## **Understanding the Basic Dress Foundation of Pattern Making: A Complete** Study of Darting and Fitting of the garment Afroza Akter Rita

Patternmaking, fit, and design are all assemble on the basis of foundation pattern. Drafting the basic dress serves as an

## Abstract

inception to pattern making and it is a basic pattern that fits the body with sufficient ease for movement also in perfect balance, harmony and comfort. Dressmakers can only achieve good fitand professional gaze garments by beingknowledgeable about the elements of pattern making that influence shape, silhouette and style of a garments. Darts are substantially used to shape fabric to fit thebody curves by controlling fullness or excess fabric. Pattern making initiates with the basic pattern set or block or basic dress foundation and dart is the core component of making basic pattern. The study evaluated by understandingand describing all-inclusive about the form of dart, which is a constituent of basic dress foundation in pattern making, costume designing and fitting of the garments. Respectively, the purpose of this research was to amalgamate the entire knowledge of dart formation besides establish itas well as assess the knowledge of dressmakers' on the fitting of basic dress foundation including the application of darts in garment Keywords: Basic dress foundation, body bulges, dart, dart placement, dart position, dart shape, fitting and pattern making.

1. Introduction

Pattern making is a skill which is the art of manipulating and shaping a flat piece of fabric to conform one

## or more curves of the human figure (Fayoomy, A., &Tahan, A. 2014 and Efrat, S. 1982). Pattern creation serves as a link between design and evolution of depiction in the fashion world (Nambisan, S. 2002). Pattern making initiates with the basic pattern set or block or basic dress foundation (McKinney, E. C., Bye, E.,

&LaBat, K. 2012 and Hulme, W.H., 1949). It is a basic pattern that fits the body with sufficient ease for movement and comfort (Shoben, M., & Ward, J. 1987). Template making, fit, and design are all built on the basis of foundation pattern (Renfrew, E., & Renfrew, C. 2009). A pattern, which interprets the design in the form of garment components, may transform a sketch into a garment (Cooklin et al., 2011). Although the pattern is in flat form (2D)but the figure or model is in three-dimensional (3D) form: height, width, and depth (Tilley, A. R. 2001). There are a number of secondary curves in the body along with bulges inside this roughly cylindrical structure that the dress maker is concerned with while making garment pattern(Fan, J., Yu, W., & Hunter, L. 2004). Pattern creators transform a flat piece of fabric into a three-dimensional shape that matches the body's bulges by introducing darts (Efrat, S.1982). Darts are the foundation of all pattern formation. The stimulation of this study is to integrate the essentials of employing darts in the foundation pattern and describe about how dart is formed in the body bulges, proportions of dart in female figure, origin of dart, shape of dart, dart points, areas of dart to place the body and how dart is responsible into a well-fitted garments. 2. The Basic Dress Foundation

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The draft of the basic pattern serves as an inception to patternmaking (Hulme, W.H., 1949). The dress foundation has all the essentialmeasurements of the form and is represented by the basic pattern set. Patternmaking, fit, and design are all assemble on the basic pattern set, made up of five distinctparts: a front and back bodice (basic bodice), a front and back skirt(basic skirt) that swing straight from the hip up to knee, and slim full-lengthsleeves along with elbow dart (Stanley, H. 1991, Joseph, H. 2008). Thedress has sequence of seams that are directed towardthe figure's bulges-the bust, abdomen, buttocks, shoulder blades, and elbows (Armstrong, H. J., &Maruzzi, V. J. 2010). The ideal garment would fit comfortably, with enough ease, and in perfect balance and harmony with the rest of the outfit (Armstrong, H. J., &Maruzzi, V. Department of Fashion Design and Technology, BGMEA University of Fashion and Technology, Nishatnagar, Turag, Dhaka-1230, Bangladesh. Corresponding author Email: afrozaakterrita@buft.edu.bd 32

J. 2010). The dimensions of the fit model, or individual body measurements, are used to construct a sequence of two-dimensional straight and curved lines in foundational patterns (Lindqvist, R. 2013). When the lines are joined and then sewn together in cloth, a three-dimensional garment tailored to the body is created.

