STANDARDS OF QUALITY

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INTRODUCTION

The Association of Sewing and Design Professionals, Inc. (the Association) is pleased to endorse the following Standards of Quality. These standards represent the accepted level of quality and the specified level of proficiency required of professional garment sewers. These standards also represent the five major areas of expertise a professional garment sewer must practice in order to consistently produce a quality product. The five areas are as follows: Sewing Technique, Fit (encompassing Pattern Manipulation and Alteration), Textiles and Visual Design.

One of the reasons for forming the Association was to provide a venue within which sewing and design professionals could adopt standards of quality for the garments they produce and the services they provide. Standards that specifically address their practices and products had never before been written by and for professional garment sewers. The Association's hope is that through the use of these Standards, a consistency in the quality of garment sewing will begin to be commonly recognized by sewing and design professionals throughout North America. These Standards will be adopted within the membership of the Association, and hopefully will spread to students and home sewers as well.

If Standards of Quality are to work well, they must give specific guidelines, so that sewing and design professionals can have a consistent measurement of quality for their products and services. This document was written giving specific guideline information that can be used as reference when evaluating a garment for meeting these quality standards. Each area provides a comprehensive and specific set of standards for each section in a garment's construction. It is important to remember that Standards address a finished garment and its appearance; they do not address the steps or techniques that it takes to achieve the finished result. These Standards can be read as a whole, or used for reference in checking the standard for the individual sections within a garment's design and construction. Visual drawings have been included only where necessary as an explanation of that particular standard(s). Each section is inclusive of all the standards that specifically address that section. Even though this is repetitive, this will aid in its usage as a reference guide when information is needed for a particular section only.

These standards can be used by individual sewers or by businesses with employees. They can also be adopted for use by design and sewing instructors in their classrooms and by authors of custom sewing articles and books.

The Association would like each member of our organization to adopt these Standards for all of their products. Use of the Standards in your business is voluntary, and membership in the Association is not contingent upon members using them in their businesses. It is important to remember, however, that the reason for developing and using these standards is to elevate the quality of the products that custom garment sewers provide their customers. Through providing quality products, we can increase public awareness of our skills and the value of our services, leading to greater income for and public recognition of Association members.

SECTION I:

QUALITY STANDARDS IN GARMENT CONSTRUCTION

This section recognizes and identifies the standards for quality clothing construction that give a garment a professional, finished look. The following list is a guide to producing an objective evaluation of professionally made custom clothing and alterations. Specific standards in construction can be expected even though there are many techniques that can produce the same finished results (i.e. French seams vs. serged seams). These standards apply to almost all sewing construction techniques. Each technique should result in a detail, finish, or area that is attractive or inconspicuous, functional, and durable. Using these standards as a guideline, the completed garment should be a quality professional garment.

SEAMS - When garment shaping and fitting require that two or more pieces of fabric must be joined, then a seam is used to affect that join. Examples of seams are plain seams, French, flat felled, lapped and serged.

1. The type of seam is appropriate to the type of fabric, the position of the seam, the projected care of the garment, quality, and design.
2. Thread color matches or blends and is of an appropriate weight for the fabric.
3. Seams are stitched with the correct stitch length and balanced tension.
4. Seams are smooth, with no puckers or pulls, and should lie flat.
5. Seam allowances are trimmed evenly unless graded to reduce bulk.
6. The seam allowance is appropriate for the type of seam, seam finish, and garment design.
7. Intersecting seams are aligned.
8. Plaids and stripes match at the seams where possible.
9. Seam finishes are appropriate to the dictates of the seam type, fabric, projected garment care, use and quality.
10. Seams are well pressed, with no imprint on the outside (see PRESSING).

SEAM FINISHES - A seam finish is any technique that is used to make a seam neat, to prevent the seam allowance edges from raveling and/or fraying, to prevent seam allowances from rolling, to prevent stretching and rippling in some seam allowances, and to give the inside of the garment a

more pleasing appearance. Examples of seam finishes are pinked, overcast, Hong Kong, turned and stitched, and serged.

1. The seam finish is appropriate to the garment fabric, the garment design, the intended use of the garment, its quality, and garment care.
2. The finish is applied securely so that it remains in place during normal wear and care.
3. The finish does not add bulk to the seam.
4. The selected finish prevents the fabric from raveling, rolling, or stretching and contributes to the overall neatness of the garment.
5. The finishes' binding or thread color is appropriate to the fashion fabric, unless used for decorative purposes.

DARTS - A dart adds three-dimensional shape to a single section of cut fabric. Darts are used most frequently at locations of major body contours--bust, shoulders, waist/hips, elbows, for example--and in apparel that is fitted to the body.

1. Stitch length is appropriate to the fabric and to the expected stress at the stitched location.
2. The thread matches the apparel fabric.
3. No creases or pressing impressions are present on the face side of the garment.
4. No dimples or bubbles can be seen at the dart point.
5. Matching darts appear identical in size and angle.
6. The stitching line is smooth without puckers or folds.
7. Both ends of the dart are sufficiently secured.
8. Darts on heavy or bulky fabrics are slashed, trimmed or balanced, if needed, and pressed open.

DART EQUIVALENTS - Gathers, pleats and tucks may be used as dart equivalents or as decorative details. They are created during the actual construction of the garment, as opposed to being applied to a completed garment or garment section.

1. Gathers are uniform and evenly distributed and stitched so as not to form pleats. Gathers are pressed flat only in the seam allowance. All visible basting threads are removed.
2. Tucks and pleats are composed of straight, even folds of fabric, uniform in width unless the design requires variation.

3. The desired grain line is maintained.
4. The stitching at the end of the pleat is secure.
5. Tucks and pleats are flat and pressed in one direction or as designed, except released tucks and un-pressed pleats.
6. Tucks and pleats are free of pressed-in ridges from hidden edges and marks from basting and pins.
7. Tucks and pleats hang straight and even with adequate fullness.

UNDERLININGS - An underlining is an appropriate fabric cut to duplicate a garment section, applied to the wrong side of the fashion fabric and handled as one during the construction of the garment. The primary purpose of underlining is to give additional strength, support, and durability to the outer fabric. It may be used to change the draping quality of the garment fabric, or to lend opacity to sheer or lightweight fabrics, or to prevent wrinkling. Loosely woven outer fabrics may be underlined to prevent stretching or sagging.

1. The fashion fabric and the underlining fabric relate well—the garment is neither over-supported nor under-supported for the desired design effect.
2. The fashion fabric and the underlining fabric are compatible as to color, care requirements, stretch, quality, and use.
3. When on the figure, the two layers of fabric fit smoothly and evenly, with no pulls or puckers.
4. The underlining is on the same grain as the garment fabric unless the design or the fabrics warrant bias.

INTERFACINGS - An interfacing is a special type of fabric applied directly to the facing or to the fashion fabric of a garment to give it body and shape.

1. The interfacing complements and reinforces the fashion fabric without overpowering it.
2. Care requirements of the interfacing are compatible with those of the garment fabric.
3. Interfacings have been properly preshrunk.
4. Interfaced seams and darts are treated to reduce bulk.
5. The interfacing does not show through to the right side of the garment.

6. Woven and knit interfacings are on the same grain as the garment areas to be interfaced, unless design or fabric warrant bias.
7. Interfacing is used in any areas requiring shape, body, support, and reinforcement, and where seam impressions may be a problem.
8. Fusible interfacings have been applied with the correct temperature and pressure in order to evenly and permanently bond them to the fashion fabric.
9. Interfacing is caught into the seams or hand tacked to prevent detaching.

INTERLININGS - An interlining is an underlying fabric placed between the outer fabric and the lining of the garment in order to enhance the warmth of the garment.

