Research on Aesthetic Characteristics of Fabric Expression Technique of Art to Wear*

- Focusing on Art to Wear artists in the U.S.A. -

Jin, Kyung-Ok
Professor, Dept. of Fashion Design, TongMyong University

Abstract

The role of fabric now directly related with the expression of the beauty of clothing and it provides new and creative ideas. This study was aimed at reviewing basic data that can be used in systematic design development through fabric expression for today's fashion designers who must study unique, original fashion design development. For systematic development of design technique through fabric expression, fabric expression methods and characteristics, aesthetic characteristics and fabric design of 'art to wear' were reviewed and the results are as follows.

First, the highly wrought fabric expression of art to wear was confirmed to be comprehending a message within itself.

Second, aesthetic characteristics of fabric expression used in art to wear can be classified as decorativeness, extensity, 2-D pictorialness, handicraft, compounding and rearrangement, and 3-D characteristics.

Third, the 6 aesthetic characteristics have unique design features and aesthetic categories.

The understanding the fabric expression techniques through study on the classification of the fabric expression in 'art to wear' is expected to be extended to proposition of creative direction and inspiration of modern fashion.

Key Words: modern fashion design, art to wear, fabric expression technique

I. Introduction

To artists, fabric is the appropriate medium of expression for visibility. Many artists today who pursue new expressions are attempting to expand expression ranges by including materials, techniques, ways of thinking, and ideologies in order to reclaim their world of creation.

The ultimate goal of fashion design is to present a new direction as a sensual business. For this, fashion designers has been consistently attempting to create original ideas, which, in

* This work is supported by TongMyong University of Information Technology research program of 2005

Corresponding author: Jin, Kyung-Ok, Tel.+82-51-610–8832, Fax.+82-51-610–8559
E-mail: kojin1231@tu.ac.kr
turn, has become sharing common interest with the artists in other field who have been also attempting to expand their expression ranges.

Fabric acts as a new design factor in modern fashion design, not only being a material for making clothes but also leading new fashion and trends in consumption. The role of fabric now directly related with the expression of the beauty of clothing and it provides new and creative ideas. In this point of view, modern fashion designers recently express aesthetic formativeness through self-reform and pursuing new aesthetic consciousness by various expression methods of new fabric. As one method for expressing aesthetic formativeness, many new and practical fabrics which show the expression characteristics of the appearance of new types of clothing have become available through the development of textile designs by harmonizing the fashion and the art.

Therefore, during this study, the fabric expression methods of 'art to wear' artists who have designed the dresses with original textile expression methods since 1970s were analyzed to provide the basic data that can be used in systematic design development through fabric expression for today's fashion designers who must study unique, original fashion design development.

Kim Min Ja and Chung Grace Heung Sook have illuminated the relationship between formative characteristics of art and fashion. A studies on the fabrics of artistic fashion were carried out by Lee In Seong, Kang Suk Nyeo, Kim Hae Jeong, and Lee Hyo Jin. This study considered fabric expression methods and expression features, aesthetic characteristics, design features, and aesthetic categories in a fabric expression point of view which is the main expression method of 'art to wear', to provide a theoretical basis for the directions of future fashion design materials.

The time period of the theoretical study was limited from 1970s to present as the 'art to wear' were started only after 1970s. Only the literature research were carried out. Domestic and foreign literatures such as thesis, technical articles, and periodical publications on fashion design and art to wear were examined extensively. Some materials in the books on art and clothing, art to wear pamphlets, and others are included in this paper as visual materials on 'art to wear'.

II. Concept and development of art to wear

1. An aesthetic review of art to wear

Art is considered as a mental activity of intentional self-expression of humans. It is also known as a mental activity that displays the emotions and sensibility that one receives from visible objects.

According to Alexander Gottlieb Baumgarten, the founder of aesthetics, the purpose of art is to cause desires by bringing pleasant sensations to people. Joseph Schelling who is greatly influencing modern aesthetics said that beauty is the intuition on the original form of all objects, and that an artist creates beauty not with knowledge or will but by his aesthetic idea lying within. Beron who asserts reasonable, logical theories among recent scholars of aesthetics, said that art is an expression of emotions revealed externally as continuance of lines, shape, combination of colors, rhythmic movements, sound, and language.

The formative arts can be called as art of poetry, expressing ideas and concepts that
originate from the soul, through shapes and figures in sensual work pieces and not with language. Mental creative activities of humans are revealed sensuously and reciprocally.

Art is based on the sense of formativeness. The unification and harmony of shape and color enhance aesthetic pleasure to the viewers. In creative work, the artist selects the matter that need to be formed, understands it, and then shows original artful subjectivity for formation and process which is appropriate for the expression theme.

As the aesthetic, artistic values of art to wear are being emphasized recently, new expositions on the existence of art to wear are required.

The art to wear which is also called as ‘wearable art’ is an area that integrates art of painting, sculpture, and fabric art with clothing. Strictly speaking, the dress form means the genre that has the original nature of pure art. It can be thought as expressing one’s own world with clothing as a medium.