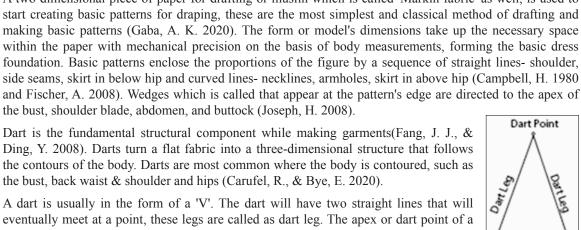
Dart Point

Dart Intak

Figure 2: Shape of Dart

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(a)(b) Figure 1: (a) Basic Dress Foundation, (b) Basic pattern-flat drawing (Armstrong, H. J., &Maruzzi, V. J. 2010) 3. Materials and Methods A two-dimensional piece of paper for drafting or muslin which is called 'Markin fabric' as well, is used to



A dart is usually in the form of a 'V'. The dart will have two straight lines that will eventually meet at a point, these legs are called as dart leg. The apex or dart point of a V shape is known as the dart point. The amount of excessive (or space) constructed linking dart legs is called dart intake(Armstrong, H. J., &Maruzzi, V. J. 2010). Its

objectives are to take up excess where it is not required, and to moderately release

fabric bottom line needed to control the garments fit.

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3.2 Importance of dart

based on typical body sizes and shapes.

excess fabric over the bust. Waistline darts of Skirt

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may

are used to shape fabric between

the waistline and hipline. Back

dart excess in back bodice and

waist dart excess in back bodice as well as skirt (Joseph, H.

> Front waist dart fits the curve of bodice bust, from the waist and points to the

Shoulder dart fits the curve

of the back and points to the shoulder blade.

2008).

bust.

buttocks. 3.4 Formed of darts

be

used

2015).

Fabric is manipulated by darts by folding and stitching it to a point called the apex. The legs of a dart are two sides that extend the widest portion of the dart to the apex (Matthews-Fairbanks, J. L. 2018). While all darts have the same basic structure, there are many different styles of sewing darts. Each style is designed to fit a specific part of the garment, such as the bust, waistline, or shoulder. 3.1 Dart shape at pattern's edge A dart is a folded wedge of fabric sewn to give a garment three-dimensional contour, similar to a triangle (MacDonald, N. M. 2009). This is often done to make room for, accentuate, or flatter the natural curve of a woman's body. The most basic of shaping techniques is called the dart (Gaba, A. K. 2020). Before the fabric is assembled, darts are sewn into it. Fold the fabric in half and stitch down the length of the fold to create a dart. Sewing a dart is akin to permanently enforcing the pinch. Darts turn a flat piece of fabric into

Darts are responsible for garments fit, without darts, clothes will resemble cylinders of fabric wrapped

buttocks, and abdomen (Gao, S. 2016). It is used to form the fabric so that the dress fits closer to the body. However, since curves vary so much from person to person, dart placement and length are just guidelines

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Shoulder Dart fits the curve of

of the back and

dart fits the curve of

The back skirt waist dart fits the curve of the bodice back from the waist and points to the hip and

Darts are a simple concept to grasp, but they are crucial to the styling and fit of any garment. A few key terms can help for the dressmakers to better understand darts and how to use them in all of the garments you design and fit. Several seams in a garment are 'darts' of some kind like side seams, shoulder seams, and sleeve underarm seams (Sommerfeld, E. E. 1964). Any seam that changes the diameter of the garment from

our back from the

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one with a three-dimensional shape, so dressmaker can use them to create contours while designing a sewing pattern (Asare, D. A.

Dart is created by stitching a line along a fold that tapers to a point and gives a shape to the body bulge(Efrat, S. 1982). It points to the body's fullest bulge wherever it ends. Darts with a wider width provide more shaping, whereas darts with a narrower width provide less shaping. Darts are usually made on the opposite hand, and the size and location of the darts are determined by the type of shaping and fullness needed. It eliminates fullness by reducing the

width or length of the garment while maintaining a smooth

appearance. It's made by stitching a line along a fold that tapers to

**Figure 3:** Dart shape at pattern edge (Joseph, H. 2008) a point, giving the bulge a form. It points to the fullest bulge of the body wherever it ends.

