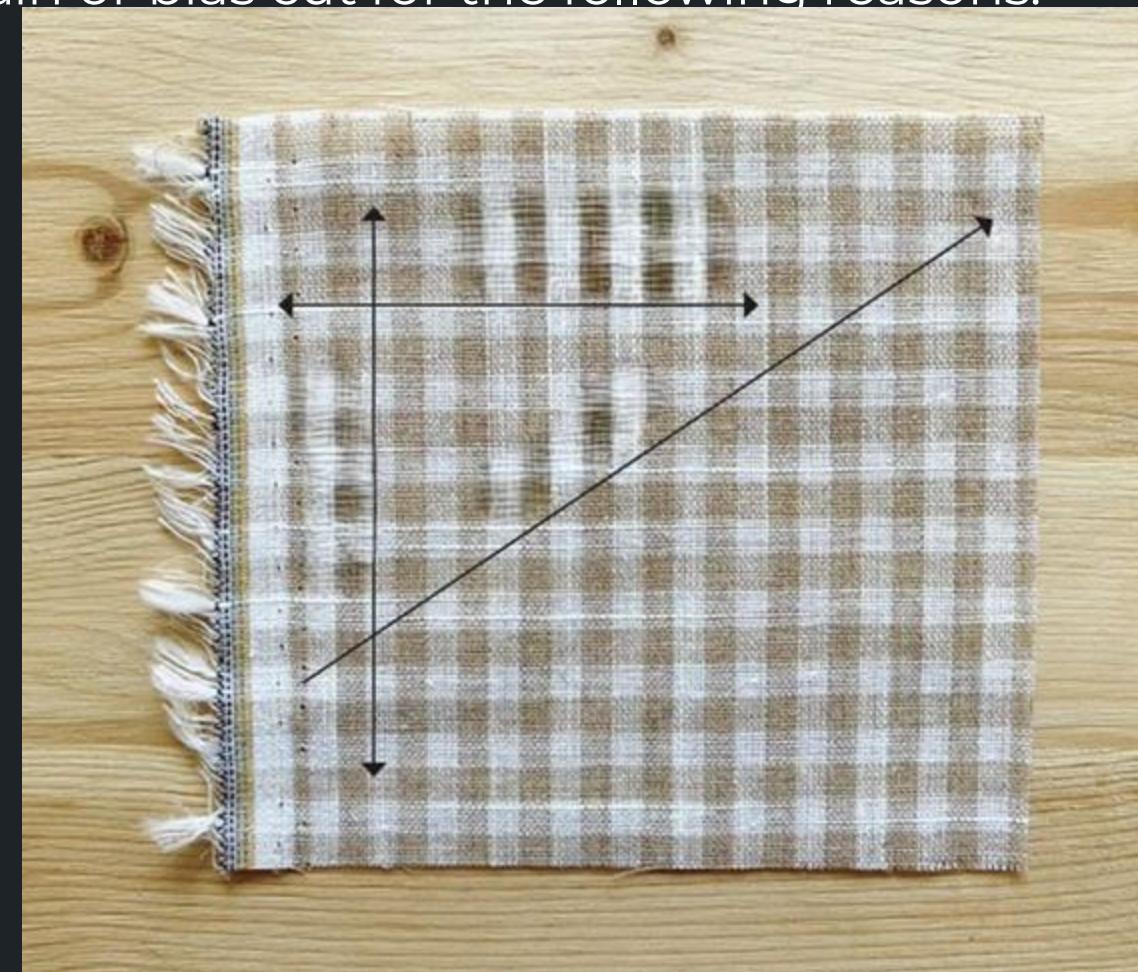
It is good practice to have the vertical lines of the pattern running parallel to the warp threads, this means to cut on the grainline. Nevertheless pattern pieces can be cut on the cross grain or bias cut for the following reasons:

Design Features - stripes and checks cut at different angles can produce interesting designs.

Fabric cut on the diagonal (bias cut) has **natural stretch** characteristics; this allows the pattern to be cut with less ease. The design then fits the figure closely but remains comfortable.

Drapes and softly flaring skirts hang better when cut on the bias. The effects of cutting that way are increased by the choice of fabrics, like crepes, satins and soft woollens.

Once the grain has been decided and marked on the pattern, always check that you have laid it on the fabric correctly before cutting out, or a distorted garment will be produced.

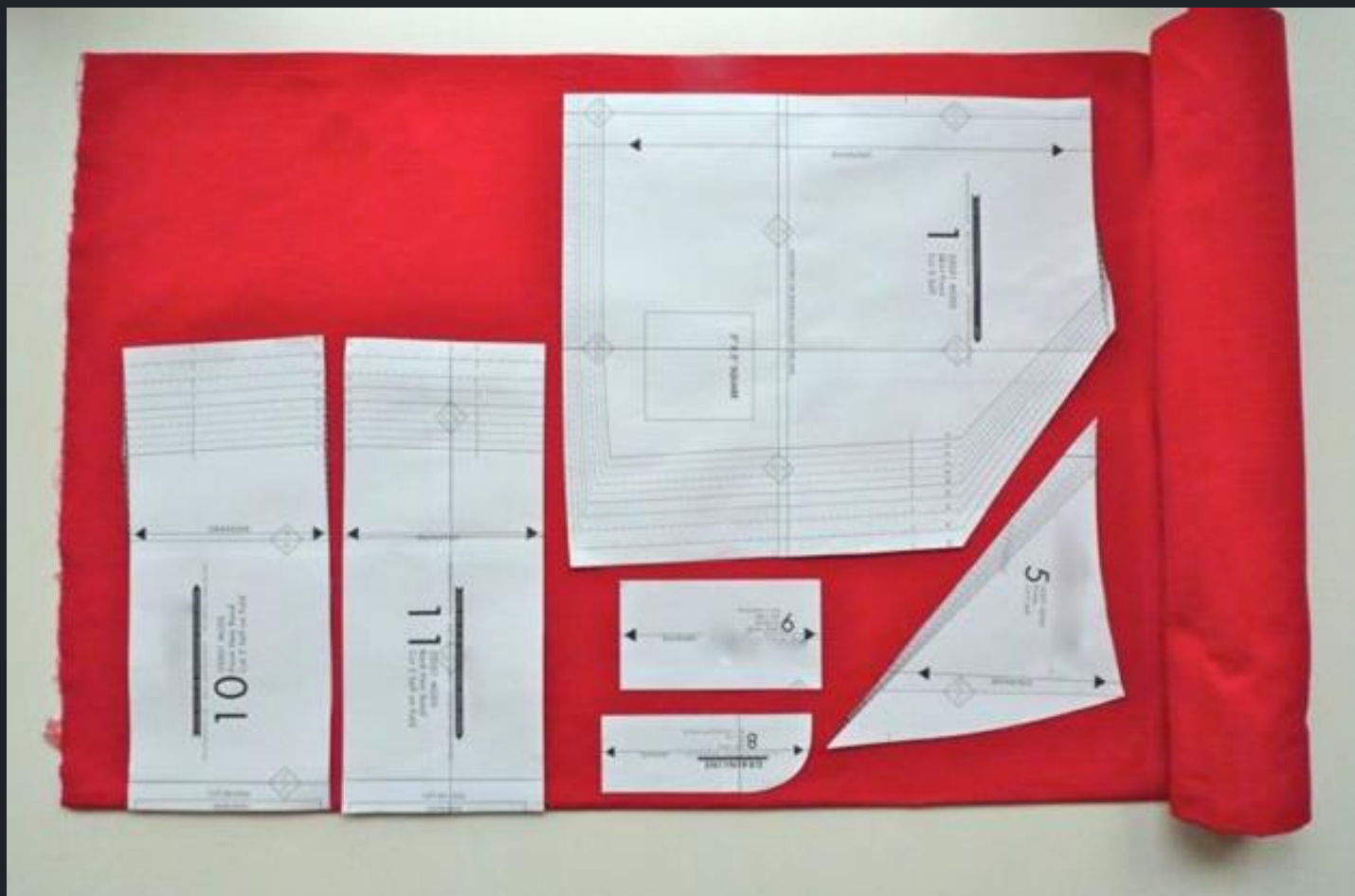


Pattern Cutting

Basic Notions - Lays

A 'lay' (or marker) is the plan of the pattern pieces as they are placed on the fabric.

Fabrics which have to be cut in one direction are usually very uneconomical, fabrics which allow the pieces to be laid in both directions will reduce fabric costs.



The practice of saving fabric by laying pattern pieces across the fabric or 'off the grain' should not be attempted as this practice can ruin a garment.

If working with digital patterns you can lay planning or marker making by computer. This method increases efficiency, that is the percentage area of fabric used by the pattern.

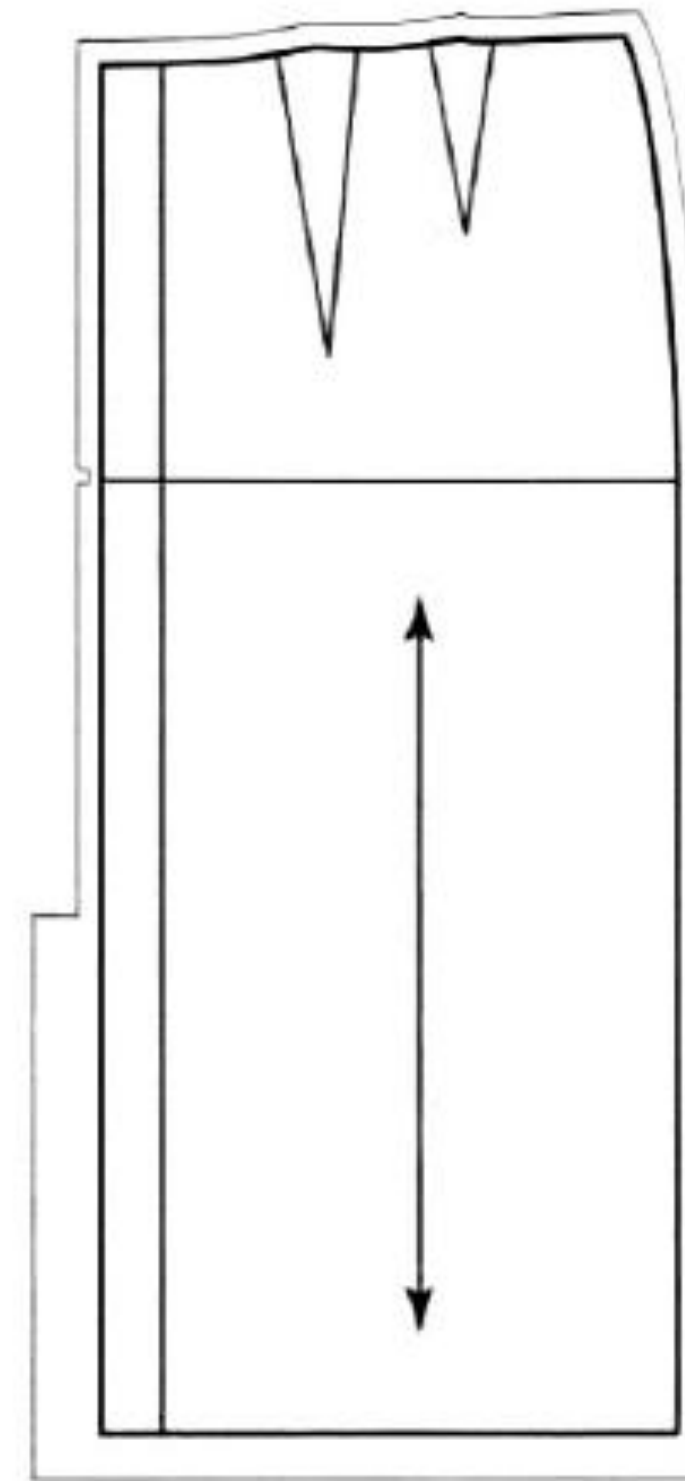
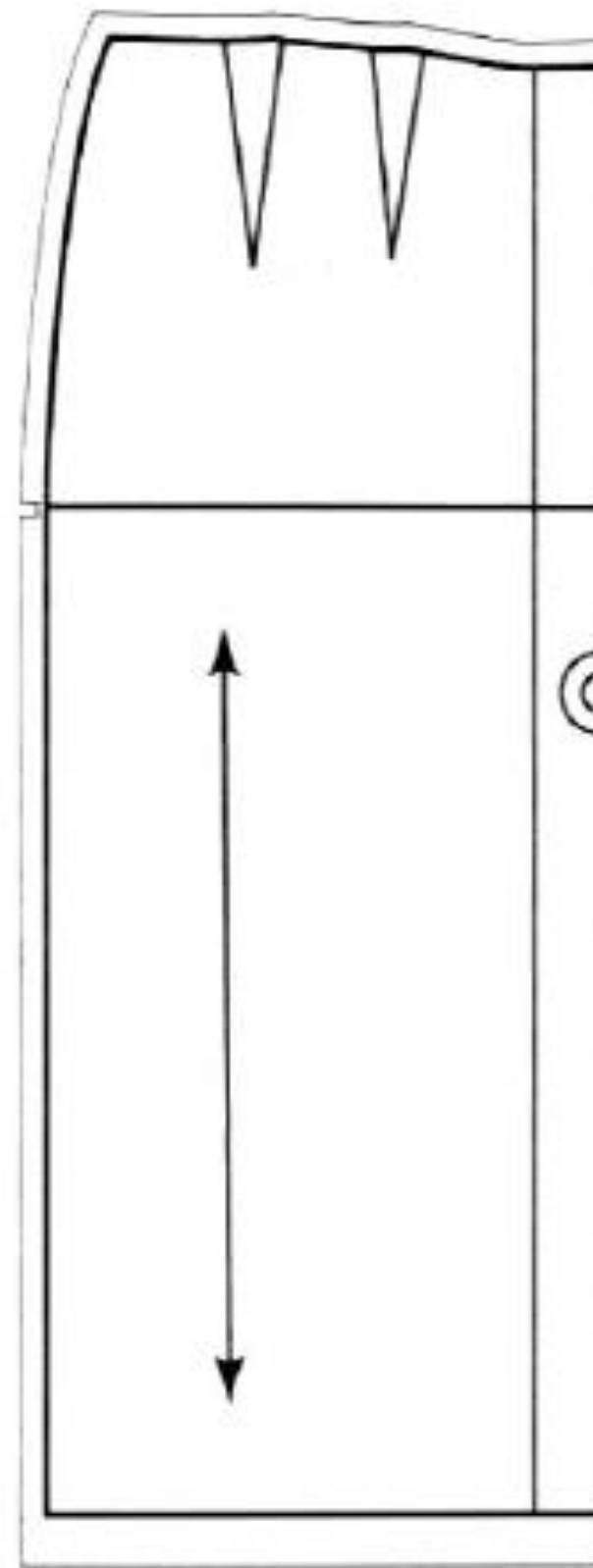
When working in an upcycling context you will need to be more creative when planning your laying since you are working with off cuts and/or second hand clothes.