The art to wear can be defined not as traditional clothing, but as ‘a dress created by an artist’ or ‘an art for human body’, and an expressional work piece selecting the human body as the medium for expressing color, shape, and image. Patricia Fields said that ‘an art to wear’ can not be achieved by simply adopting some techniques of pure art, such as painting, to clothing but it can be achieved at which the fashion with the feeling of clothing meets the art. Sonia Delaunay who was in the Avant-garde Artist group and created the art to wear from artistic concepts through working with Robert Delaunay, the founder of orphism, said that the art to wear brings art into ordinary life. Her geometrical patchwork pieces are formed by harmonizing the feel of material with color. This patchwork led to simultaneous dresses of geometrical patterns of 1913 and affected the work of contemporary poets. As the poet Guillaume Apollinaire mentioned, art work pieces are put under interaction.

As the aesthetic, artistic values of art to wear are being emphasized recently, new expositions on the existence of art to wear are required.

The art to wear which is also called as ‘wearable art’ is an area that integrates art of painting, sculpture, and fabric art with clothing. Strictly speaking, the dress form means the genre that has the original nature of pure art. It can be thought as expressing one’s own world with clothing as a medium.

The art to wear can be defined not as traditional clothing, but as ‘a dress created by an artist’ or ‘an art for human body’, and an expressional work piece selecting the human body as the medium for expressing color, shape, and image. Patricia Fields said that ‘an art to wear’ can not be achieved by simply adopting some techniques of pure art, such as painting, to clothing but it can be achieved at which the fashion with the feeling of clothing meets the art. Sonia Delaunay who was in the Avant-garde Artist group and created the art to wear from artistic concepts through working with Robert Delaunay, the founder of orphism, said that the art to wear brings art into ordinary life. Her geometrical patchwork pieces are formed by harmonizing the feel of material with color. This patchwork led to simultaneous dresses of geometrical patterns of 1913 and affected the work of contemporary poets. As the poet Guillaume Apollinaire mentioned, art work pieces are put under interaction.

As the aesthetic, artistic values of art to wear are being emphasized recently, new expositions on the existence of art to wear are required.

The art to wear which is also called as ‘wearable art’ is an area that integrates art of painting, sculpture, and fabric art with clothing. Strictly speaking, the dress form means the genre that has the original nature of pure art. It can be thought as expressing one’s own world with clothing as a medium.

The art to wear can be defined not as traditional clothing, but as ‘a dress created by an artist’ or ‘an art for human body’, and an expressional work piece selecting the human body as the medium for expressing color, shape, and image. Patricia Fields said that ‘an art to wear’ can not be achieved by simply adopting some techniques of pure art, such as painting, to clothing but it can be achieved at which the fashion with the feeling of clothing meets the art. Sonia Delaunay who was in the Avant-garde Artist group and created the art to wear from artistic concepts through working with Robert Delaunay, the founder of orphism, said that the art to wear brings art into ordinary life. Her geometrical patchwork pieces are formed by harmonizing the feel of material with color. This patchwork led to simultaneous dresses of geometrical patterns of 1913 and affected the work of contemporary poets. As the poet Guillaume Apollinaire mentioned, art work pieces are put under interaction.

The original form of ‘art to wear’ was handicraft by textile artists, being created through unique texture techniques of new material or those re-analyzed with artistic sensitivity. ‘Art to wear’ in early stage originated from art and studio fiber art, being considered separately from fashion. Although formal suits or casual dresses were made in early stage as an ‘art to wear’, these were related to conceptual art and performance. Functional and non-functional work pieces coexisted in ‘art to wear’. Artists put titles or concepts to their work pieces and recognized themselves as artists, not designers. ‘Art to wear’ are actually in the middle of art, technology, and fashion.

The origin of the ‘art to wear’ as the prototype of artists, designers, and technologists can go back to the arts and crafts movement.
proposed by William Morris in one and half century ago. This movement was the basis which eventually led the creation of the wearable art in the 1970s.

The arts and crafts movement influenced many artists to start ‘art to wear’. This led to the Omega Workshop which the late impressionists of Britain organized in 1913. A few women’s and men’s dresses using painting techniques were produced at the Omega Workshop.

The arts and crafts movement also affected artists in Europe including Henry van de Veld, representative of Art Nouveau. The Wiener Werkstätte was established in Vienna, where many designers changed from textile to dresses. Henry van de Veld produced velvet dresses with embroidery by emphasizing the beauty of fabric.<Fig. 2>

![Fig. 2](image)

<Fig. 2> Henry van de Velde, date unknown, ArtWear, Fashion and anti fashion, p.17

Mariano Fortuny of Spain who worked in Venice also made classic, art to wear. As a painter, he was inspired on dresses at the textile collection which would be historically commemorated. He experimented the textile printing of year 1906 and 1907, producing the renowned Delphos dress. His dresses gave an excessive impression at first, but was valuated as the most superior art to wear of the 20th century in the end.

This movement integrated pure art and practical art based on modernism and avant-garde of the 1920s, leading to Sonia Delaunay. She engrafted textile on dresses with her senses being based on the human body figure, rhythm, and life emotions.21

The ‘art to wear’ in the US had strated in New York and San Francisco simultaneously from late 1960s to early 1970s. During this period, the social situations in the States had made strong influence to fashion. Ethnic, feminism, anti-fashion and anti-system mood took the leading role of dress expression.22 However, the ‘art to wear’ styles of the two cities were different. The Bay Area style in San Francisco was pure art based and it was handicraft type clothing with painting, dyeing, and collage techniques. However, the New York style had cohesive power with fabric art basis and the ‘art to wear’ was also prospered while these movements were mainly based on museums in early stages.