Figure 4: Silhouettes of garment

(without dart and with dart)

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around the bodies, similar to the togas worn in ancient Rome (Thompson, N. L. et al., 2007). That's where darts come in, and patternmakers are well aware of their importance as a strong foundation in patternmaking. Every garment ever made is made from a pattern as well as every pattern is made from a basic block, which is a basic pattern made using a set of custom measurements. Those measurements can come from a person's body or a dress form. The darts in a basic pattern can be manipulated. Darts, in other words, may be relocated or replaced to produce a new look or design. Darts may be used to make pleats, tucks, gathers, or even seams which plays an important role in transforming a simple block into a unique design or style (Asare, D. A. 2015). Dressmakers or designer's love to create dimension with fabric. The ability to cut two pieces of flat cloth into shapes that, when sewn together, can bulge and curve outward, or pinch inward, in just the right places to build the three-

3.3 Place of Darts in the Basic Dress Foundation Dart appears because of body bulges. Bulges means shoulder blade swelling or an outward curve or a sudden increase of volume (collinsdictionary.com). Stereotypical body bulges are the bust line, waistline, hipline, shoulder blades, abdomen, buttocks, and elbows (Asare, D. A., Monnie, P. D., &Gavor, M. E). Darts can be used productive in shaping fabric to the body in order to build better-fitting clothing, conceal figure defects, and accentuate figure strengths. Darts of front bodice are used to control

dimensional form designers have in mind is what attracts most people to fabric as a material. By confining unneeded fullness at the pattern's edge,

darts keep shape or model measurements. The fullness is gradually released

by the dart, which ends at or near the apex of the bust, shoulder blades,

bust line elbowwaist line abdomen hip line buttock **Figure 5:** Areas of dart to place (body bulges)

fits the tummy from

the waist line and

**Figure 6:** Fit of dart in areas of Body bulges (Joseph, H. 2008)

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accommodate dowager hump, scoliosis, and other back body shape characteristics (Scott, E., &Sayem, A. S. M. 2018). Darts also used to accommodate a dart fits the curve of our back at the waist pregnant belly as it grows. Areas and points to the shoulder blade of dart excess in female figures The bodice front waist dart fits the curve of our bust from the are following: bust/waist dart excess in front bodice, shoulder The skirt front dart

Back waist dart fits the curve of back at the waist and points to the shoulder blade. The skirt front dart fits the tummy from the waist line and points to the tummy.

a larger to a smaller circumference is darting the area of the garment (Cloake, D. 2016).

The back bodice waist darts at all-time points respecting the shoulder blades.

Skirt waistline darts always point toward the hip depth

Dart

Dart most required (Fan, J., Yu, W., & Hunter, L. 2004).

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Sleeve

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others.

3.6 Balanced and Fitting the Basic Garments

Balanced garments- The ideal relationship between parts that, when joined together, form a unit in which each part is in perfect proportion and harmony with the

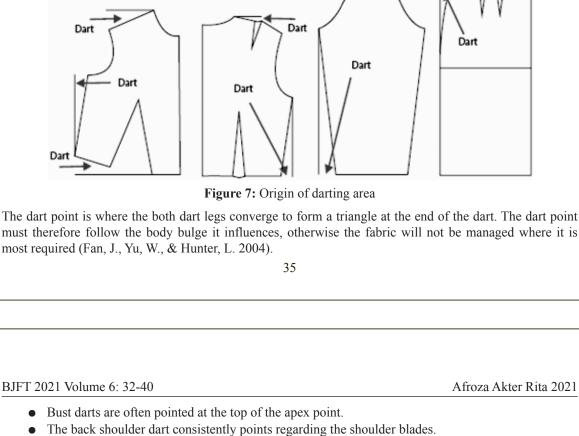
• The act of balancing a pattern: To improve the hang and fit of the garment, find and change the variations between joining pattern pieces. • Horizontal balance line (HBL): Any line drawn across the form that is perpendicular to the surface. When the garment is cut in cloth, the