Pattern Cutting

Basic Skirt

identify the pattern

- The pattern of the skirt is normally composed by at least two components: Front and Back.
- Important reference points: waistline, hip line and knee line
- Darts are located in the waistline and are more deep on the back than on the front
- you can figure the wideness of the skirt comparing the width of the hem with the width of the hip
- Common extra components: waistband, pockets, lining, waist facing



Created and Altered - upcycled clothes

Skirt - repurposing a second hand clothes through pattern cutting



The Skirt PIA, is an elegant wrap skirt inspired by Asian design. Crafted from men's trouser, this unique piece features original details from the trousers, visible on 2-3 pattern pieces. The skirt is securely fastened with elastic braces and a clip, ensuring a comfortable fit.



MILCH, men's trousers into skirt



HUGO, the ZERO WASTE model made from one single men's shirt that can be worn as a top or skirt!

Hugo is both: a top or a skirt, and if you combine 2 Hugos, you even get a nice dress



MILCH, men's shirt into skirt

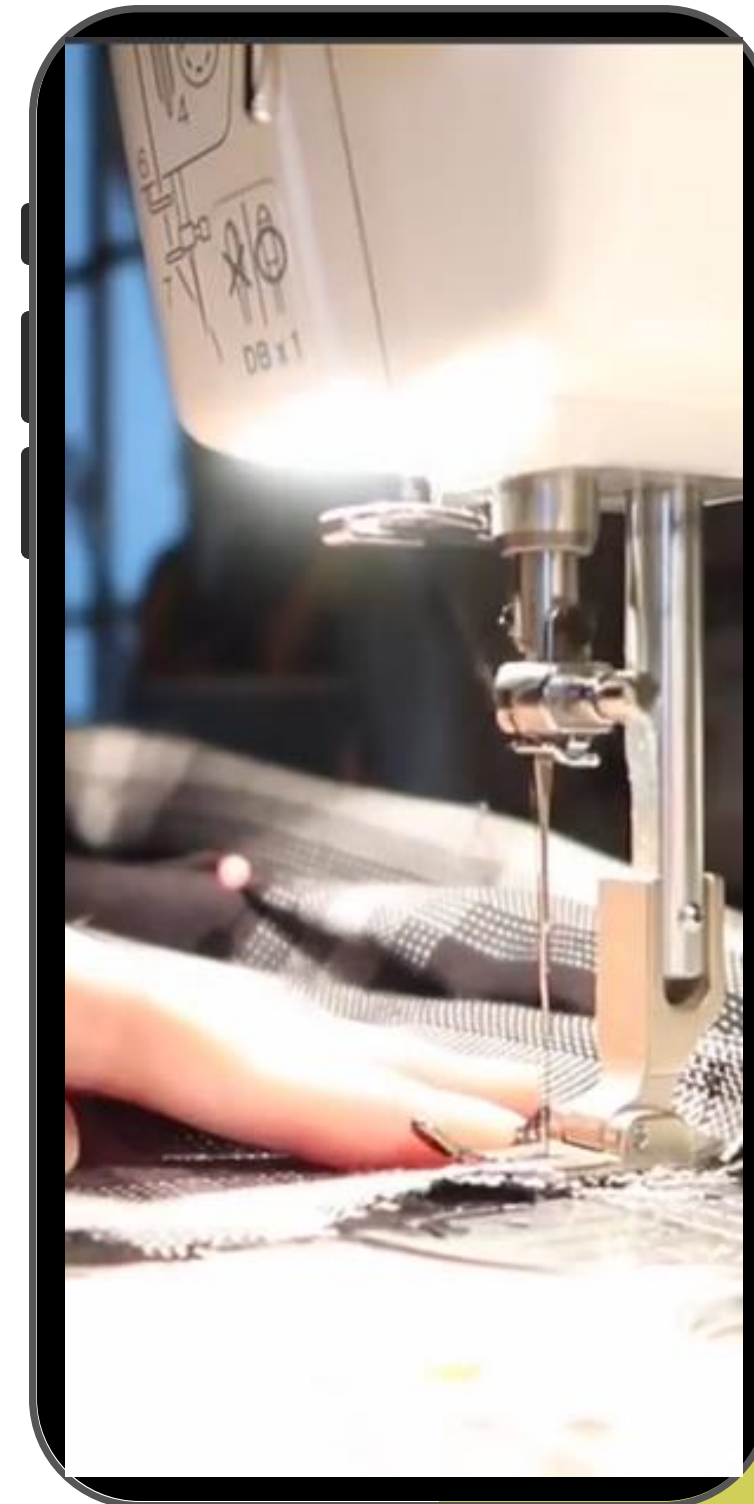
Creating a skirt through upcycling

In this video we can watch how to transform a men shirt into a skirt by disassembling the shirt and using a flat pattern.

Watch here



<https://www.youtube.com/watch?v=tq3jXaDLtds>

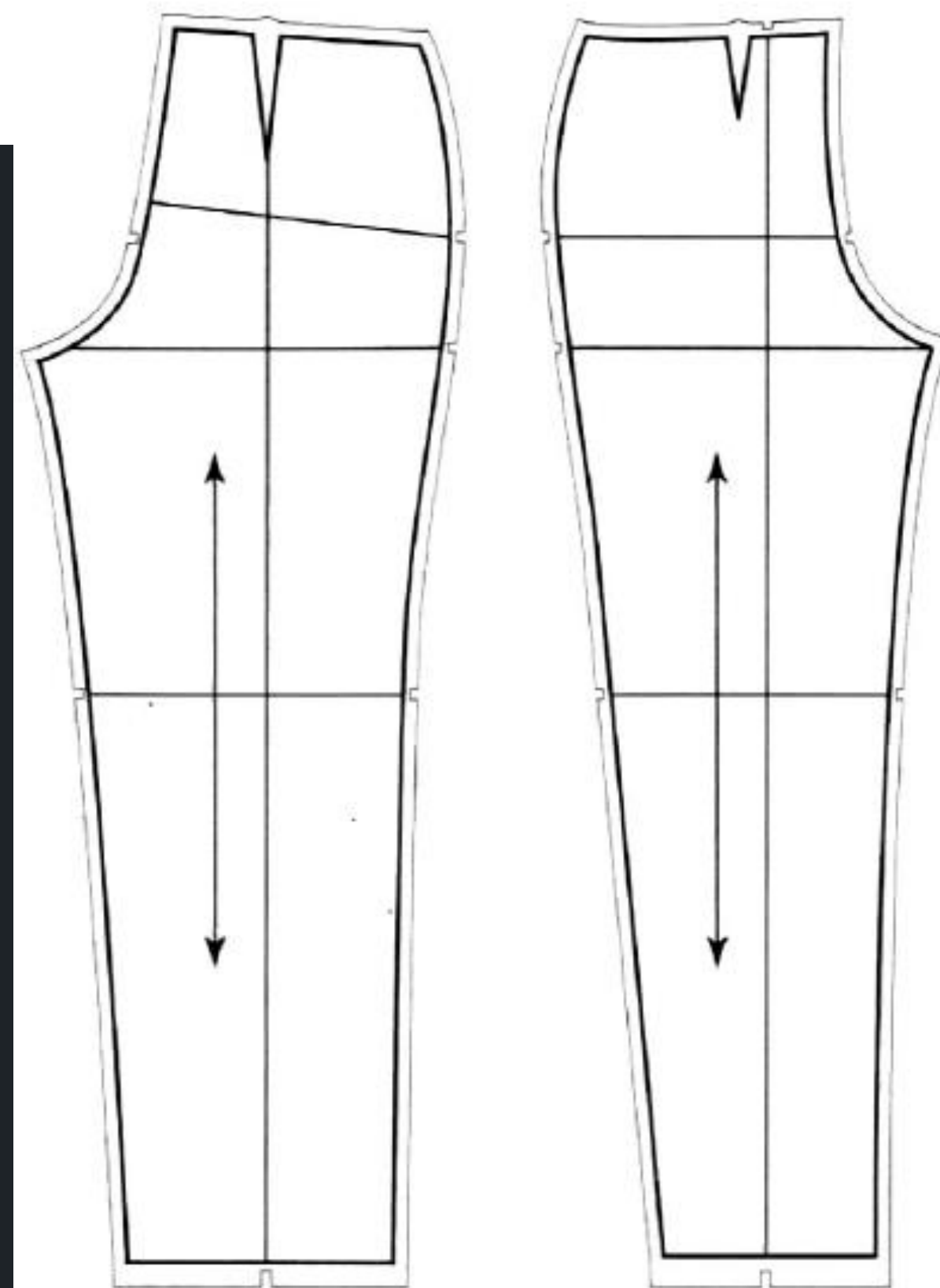


Pattern Cutting

Basic Trouser

identify the pattern

- The pattern of the trousers is normally composed by at least two components: Front and Back.
- Important reference points: center lines, waistline, hip line, crotch line, knee line and ankle line.
- Darts are located in the waistline and are more deep on the back than on the front
- Common extra components: waistband, pockets, waist facing, yoke and fly piece.
- The back crotch is taller than the front crotch
- The back component is wider than the front component (2 - 5 cm)



Created and Altered - upcycled clothes

Trousers - using deadstock and patchwork

reM'Ade transforms waste into new fashion.

reM'Ade is a brand in the **Marques'Almeida** family, that proposes both new and classic M'A designs, made exclusively with deadstock and recycled fabrics.

reM'Ade is a space for unlearning, for experiment and - most of all - for putting responsible fashion into practice. It is about cleaning our own house first and about learning from that process how we can transform fashion (design, production and sales) into a regenerative force, building an inclusive society and a relationship with nature that are defined by respect and care.

This label is only possible thanks to a unique way of working with our network of local Portuguese manufacturers. reM'Ade has its own pace and depends only from available deadstock and real demand.

Marques' Almeida's 'ReM'Ade' collection is made entirely from deadstock fabric leftover from previous collections, so every piece feels unique.



Marques Almeida, trousers out of deadstock



Upcycling trousers through patchwork

This video shows a step-by-step guide to making your pair of patchwork pants. This is a perfect DIY project for upcycling your old pants into a new creative form.

Watch here



<https://www.youtube.com/watch?v=AmqkqcXXmlo>

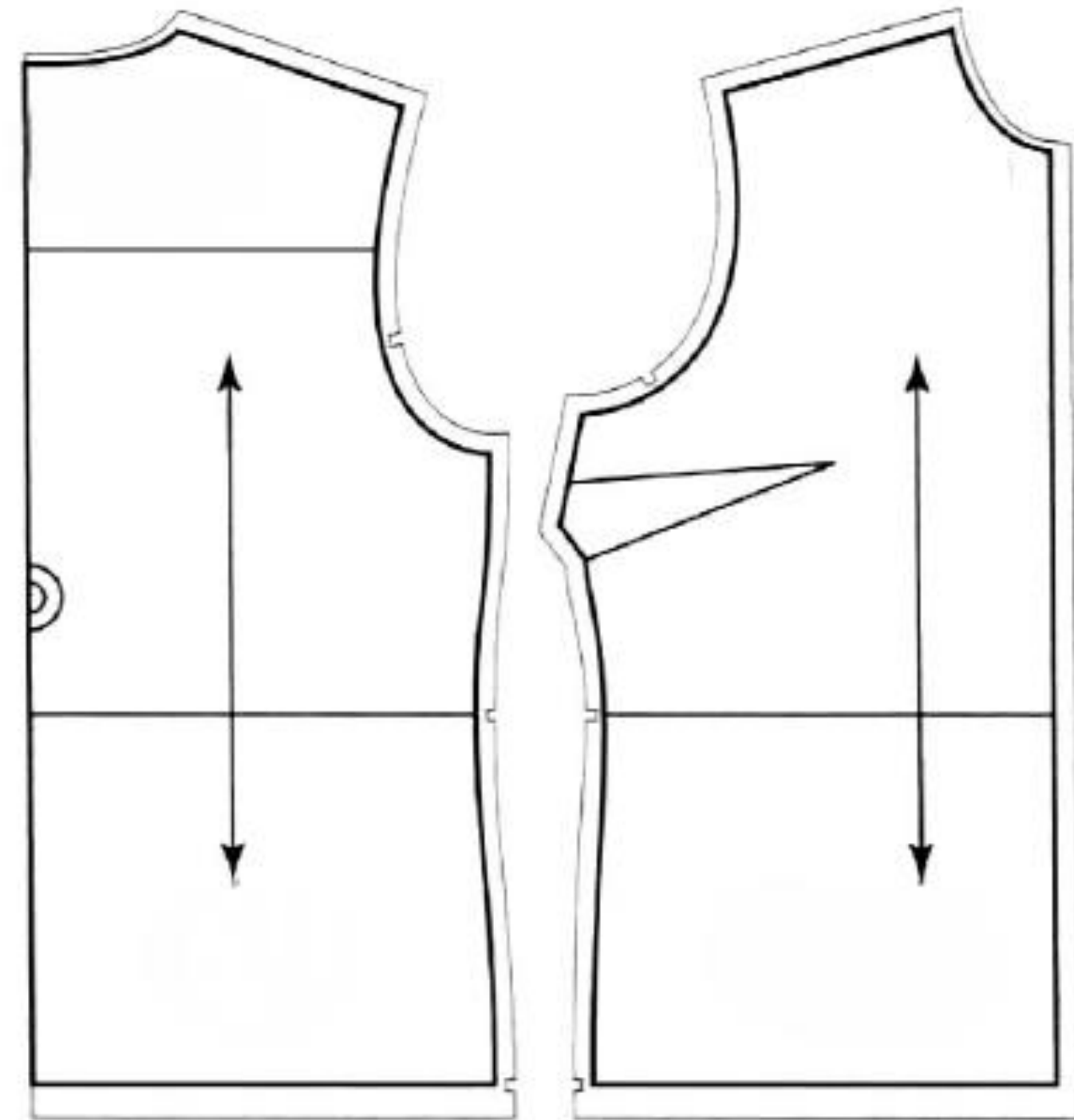


Pattern Cutting

Basic Top and Sleeve

identify the pattern

- The pattern of the top is normally composed by at least two components: Front and Back.
- Important reference points: center front and center back, bust line, waistline, hip line, neck line, shoulder and armhole.
- Darts are located in the pointing the bust center, and can have their width starting from the lateral, the armhole, the neckline or the center front
- Diamond shape darts can be located in the front and back, on the waistline for a slimmer figure.
- Common extra components: sleeve, collar, button stand, pockets and facing (for the neckline, armhole or front opening).