1. Interlinings are of lightweight or open weave fabrics with insulating properties.
2. Interlinings do not add excessive bulk to the garment.
3. The interlining's care requirements match those of the rest of the garment.
4. The interlined garment has adequate wearing ease to accommodate the added thickness.
5. Color is compatible and does not show through.
6. Woven and knit interlinings are on the same grain as the garment areas to be interlined, unless design or fabric warrant bias.

LININGS - A lining is a unit assembled in the same or similar silhouette as the garment or portion of the garment. It is applied to the inside of the garment to finish it and to hide the inner construction of the garment. The lining gives the garment a comfortable, luxurious feeling and lends ease in slipping the garment on and off. A lining protects the inner construction of the garment and prevents stretching.

1. The lining is on the same grain as the fashion fabric.
2. The lining fits smoothly inside the garment.
3. The lining provides a neat, clean inside finish.
4. The lining is constructed from a smooth, static-free fabric that complements the fashion fabric.
5. There is sufficient ease in the lining for body movement without straining the fashion fabric.

6. A partial lining used to maintain the shape of a garment extends far enough to accomplish this purpose.
7. On garments lined to the edge, the lining is not seen from the face side.
8. A free-hanging lining is linked to garment seams at the hemline where appropriate.
9. The edge finish is appropriate.

POCKETS

Inseam Pockets - Inseam pockets occur at a structural seam on the garment, most commonly at a side seam of skirts and slacks, but may be placed in other seams as well.

1. Functional pockets are positioned at a location convenient for use.
2. Openings on functional pockets are large enough for the intended use.
3. The pocket depth is correct for the location. Pocket sacks do not extend past the hem or facing of the garment.
4. Openings that are angular or on the bias have been reinforced to prevent stretching.
5. Pocket openings are reinforced at the beginning and end.
6. Seams lie flat without pulling or puckering, and the raw edges have been finished as the garment's quality, fabric and location demand.
7. Lining fabric, if used for the pocket bag, is durable, appropriate, and has the same care requirements as the garment's fabric.
8. The body of the pocket is anchored when possible to maintain its position and to prevent sagging.
9. The edges of the pocket opening appear the same size, with no puckering or pulling on either side.
10. The pocket lining is recessed enough so it does not show during movement and while sitting.
11. The pocket is cut on appropriate grain, generally duplicating the garment's grain line.

Applied Pockets - Applied pockets, often referred to as patch pockets, and are usually made from the fashion fabric cut in any desired shape or size.

1. Functional applied pockets are positioned at a location convenient for use.

2. Openings on functional pockets are large enough for the intended use.
3. The pocket depth is correct for the location and is in proportion to the design.
4. Interfacing is used when needed to hold the pocket shape.
5. Pockets are cut on the appropriate grain, and any fabric designs are matched. If a bias cut is used, pockets are not stretched and are properly stabilized and paired.
6. Comers match, with no raw edges or lining fabric visible.
7. Enclosed seams are trimmed, usually to one-fourth inch (.64 cm) or less.
8. Curves, if present, are smooth and the sides are symmetrical unless otherwise designed.
9. Pockets and/or flaps lie flat without pulling, twisting, sagging, or rolling.
10. Paired pockets appear the same height, the same size, the same shape, and at the same location on the garment.
11. Linings do not roll to the right side at the edges of the pocket, but remain out of sight.
12. If used, topstitching is an equal distance from the edge at all points unless otherwise designed. An appropriate stitch length has been used, and all loose thread ends have been secured and hidden.
13. Trims or decorations are neatly applied and appropriate for the design and location.
14. Pocket corners are reinforced properly according to type, location, method of application, fabric, and use.
15. Facings or hems are deep enough to stay in position; raw edges are appropriately finished for the fabric and location; under stitching is present when needed, and seams are appropriately trimmed.

Slashed Pockets - Slashed pockets, or welt pockets as they are sometimes called, have one or two strips of fashion fabric applied to the right side of the garment to conceal the raw edges of the pocket opening. Flaps may accompany the welts, and a lining must be applied and turned to the wrong side to complete the body or bag of the pocket and to conceal the small welt seams.

1. Functional pockets are positioned at a location convenient for their use.
2. Openings on functional pockets are large enough for the intended use.

3. The pocket depth is appropriate for the location. Linings do not extend below the hem fold in jackets.
4. Openings, flaps, and welts are interfaced when necessary for body and shape retention.
5. Pockets are cut on the appropriate grain with the fabric design matched, if applicable. Bias welts and flaps are properly stabilized and not stretched during their application.
6. Enclosed seams are trimmed, usually to one-fourth inch (.64 cm.) or less.
7. There are no holes, pleats, or puckers at the ends of the slashed openings. The ends are angled identically on both sides of garment as indicated by the design.
8. Flaps, when present, are of sufficient length to cover the welts and lie flat.
9. The pocket facing is fashion fabric applied to the pocket lining, directly beneath the pocket opening, when buttonhole or narrow single welts are used, to prevent the lining from showing when the pocket is being used.
10. Fabric triangles formed at the ends of the slashed openings are secured with several rows of small stitches or with bartacks.
11. Lining fabrics are appropriate for the location and for the fashion fabric weight, care requirements, and use.
12. Raw edges of the lining are appropriately finished as required for the pocket location.
13. Paired pockets appear identical in length, width at openings, and the distance from the garment edge.
14. Pockets lie flat without pulling, twisting, or rolling.

EDGE TREATMENTS

Bindings - A binding is a strip of fabric, usually bias, used to enclose the raw edges of a neckline or other areas of a garment. As it is visible on the right side of the garment as well as on the wrong side, it can be decorative as well as functional.

1. The width of the binding is even.
2. The binding is securely applied with the appropriate stitch length and no rippling.
3. The binding is suitable in weight, fiber content, care method, and style to the garment on which it is to be used.

4. All raw edges of the binding are concealed.
5. The binding fits the edge to which it is applied without stretching or pulling the neckline.
6. The comers are finished smoothly.
7. The binding, when joined to self, is smooth and not bulky.

Facings - A facing provides a smooth, inconspicuous finish for necklines, front openings, and other edges. Facings are categorized as:

> Shaped-- the facing is cut to fit the garment part to which it will be sewn, with grain positions identical or on the bias, and the finished width usually not more than three inches.
> Bias--cut in rectangular strips with the bias of the fabric creating the necessary shaping during construction and pressing
> Extended--cut onto a garment section, then folded rather than seamed to create the finished edge.

1. Facings lie smoothly with no ripples or puckers.
2. Facings are secured inconspicuously to the inside of the garment to prevent their rolling to the outside. The seam ditch is not visible on the outer edge of the garment.
3. The free edge of the Facing is finished appropriately to prevent raveling. Under stitching or topstitching serves as a means of securing the facing when necessary.
4. In garments made of thick, spongy fabric, the facings are cut from a lighter weight fabric in an appropriate color.
5. Facings in transparent or translucent fabrics are very narrow or stop at a design line of the garment.
6. Most faced areas are interfaced. Bias facings are the exception and are not interfaced. The extended facing on a cowl neckline is not interfaced, since that portion of the neckline is cut on the bias and is intended to drape softly
7. Comers, points, or bias neck edges are reinforced with stay stitching or stay tape.

Inset Bands - A shaped piece of self- or contrast fabric is set into the garment in order to complete its final shape. The addition of the inset band does not, in itself, finish the garment edge. Most commonly, the band is made of two layers of fabric. The outer band is set into the garment and the

inner band is treated as a shaped facing with its inner edge attached all around.

1. The band is cut with its grain positions identical to those of the garment or on the bias, according to design.
2. The band lies flat and fits the garment smoothly.
3. All construction points of the band and the garment are matched.
4. The inside of the band is neatly finished with no raw edges.
5. The band is appropriately interfaced.
6. The seam ditch is not visible at the upper edge of the band.
7. The width of the band is even, unless otherwise designed.

Rib-stretch Bands - The piece to be set into the garment is cut double the desired width on the crosswise grain of a knitted stretch fabric. It is then folded in half with both raw edges joined to the garment simultaneously.