pattern is often labelled with horizontal

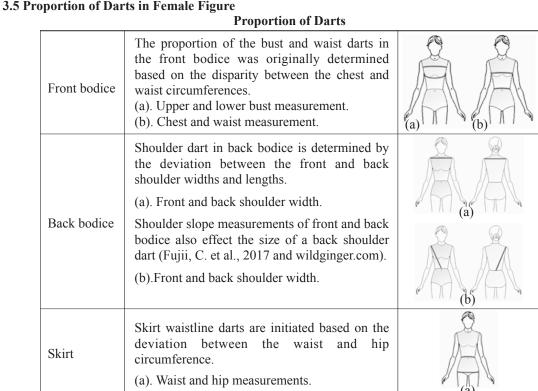
balance lines squared from the center lines reflecting the crosswise grain. When it comes

to matching the patterns, the HBL lines help tremendously. Horizontal Balance Line, centered on the hip's largest section

(Armstrong, H. J., &Maruzzi, V. J. 2010).



Dart



Sleeves elbow dart is initiated based on elbow level, placed at the articulation point of the

(a). Between biceps and wrist measurements.

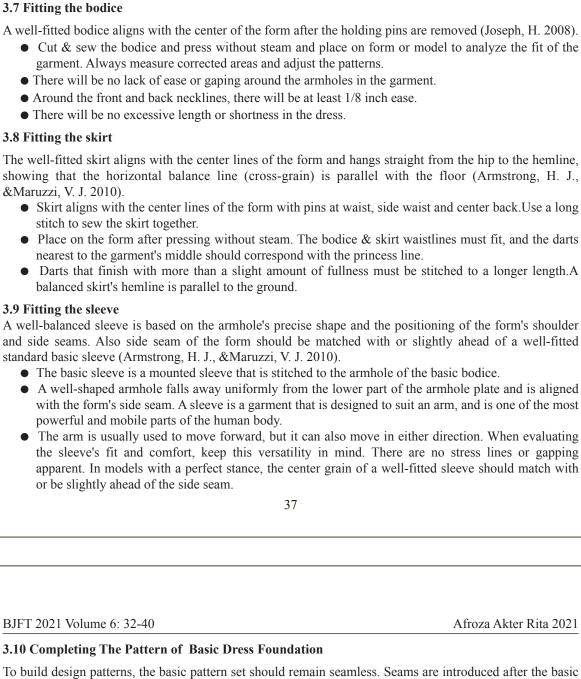
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IMPERFECT RIGURE

Perfectly balanced

Table 1: Proportion of darts in female figure(Joseph, H. 2008)

Figure 8: Dart points



pattern and design patterns have been completed. To save time, a skilled designer or patternmaker might choose to create design patterns with seamed patterns. For precision when tracing the pattern for manipulation, the darts are partially cut out and a punch hole is inserted at the end of each dart (Lindqvist,

Sleeve

Figure 10: Seamless working pattern (Armstrong, H. J., & Maruzzi, V. J. 2010)

Seam allowance, pattern symbols (notches, a punch, and circles), grain line, and pattern details are all included in a complete or finished pattern. The seamstress is directed in the creation of the garment by pattern symbols, and pattern knowledge helps in the production process (Joseph, H. 2008 and Armstrong,

Pattern information need to clearly written. These can be placed in the center of the pattern or placed along

Pattern identification and Size- Label and mark each of pattern pieces (bodice front, back, skirt and

Pieces cut- Mark and write the number of pieces cut from each pattern to complete the garment. A

 Seam allowance- It is the area between the fabric edge and the stitching line on two (or more) pieces of material being sewn together (Geer, S., & Shirley, L. 2011). Seam allowances can range from 1?4

Notch mark- An angular or V-shaped cut, indentation, or slit in an object, surface, or edge Pattern notches are small marks placed on a pattern to ensure that one piece of a pattern matches the pattern