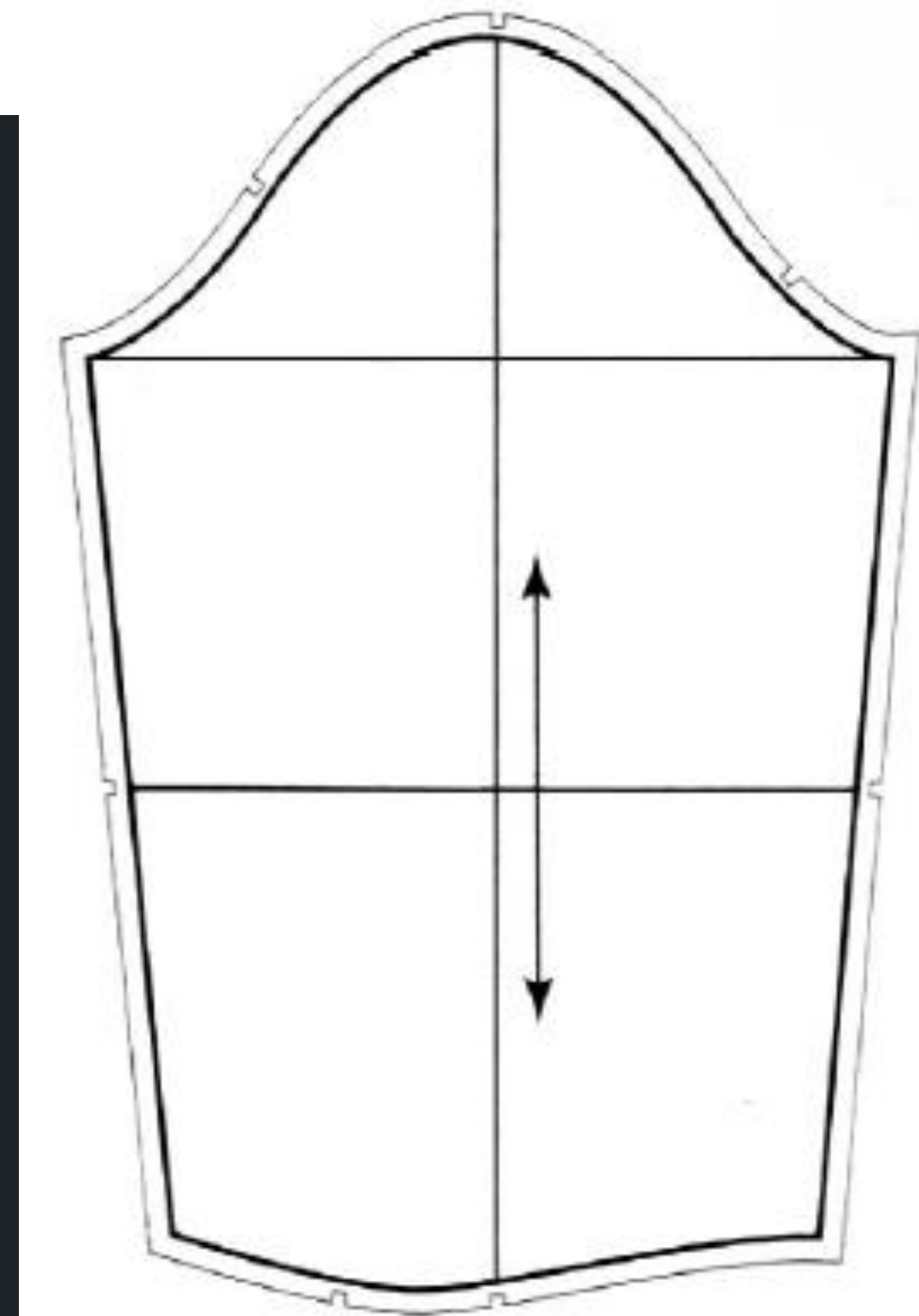


Pattern Cutting

Basic Top and Sleeve

identify the pattern

- The pattern of the sleeve is normally composed by at least one component, but for a tailored jacket it is normal to have a two piece sleeve.
- Important reference points: sleeve cap curve, center line, bicep line, elbow line and wrist line. The back part of the sleeve cap curve is different to the front.
- If darts exist they are normally located in the elbow line on the back side pointing to the center of the sleeve
- you can figure the wideness of the sleeve comparing the width of the hem with the width of the bicep line
- Common extra components: cuffs, facing and button stand.
- The sleeve cap can be bigger than the armhole up to 4cm



Created and Altered – upcycled clothes

Top and Sleeve – using second hand clothes and draping



MILCH, shirts upcycled into tops

This eye-catching KATI shirt blouse is made from 2 former men's shirts. The shirt collars now serve as armholes.

Milch's journey started with a vision to transform discarded men's business suits and other pre- and post-consumer waste into contemporary fashion pieces. By embracing the principles of upcycling, they've created a unique destination for fashion-forward individuals who value sustainability. Their collection embodies innovative design, seamlessly blending timeless elegance and high-quality materials with a contemporary touch.



MILCH, shirts upcycled into tops



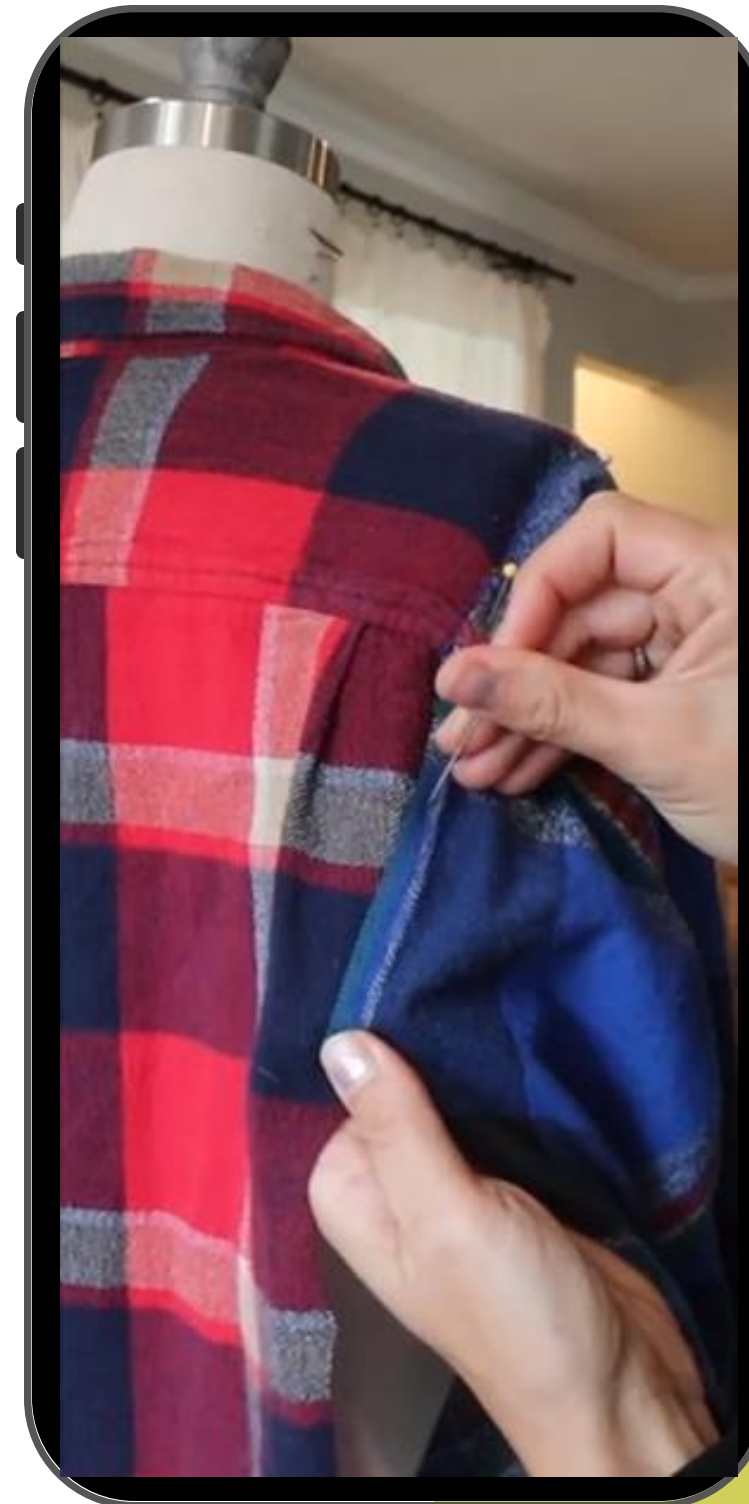
Upcycling a men's shirts

Men's shirts are a very common piece to use in upcycling. In this video you can watch how to upcycled two men flannel shirts in two different styles.

Watch here



<https://www.youtube.com/watch?v=YKtiqn0-9GI>



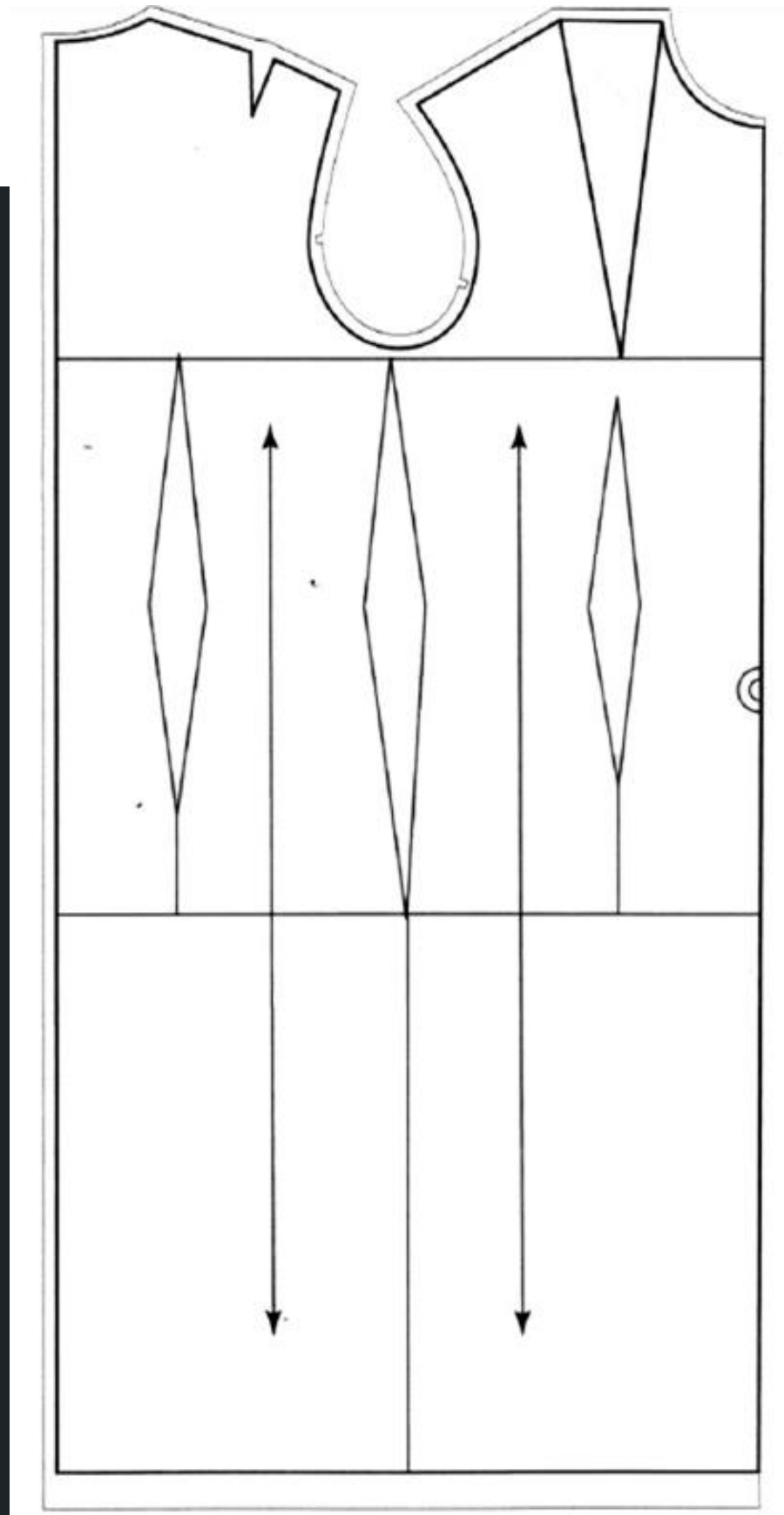
Pattern Cutting

Basic Dress

identify the pattern

A simpler way to define a dress pattern is looking at it as a combination of a top and a skirt pattern. For that matter some most of the basic notions are shared.