In 1973, Julie Schafler Dale opened Julie’s Artisan’s gallery in Manhattan, which still exists today and sells unique ethnic dresses to customers who love ‘art to wear’.

In the 1980s, ‘art to wear’ started to be put on the market as ready-made clothes. Handicraft materials of dresses sold at Bergdorf’s created an atmosphere of making oneself feel special without the feeling of wearing a costume. A journalist of the States fashion magazine Women’s Wear Daily described
art to wear of this time as 'clothing with superior color senses and delicate textures, comfortable without being minutely composed.'

The 'art to wear' in the States faced to some difficulties in the 1990s. Most 'art to wear' were not minutely composed, but the main trend of styles in the 1990s mostly adhered closely to the body. Some art to wear artists changed their interest to textile or other areas and young artists took their places. However, the art to wear were maintained and artists such as Caciedo, Hedstrom, and Clayden still continue work activities. Those who left activities have returned and are restarting production.

Early precursors and innovators in art to wear movements greatly contributed in creating a concept with art to wear as the new form of art.

Dresses made by artists gave a unique sales point and attracted the consumers’ interest to clothing. It also promoted the creative interest in fashion designers.

Table 1 summarizes the history of the development of 'art to wear' by different time period.

III. Aesthetic characteristics of art to wear fabric expression

1. Fabrics in 'art to wear'

Artistic expression is an activity of humans expressing as the main body of formative manufacturing, through the process of making the will of art expression into an object with

<table>
<thead>
<tr>
<th>Time period</th>
<th>Main artist</th>
<th>Development of art to wear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation</td>
<td>William Morris</td>
<td>• The arts and crafts movement of William Morris becomes the base of art to wear</td>
</tr>
</tbody>
</table>
| about one and half century ago | Henry van de Veld Mariano Fortuny | • Omega Workshop—art dress works using painting techniques  
• Wiener Werkstatte—spreads art dresses throughout Europe |
| 1913                       | Sonia Delaunay       | • Dresses integrating pure and practical arts based on modernism and avant-garde          |
| 1920                       | Julie Schafier Dale  | • Art to wear movement starting in the U.S  
• New York style – centered on material art  
• San Francisco style – centered on handicraft dresses using painting, dyeing, collage techniques |
| Quickening period and development | Julie Schafier Dale | • Started to be sold as ready-made clothes  
• Expressed with superb color senses, delicate textures without minute composition  
• Famous fashion designers attempt art to wear |
| 1980s                      | Caciedo, Hedstrom Clayden | • Hardships due to non-accuracy of art to wear and collision with fashion trends  
• Age of artists shifts to the young artists |
materials and material processing techniques. Unrestricted modeling consciousness and various expression situations throughout the whole art area including art to wear which have become more active recently, now definitely require a new concept from the previous criticism of art concepts. The expression aspects of art to wear that are being newly constructed upon concepts such as 'practicality', 'decoration', and 'combination of beauty and utility' which art critics ideologically defined, are complicatedly and widely expanding, needing to be understood based on the social background of modernization.

Dresses firmly settled as an aesthetic subject since the arts and crafts movement of William Morris took place in the late 19th century. Aesthetic values are also being raised as practical values of dresses are satisfied due to the development of scientific technology and spread of wealth especially in modern society.

Many artists who pursue new expressions nowadays are attempting to expand expression ranges including materials, techniques, ways of thinking, and ideologies in order to reclaim their world of creation.

Above all, art to wear are considered as the art of fabric—subject matter. Many art to wear artists were trained with conservative pure art or decorative art in the early days and they approached work pieces not as fashion but as art.

Art to wear are clothes with artistic expressions that do not depend on trends and could be actually worn. Also, it is a 2-D work piece with the figure being greatly emphasized that could be hung on the wall, and also could be appreciated being worn on the human body as a moving sculpture.

Modern art to wear show an original feature different from the fashion of trends, details based on the artisan spirit, and the respected will of expressing the subjective world of artists of pure art.

By this unique fabric expression technique with this spirit expressed, art to wear are showed in very peculiar forms. Methods such as dyeing, weaving, braiding, quilting, tucking, piping, cutting, ripping, and burning are used to put vigor into the feel of fabric materials.

The 1960s was the time when change in materials was at the peak in the art area. Other than fabric artists, painters also used fabric instead of paint and sculptors started to use fabric instead of solid materials, creating work pieces of softer figures. Then fabric artists attempted 3-D works from 2-D frames of traditional forms. This means seeking for a new pattern of fabric art and accepting as formative expressions in the dress area.

As many artists started to focus on new materials such as cloth, synthetic resins, latex, and glass fiber instead of insisting on bronze, marble, and wood, the expression methods and ranges of dresses were also expanded by using not only fabric but also rubber, wood, metals, and feathers, bringing a new idea as 'the liberation of materials'.

The approach to art to wear being derived from the integration of dresses and fabric art grants a modern art concept to materials and technology factors. Materials are informations that indicate work piece characteristics visually and by the sense of touch, having a wide concept range as speaking for the artist's intention as a psychological factor and simultaneously doubling unique aesthetic effects as the medium of image transmission.

Many artists expressed nature and ecology as the characteristics of postmodernism were
reflected in art. This was induced dresses as well, raising the use of ecological materials. Natural materials or those that seem to be unprocessed and do not cause environmental destruction are being highlighted. Active messages of art to wear are delivered by selecting various materials and developing techniques.