Elb

**Figure 11:** Complete pattern of Basic dress foundation

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Pattern making is crucial in the garment production process because, since the manufacturing process has many phases, patterning is where the concept of what will be created as a final three-dimensional artefact to be made up as a garment takes place in a two-dimensional form (Barreto, A. M. 2018). It implies that constructing a flat pattern is a major phase in the garment-making process. Darts are responsible for body fitted garments, without darts, clothes will resemble cylinders of fabric wrapped around the bodies, which shape is call box-fit. So, patternmakers are well aware of their importance as a strong foundation in

Darts are also accountable for contouring the body, a well fitted and designed garments. Additional purpose

the identical front and back. Given the elasticity of knit fabrics, it is widely assumed that knit clothes can fit a wide range of figures without the use of design lines or darts. T-shirts and other dartless clothes are

The study evaluated by understanding and describing all-inclusive about the form of dart, which is a constituent of basic dress foundation in pattern making, costume designing and fitting of the garments. Respectively, the purpose of this research was to amalgamate the entire knowledge of dart formation besides establish it as well as assess the knowledge of dressmakers' on the fitting of basic dress foundation

Pattern making initiates with the basic dress foundation, where darts are the foundation of all pattern formation. Dart plays an important role of pattern making along with garment design and their usage is determined by a dressmaker's knowledge of the elements (Asare, D. A. 2015). So, this research is all about to understanding the basic dress foundation as well as how dart is implemented while making pattern and

reasonably easy to sketch for Standard Forms, but it's not frequently so easy for curvier figures.

Grainline- The pattern grainline is a line drawn from end to end on each pattern piece to show how the pattern should correspond with the fabric's lengthwise grain(Joseph, H. 2008 and Armstrong, H. J., &Maruzzi, V. J. 2010). The grainline will always be positioned parallel to the selvage edge on the

Back skirt

Front skirt

PERFECT FIGURE

Perfectly balanced

imperfectly balanced

Figure 9: Balanced & imbalanced garments

(Armstrong, H. J., &Maruzzi, V. J. 2010)

H. J., &Maruzzi, V. J. 2010).

fabric.

next to it

R. 2013.).

Front

Back

the grain line and on the right-side-up of each pattern (Stanley, H. 1991).

sleeve). Record the pattern size of each pattern pieces.

line separates the size (10) from the number of pieces cut.

inch to 1 inch wide as much as several inches.

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why dart is responsible for fitting of the garment. The level of understanding with which these elements were implemented had a significant impact on the final product. The precision with which dressmakers take body measurements, mark out darts, and analyze how to position the basic darts to achieve the desired effect is based on how well they accommodate and apply darts in pattern making (Asare, D. A. 2015). The value of accurately marking out darts in basic dress foundation was demonstrated in this study. A dart is a basic feature of a garment that can be modified to produce hundreds of different designs. Finally, the research has provided documentation on the positioning of darts, garment balance, and perfect fitting, all

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while establishing basic dress foundations in pattern making and garment design by dressmakers.

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is to ensure that the garment can be standardized and replicated as well as to customize it. It is used for a variety of purposes, either it is functional purpose or it can be decorative. Darts that suit the body curves are functional darts, while decorative darts are rendered more for style and meaning to the designs. Darts allow the cloth to adhere to the body by controlling its shape. Of course, how one employ darts and shaping seams is determined by how much want the garment to adhere to the body - or how fitting want it to be. Design lines and dartsfacilitate in the construction of close-fitting and well-fitting garments. This is the common understanding for clothing made of woven materials, however it is not the case for clothing made of knit fibers. Darts aren't recommended for knits, and design lines should be kept to a minimum, according to most patternmaking sources. In knit fabric, darts are relatively hard to sew, especially if the knit is very elastic and thin. Knit blocks are drafted without darts, and most directions for drafting knit blocks generate

5. Conclusion

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patternmaking and fit of the garments.

including the application of darts in garment designing.

4. Discussion

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