- The pattern of the dress is normally composed by at least two components: Front and Back. If it has a waist seam than it has four: back top and front, back bottom and front.
- The silhouette of the dress it will depend on the possible combinations between the top and bottom.
- Common extra components: sleeve, collar, button stand, pockets and facing (for the neckline, armhole or front opening).



Created and Altered – upcycled clothes

Dress – using geometric pieces and draping



Clements Ribeiro, “ScarfMania”, scarfs upcycled into dresses

Clements Ribeiro is a London-based fashion house established in the early 1990s by husband and wife partnership Suzanne Clements and Inacio Ribeiro. It is known for its feminine designs, bold prints and luxurious knitwear.

Since 2008, Clements Ribeiro has undertaken a series of projects focused around upcycling alongside its main collection. Projects have included dresses, skirts and shirts made of vintage scarves; 'collage' dresses that combine found fabrics and a collaboration with textile artist Karen Nicol to transform vintage cashmere knitwear with embroidery motifs.

“When approaching the scarves you think of it as a collage and the visual selection is totally intuitive, patterns and colours combined or contrasted through some sort of 'free-association', with a vague underlying theme (floral, say, or painterly, etc...)”

Inácio Ribeiro from Clements Ribeiro



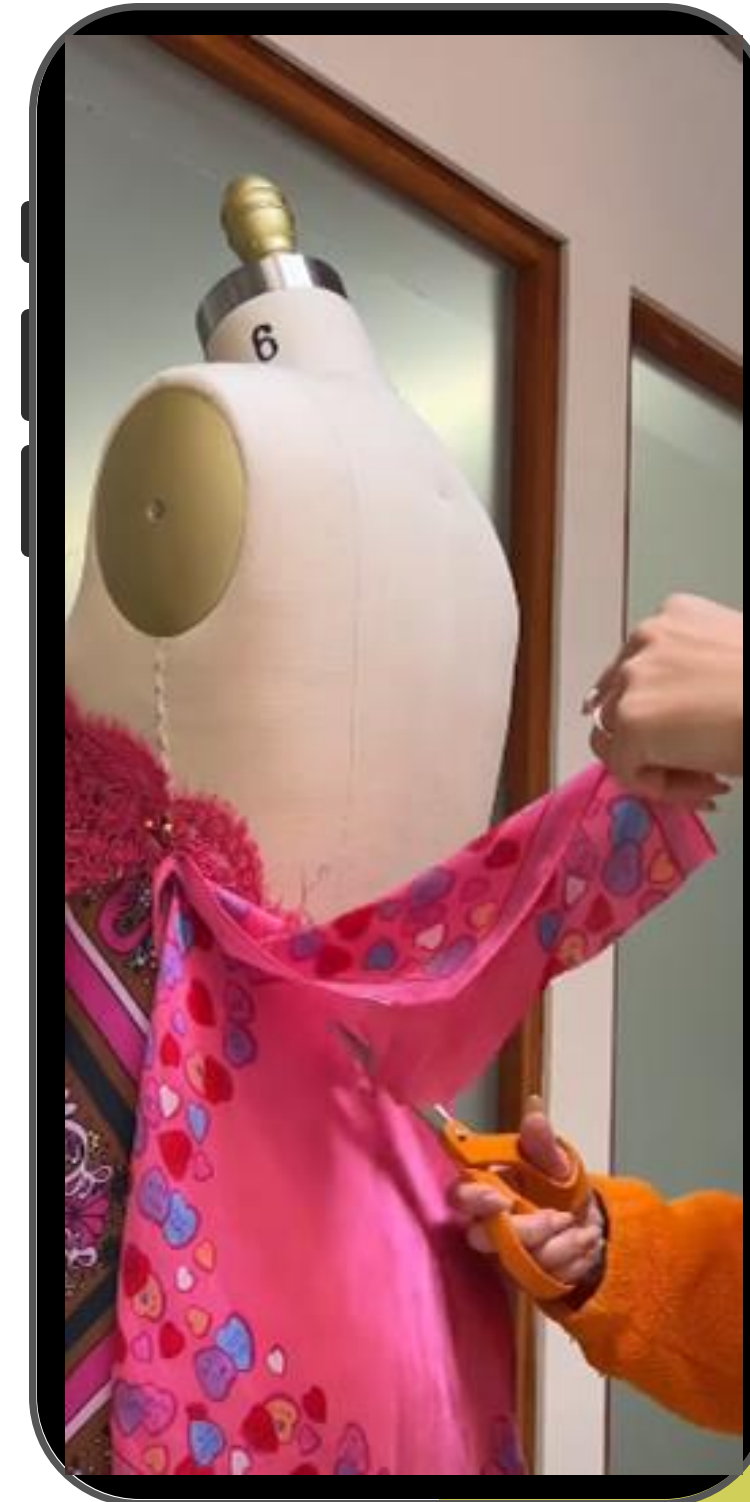
Upcycling scarves into a dress - using draping

In this video you can take a quick look on the process of creative a dress on a dress form, using the draping technique, by combining and upcycling old scarves.

Watch here



<https://www.youtube.com/shorts/5oMJ7m9ukfA>

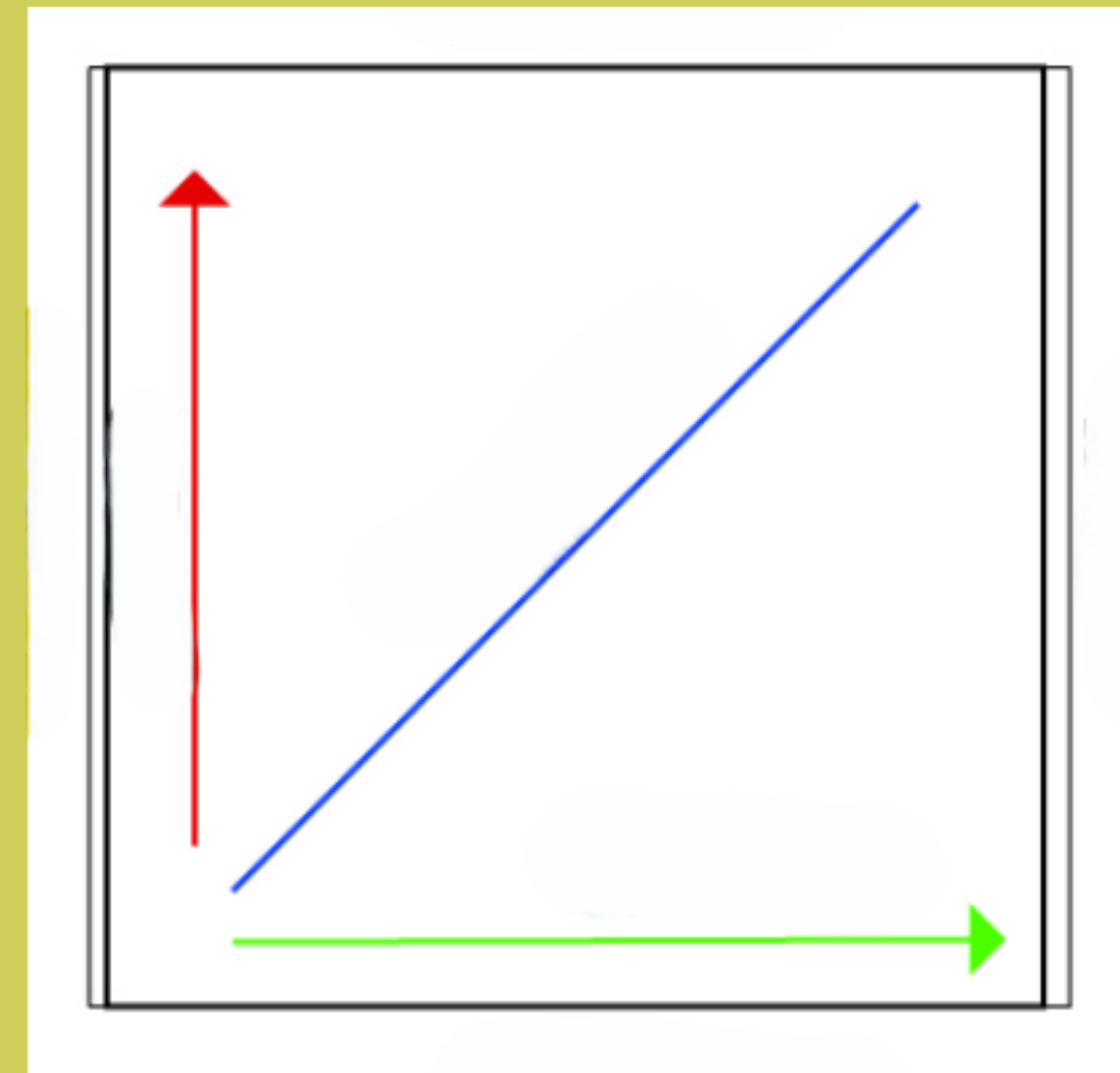


Draping

Basic Notions

As for cutting a pattern, draping needs for us to understand the fabric behaviour in it's different directions, this knowledge will be helpful when working with off cuts, and house linen but also with second hand clothes

1. The **grainline** is the most common used direction and is found parallel to the selvage
2. The **cross grain** is also very common and is found parallel to the raw edge
3. The **bias** is any direction between the grainline and the cross grain, nevertheless the **perfect or true bias** is exactly 45° from the selvage/raw edge



Draping

Basic Notions

@Draping The complete course



- The **straight-grain** piece forms two strong drapes as it flares out from the bust to the hip, the natural drape of a balanced square. The sides drape with a straight, vertical flow.
- The horizontal-grain piece appears slightly wider at the hip and doesn't seem to fall quite as easily. The side areas seem to stand out more. The stronger straight grain is running horizontally and pushing the fabric out.
- The calico cut on the bias grain has the most give and so forms drapes that are softer and less defined than those on the straight or horizontal grain. The fabric gently flares out at the sides, creating a cascade effect.
- From the strength of the straight grain to the soft drape of the bias, these different qualities will translate into garments as you drape. Learning to use these grainlines to your advantage will help you achieve specific looks.



Straight- Grain

Horizontal Grain

Bias Grain 45°

Draping Techniques with off cuts

Creating with Geometric Forms

In the 1980s, after working at Issey Miyake, Yoshiaki Hishinuma opened his own studio. When designing his eponymous line, he could not find the textile materials he envisioned. Rather than working with manufacturers, Hishinuma began experimenting with natural and chemical processes to alter the finish and form of textiles, producing uniquely shaped clothes especially using wind and air – called Kite Clothes and Air Clothes.



Clothes by Yoshiaki Hishinuma (1986)

Draping

Techniques with off cuts

Creating with Geometric Forms

Basic Notions

- Cut your off cuts into basic geometric forms that can complement each other like: triangles, squares and diamonds
- Work them on top of the mannequin trying to put the puzzle together and create an interesting shape for a top or skirt
- Use pre made patterns as starting point to create the puzzle for sleeves and trousers and try them on the mannequin afterwards
- Be creative and think out of the box when using the shapes to create extra components like a collar or a pocket
- Remember the piece you are creating doesn't need to resemble its classical form, nevertheless it need to suit and feel comfortable to the body of the user.



Draping Techniques with second hand clothes

Creating with disassembled pieces

Balancing traditional and contemporary style, New York-based Japanese brand The Keiji creates pieces with a DNA of unique patterns and fabrications.