1. The width of the band is even, unless otherwise designed.
2. The band is of the correct length for the neckline.
3. The neckband seam allowance, where joined to itself, is not visible.
4. The seam joining the band to the garment is neatly finished.

Collars - A collar is a single or double layer of fabric attached to the neckline. It may stand, drape over, or both stand and drape over the natural neckline, depending on style variations.

1. The collar is interfaced appropriately.
2. 'The outer edges of the collar are smooth and even. The under collar is not visible, unless otherwise designed.
3. Enclosed seams have been trimmed and graded to reduce bulk.
4. The size and shape of the collar and its placement on the garment is consistent from one end to the other, except for intentional design variations.
5. The collar fits the neck edge to which it is sewn, without stretching or gathering.
6. The collar assumes the proper position on the garment, as intended by the designer. For example, a flat collar lies flat against the garment, instead of rolling up.
7. All raw edges are carefully concealed during the collar application so that they are not visible when the garment is worn.

UNDERSTITCHING - Under stitching is not visible from the right side of the garment. It is used to force facings slightly to the inside, in order to hide the seam line.

1. Under stitching holds the facing (neckline, collar, cuff, pocket) in place.
2. The under stitching is not visible on the face of the garment.
3. The thread blends with the fabric.
4. Stitching is done from the right side of the facing, through the facing and all seam allowances, after seam allowances have been trimmed, graded, clipped, or notched.
5. The under stitching is an even distance from the seam edge, approximately 1 / 8".

SLEEVE TREATMENTS

Set-in Sleeves - The sleeve is set into an oval armscye with a seam that passes over the high point of the shoulder and encircles the entire arm. The set-in sleeve is designed with ease, to enable the sleeve to fit comfortably and attractively over the rounded portion of the upper arm. The amount of ease needed for these purposes depends on the width and the height of the sleeve cap.

1. The sleeve is usually matched to the bodice armscye at the following points, unless altered for custom fit:
    a. the high point of the sleeve to the shoulder line of the bodice
    b. the underarm seam of the sleeve to the underarm of the bodice
    c. the right sleeve is designed to fit into the right and the left sleeve into the left armscye for correct fit and hang of the sleeve.
2. A11 ease, generally on the sleeve cap, is distributed with no puckers, pleats, or dimples.
3. Bodice shoulder seams are sewn, finished, and pressed before the sleeve is set in, to avoid conspicuous pulls or puckers at the shoulder area.
4. Plaids, stripes, or directional patterns are matched within a two-piece sleeve and where the sleeve joins the garment at the notches. Further matching is dependent on the amount of ease.
5. Darts, pleats, or gathers used to produce a full sleeve cap are neatly made, accurately positioned, and consistent with the garment's style and the fabric.

6. The stitching that sets the sleeve into the armscye is smooth around the entire seam, with no dips or curves present.
7. The underarm area is double stitched and trimmed, usually to one-fourth inch (.64 cm.) to reduce bulk.
8. In jackets and tailored garments, the upper portion of the sleeve/armscye seam is left a full five-eighths inch (1.59 cm) wide to help support the sleeve cap. In soft fabrics and less tailored styles, the entire seam is usually trimmed.
9. In an unlined garment, the armscye seam allowance is appropriately finished.
10. Shoulder pads and sleeve heads are secured inconspicuously without pulling the garment in any way. They are the correct size and shape for the garment.

SLEEVE/BODICE COMBINATIONS

Kimono/Dolman Sleeve - The front sleeve and the bodice of kimono and dolman sleeves are cut as one unit and the back sleeve and the back bodice are cut as one unit. The resulting curved underarm seam will be more loosely fit on the dolman sleeve and more closely fit on the kimono sleeve.

Raglan Sleeves - The raglan sleeve has softly curved diagonal lines that extend from the underarm upward to the neckline, forming the upper part of the bodice from the shoulder to the neckline. Darts, seams, or gathers are used to provide the fullness necessary for the sleeve to curve over the full part of the shoulder, yet taper to fit the much smaller neckline.

Drop Shoulder - With a drop shoulder design, part of the sleeve cap is combined with the bodice.

Deep-cut Arm hole Design - With a deep-cut armhole design, the armhole section of the bodice is combined with the sleeve.

1. Plaids, stripes, or directional patterns are matched within the sleeve itself and where the sleeve joins the garment across the chest and back.
2. The method of shaping the shoulder and neckline area is appropriate to the garment's fabric and design.

3. The sleeve-to-bodice seams are smooth and flat with no puckers, pleats, or ripples.
4. Sufficient underarm reinforcement is used in fitted kimono sleeves to prevent them from ripping out during wear.

SLEEVE FINISHES - The treatment of the lower sleeve edge is commonly referred to as the sleeve finish.

Sleeve Plackets - A placket is a finished opening that is used at the lower edge of the sleeve in order to allow the sleeve to expand over the hand, yet still maintain a comfortable fit at the wrist.

1. Any points or corners are stitched securely with no fraying or holes.
2. The placket is completely smooth with no gathers or ripples. The pleats of the pleated placket are evenly folded and smooth.
3. The two sides of the placket are even in length.
4. If the placket overlaps, the overlap is on the portion of the sleeve closest to the center, lapping toward the outside of the arm.
5. Portions of the placket do not roll outward to the right side of the sleeve.
6. Tailored placket points are sharp and even.

Cuffs - A cuff is constructed of a fabric band that finishes and/or decorates the lower edge of the sleeve. A cuff is intentionally visible in the completed sleeve.

1. The cuff is interfaced for body and support. A rib stretch cuff is an exception.
2. The ends of open band cuffs are identical in size and shape and are finished neatly.
3. The edge of the cuff is smooth and flat with no seam ditches showing.
4. Any topstitching is even, straight, and in an appropriate stitch length.
5. The seam allowance on a closed cuff is not visible where it joins itself.
6. The inside of the cuff/sleeve seam is enclosed appropriately, according to garment design, fabric, and quality.

WAISTLINE EDGE TREATMENTS - Waistline edge treatments are used on garments that end and are finished at the natural or modified waistline and provide definition for the waist.

Waistbands - A waistband is an applied piece of fabric that is sewn to the garment at the fashion waistline.

1. The waistband is cut on the appropriate grain.
2. The garment is not stretched when the waistband is applied.
3. The application seam is smooth and even.
4. The waistband is smooth and flat.
5. Sufficient interfacing is used to prevent the waistband from distorting or rolling over on itself.
6. Facings of faced waistbands are constructed of appropriate material.
7. Both the overlap and the under lap are neatly finished and the comers are squared, unless otherwise designed.
8. The width of the waistband is even along its entire circumference, unless otherwise designed.
9. Belt loops or thread carriers are identical in construction and size, evenly spaced, and sufficient in number to keep a belt in place.
10. A waistband curtain, if used, is inconspicuously attached to the garment.
11. Waistline seams and top edges are matched in waistbands that are seamed at the center back.
12. Any topstitching is even, straight, and of an appropriate stitch length.

Waistline Facings - See Neckline Treatments (Facings - shaped, excepting the reference to the three inch width).

1. The facing is cut so that its grain lines match the garment's grain lines.
2. Sufficient interfacing is used to prevent the waist from stretching.
3. The facing lies flat and smooth against the garment and is secured in place on the wrong side with under stitching and/or tacking.
4. No seam wells are evident at any point on the garment.
5. The raw edges of the facing are finished appropriately to the garment's design, fabric, and quality.
6. At any opening(s) in the garment, the facing is neat, flat, and concealed.

Edge Casings -A casing is a fabric tunnel, secured by stitching on one or both sides, providing a space for the elastic, a drawstring, or a combination of the two, in order to adjust the garment's fit.