2. Aesthetic characteristics of art to wear fabric expression techniques

1) Decorativeness

Decorativeness is the reactionary phenomenon from modernism which pursued extreme economic feasibility, efficiency, and geometric functionalism and excluded decoration, even considering it as a sin. It has an aesthetic effect to form so that the subject is sensed more visually and by the sense of touch. W.Worringer said that special individualities of absolute artistic desires can be clearly read through decoration, and that its importance must be emphasized enough for artistic development. Decorativeness of fabrics can be divided into that depending on structural change and decoration created through combination of other objects. Decorativeness of original yarn and objects integrated also express effects of piling. The artist’s own language and individuality are created to break away from modernism and uniformity of simpleness.

Beading, fringe, slash & fray, trimming, metal thread, top stitching, embellishment, and unfinished edge are expression methods of decoration.

<Fig. 3> is the work of ‘art to wear’ artist Tim Harding in 1984, having curtain materials dyed, several layers quilted, and given the effect of wearing out by fraying techniques.

<Fig. 4> shows the work of ‘art to wear’ artist Jayanti Chuck, covering a black transparent material over white material and irregular top-stitching with metallic thread for surface decoration.

<Fig. 3> Tim Harding, 1984. slash and fray. Artwear, p.297

<Fig. 4> Linda Coben, top stitching. Shirty Friendland & Lelie Pina, Wearable art 1900–2000

<Fig. 5> Ken Tisa, 1974, embellishment Artwear, p.197
<Fig. 5> is the work of ‘art to wear’ artist Ken Tisa, being the best of embellishment techniques, formed with glass beads, sequin, pearls, and buttons beaded and stitched manually.

Table 2 summarizes the classification of fabric expression techniques in terms of decorativeness and their characteristics.

2) Extensity

Extensity visualizes the human body by creating a empty space on fabric surface. The size of the opening is induced to change fluidly depending on body curves and movements of the wearer.

Space is not naturally created, but artificially made by integrating and harmonizing the ratio between the whole and parts, color and shape, scenes, and feelings of material. Extenstiy is expressed with transparency, depth, and space security in multiD space.

Extensity visually rearranges the meaning system of the whole modeling form due to intense interaction of spaces. Space between materials shows refinedness and ease, as well as the volume between the projected part and space.

Macramé, openwork of handknit, and hand crochet are the fabric expression techniques for expressing extensity.

<Fig. 6> is a work piece by art to wear artist Paul Johnson, using crystal rocks, glass beads, and feather decorations and connecting by macramé. Two different spaces, one being plane and the other 3-D, were expanded to three spaces which the internal human body is visually displayed. The incomplete open space organization seem to be made by chance, but the ease and mysteriousness of the space that is expanded

<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Spangle, beads (beading)</td>
<td>• Partial beading on patterns or making the whole pattern with beads</td>
</tr>
<tr>
<td></td>
<td>• Handicraft, accurate expressions and reflections grant in-depth, illusions on the surface</td>
</tr>
<tr>
<td>2  Fringe</td>
<td>• Using thread, decorations, and curtain balls to hang on the edges to give a decorative feeling</td>
</tr>
<tr>
<td>3  Slash and fray</td>
<td>• Rubbing fabric together to wear them out</td>
</tr>
<tr>
<td></td>
<td>• Grants sense of touch and expressiveness</td>
</tr>
<tr>
<td>4  Trimming</td>
<td>• Fringes, beads, objets are used to decorate the hem on the edge</td>
</tr>
<tr>
<td></td>
<td>• Grants decoration and expressiveness</td>
</tr>
<tr>
<td>5  Metal thread</td>
<td>• Made by cutting metal foil of gold, silver, tartar, aluminum</td>
</tr>
<tr>
<td></td>
<td>• Cold, smooth gloss, changing angle of reflection, grants individuality</td>
</tr>
<tr>
<td>6  Top stitching</td>
<td>• Top stitching irregularly on material surface mostly with metallic thread</td>
</tr>
<tr>
<td>with random pattern</td>
<td>• Commonly used with multi layered &amp; splice technique, grants attractiveness</td>
</tr>
<tr>
<td>7  Embellishment</td>
<td>• combination of decorations such as beads, stones, and sequin,</td>
</tr>
<tr>
<td></td>
<td>• Grants accurate, brilliant attractiveness</td>
</tr>
<tr>
<td>8  Unfinished edge</td>
<td>• Work finished without processing fabric edges</td>
</tr>
<tr>
<td></td>
<td>• Grants polished expressiveness</td>
</tr>
</tbody>
</table>
by creating a calculated modeling form presents are also simultaneously induced. This open extensity expresses voluptuous beauty due to transparent formation.

![Picture of Paul Johnson](image) <Fig. 6> Paul Johnson, macramé, feather work Artwear, p.297

Table-3 shows the classification of fabric expression technique in terms of spatiality and their characteristics.

3) 2-D pictorialness

Pictorialness which has formative characteristics by generalizing shape, color, and lines, shows an aspect of material modeling concepts at the level of pure art. Fabric expression divided as pictorialness has attractiveness due to various and brilliant colors. Therefore, pictorialness secures a pure, original identity. It also revives lively expression by leaving various traces of touch.