The Keiji, 2020

Draping

Techniques with second hand clothes

Creating with disassembled pieces

- Start by disassembling the pieces you want to use, remember to only break apart what you are sure you won't be needing together later
- Work the components you broke apart a puzzle that you want to put together the “wrong way” trying to find matching shapes (example: a round pocket opening can be part of the neckline, or a front crotch can be an armhole)
- Feel free to use extra components the wrong way too (example: a collar can be a waistband and the other way around as well)
- Again, remember the piece you are creating doesn't need to resemble its classical form, nevertheless it need to suit and feel comfortable to the body of the user.
- Making it more or less obvious is always your aesthetical choice

Basic Notions





Fabric Manipulation

Altering the Shape and Giving Volume

01

Adding

Flouces

Godets

02

Taking

Pleats

Gathering

03

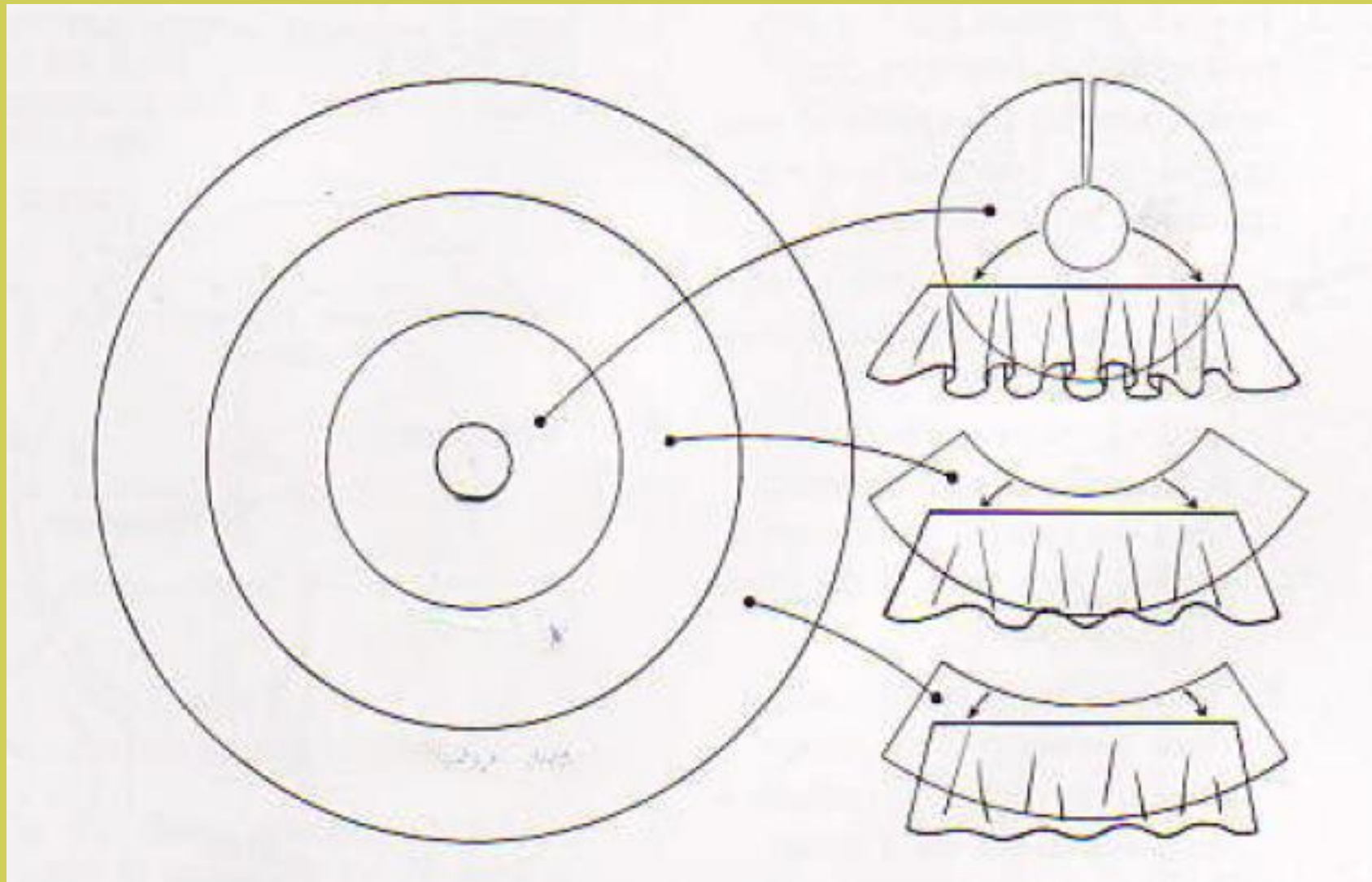
Shaping

Using Darts

Tucking

Adding and Taking Volume – Flounces

Choose between a flounce with maximum, moderate, or minimal flare as controlled by the radius of the round cutout in the middle of a circular flounce pattern, and the length of the flounce:



- The smaller the radius of the central cutout, the greater the flare at the floating edge of a flounce after it is applied



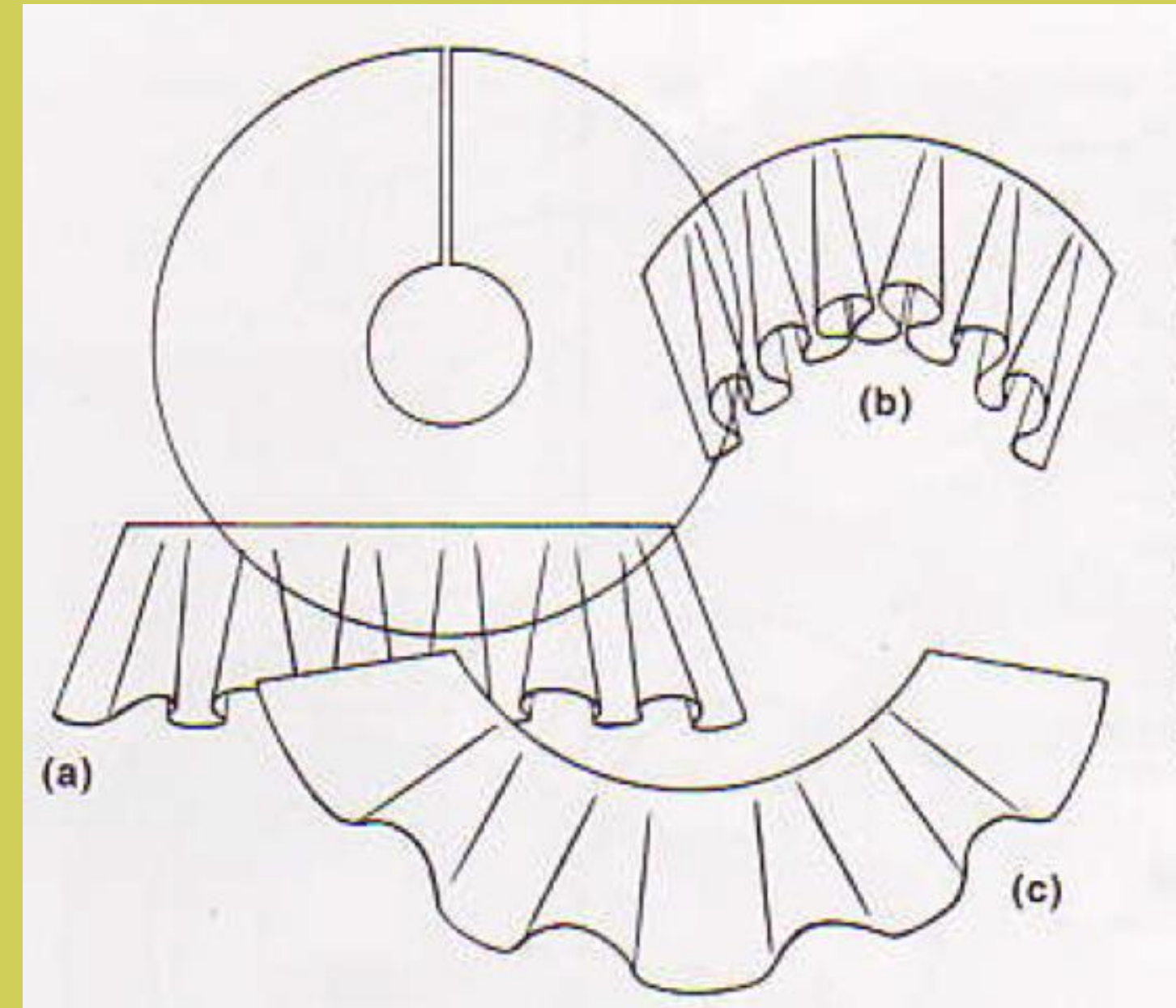
Palmer Harding

Adding and Taking Volume – Flounces

Controlling the volume

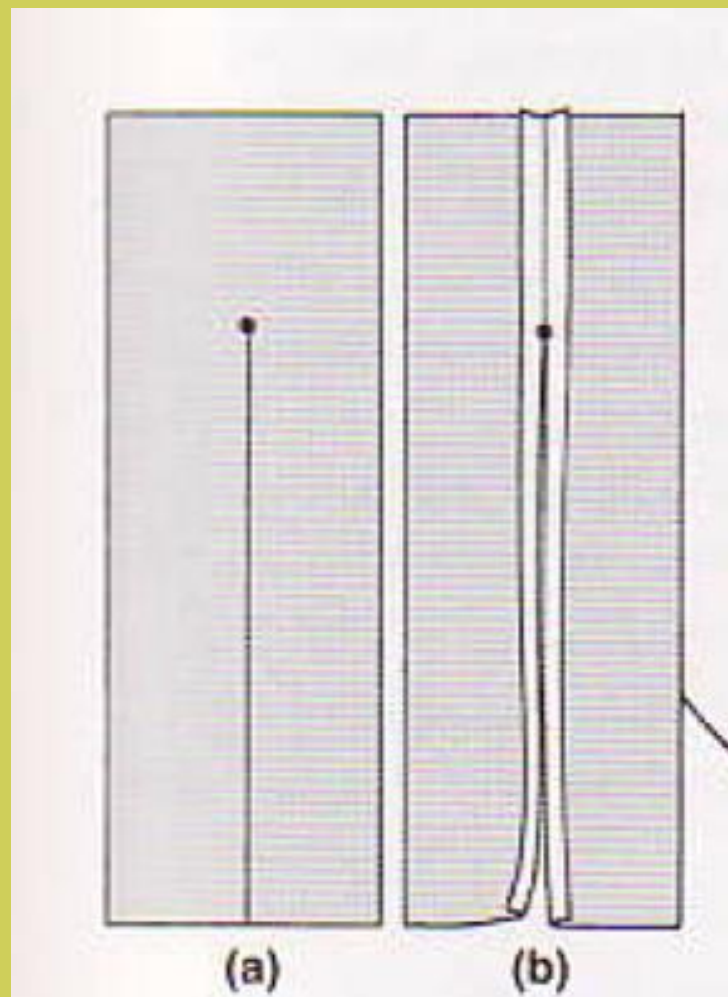
The flexible seam line of a circular flounce will follow curving as well as straight lines of application. The folds at the floating edge of a flounce sewn around an outward curve spread and diminish; sewing a flounce inside an inward curve squeezes and deepens the folds. If the deviation between the seam line curve of the flounce and the application line is great - image (b)-, clipping the seam allowance before stitching is a necessity. If the deviation is middling to slight - image (c) - attach the flounce without pre-clipping, stopping frequently while sewing to lift the presser foot and realign seam-lines and edges before continuing.

TIP: finish a the flounce edge with a napkin hem or using bias tape, use the raw edge only when using a fabric that doesn't shred.



Adding and Taking Volume - Godets

For each godet, select a point inside the pattern or the fabric where the godet will begin its spread. The distance from point to lower edge equals the length of the godet, and includes a hem allowance.



- If the garment is unseamed, connect each point to the lower edge with a straight slash line perpendicular to the edge.

Mark the pattern, then the wrong side of the fabric with slash lines that follow the grain, or mark directly on the fabric - image (a)

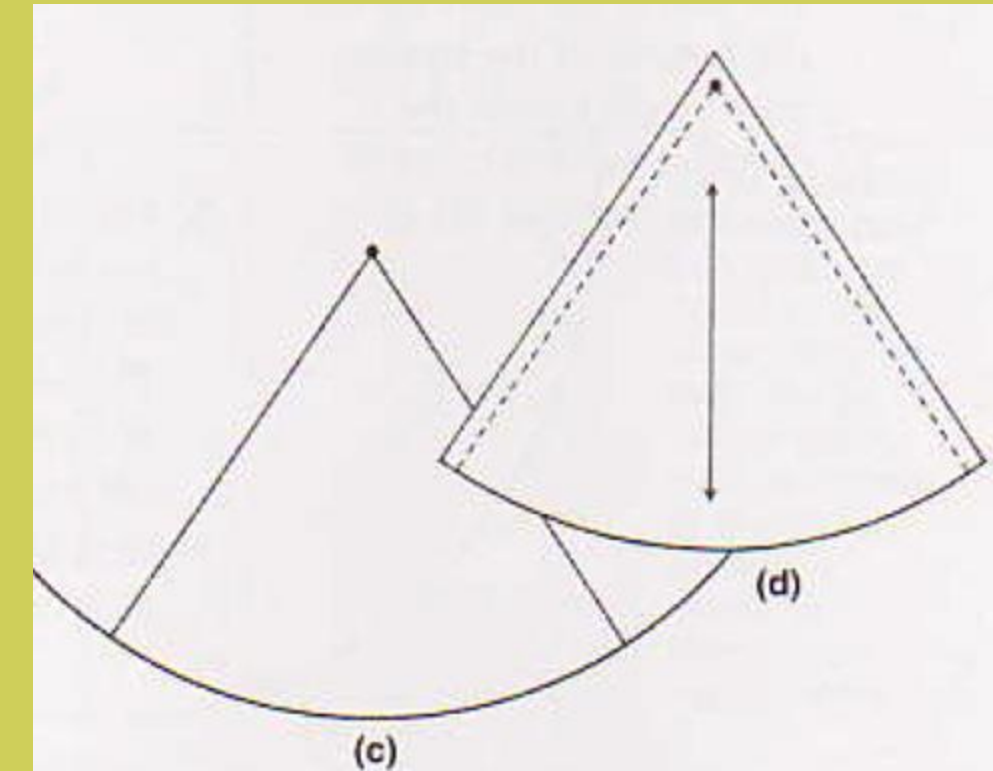
- If the garment has a vertical seam at godet location, position the point on the seam. The seam remains open to the lower edge for godet insertion - image (b)