1. Stitching lines are parallel to each other and to the garment's edge.
2. The casing width allows the drawstring or elastic to adjust easily and to stay in place during wear.
3. The raw edges of the casing are finished to prevent raveling.
4. The elastic or drawstring is not twisted in the casing.
5. Openings in the casing are neat and durable.
6. Casings for the elastic are stitched closed after the insertion of the elastic.

Applied Elastic Waist - On an applied elastic waist, the elastic is applied directly to the waistline edge. This method not only finishes the edge, but also provides for some size variation of the wearer.

1. Appropriate elastic is used for the garment's purpose.
2. The elastic is of an appropriate width and length for its location.
3. The elastic is stretched evenly during its application.
4. Application stitches are secure.
5. Sufficient rows of stitching, with matching thread, are used to prevent the elastic from folding over on itself.
6. Seams in the elastic, if present, are lapped or butted.

INTERNAL WAISTLINE TREATMENTS - Internal waistline treatments are used on garments that do not end at the natural or modified waistline, but utilize some means of waistline treatment to provide definition. Internal treatments may occur at a raised waistline (Empire), natural waistline, or at a point below the natural waistline.

Elasticized Waistlines - This method produces waist definition in a garment with no waistline when elastic is sewn directly to the garment at the desired location and no separate casing is used.

1. The elastic is of an appropriate size, width, length and type for its location and use.
2. The elastic is stretched equally and stitched evenly and securely during its application.

3. Sufficient rows of stitching are used to prevent the elastic from folding over on itself.
4. Any joins in the elastic are lapped, butted or trimmed to reduce bulk.

Internal Casings - An internal casing uses a fabric casing applied to the inside, or sometimes to the outside, of a garment. Elastic or a drawstring is inserted in the casing in order to control waistline fullness.

1. The stitching lines are parallel.
2. The casing is the correct width for the elastic (usually 1/8" wider than the elastic) or the drawstring (usually 114" wider than the diameter of the drawstring).
3. The raw edges of the casing are finished, if necessary, to prevent raveling.
4. The elastic or drawstring is not twisted in the casing.
5. Openings in the casing, when present, are neat and durable.
6. Casings for the elastic are stitched closed after the insertion of the elastic.
7. Any seams in the elastic are lapped, butted, or trimmed, to reduce bulk.
8. The casing fabric is soft, thin, consistent in grain line and compatible with the garment's fabric.

Waistline Seams - A waistline seam is created when garment sections are seamed together at the waistline.

1. All major construction points on both garment sections are matched i.e. seams, darts, pleats and gathers.
2. Fullness, if present, is evenly distributed unless otherwise designed.
3. A waist stay is applied if necessary. The stay is cut the proper length and attached only at seams and darts. It has a separate closure from that of the garment.
4. For inset bands at the waist, see the description under NECKLINE TREATMENTS, Inset Bands.

CLOSURES

Button and Decorative Snap Closures - Buttons and buttonholes are one of the most common methods used to join two pieces of a garment. In women's clothing, buttons are placed on the left side of the opening and the

buttonholes are placed on the right overlap; in men's clothing, buttons are placed on the right side. The under lap and the overlap must be at least one-half the button diameter or snap width plus one-fourth of an inch beyond the center front or the closure seam line.

Buttons (including decorative snaps)

1. Buttons coordinate with the garment's design, fabric and garment care.
2. Buttons are spaced appropriately for their size and location.
3. The fabric under the buttons is additionally reinforced when necessary.
4. The buttons are sew-n securely.
5. No loose threads hang from the buttons.
6. The buttons have a self or thread shank appropriate to the fabric's thickness.

Buttonholes

1. The type of buttonhole is suitable for the garment's design and fabric.
2. The buttons and the buttonholes are aligned so that the button rests within the top 118 inch of vertical buttonholes, and within 118 inch of the center front of horizontal buttonholes.
3. The buttonholes are securely stitched in thread that matches or decoratively contrasts with the fabric. Hand or machine stitching is regular and smooth in appearance, with no fraying or loose ends.
4. The buttonholes are large enough to allow the buttons to pass through easily and yet small enough to hold the garment closed.
5. The buttonholes are even in length, width, and equally spaced unless otherwise designed.
6. If bound, the buttonhole must have the following criteria:
    a. The rectangle has perfectly square corners.
    b. The rectangle's length and width are determined by the button size and fabric weight.
    c. Welts are even in width and meet exactly at the center of the opening.
    d. The facing is securely fastened to the back of the buttonhole.
    e. For pressing, see the description under the PRESSING section.

Snapped and Hooked Closures - Some varieties of snaps and hooks are used in concealed applications, while others are used in decorative as well as functional applications.

1. Fasteners are the correct size and location for the closure requirement. Sets are aligned and hooks are usually placed 118" (3mm) from the edge of the overlap so the garment is secure and the closure lies flat.
2. Fasteners are attached securely and neatly.
3. Concealed applications of fasteners are inconspicuous.
4. Fasteners used in visible applications are suitable for the garment design and fabric.
5. Durable coverings (thread or fabric) are used where appropriate.
6. The garment is reinforced on the wrong side, usually with interfacing.

Zippered Closures

1. The zipper type and application are suitable for the garment's quality, design, fabric and use.
2. The zipper length is adequate for ease in wear or use.
3. Any visible stitching is straight, even and the thread matches, unless otherwise designed.
4. The zipper is securely inserted into the garment at the intended position.
5. The zipper, when closed, is flat and smooth, free from puckering and does not buckle.
6. The zipper opening appears to be a continuation of the garment's seam line.
7. Horizontal seams meet across the zipper opening.
8. Facings at the top of the zipper roll to the underside. Edges are smooth, even and flat.
9. The lapped zipper covers the stitching on the under lap so that the stitching is not visible.
10. The slot zipper is centered. Welts on each side of the placket appear identical in size, shape and placement, as well as equidistant from the opening.
11. The zipper slides easily and does not catch.
12. Fabric patterns are matched appropriately.
13. The seam at the end of an invisible zipper is smooth and straight.

HEMS AND HEM TREATMENTS - A variety of methods is used to finish the lower raw edge of a garment.

1. The hemline of the garment appears parallel to the floor during wear, unless the garment design indicates an uneven hemline.
2. The hem is even in depth and appropriate for the weight of the fabric and the style of the garment.
3. The hem is flat and smooth, with no pulling, rippling, or puckering.
4. The hem type is appropriate for the garment's fabric, quality and style.
5. The hem finish is appropriate for the garment's fabric, quality and the type of hem.
6. The stitch which attaches the hem is appropriate for the garment's fabric, quality and style. Thread color matches the garment, and is not visible on outside of the garment.
7. Excess bulk has been eliminated from the hem area, i.e. fullness is reduced, and enclosed seams are pressed open and graded.
8. Topstitched hems are evenly stitched with the appropriate thread and stitch length.
9. Blind stitching, fusing, and gluing (leather) are inconspicuous on the right side of the garment.
10. Hems at the garment's opening(s) and vents are covered by the facing.
11. Hems in linings do not hang below the outer garment.
12. The stitch which attaches the hem in pleated hems catches the pleat crease.

DECORATIVE DETAIL - The trim enhances the garment or makes it unusual in some way, without overpowering the garment's design.

Soft Trims - Soft trims include items such as lace, braid, ribbon, piping, and bias binding.

1. The trim is suitable to the garment fabric's weight, design, and care requirements.
2. The trim is securely attached to the garment.
3. The trim is attached in an inconspicuous manner, unless the method of attachment constitutes part of the decorative effect flexible trim is used on curved areas and applied without stretching or puckering of the trim or the garment.

4. Trims used at the comers are mitered or appropriately applied to lie flat.
5. Bias binding and piping lie smooth with no rippling. See neckline treatments for more specific reference on bias binding.
6. There is no excess bulk at the joins or the ends.

Hard Trims - Hard trims include decorative items such as buckles, belts, studs, beads, and sequins.