The pictorialness of fabric expression pulls out a fantastical speculation which divides the natural and supernatural worlds, displaying a mystical image of sympathetic visuality where the two orders meet. The expression technique of materials having pictorialness emphasizes expression by the intensity of color and shape.

It also arouses abundant illusions with variegated colors.

Tie dyeing, hand-dyed batik, hand painting, hand stencil, silk screen, distal printing, tapestry, and silicon lace are fabric expression techniques for 2-D pictorialness.

<Fig. 7> is a work piece by art to wear artist Rebecca Early done in 1996, hand painting fiber with reflective ink with hypersensitive mike called sofleta, then adding black ink and fixing with heat for antique effects. It presents illusions by creating compositive images.

**<Table -3> Fabric expression techniques and characteristics (Extensity)**

<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Macramé</td>
<td>• Several strands of cords, thread, patterns formed by making a knot with the two grants voluptuous beauty, bulk, transparency</td>
</tr>
<tr>
<td>2 Openwork of handknit</td>
<td>• Several kinds of thread or ribbons such as cotton, rayon, wool, metallic are knitted as accent on a basic single thread, the connecting part of the loop is partially openworked grants changing surface texture, extensity, voluptuous beauty and transparency due to transparent formation</td>
</tr>
<tr>
<td>3 Hand crochét</td>
<td>• Decorative pattern is formed by creating a loop with yarn, cords, thread</td>
</tr>
<tr>
<td></td>
<td>• Grants voluptuous beauty and transparency</td>
</tr>
</tbody>
</table>
<Fig. 8> is an art to wear work piece by Carol Motty, using silicon as the material with painting techniques and sculpting expression. Silicon was melted on silk presenting a pictorial expression of a new, fantastic embossed colored space which displays gloss effects and a mysterious, visionary atmosphere.

Table 4 summarizes the classification of fabric expression techniques in terms of plain pictorialness and their characteristics.

![Rebecca Early, 1996, hand painting, Techno Textile, p. 110](image1)
![Carol Motty, 1985, silicon lace, Artwear, p. 214](image2)

<Table 4> Fabric expression techniques and characteristics of 2-D pictorialness

<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Tie dyeing</td>
<td>• Fabric is tightly tied and dipped in colors for two colors effects of several colors and patterns</td>
</tr>
<tr>
<td>2 Hand-dyed batik</td>
<td>• Lead is melted and resist printing is done on fabric surface</td>
</tr>
<tr>
<td></td>
<td>• Chemical method, expression</td>
</tr>
<tr>
<td>3 Japanese shibori hand-dye</td>
<td>• Wrinkles are made on the fabric, sown, dyed, and then released. A complex pattern is formed where it was sown.</td>
</tr>
<tr>
<td></td>
<td>• Patterns, various pictorialness</td>
</tr>
<tr>
<td>4 Hand painting</td>
<td>• Painted with retroreflective ink and fixed by heat or processed by gutta</td>
</tr>
<tr>
<td></td>
<td>• Pictorialness and antique effects</td>
</tr>
<tr>
<td>5 Hand stencil dyeing</td>
<td>• Figure is cut from thin plate, film, paper, placed on the fabric, and dye sinks into the cloth.</td>
</tr>
<tr>
<td></td>
<td>• Various patterns displayed, great coloring effects</td>
</tr>
<tr>
<td>6 Silk screen</td>
<td>• Stop bath is poured on frame for sensitization and washing, dye is spread on frame</td>
</tr>
<tr>
<td></td>
<td>• Long fabrics can be mass produced, repetitive motives</td>
</tr>
<tr>
<td>7 Distal printing</td>
<td>• Prepared design is scanned or made on the CAD program, then directly printed with the digital textile printer</td>
</tr>
<tr>
<td></td>
<td>• Grants pictorialness and expression</td>
</tr>
<tr>
<td>8 Tapestry</td>
<td>• Thread of various colors are weaved using jacquard loom</td>
</tr>
<tr>
<td></td>
<td>• Grants patterns and 2-D pictorialness</td>
</tr>
<tr>
<td>9 Silicon lace</td>
<td>• Powder or paint is mixed with liquid silicon and poured on the fabric</td>
</tr>
<tr>
<td></td>
<td>• Pictorial, glossy surface effects</td>
</tr>
</tbody>
</table>
4) Handicraft

Handicraft is a characteristic which is the foundation of arts and crafts movement that occurred from admiration of artisan spirit of the Middle ages. It means all industrial features that can be processed manually. Handicraft material expression displays experimental and unique formations and figures, giving a rare, original expression effect. Through complete understanding of the materials, artists can express their individuality and creativity with their hands. It is divided into constitutional handicraft and handicraft for expression. This is not popular since no one else has the specific characteristic, and is based on artistic, industrial, accurate process being displayed in diversified, combined factors without being expressed in a certain style.

Most of the expression techniques introduced in this study have handicraft characteristics simultaneously, but the feature is divided into hand embroidery and appliqué since they are more technological than others.

<Fig. 9> is done by art to wear artist Anna Greenfield, using appliqué materials that plays its role as the motive. Gold stitches were made on leather material, and was used as the back decoration of the dress. The figure or form is non-structural and atypical.