Oscar De La Renta

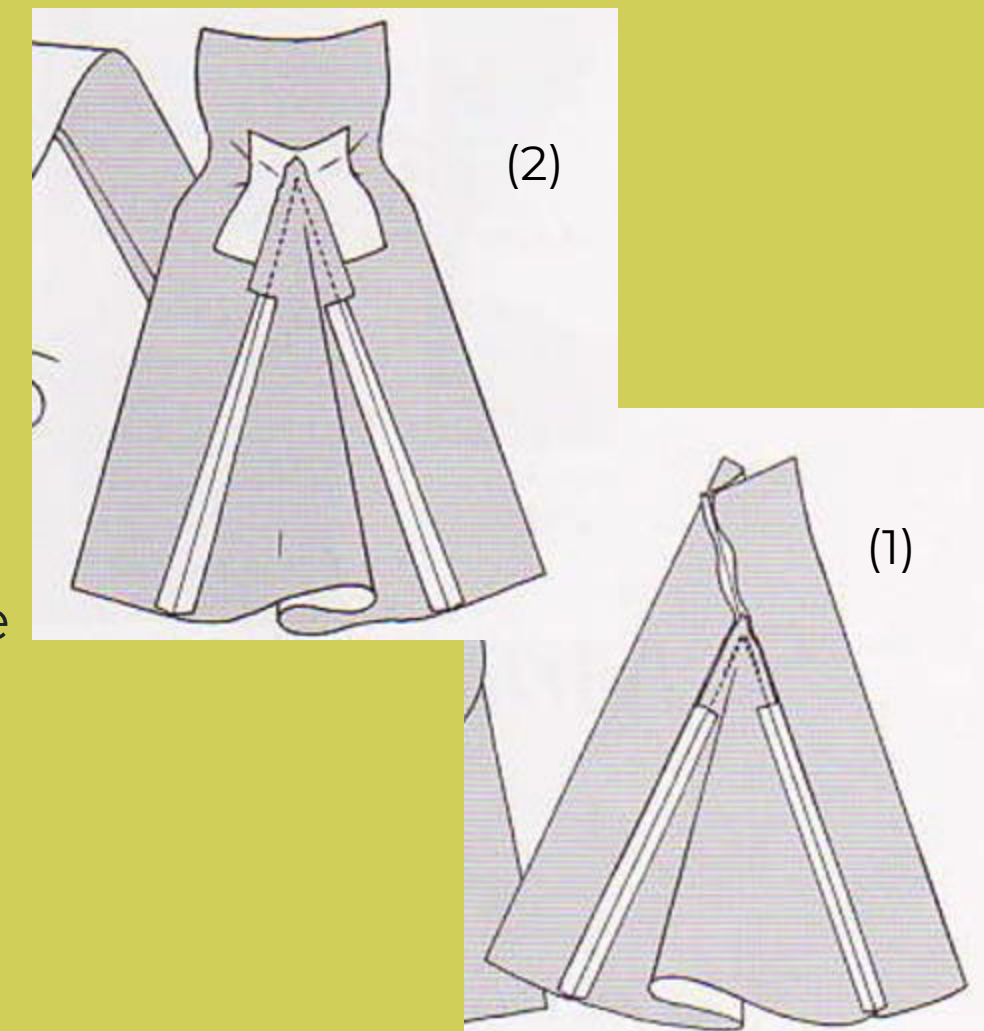
Adding and Taking Volume – Godets

Using a mechanical or string compass set to the length of the godet, draft the godet pattern. Draw a circle or a portion of a circle. Estimate how much of the circumference the godet should add to the edge where it will be inserted to achieve the desired float. Isolate that amount by connecting the circumference to the compass point with two straight lines, establishing the width of the godet at the lower edge (note that after hemming the width will measure somewhat less). Add a seam allowance to the straight sides of the circular segment - images (c) and (d). The pattern is ready to cut out and use.



TIPS for sewing the godets:

1. Cut out the godet from fabric making sure the center axis of a godet is always matched to the straight grain of the fabric.
2. Into a seam opened to godet length, attach both sides of the godet one at each opening. When finished, the break between the godet seam and the seam above should be imperceptible - image (1)
3. On an unseamed fabric, before cutting the slashline, hand baste a 5 - 7.5cm square of organza or lining material to the back of the fabric on top of the slashline and machine stitch a frame around the slashline to secure it - image (2)
4. After sewing the godet to the piece, hem the floating edge of the godet and the garment continually



Adding and Taking Volume – Pleats

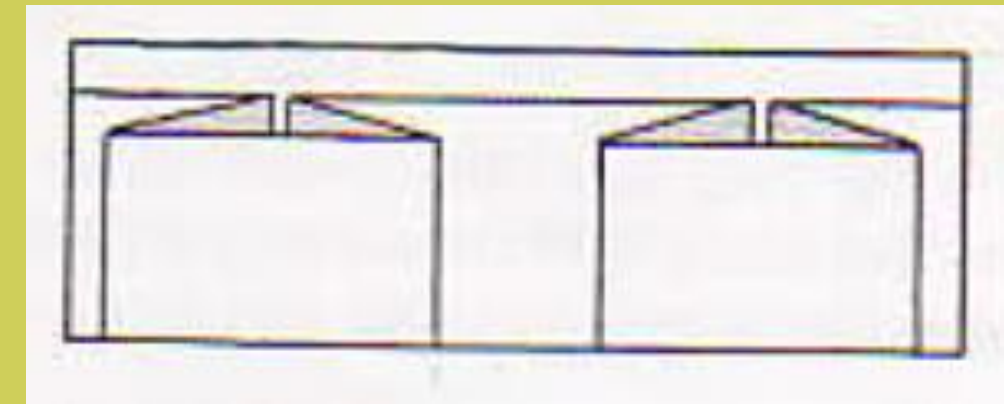


E.L.V. Denim

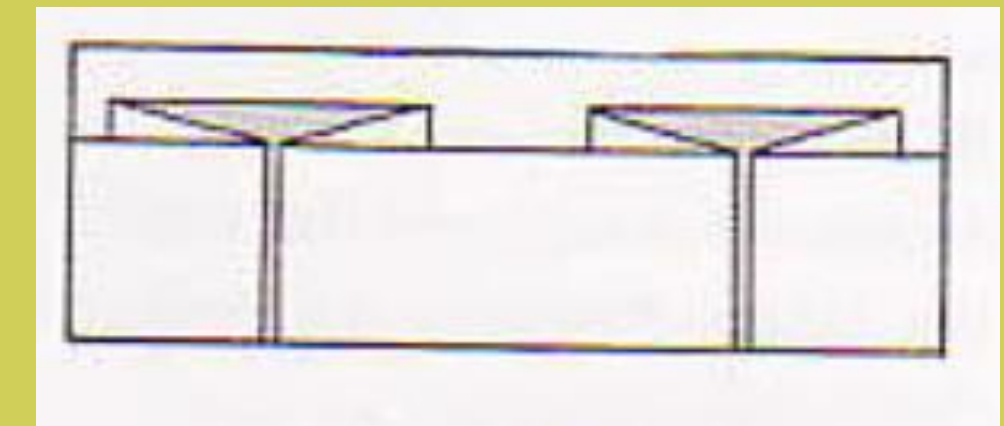
knife pleats - adjacent under folds turned in the same direction.



box pleats - adjacent under folds of equal depth turned in opposite directions.



inverted pleats - adjacent under folds of equal depth turned to meet in the center.



Adding and Taking Volume – Pleats

THE PROCEDURE

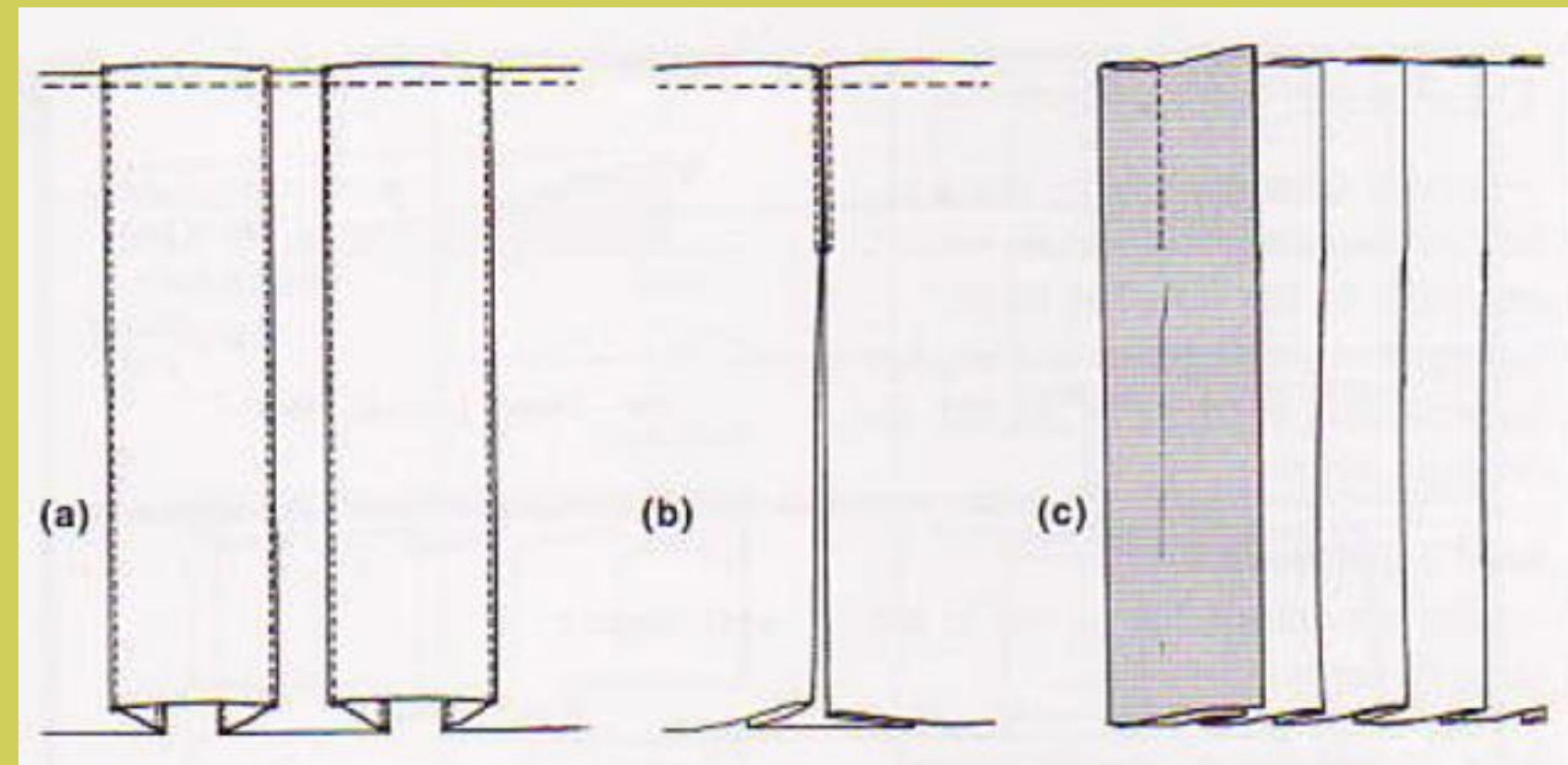
1. Set a target measurement for the fabric to match after it is pleated.
2. Plan an arrangement of flat pleats that will fit within the target measurement: knife, box or inverted
3. Calculate the amount of fabric required for the desired number of pleats:
 - a. Establish a depth, the measurement between outer fold and inner fold
 - b. The mathematics:
 $2 \times \text{pleat depth} = \text{one pleat underfold}$
 $\text{one pleat underfold} \times \text{number of pleats} = \text{total pleat underfolds}$
 $\text{total pleat underfolds} + \text{target measurement} = \text{Pleated Fabric Requirement}$

How can you sew the pleats:

Image (a) Two box pleats with outer and inner folds edgestitched.

Image (b) inverted pleat with release point lowered visibly with top stitching.

Image (c) Knife pleats with release points lowered invisibly.



Adding and Taking Volume – Gathering

There are five ways to gather: by hand, by machine, automatically, with elastic, and through channels. Hand, machine, automatic, and one kind of elastic gathering are standard, stitched-thread methods. Other kinds of elastic gathering and channel gathering are specialty variations that use different means to gather.

Thread-based hand and machine gathering:

- (1) stitching across the designated edge of the fabric within the seam allowance;
- (2) pulling on the loose thread dangling unsecured from the end of the stitching with one hand while using the other hand to push the fabric into itself along the tautly held thread



Sarah O Robinson



Adding and Taking Volume – Gathering



Using the machine : The sparsity or density of the mini-folds created by the gathering, in combination with stitch length, determine fullness, which is the amount and depth of the folds liberated from the stitches. Long stitches tightly gathered release the most abundant fullness.



By hand : Hand gathering depends on running stitches. Because sewing thread is vulnerable to breaks under tension, use doubled or extra-strong thread in the needle. Anchor the first stitch with a good-sized knot at the end of the thread. For plain hand gathering, draw the fabric up onto the thread of a single or double row of even running stitches.

Stabilizing fixes hand and machine gathering. It ends the shifting of gathers on the thread, prevents the gathering thread from snapping, and conceals the gathering stitches.

Stabilizing may be visible-a binding, extension, foundation stay, or ruffled edge, or invisible-a stay or facing. Where they connect, the stabilizing fabric matches the gathered stitching in length and shape, and the stabilizing fabric adds one or more layers to a fabric already thickened by bunched gathers. During the stabilizing process, the gathering stitches disappear from sight.



Adding and Taking Volume – Gathering

Elastic gathering with elastic thread, elastic cord, or elastic bands adds stretchability to automatic fullness.

(1) Straight stitching with elastic thread in the bobbin gathers the fabric softly: Wind the elastic around the bobbin by hand, stretching it slightly; while stitching, hold the fabric taut before and behind the needle.

(2) The fullness created by cord elastic caught inside a zigzagged seam increases to the degree the elastic is stretched during stitching, and the fabric is gathered on the elastic after stitching.