1. The hard trim is compatible with the garment fabric's weight, style, and care requirements and will not damage the garment.
2. The hard trim is securely attached.
3. Beads, sequins, and studs are applied so that the fabric does not pucker, and the underside application is smooth.
4. Belts meant to be firm have a stiff backing which is securely attached and does not show on the face of the belt.
5. Belts do not rub off or bleed color onto the garments with which they are worn.
6. The belt buckle is securely attached to the belt and holds the free end of the belt securely when closed.

Fabric and Stitchery Trims - This category includes self-fabric and coordinating fabric trims such as ruffles and bows, appliqués, and decorative stitchery.

1. Ruffles are neatly finished and smooth and have ample fullness, even gathers, and no puckers or pleats.
2. Appliqués are securely attached to the base fabric, with no puckering, raveling or fraying apparent.
3. Fabric bows are neatly turned, with no seam wells and with symmetrical ends.
4. Fabric flowers are neatly finished with no raw edges and are securely attached.
5. Topstitching is an equal distance from the edge at all points. An appropriate stitch length is used, and all loose thread ends have been hidden.
6. Decorative stitchery does not distort the garment.
7. The thread used in the stitchery is colorfast.
8. Care requirements of the appliqués and the stitchery are compatible with those of the garment.

PRESSING

1. The garment surface is smooth and free from wrinkles.
2. The original appearance of the fabric has been maintained. It is:
   free from over pressing or iron imprints
   free from shine, scorching or melting
   free from flattened nap or pile
   free from imprints of construction details on the face of the garment
   free from stretching or shrinking
   free from water or mineral spots
3. Seams and darts are pressed smoothly on the stitching line; fabric does not fold over the stitching line or look bubbled.
4. Using shaped pads or boards, the shaping is pressed in where the garment will fit over body curves.

SECTION II:

QUALITY STANDARDS FOR FIT

This section recognizes and identifies the standards for quality fit that give a garment a finished, professional look. This section also encompasses the body of knowledge for pattern manipulation and alteration. Knowledge of these techniques is needed when preparing a custom pattern and is reflected in the custom fit of a garment. Because these techniques are incorporated in a finished garment, it is not necessary to present separate standards for pattern manipulation and a1teration.

The following list is a guide to producing an objective evaluation of fit in professionally-made custom clothing and in altered garments. The guide is based upon a classic fitted dress with darts and set-in sleeves, and a slim cut skirt (see fig. A). The pant and skirt are also a classic cut with a waistband, darts, and a slim silhouette (see fig. B and C). All garments are cut to fit within the minimum ease allowance provided on the Minimum Ease Comparison Chart (compiled by the Standards and Practices Commit tee).

This model is used because it is the universally accepted model for a basic cut (fitting shell) in garment design. In evaluating all other clothing, the

basis set forth in these standards can be adapted to any style. Please refer to the garment illustrations when reading the Fitting Standards. The overall custom fit of the garment should result in clothing that fits, looks and feels comfortable, and allows the body to move naturally.

UPPER BODY AND ARMS - (see fig. A, page 24)

Center Back and Center Front Seam or Fitting Lines –

1. The center back and center front seams are perpendicular to the floor.
2. The center back and center front seams are centered on the body.
3. The lengthwise grain is perpendicular to the floor and the crosswise grain is parallel to the floor.

Side Seam lines –

1. The side seams appear perpendicular to the floor.
2. The side seams divide the body into pleasing proportions.
3. The side seams appear as straight lines.

Darts -

1. Darts point toward the fullest part of the curved area being accommodated.
2. The darts end approximately 1 inch (2.5cm) short of the fullest part of the bust contour. In fuller busts, this measurement may vary.
3. Darts usually appear as straight lines on the body.
4. Darts are sewn to conform the fabric to the shape of the body surface.
5. Darts have no fabric strain, bubbles, or wrinkles, especially at the dart tip area.

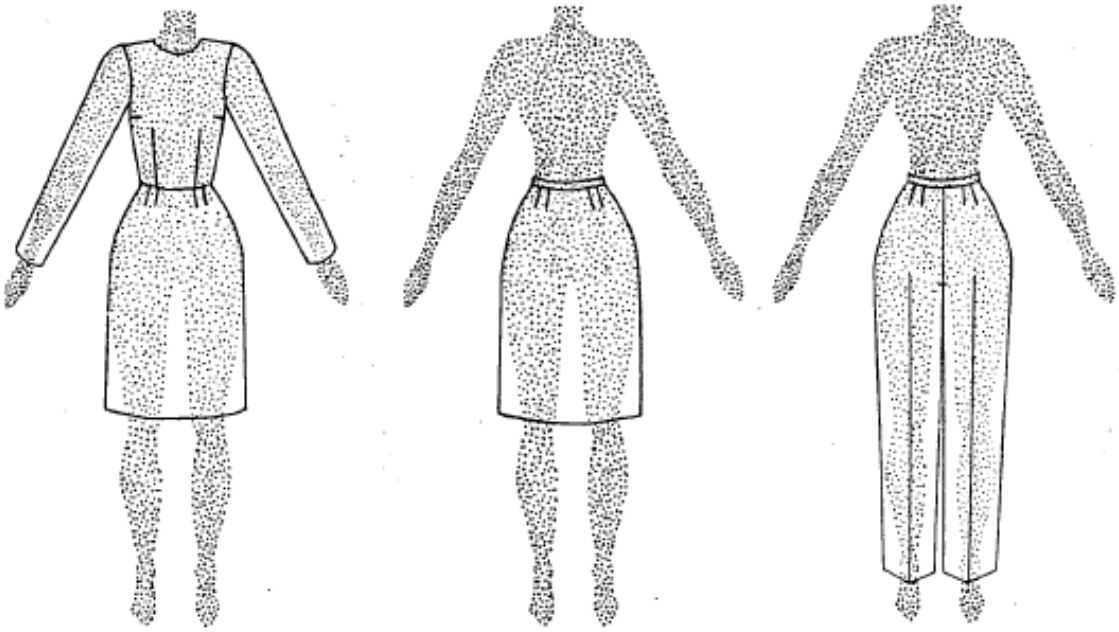

Fig. A Fig. B Fig. C.

Neckline - (see fig. D, E, and F, page 25)

1. The neckline crosses the back of the neck through the center of the prominent vertebra.
2. The neckline lies smoothly around the base of the neck at the front, sides, and back.
3. The neckline lies near the tip of the ends of the collar bone or at the base of the throat depression so it does not chafe the neck cords.
4. The collar stand lies smoothly around the neck without constriction or gaping.
5. A low neckline lies close to the body with no gaping.