<Table-5> Fabric expression techniques and characteristics

<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Colorful threads or yarn, silk threads for embroidery, soft cotton yarn, silk threads, metallic threads are used and sewed manually for decoration • Grants decoration and creative expression</td>
</tr>
<tr>
<td>2</td>
<td>• Mixed techniques such as pleats and tuck are used together for stitches on the dress • Grants patterns and attractiveness as a motive</td>
</tr>
</tbody>
</table>

Table-5 summarizes the classification the fabric expression techniques in terms of handicraft and characteristics.

5) Compounding and rearrangement

Fabric expression in compounding and rearrangement which creates one form through combination with the motive, does not have a regular order. Everything is turbulently mixed like irregular chaos. Compound materials pursue simultaneous expression with the diversification of techniques and mixture of materials, as well as new and fresh change. Materials express modern senses experimentally and futuristically through compounding and rearrangement. The expressions are form- destructive and changes the form itself, presenting the multiplicity of limitless fabric expression.
Collage, patchwork, covered fabric, torn strips of fabric, mix material, various texture, object and ensemble are fabric expression techniques for compounding and rearrangement.

<Fig. 10> is the art to wear work piece of Donna Kaminsky, connecting hand knitted triangles and squares by patchwork. It used angora, mohair, synthetic thread, ribbons, metallic thread as hand knitting materials to display the overlap of different factors.

<Fig. 11> is a kimono dress by art to wear artists Jean Williams & Cacicedo, showing creativity and diversity using various texture techniques such as handknitting, crochet, and felt after dyeing the while wool mohair and woolen yarn.

<Fig. 12> is an art to wear work piece done in 1973 by Mario Rivoli, a jacket connecting various objects with stitches on the basic fabric such as silk and cotton. It expresses third dimension due to the overlap of brilliant surface decorations and objets.

The fabric expression techniques and characteristics classified in terms of compounding and rearrangement are in Table-6.

6) 3-D Characteristics

The 3-D Characteristics in fabric expression is displayed as the increase of volume showing exaggeration and ostentation, expansion of shape visualizing invisible internal space or structure, enlargement of 2-D surface area, and expansion of embossed space forming a multi-layer structure. The shape due to exaggerated third dimension causes tension to the acceptor by breaking away from typical forms, acting as an induced stimulation focusing one's eyesight. Therefore, 3-D fabric expression is an attempt to secure self-expression at a new concept of modeling that is unbound to the 2-D fabric, and shows the self-enlarging fullness by expressing artistic will through dismantling irregularity of the material. Three dimension of
<Table-6> Fabric expression techniques and characteristics (compounding and rearrangement)

<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
</table>
| 1 Collage         | • Heterogenous materials and pieces of various shapes are mixed on one dress  
                      • Simultaneous expression of colors and feel of material, diversity and pictorialness |
| 2 Patchwork       | • Fabric pieces of several shapes are connected and sewed in various shapes  
                      commonly used with appliqué, diversity and creativity |
| 3 Covered fabric  | • A transparent, thin material covers the fabric  
                      • Grants the external feature or feel of new material, decorative surface effect |
| 4 Torn strips of fabric | • Fabric is ripped to make a cord, dyed, and connected for designs.  
                           • Multicolors or pattern materials are used, grants brilliance and third dimension. |
| 5 Mix material    | • Various materials are mixed as medium.  
                      the various materials become the design itself.  
                      • Grants complication and diversity |
| 6 various texture | • A technique mixing material expression such as patchwork, beading,  
                      appliqué, and handknitting  
                      • Grants new image due to diversity |
| 7 object ensemble | • Dress expressed using decorations or objets of actual life  
                      • Grants brilliant surface decoration and third dimension |

expression techniques partially expands the fabric surface, making the 2-D fabric surface into a 3-D modeling structure. Three dimension simultaneously induces the ease of expanded space and mysteriousness. It also reflects a strong image in the material which attracts one's gaze.

Multi layered & splice, embossing, quilting, pleats, leather work, glue gun work, burnout, poly vinyl chloride plastic tubing heat setting synthetic fabric transformation are the expression techniques for third dimension.

<Fig. 13> is done by Shirley Friedland, a multi-layered workpiece with irregular third dimension surface effects with abundant decorations by overlapping 5 layers of cloth, connecting them with stitches, and then cutting them out with a knife.

<Fig. 14> is an art to wear work piece done in 1983 by Ana Lisa Hedstrom, using silk material and making wrinkles by shearing, then dyeing. The wrinkles visually expand the fabric volume and also change the fabric surface into a third dimension space through folding and spreading.

<Fig. 15> is a workpiece of Frank Shipman of year 1983, using the poly vinyl chloride plastic tubing technique. A cord was put in the poly vinyl chloride plastic tube for modeling. It can be used as beach wear, presenting transparency and futurity.