3) A band of elastic, cut to or slightly less than target length, sewn directly to the fabric with zigzag stitching, gathers if the elastic is stretched to fabric length during the stitching

(4) Fabric may also be gathered on elastic inserted into a channel of fabric.



Length of elastic, divided into equal parts and, pinned at the divisions to fabric, also divided in the same amount of parts. To sew, replace the pins with machine basting that crosses the elastic. Segment by segment, stretch the elastic to match the fabric while zigzag stitching.



Adding and Taking Volume – Gathering

Channel Gathering

The most common kind of channel gathering starts with a casing formed either by a hem at the edge or a tape applied across the fabric. Openings at the ends or internal slits allow access into the channel created between the two layers of fabric. The fabric slides into gathers over a gathering element a length of string, cord, tape, ribbon, elastic, rope, chain, wire, dowel, or rod-moved through the hem or tape casing. To facilitate gathering, the casing channel should fit loosely around the element inside.

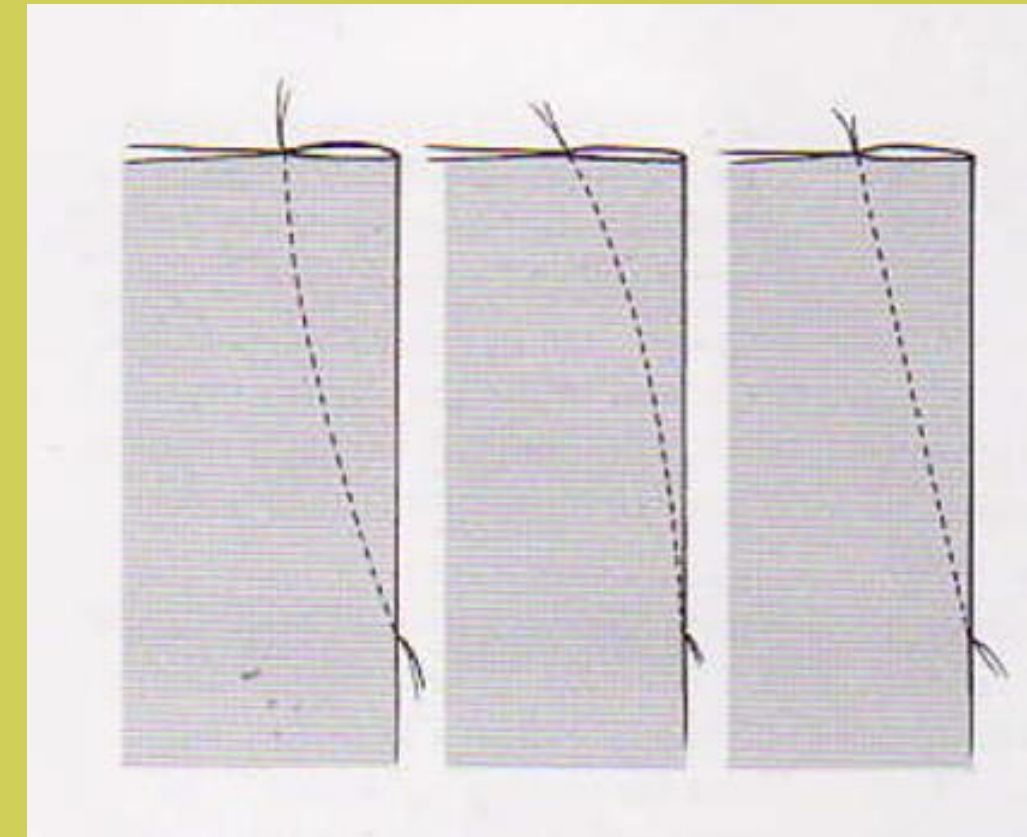


Altering The Shape – Using Darts

SINGLE-POINTED DART

a V-marked segment of fabric folded in half and stitched from the mouth of the V, which is always at the fabric's edge, to the vanishing point of the V, where the fabric elevates or dips.

Function: *used in skirts and trousers waist line, on tops at the breast line, on sleeves in the elbow line and trousers on the knee and hip line*



To alter a flat shape into a three-dimensional form with you can use one or more single-pointed darts. The width at the mouth of the dart and the shaping of the dart seam-straight, curved inward, curved outward-affect the contour of the structured form.

Altering The Shape – Using Darts

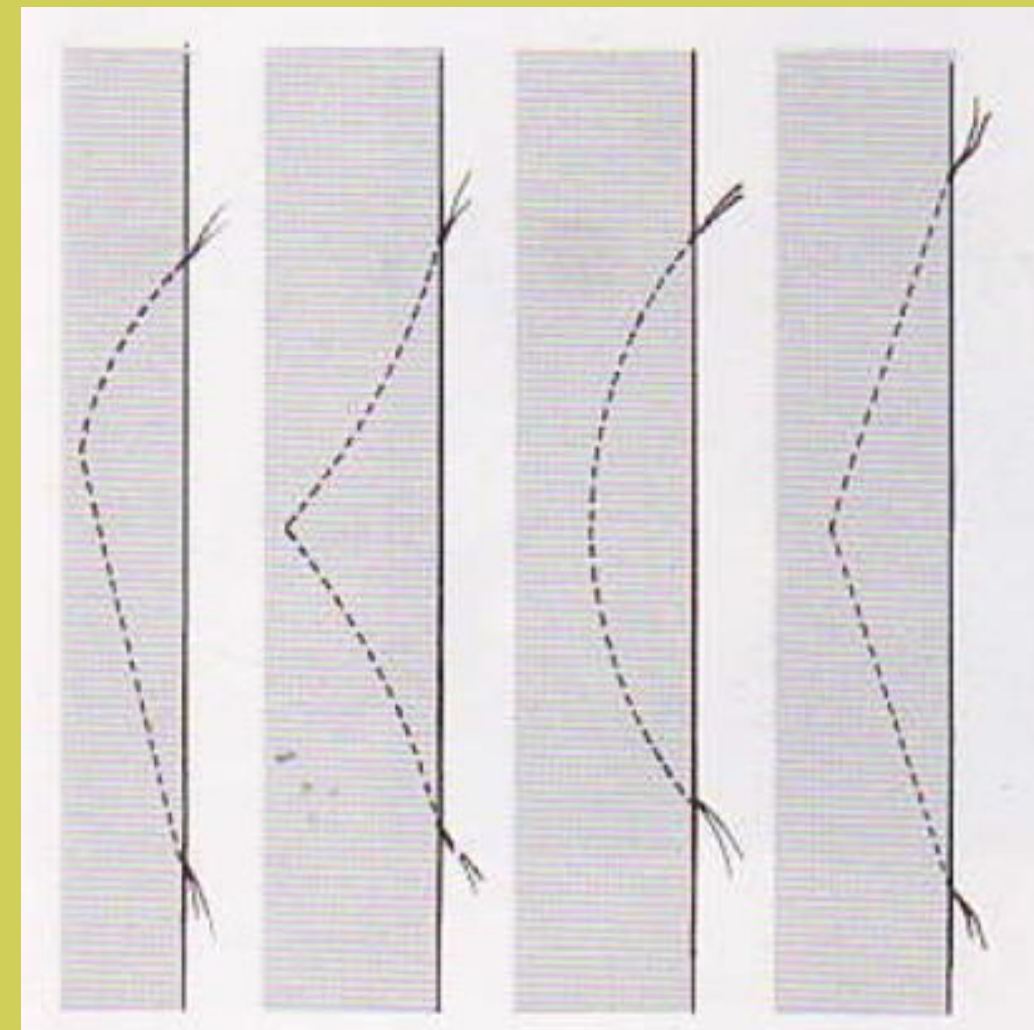


DOUBLE-POINTED DART

a diamond-shaped segment of fabric folded in half lengthwise and sewn from tip to tip. Double-pointed darts structure internally, raising or lowering the fabric at both ends of the dart seam.

Function: used in dresses, shirts, jackets and blazers over the waistline on the back and/or front

The principle that relates the width of a dart at its widest cross-section to the amount of elevation or depth achieved at the end of the dart applies in duplicate to double-pointed darts.



Altering The Shape – Using Darts

For sculptural purposes, double-pointed darts shape the interior of the fabric, and single-pointed darts deal with the fullness of the fabric at the edge.

Used together, single- and double-pointed darts create involved three-dimensional configurations.



Nyokitto at the front, Pattern Magic 2

The Modeliste



If the vanishing points of two darts on opposite or adjacent edges are connected, the darts can be changed to a seam. For darts that require gradual, curved tapering, which becomes difficult to sustain when dart width tapers down to threads of the weave, darts converted to seams solves a stitching problem. The most common example is the princess cut.

Altering The Shape – Using Darts

Because dart seams end and, with double-pointed darts, begin within the fabric, the cut thread where the seams stop must be secured or the stitching may unravel. Here are some tips on how to do it:

1. Tie the needle to the bobbin thread with a square knot:

- After stitching a dart on the wrong side of the fabric, tie the threads where the seam runs off the fabric.
- After stitching a dart on the right side of the fabric, turn to the back. Snag both threads from the final stitch with a needle and pull them through to the back for tying.
- After stitching a dart on the right side of the fabric, tie the threads together in front. Insert both threads into a needle, insert the needle into the final machine-needle hole, push it through to the back, and pop the knot through the fabric.

Trim tied threads at least 1,5cm from the knot.

1. Reduce the stitch length:

- When sewing a dart on the wrong side of the fabric, start reducing the stitch length before reaching the end of the seam, arriving at 0 as the seam line tapers out. Take three or four stitches at 0 before clipping the threads.
- To begin a double-pointed dart, reverse the procedure: Start at 0 and increase rapidly to regular stitch length.

1. Sew with a single thread when stitching a single-pointed dart:

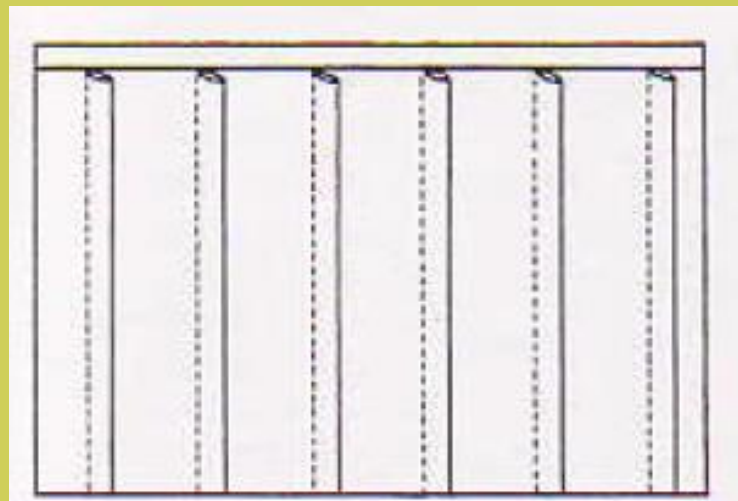
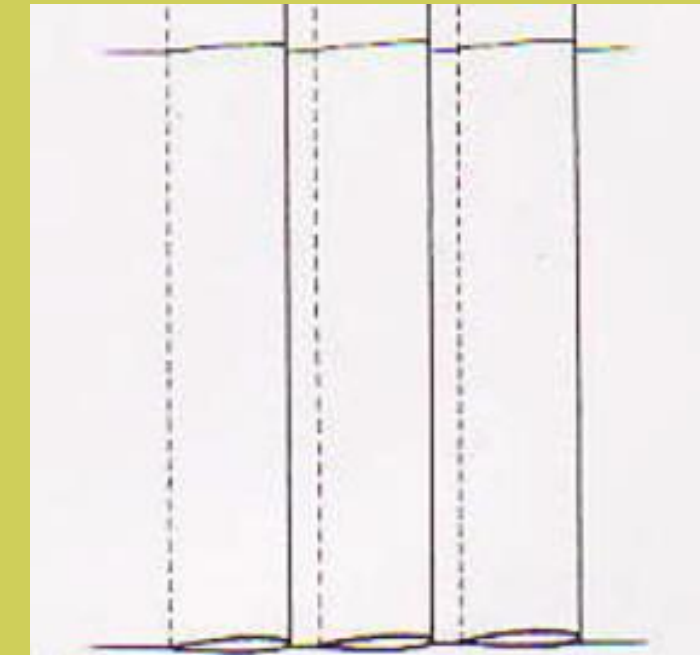
- (1) Tie the end of the bobbin thread to the end of the needle thread with a very tight, square knot.
- (2) Pulling on the needle thread, tug the knot through the needle. Rewind the needle thread onto the spool, moving the knot and the bobbin thread up through the threading guides and tension until the knot reaches the spool.
- (3) Begin stitching with the dart fold placed up against the needle, which should be down. At the first stitch, the thread will wrap around the fold, leaving no ends to tie or trim.