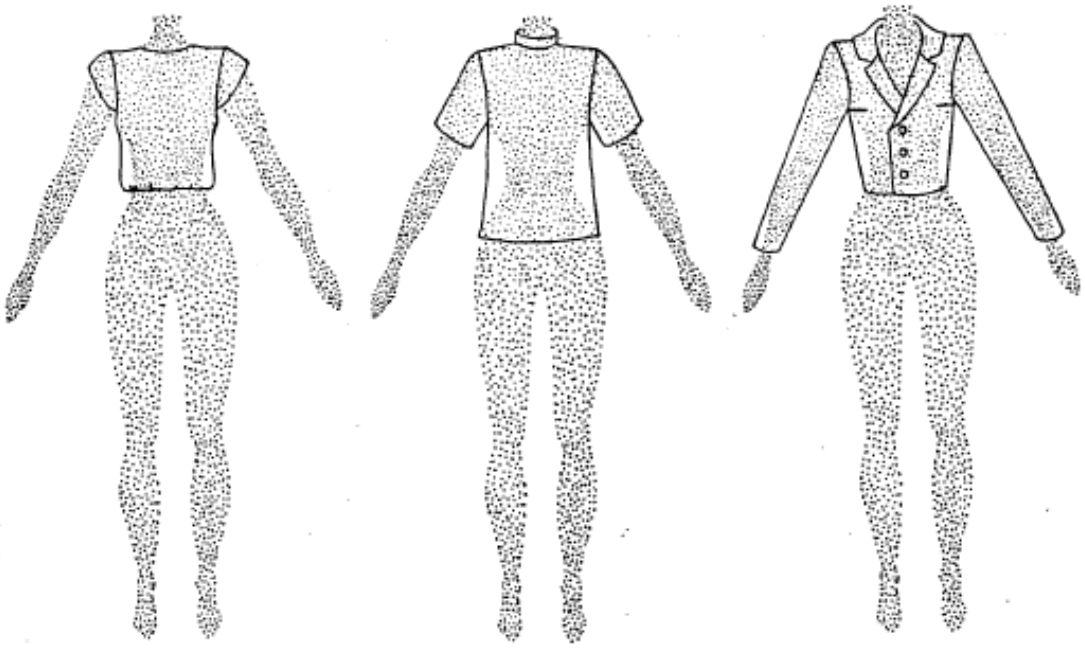

Fig. D Fig. E, Fig. F

Shoulder Seam line –

1. The shoulder seam appears as a straight line from the side neck base to the armscye line at the shoulder joint. ,
2. The shoulder seam line divides the neck, shoulder, and arm into pleasing proportions.
3. The shoulder seam line is inconspicuous from the front and the back.
4. The shoulder seam lies close to the body without strain at any point along its length.

Shoulder Blade and Chest Area –

1. The shoulder blade and chest areas have horizontal and vertical grain lines that lie parallel and perpendicular to the floor.
2. The blade and chest areas lie smoothly against the body between the armscye circumferences.
3. Adequate ease around the upper body allows the arms to move comfortably without strain at the shoulders or armscyes.
4. If shoulder pads are used, they should be inconspicuous and smoothly concealed.

Armscye - (see fig. G, below)

1. The top of the armscye lies about 1 / 2 inch (1 -2 cm) beyond the shoulder bone.
2. The armscye is in line with the back arm crease when the hands are crossed at the front.
3. The armscye is in line with the front arm crease when hands and arms are relaxed at the sides.
4. The armscye lies 112 to 1 inch below the armpit.
5. The armscye does not constrict, cut the body, or gap from it in any area.

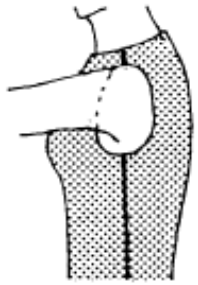

Fig. G

Bust –

1. The lengthwise and crosswise grain lines are parallel and perpendicular to the floor at the center front and the upper chest.
2. The bust area has adequate ease to permit body movement and prevent gaps at closures.
3. The bust area is free from diagonal or horizontal wrinkles or folds.
4. Darts or dart equivalents are appropriately placed.

Sleeve -

1. The sleeve cap usually extends about 1 / 2 inch (1.2 cm) from the shoulder point then drops vertically.
2. The sleeve has crosswise and lengthwise grain lines that lie parallel and perpendicular to the floor at the cap line. The lengthwise grain line from the shoulder point drops to the wrist bone
3. The sleeve underarm seam is in line with the center of the wrist.
4. The sleeve width has adequate ease throughout to permit body movement.

5. Elbow ease or darts, when used, point to the elbow.
6. The full length sleeve hemline usually falls at the wrist bone, but may be determined by personal preference.

LOWER BODY AND LEGS (See fig. A, B, & C, page 24)

Center Back and Center Front Seam or Fitting Lines –

1. The center back and center front seams are perpendicular to the floor.
2. The center back and center front seams are centered on the body.
3. The lengthwise grain is perpendicular to the floor and the crosswise grain is parallel to the floor.

Side Seam lines –

1. The side seam lines are perpendicular to the floor.
2. The side seams divide the body into becoming proportions.
3. The side seams appear as straight lines on the body.
4. The side seams appear to intersect the waistline at 90-degree angles.

Darts –

1. Darts point toward the fullest part of the curved area being accommodated.
2. Darts end approximately 1 inch (2.5 cm) short of the fullest part of the curved area.
3. Darts usually appear as straight Lines on the body.
4. Darts are sewn to conform the fabric to the shape of the body surface.
5. Darts have no fabric strain, bubbles, or wrinkles, especially at the dart tip area.
6. Darts are positioned to create pleasing proportions.

Waistline –

1. There are no horizontal folds around or below the waist.
2. The waistline follows the contour of the body.
3. The waist is loose enough to allow the body to expand during sitting, breathing, and eating.
4. The waistline is controlled with darts or dart equivalents in order to accommodate curves.

Hip Area –

1. The grain line at the hip level is parallel to the floor.
2. The fit through the hip area allows for movement, without straining the fabric or gapping at closures.
3. The hip area is free from diagonal, horizontal, or lengthwise distortion.
4. The hip area is controlled with correctly fitted darts or dart equivalents to accommodate the curves of the body.

Crotch - Pants (see fig. C, page 24; fig. H, below)

1. Adequate balance of the front-to-back crotch seam length and depth allows the waistline to be positioned appropriately while sitting and standing.
2. Adequate crotch length and depth is allowed through the crotch curve so that the crotch seam does not hang below or cut into the crotch area.
3. No visible wrinkles radiate from the crotch seam.

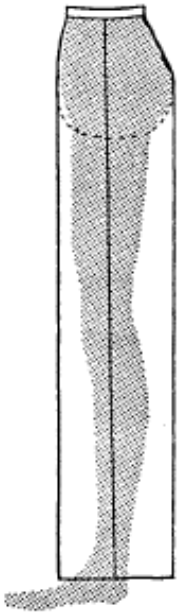

Fig. H.

Legs - Pants

1. The crosswise grain line at the hip level is parallel to the floor. The lengthwise grain line hangs straight and is perpendicular to the floor.
2. Pant side seams and inseams hang straight and perpendicular to the floor and, from the side view, are centered on the leg.
3. Pant legs should hang straight from the hips to the hem without sagging, wrinkling, or pulling.

Hemlines -

1. Hemlines appear parallel to the floor unless otherwise by design.

MINIMUM EASE COMPARISON CHART

Description	Blouse, Dress	Jacket	Coat
Neck	½" – 1"		
High Bust or Chest	2 ½" – 4"	3"	4"
Bust, fullest part	2 ½" – 4"	3" – 4"	4" – 5"
Apex to Apex	0"		
Back Waist Length	½"	½"	½"
Back Blade Width	½" – 1"	1"	1" – ½"
Back Shoulder Point	¼" – ½"	1" – 1 ½"	1" – 2"
to Shoulder Point			
Center Front Bodice	½"		
Length (neck to waist)			
Shoulder to Bust	0"	¼"	½"
Shoulder to Waist	¼" – ½"	½"	¾"
Shoulder Length	0"	¼"	3/8"
Sleeve Length	0"		
Shoulder to Elbow Length	0"		
Elbow to Wrist Bone Length	0"		
Arm Circumference	2" – 3"		4"
Wrist Circumference	½" – ¾"		
Waist	½" – 1"	3" – 6"	5" – 12"
High Hip	1 ½" – 2"		
Hip, fullest part	2" – 3"	4" – 8"	6" – 12"

Description	Pants	Shirt
Waist	½" – 1"	½" – 1"
High Hip	1 ½" – 2"	1 ½" – 2"
Hip, fullest part	2" – 3"	2" – 3"
Crotch Depth	½" – 1"	
Crotch Length	1" – 2"	
Thigh Circumference	2"	
Calf Circumference	2"	

Note: Larger figures will be more comfortable with more than the minimum amount of ease.