According to the 3-D Characteristics, the fabric expression techniques and characteristics can be classified as Table-7.
<table>
<thead>
<tr>
<th>Fabric expression</th>
<th>Technique descriptions and characteristics</th>
</tr>
</thead>
</table>
| 1 Multi layered & splice | - Several layers of fabric are overlapped and stitched together  
- Grants third dimension and reproducibility |
| 2 Embossing | - Fabric is put between hot piece rollers and pressed.  
- Embossed carving designs, patterns are formed. grants third dimension and attractiveness |
| 3 Quilting | - Soft pad or urethane foam is spread between fabrics and the three parts are driven together  
- Commonly used with the patchwork technique, third dimension and exaggeration |
| 4 Pleats | - Third D wrinkles are made due to folding and spreading of spacial structure  
- Irregular and natural 3-D surface effects |
| 5 Feather work | - Natural or dyed feathers are connected for accent effects on a part of the dress  
- Abundant surface decoration effects |
| 6 Glue gun work | - Glue gun is used for making irregular patterns on fabric or vinyl  
- Attractiveness through 3-D patterns |
| 7 Burnout | - One fiber is chemically melted from a fabric made with two kinds of fiber  
- Grants embossed effects, elegance to fabric, transparency |
| 9 Poly vinyl chloride plastic tubing | - Effects of material are made by putting a string or thread in a rubber hose  
- Shape is easily controlled from flexibility, grants transparency and futurity |
| 10 Heat setting synthetic fabric transformation | - Partial heat changes the synthesized fabric partially  
- Grants colorful third dimension and attractiveness |
In this study, the fabric expression techniques and characteristics used in 'art to wear' since the 1970s when art to wear were processed in full-scale were reviewed, based on their aesthetic considerations and development procedures. As a result, the aesthetic characteristics of fabric expressed on 'art to wear' can be considered differently by various aesthetic categories design characteristics as summarized in Table-8.

<table>
<thead>
<tr>
<th>Aesthetic characteristics</th>
<th>Fabric expression method</th>
<th>Features of techniques</th>
<th>Design characteristics</th>
<th>Aesthetic category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decorativeness</td>
<td>Beading</td>
<td>Highly wrought surface decoration of handicraft</td>
<td>Diversity</td>
<td>Delicacy</td>
</tr>
<tr>
<td></td>
<td>Fringe</td>
<td>Brilliant surface decoration</td>
<td>Creativity</td>
<td>Luxuriousness</td>
</tr>
<tr>
<td></td>
<td>Slash and fray</td>
<td>Organic unification of details</td>
<td>Illusion</td>
<td>Abundance</td>
</tr>
<tr>
<td></td>
<td>Trimming</td>
<td>Surface decoration of whole material</td>
<td>Attractiveness</td>
<td>Self-regulating</td>
</tr>
<tr>
<td></td>
<td>Metal thread</td>
<td>Expression in depth use of motive</td>
<td>Sense of touch</td>
<td>Brilliance</td>
</tr>
<tr>
<td></td>
<td>Top stitching with random pattern</td>
<td>Gloss and changing angle of reflection</td>
<td>Expressivity</td>
<td>Abrasion</td>
</tr>
<tr>
<td></td>
<td>Embellishment</td>
<td></td>
<td>Individuality</td>
<td>Fusion</td>
</tr>
<tr>
<td></td>
<td>Unfinished edge</td>
<td></td>
<td></td>
<td>Mysteriousness</td>
</tr>
<tr>
<td>Extensity</td>
<td>macramé</td>
<td>Space separation depending on depth</td>
<td>Metaphorical sensation</td>
<td>Cheerfulness</td>
</tr>
<tr>
<td></td>
<td>Openwork of handknit</td>
<td>Changing surface texture</td>
<td>Bulk</td>
<td>Elimination</td>
</tr>
<tr>
<td></td>
<td>Hand croché</td>
<td>Limitless shape</td>
<td>Transparency</td>
<td>Sudden</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multi-D space through separation</td>
<td>Shape ambiguity</td>
<td>Tension</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Density control of materials</td>
<td>Atypical</td>
<td>Rhythm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decorative pattern</td>
<td></td>
<td>Softness</td>
</tr>
<tr>
<td>2-D pictorialness</td>
<td>Tie dyeing</td>
<td>Various colors</td>
<td>Illusion</td>
<td>Cheerfulness</td>
</tr>
<tr>
<td></td>
<td>Hand-dyed batik</td>
<td>Vital form through rhythm</td>
<td>Expression</td>
<td>Brilliance</td>
</tr>
<tr>
<td></td>
<td>Japanese shibori hand-dye</td>
<td>Harmony of elegant colors</td>
<td>Dynamic</td>
<td>Strong</td>
</tr>
<tr>
<td></td>
<td>Hand painting</td>
<td>Use of primary colors</td>
<td>Shape simplicity</td>
<td>Violent</td>
</tr>
<tr>
<td></td>
<td>Hand stencil</td>
<td>Unique patterns</td>
<td>Creativity</td>
<td>Mysteriousness</td>
</tr>
<tr>
<td></td>
<td>Silk screen</td>
<td>Practical use of artists' work pieces</td>
<td>Mysteriousness</td>
<td>Future-oriented</td>
</tr>
<tr>
<td></td>
<td>Distal printing</td>
<td>Fabric surface with a sparkling feeling</td>
<td>Attractiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tapestry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silicon lace</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handcraft</td>
<td>Hand embroidery</td>
<td>Accurate surface decoration</td>
<td>Non-formality</td>
<td>Delicate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organic unification of details</td>
<td>Irregularity</td>
<td>Luxurious</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extreme craftsmanship</td>
<td>Diversity</td>
<td>Profound</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brilliant surface decoration</td>
<td>Rarity</td>
<td>Self-regulating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atypical crafts</td>
<td>Creativity</td>
<td>Brilliant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of motives</td>
<td>Expression</td>
<td></td>
</tr>
<tr>
<td>Compounding and rearrangement</td>
<td>Collage</td>
<td>Brilliant surface decoration</td>
<td>Ambilateriality</td>
<td>Reproducing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Various materials</td>
<td>Amusement</td>
<td>Distortion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using materials together</td>
<td>Overlapping</td>
<td>Self-regulating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compounding heterogenous forms</td>
<td>Dynamic</td>
<td>Inharmony</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recreation into new images</td>
<td>Diversity</td>
<td>Complicated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overlap of heterogenous factors</td>
<td>Creativity</td>
<td>Unfamiliar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unexpected, sudden</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mixed</td>
</tr>
</tbody>
</table>
V. Conclusion

The position of fabrics in fashion design has been remarkably elevated since the late 20th century, due to development of new materials with development of science and fabric expression techniques from artistic feelings of fashion designers. It has become to play a leading role in development of modern fashion design.