Altering The Shape – Tucking

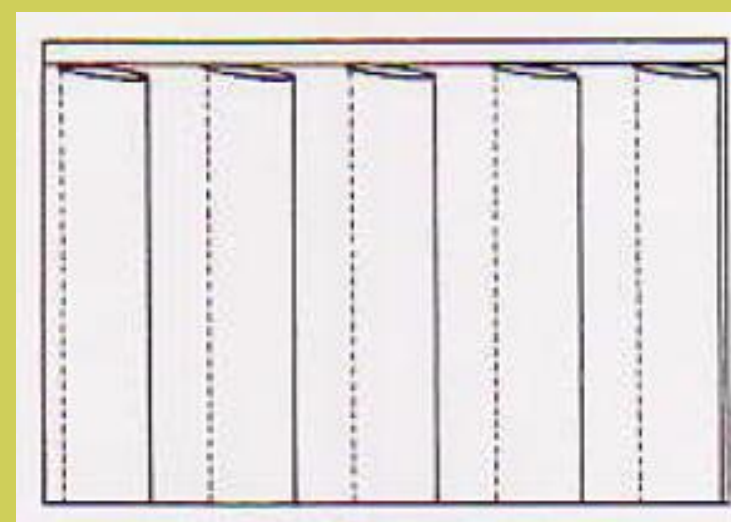
STANDARD TUCKS

Standard tucks are parallel folds pulled up from the surface of the fabric and held by stitching from one end to the other. Standard tuck seams are straight and sewn at an equal or slanted distance from the folded edge through two layers of fabric. Here are a few of the most common types:



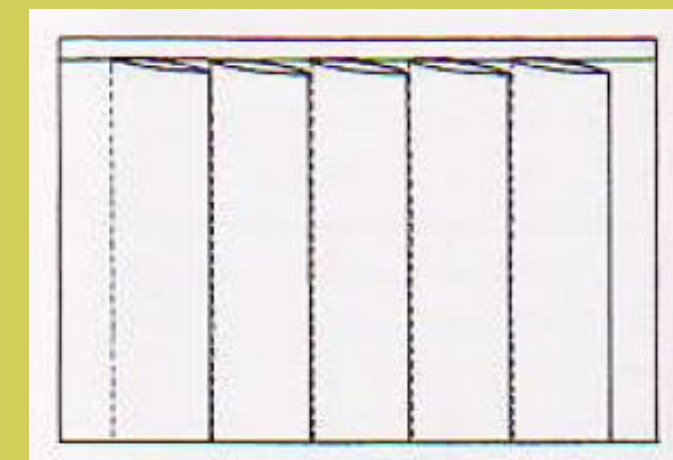
PIN TUCKS

narrow tucks that are sometimes only a pin's diameter wide but are never sewn more than 3mm from the fold.



SPACED TUCKS

tucks that are identical in width and visibly spaced an identical distance apart.



BLIND TUCKS

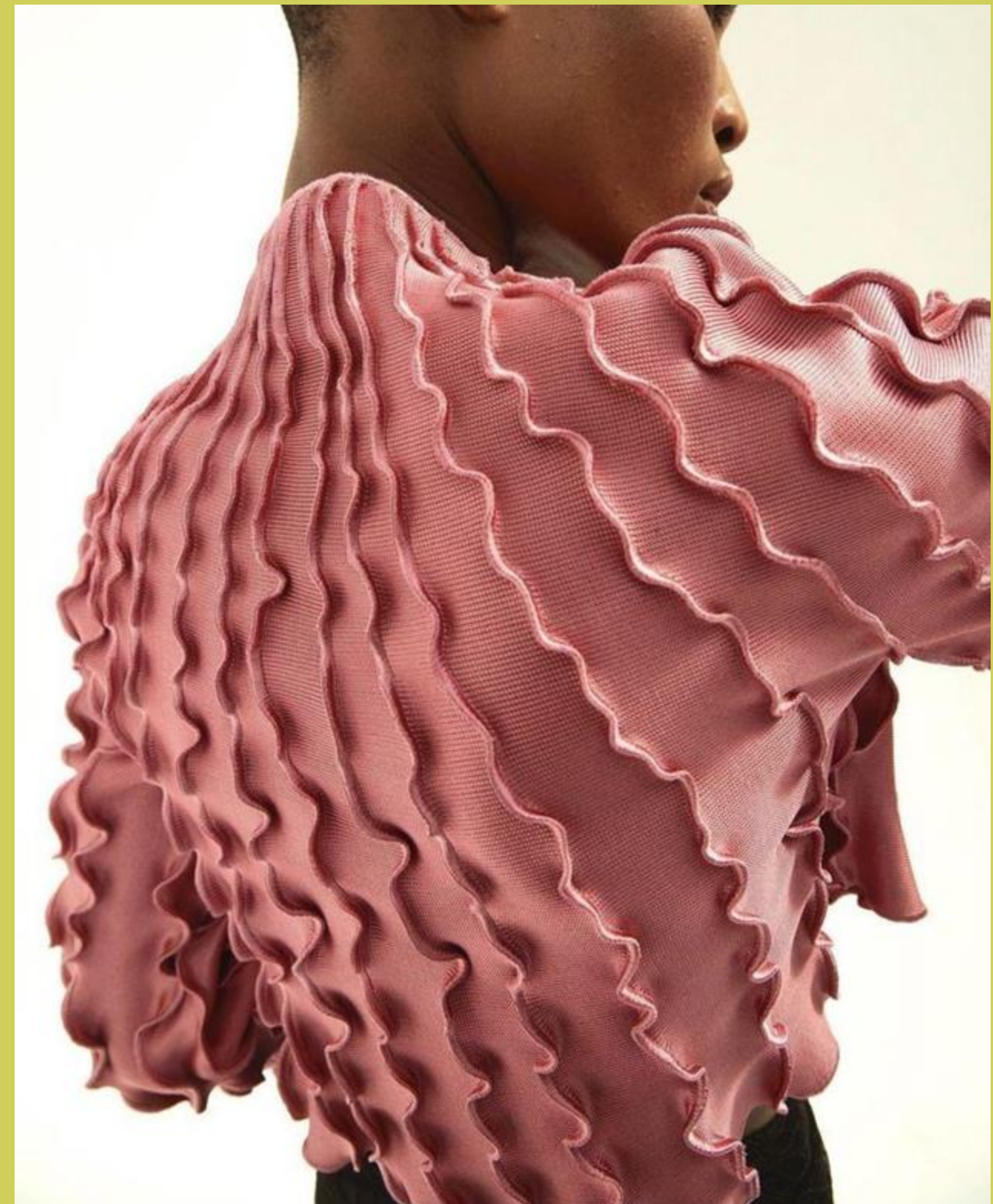
tucks without visible spacing in between because folds touch or overlap the seam lines of adjacent tucks.

Altering The Shape – Tucking

Here are some TIPS for a good result:

1. Before marking, true the grain of woven fabric and steam press.
2. Spread the fabric over a surface larger than its length and width and hold it taut while marking. Use a gridded cutting board for straightness control. Optional methods for fold-line marking that may be.
3. Appropriate in some instances: Draw out a thread from the weave of the fabric. Turn the fabric to the back and score with a blunt tapestry needle. Make rows of tailor tacks.
4. When creasing folds prior to stitching, fold and press over the straight edge of a strip of heavy paper aligned to the straightgrain between opposite position marks. Space the seam lines of adjacent tucks at least a presser-foot width apart, as measured from the needle to the left. For the final pressing, avoid excessive steam which may cause the fabric to pucker.

The smooth symmetry that distinguishes standard tucking demands exact measuring and marking, accurate folding, and seams stitched plumb-straight a precise distance from the fold.





Practical application

This activity is for participants to work with each other (each two participants will be each one's client and maker) on the construction of a garment using the techniques you've been learning about.



Activity on Constructing a Garment

Using a dressmaking pattern, with easy fitting shape, the participants will apply the knowledge and techniques we approach in this module to construct a garment.

01

Materials needed

- Sewing machine
- Dress form
- Pattern cutting material
- Sewing kit
- Clothes for upcycling
- Fabric scraps
- Dressmaking Pattern

02

Objectives

- To understand how to take measurements of a body
- To be able to make a costume made garment by altering an existing pattern
- To understand how to do a fitting of the garment and how to make the necessary alterations
- To be able to use draping to add volume and shape to a garment

03

Duration

6 hours

Setting

a room where you can
put participants in
individual table each with
a sewing machine and a
dress form





Activity on Constructing a Garment

Plan

Time	Activity
00:00 – 00:20	Taking measurements and comparing with size chart
00:20 – 01:00	Transfer the pattern to the paper, adding seam allowance and cut the pattern
01:00 – 01:20	Choosing material; disassemble if necessary; Lay test
01:20 – 01:50	Cut the pattern in the fabric and /or disassembled clothes
01:50 – 02:50	Basting the garment for fitting
02:50 – 03:20	Fitting the garment
03:20 – 04:30	Draping garment - adding volume
04:30 – 6:00	Sewing the garment and finishings.

Activity on Constructing a Garment



Implementation

1. Take the “client’s” measurements and compare with the sizing chart of the easy fitting pattern you are working with
2. Choose which size fits better to the measurements and transfer the pattern to the paper, writing the pattern’s instructions- make sure to leave space to add the seam allowance
3. Add the necessary seam allowance and cut the pattern
4. Choose the fabric scraps and/or second hand clothes your ar going to choose for your garment;
disassemble whatever is necessary; make a lay test to make sure you have the right amount of material
5. Sew the pieces together, using a basting line or the sewing machine with a basting stitch, to assemble your garment

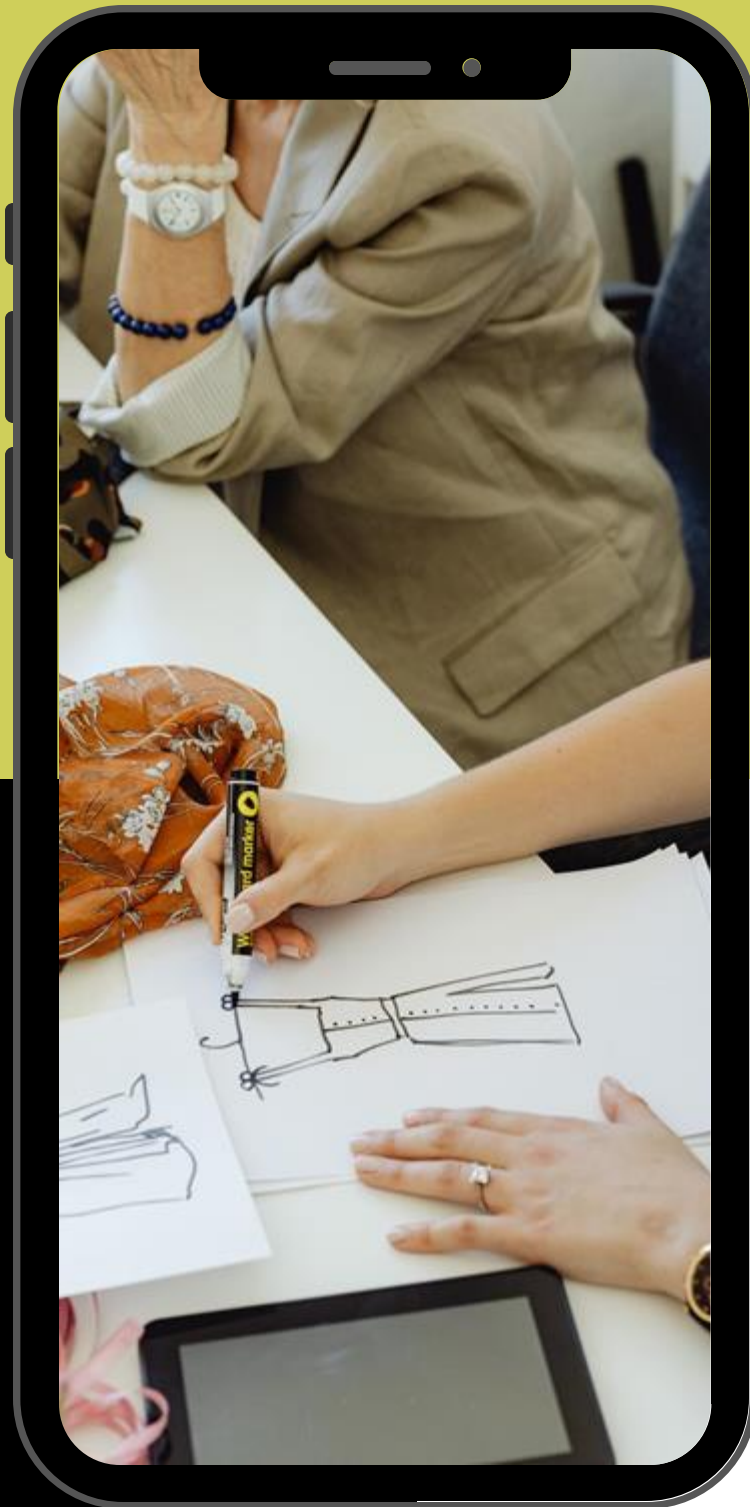
Activity on Constructing a Garment



Implementation

6. Fit the garment on your “client” marking which areas need adjustment to make a better fit, by using darts, pleats, tucks or gathering, leave it prepared for sewing
7. Using a dress form plan the draped part of your garment by adding extra components, like sleeve, collars and or adding volume by adding godets or flounces
8. Sew every component according to the planning and adjustments, using the proper finishings.

Unit Summary



In this Unit you have gone through the the pattern cutting and draping techniques, looking into how to use them in the upcycling process. You have also learned how to take accurate body measurements and what to look for when fitting a garment to any body type, as well as the practical application of different techniques you can apply in the upcycling process when wanting to shape or give volume to a garment: flounces, pleats, godets, darts, gathering and tucking.



References

- Aldrich, W. (2008) *Metric pattern cutting for women's wear*. Oxford: Blackwell Publishing.
- Thompson, H. and Whittington, N. (2012) *Remake it clothes: The Essential Guide to Resourceful Fashion: With over 500 tricks, tips and inspirational designs*. London: Thames & Hudson.
- Kiisel, K. (2013). *Draping : the complete course*. Laurence King Publishing.
- Wolff, C. (1996). *The art of manipulating fabric*. Krause, [20]14.
- Sass Brown. (2013). *Refashioned : cutting-edge clothing from upcycled materials*. Laurence King.
- (2025). *Clothes by yoshiki hishinuma*. Single Eyelid. <https://single-eyelid.com/products/clothes-by-yoshiki-hishinuma>