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SECTION III:

QUALITY STANDARDS FOR TEXTILE USAGE

This section recognizes and identifies the standards for quality in textile usage that give a garment a professional, finished look. These standards address how a fabric functions and appears in a finished garment. They do not address quality standards for individual textile fibers (cotton, silk, linen, polyester, etc.), fabric structures (woven, knit, non-woven, etc.), or finishes (even coloration, aligned print, etc.). Appropriate selection, handling and usage of fabric during all the stages of a garment's construction should produce a quality professional garment.

SELECTION OF FABRIC

1. The fabric is compatible with the intended design and use. It has been examined for appropriate fiber content, hand, weight, texture, drape, transparency, weave and shape retention.
2. The supporting fabrics (underlining, interlining, interfacing, lining, stay tape and trims) are compatible with the intended design and care of the garment.
3. Woven fabric has lengthwise and crosswise threads at right angles.
4. Knit fabric ribs are parallel to the edges and at right angles to the horizontal rows on the wrong side of the fabric.
5. The fabric has been checked for flaws (unwanted dubs, printing errors, permanent wrinkles, snags, runs and fading). Any existing flaws are assessed and worked out of the design.

CUTTING

1. The fabric and all supporting fabrics have been appropriately preshrunk, hand washed, machine washed and dried, steamed or dry cleaned.
2. The fabric grain has been straightened, if necessary.
3. The garment is cut on the appropriate grain (or yarn direction), so that it hangs as the garment was designed.
4. Plaids, stripes and printed designs on the fabric match, in so far as possible, resulting from correct placement of the pattern pieces.
5. The garment is cut with consistent nap, unless designed otherwise.

6. The marking technique selected for the fashion fabric leaves no residue mark on the face of the fabric.

CONSTRUCTION TECHNIQUES

1. Construction techniques are appropriate for the weight, firmness, fiber content, structure, durability and design of the fabric.
2. The fabric retains its shape during construction, unless by design, such as bias.
3. There are no snags, pulls, stains or other damage during construction.
4. Also refer to Section I: Quality Standards in Clothing Construction.

FIT

1. The fit of the garment on the body does not distort the grain of the fabric other than that intended by design.
2. The fabric lies on the body according to design.
3. The fabric drapes correctly on the body.
4. The fabric hangs smoothly, free from inappropriate wrinkles and pulls.
5. Sufficient ease has been allowed for the weight and structure of the fabric.
6. Also refer to Section 11: Quality Standards for Fit of a Custom Garment.

PRESSING

1. The garment surface is smooth and free from wrinkles.
2. The original appearance of the fabric has been maintained. It is:
   free from any construction markings
   free from over pressing or iron imprints
   free from shine, scorching or melting
   free from flattened nap, pile or texture
   free from imprints of construction on the face of the garment
   free from stretching or shrinking
   free from water or mineral spots, dirt or stains.

SECTION IV:

QUALITY STANDARDS FOR VISUAL DESIGN

This section begins by defining the elements of visual design. Then it recognizes and identifies the standards for quality in the visual design of a custom garment based on the principles and how they act upon the elements. These standards are the basis by which a garment presents a professional finished look. The main purpose of visual design in clothing is to enhance the attractiveness of the wearer. This is accomplished through the conscious use of the elements of visual design, which are the basic components or foundations of consideration in all garment design.

The principles of the visual design of a garment are a guideline, technique or method of manipulation of an element to create a specific effect on a garment. Since the principles are the physical effect of the elements (manifesting in the visual design of a garment), standards of quality are only written for the principles of visual design and how they affect the elements. Therefore, it is not necessary to write standards for the elements.

Any visual design is possible as long as it is done following the standards set forth below. Garment sewers can follow or break every rule and theory of design as long as the end result works to enhance the wearer. If a rule of theory is broken, it should be a conscious, artistic decision and the end result should always enhance the wearer.

DEFINITIONS OF THE ELEMENTS OF VISUAL DESIGN

Space and Line

Space is the basic or blank area which the sewing and design professional uses. It may be the entire garment or an area within the garment. This space is organized by introducing line, shape and form, color, texture and pattern, which subdivide, fill, expand and otherwise manipulate the visual design of a garment.

A line is an elongated mark, a connection between two points. (1) It creates an edge, outline, or silhouette of a garment, or the style lines within a garment that divide space. Line leads the eye and creates visual space (focal

points). Examples include vertical, horizontal, diagonal and curved lines plus their direction across space.

Shape and Form

Shape is a flat two-dimensional space enclosed by a line. For example, a sleeve is a shape while it is a flat pattern. Form is a three-dimensional space created by joining opposing edges of a surface. For example, a sleeve, when stitched into a cylinder, is a form. The fabric (surface) of the sleeve creates the form.

Light

Light is electromagnetic energy making things visible, the radiant energy resulting from vibration of electrons. Light provides illumination and color; it defines and locates lines, forms, and surfaces, and visually reveals the physical world, including clothing. (Davis, p. 135)

1. The physical effect of light depends upon the nature of its source and the objects it strikes.
2. A change in the light source can change and manipulate figure and garment contours.
3. Light rays define a garment's colors, contours, distance, location, position and surface texture.
4. Light plays on a figure, emphasizing its three-dimensional qualities and creating highlights and shadows from the draping, folds, gathers or various textures of the clothing.

Color

Color is basically and internal sensation and an external occurrence. The internal phenomenon includes eye perception and brain interpretation. It is the body's physical, emotional and psychological reaction to light reflecting from a surface. The external phenomenon of color is light wavelengths radiating from a light source or reflecting surface (fabric). All surfaces (fabrics) reflect light. Naturally occurring fiber colors and applied dyes and pigments give fabrics color.

The dimensions of color include hue, value and intensity. These dimensions account for the differences we see in colors. Hue refers to the name of a specific color. There are three kinds of hues: primary, secondary and tertiary. These colors can be found on a color wheel. For example, the Pantone wheel is the international standard for color in printing, publishing and business as well as an official color wheel. Value refers to the degree of lightness or darkness of a hue. Intensity refers to the relative brightness or dullness of the hue.

Texture

Texture is the tactile and visible structure of a garment surface. Texture is a result of the fiber content, yarn structure, fabric structure and finish. The tactile aspect (the hand) of the finished garment may be described as supple or rigid, hard or soft, thick or thin, stretchy or stable, limp or resilient, fine or coarse, open or compact. In addition to the hand or feel of the surface of the fabric, the weight of the fabric is part of the texture. The weight may range from heavy through various mid-weights to lightweight; the weight influences both the tactile and visual aspects. The visual aspects include the surface, such as dull, smooth, shiny or nubby, and the substance, such as opaqueness, sheerness or density. The audio aspect may project mood by its sounds, such as the rustle of taffeta. Only a few fabrics have an audio aspect.

Pattern

Pattern is an arrangement of the elements of line, space, shape and color on or in a fabric or garment. Pattern can be created through fabric construction, applied surface pattern or fabric manipulation.

THE PRINCIPLES

REPETITION

Repetition is a design feature that is used more than once. It is directional and moves the eye from one element to its repeat on the garment.

1. The repeat is within the scale of the figure. It does not overpower or diminish the wearer.
2. The fabric thickness and texture of the repetition complements the design and the size and shape of the wearer.
3. The shapes, lines and position of the repetition on the garment are in visual harmony with the whole garment and complements the wearer.
4. Colors repeat with visual ease, whether stripes, pattern or color blocking.
5. The repetition does not unduly focus on the erotic areas such as bust, crotch or derriere, or emphasize less attractive areas of the figure, unless intended.
6. The garment lines do not negatively repeat the wearer's facial or body structures (square jaw, square neckline).
7. If stripes are repeated vertically, the figure is enhanced by their effect. If stripes are repeated horizontally, the figure is enhanced by their effect.
8. The space between repetitions is in proportion to the figure.
    a. If a wide repetition is used, the figure is enhanced by its effect.
    b. If a narrow repetition is used, the figure is enhanced by its effect.

PARALLELISM

Parallelism is the use of lines at equal distance at all points. Parallel lines never meet. The lines may be curved or straight.