The role of the fashion materials have become to play important roles in modern fashion design also as the role of design rules and regulations has become weakened while external expression methods have become diversified after the 20th Century.

This research therefore has reviewed the fabric expression methods, expression characteristics, aesthetic characteristics, design characteristics, and aesthetic categories of ‘art to wear’ of which major creation works are accomplished by the research on fabric expression. The results from this study provide the basic principles of creating future fashion design materials through various expression methods.

This study has derived the following results.

First, the highly wrought fabric expression of art to wear was confirmed to be comprehending a message within itself.

Second, aesthetic characteristics of fabric expression used in ‘art to wear’ are classified by decorativeness, extensibility, 2-dimensional pictorialness, handicraft, compounding and rearrangement, and 3-D characteristics.

Third, the decorative material expression techniques are beading, fringe, slash & fray, trimming, metal thread, top stitching, embellishment, and unfinished edge. Macramé, openwork of handknit, and hand crochétat are fabric expression techniques for extensibility. As for 2-D pictorialness, tie dyeing, hand-dyed batik, hand painting, hand stencil, silk screen, distal printing, tapestry, and silicon lace are the fabric expression techniques. Hand embroidery and appliqué are expression techniques showing handicraft. Collage, patchwork, covered fabric, torn strips of fabric, mix material, various texture, and object ensemble are for compounding and rearrangement, while multi layered & splice, embossing, quilting, pleats, feather work, glue gun work, burnout, and poly vinyl chloride plastic tubing heat setting synthetic
fabric transformation are used for displaying third dimension.

Fourth, the features of decorative techniques are handicraft accurate surface decoration, brilliant surface decoration, organic unification of details, surface decoration of the whole material, expressions with depth, use of motives, gloss and changing angle of reflection. Diversity, creativity, illusion, attractiveness, sense of touch, expression, and individuality are the design characteristics. Aesthetic categories are delicacy, luxuriousness, abundance, self-regulating, brilliance, abrasion, fusion, and mysteriousness.

Fifth, technique features of extensity are space separation depending on depth, changing surface texture, limitless shape, multi-D space through separation, density control of materials, decorative patterns, and transparent formation. Design characteristics are metaphorical sensualism, bulk, transparency, shape ambiguity, and typicalness. Cheerfulness, elimination, sudden, tension, rhythm, and softness are the aesthetic categories.

Sixth, technique features of 2-D pictorialness are various colors, vital form through rhythm, harmony of elegant colors, use of primary colors, unique patterns, practical use of artists' work pieces, and fabric surface with a sparkling feeling. Design characteristics are illusion, expression, dynamic, shape simplicity, creativity, mysteriousness, and attractiveness. Aesthetic categories are cheerfulness, brilliance, strong, violent, mysteriousness, and future-oriented.

Seventh, technique features of handicraft are accurate surface decoration, organic unification of details, extreme craftsmanship, brilliant surface decoration, atypical crafts, and use of motives. Design characteristics are non-formality, irregularity, diversity, rarity, creativity, and expression, while the aesthetic categories are delicate, luxurious, profound, self-regulating, and brilliant.

Eighth, technique features of compounding and rearrangement are brilliant surface decoration, various materials, using materials together, compounding heterogenous forms, recreation into new images, and overlap of heterogenous factors. Design characteristics are ambilaterality, amusement, overlapping, dynamic, diversity, and creativity. Aesthetic categories are reproducing, distortion, self-regulating, inharmony, complicated, unfamiliar, unexpected, sudden, and mixed.

Ninth, technique features of 3-D characteristics are abundant surface decorations, expression methods of breaking away from fixed ideas, unique form, visual attractiveness, constructive modeling, expansion of figure, change of scale, irregular embossed surface, and 3-D patterns. Design characteristics are dynamic, expression, creativity, futurity, exaggeration, abundance, and irregularity. Aesthetic categories are abundant, projecting, radical, changing, shock, profound, size, exaggerating, and overlap.

Understanding fabric expression techniques used for 'art to wear' is expected to be extended to proposition of creative direction and inspiration of modern fashion. Fabrics are also expected to be used as an important expedient of developing original fashion design ideas and expanding expression ranges in fashion design.

Limits of this study is the data selection being restricted to western artists when analyzing 'art to wear' fabric expressions. Therefore, further researches should be carried out to study and analyze fabric expression of active 'art to wear' artists in Korea.
References

10) ibid. p. 51.
12) Byun, Si-Ji(1988). ibid. p.34.
17) Jessica Scarborough. Ibid. p.60.


Received 10 May 2007, Accepted 10 July 2007.