1. The size of the parallel lines, and the space between the lines are within the scale of the figure.
2. If parallel lines are repeated vertically, the figure is enhanced by their effect.
3. If parallel lines are repeated horizontally, the figure is enhanced by their effect.
4. Parallel lines remain parallel and a consistent distance apart.

SEQUENCE

Sequence is the following of differing things, one after another in a particular order, in regular succession.

1. The size and order of the sequence is in proportion to the size of the wearer.
2. The space between the sequence is in proportion to the figure.
    a. If a wide sequence is used, the figure is enhanced by its effect.
    b. If a narrow sequence is used, the figure is enhanced by its effect.
3. When pattern and/or texture is used in sequence, it is compatible with itself and with the size and shape of the wearer.
4. Colors repeat with visual ease.

ALTERNATION

Alternation is the use of two (and only two) things with a repeated sequence changing back and forth in the same order.

1. The shape and spacing of the alternation is compatible with the size of the garment and the wearer.
2. The path, thickness, continuity and length of the alternation creates interest and is compatible with the size of the wearer.
3. Colors repeat with visual ease.
4. When pattern and/or texture is used, the alternation within itself is compatible, and is compatible with the size and shape of the wearer.

GRADATION

Gradation is a sequence of adjacent units, usually alike in all respects, except when one sequence changes in a consistent and distinct step from one unit to the next.

1. The position, thickness, length and direction of the gradation complement the size of the wearer and the design of the garment.
2. The space between lines or shapes and the contour and size of succeeding shapes complements the size of the wearer and the design of the garment.
3. Colors repeat with visual ease.
4. The dimension of the successive layers of texture or pattern is in proportion to the size of the wearer.
5. The motif size and positions complement the size and shape of the wearer.

TRANSITION

Transition is a smooth-flowing passage from one design feature to another, with no identifiable point of change. The gaze follows without even realizing it is being led.

1. The eye's movement does not have a breakpoint within the line, space, texture or color of the garment.
2. The shapes, lines and position of the transition on the garment create a smooth change (transition) that flatters the figure.
3. Colors transition with visual ease.

RADIATION

Radiation is a feeling of movement steadily bursting outward from a visible or suggested central point. It is the emission of rays from a single source.

1. The position, direction, angle and size of the radiation create a focal point that enhances the design of the garment and the size and shape of the wearer.

2. The space between the radiating lines complements the size of the wearer.
3. The thickness of the radiating lines complements the size and shape of the wearer.

RHYTHM

Rhythm is a feeling of regular organized movement or motion.

1. The position, thickness, length and direction of the garment's line or pattern complement the size and shape of the wearer and the design of the garment.
2. The rhythm created by the garment's pattern shapes complements the wearer and creates a rhythm compatible with the intent of the design.

CONCENTRICITY

Concentricity is the progressive increase in the size of layers of the same shape, all having the same center and usually parallel edges.

1. The line, space and shape of the concentric design complement the design of the garment and the size and shape of the wearer.
2. The focal point created by the concentric design complements and is in proportion to the size and shape of the wearer.

CONTRAST

Contrast is a feeling of distinct differences, the opposition of things for the purpose of showing unlikeness. Contrast accents the differences, and focuses on where the differences occur.

1. The thickness, direction, space and shape of the contrast complement the design of the garment and the size and shape of the wearer.
2. When pattern or texture is used to create contrast, it complements the size and shape of the wearer.
3. If color contrast is used, the focal point created enhances the wearer.

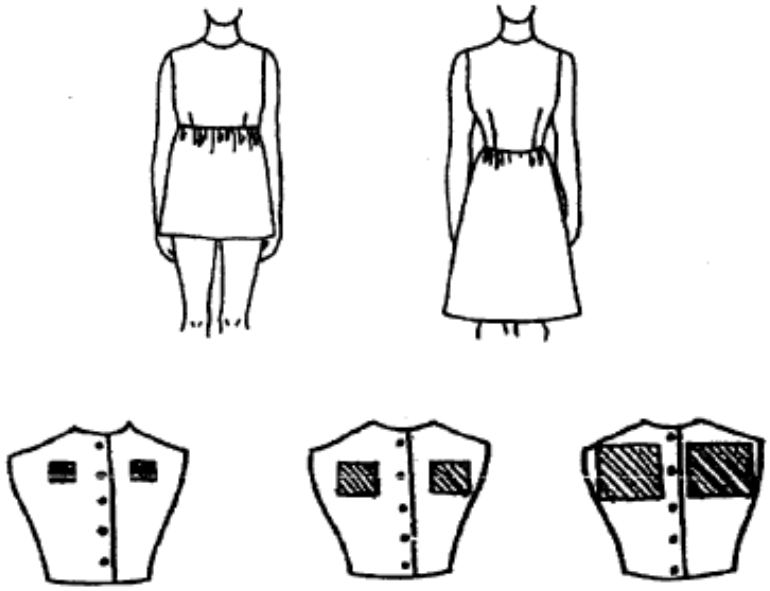
EMPHASIS

Emphasis is the creation of a focal point, the most important center of interest with all others being subordinate and supportive.

1. The line, thickness and direction of the emphasis complement the design of the garment and the size and shape of the wearer.
2. The shape, form, space and position of the emphasis on the garment complement the wearer.
3. The color emphasis creates visual ease.
4. If a pattern or texture is used, it is compatible with the size and shape of the wearer.

PROPORTION

Proportion is the comparative relationship of distances, sizes, amounts, degrees or parts. Proportion operates on three levels: 1. within the garment, 2. among the garment parts and 3. between the garment and the body.



1. The arrangement of space, which includes the distances between and sizes of spaces within the garment, among garment parts, between the garment and the body, and between the body and the environment, complements the design of the garment and the size and shape of the wearer.
2. The position of lines within the garment creates a compatible proportion that complements the design of the garment and the size and shape of the wearer.
3. The size of the shapes created by the position of the lines is compatible with the design of the garment and the size and shape of the wearer.
4. The color, texture and pattern of the garment parts are in proportion to the design of the garment and the size and shape of the wearer.

SCALE

Scale is a consistent relationship of sizes to each other and the whole, regardless of shape. In a garment, it relates to style features, fabric patterns, and trims applied to the garment, and to the wearer's size and personal style.

1. The size and position of the line, shape and space on the garment compatibly relate in scale to the size of the wearer and the design of the garment.
2. The advancing and receding qualities of color and texture in the garment are in scale with the size of the wearer and the design of the garment.

BALANCE

Balance is the feeling of evenly distributed weight resulting in equilibrium, steadiness, repose, stability and rest. Each part of the garment must interact to achieve stability. There are three aspects to balance: 1. horizontal, when one side balances the other side, 2. vertical, when the upper and lower parts balance, and 3. radial, when the concentration of weight in the garment is kept near the center.

1. The direction, thickness and continuity of line create balance on the size of the wearer and the design of the garment.
2. Symmetrical or asymmetrical shapes and spaces on the garment appear balanced with the size of the wearer and the design of the garment.
3. If more than one color is used in the garment, the dark and light values of the colors used are in balance with the size of the wearer and the design of the garment.
4. If texture is used, the amount is balanced with the design of the garment and the size of the wearer.

HARMONY

Harmony is an agreement in feeling, a consistency in mood and a pleasing combination of differing things used in compatible ways. Harmony is subjective and in the eyes of the beholder. This principle is not illustrated.

1. The space, line, shape, light, color, texture and pattern of the garment agree with the shape and size of the wearer and the design of the garment.

UNITY

Unity is the sense of completed wholeness, of being finished. It is a relationship in which all parts are created for one consistent effect. This is the goal of most visual design composition. This principle is not illustrated.

1. The finished garment encompasses all the visual design standards that apply to the garment, the design and the wearer.

WORK CITED

Davis, Marian L. Visual Design in Dress.. New Jersey: Prentice Hall, 1980.