Fashion designers must be artistically, socially, and technically competent

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Abstract

본 고는 패션디자이너들이 함양해야 할 핵심 지적자질로서, 예술적, 사회적, 기술적 자질을 제시하고 있다. 이러한 핵심 지적자질은 "옷"이라는 디자인 오브제의 구상 및 추상적 본질을 등의 조형적, 표현적, 그리고 상징적 특성을 문헌을 중심으로 이해하고 검토함으로써 제시되었다. 디자인 오브제로서 옷에 대한 본질에 관한 고찰은 패션디자이너의 역할을 정의하는 개념적 틀로서 사용되었으며, 디자이너의 핵심 지적자질을 함양하기 위한 구체적인 실천방안으로서, 문화를 분석, 체험하고 사회에서 파생되는 제반 인문, 사회, 과학, 기술관련 이슈들을 이해하고 습득하려는 능동적 실천을 권장하고 있다.

Key Words: Apparel form, fashion designer's role, artistic creativity, social understanding, technical knowledge.

INTRODUCTION

Fine art objectsgive artistic pleasure or express the human condition. Applied art is created to serve people with function. Its intent is utilitarian. Artifacts where utility takes precedence over integrity of form are generally referred to as design, the activity of making apparel is generally also called design (Barnard, 2002). Fashion design activity includes the abstraction of thought for product and the action of making the product. The abstraction of thought such as conceptualizing, ideating, and planning is intertwined with the action of sourcing, choosing, sampling, making, judging, and so forth. In this process of mutual influence of thought on action and action on thought, it is difficult to claim the predominance of one or the other.

Apparel, as fashion designers'intellectual outcomes, constitute people's daily lives, shapes their experience, and affects their behavior and action. Thus, apparel form becomes the manifestation of aesthetical, ethical, cultural, political and ideological thoughts. Thus, fashion designing can be referred to as interaction design, a new approach

defined by Löwgren and Stolterman (2004), that involves multidisciplinary areasfor application in forming, judging, and deciding structural, practical, aesthetic, and ethical qualities generated in meditating a form of product.

The social changes arisen as a reflection of the industrial revolution have affected the production process within the apparel and textile industry. Technology has automated labor-intensive workinto machinery and/or electronically powered systems. The fixed automation characterized by low quality and low price and produced by mass production base has improved productivity, contributing toward commodity products. The mass production system is heavily dependent on vocational workers with only limited skills without fully understanding their role in the entire production process (Moncarz, 1992).

However, there is awide perception that quality cannot be replicated as easily by global competition of low cost. High quality in fine style is the determinants for better prospects for survival in the apparel and textile industry. In the U.S., when foreign competition forced the country's apparel and textile industry that had dominated mass production, the apparel and textile firms began to downsize and specialize in non-manufacturing activities.

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They invested in the capital-intensive pre-production components for designing, developing pattern and cutting, marketing, and sourcing while shipping production offshore (Doeringer & Crean, 2004; Moncarz, 1992). Their product operation has converted from labor intensive to capital intensive and adopted technology-driven flexible automation system, such as CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing) that connect design to production. This flexible automation allows the industry to overcome the major strategic challenges of shortening design and production time; cutting costs while providing the widest possible choice; competing for enhancing product quality, satisfying the growing demand for mass customization and personalized product, etc. However, only large firms were capable of the capital-intensive production system adopting (Doeringer & Crean, 2004).

To build linkages with industry and business needs, apparel and textile programs in higher education have embraced the new dimension of CAD/CAM into their curriculum as a core design curricular element. The apparel and textile industry has proposed the excellent employment opportunities for graduates with the technical competence in CAD/CAM.

Through a case study in an apparel manufacturing firm progressive managerial and manufacturing technology implementation aiming for a flexible manufacturing, Locker (2002) found that human nature and skills such as communication, teamwork, and decision-making are critical to increasing employees' discretionally effort. That is, the potential flexibility and productivity contributing to the organizational capacity is enhanced by the application of the soft human skills in addition to technology and technical skills. Samson (2004), a futurist, also emphasized the necessity for future workers to utilize their "aliveness" in their work setting that cannot be replicated by computer and/or electronically powered systems. Aliveness involves human nature of creativity, imagination, reflection, consciousness, and so forth. Future society, being referred to as "hyper-human economy" (Samson, 2004), will be driven not by the value to create things, but by the value to create ideas.

Professionals in the fashion design world heavily rely on human consciousness for product ideas and human skills for an active and flexible interaction during the design process. In preparing for this transitional shift to hyper human economy, a quest of what competencies should be encouraged as core intelligence for professionals is worth. And how can designers cultivate their intellectual competence? The answers will serve both fashion educators and industry professionals reshaping their academic and business future.

PURPOSE OF THE STUDY

This paper is an effort to articulate fashion designer's core intellectual competences to nurture their design ability and facilitate the intellectual development in fashion design.

The articulation is explored through examining the notions of form and the attributes of apparel products. The identified attributes of apparel form lead to define a fashion designer's role. The role definition suggests competencies necessary for designers to be successful in conducting their design activity and how they nurture the intellectual competency and designerly mind. This inductive process to explore the study goal is illustrated in Figure 1.

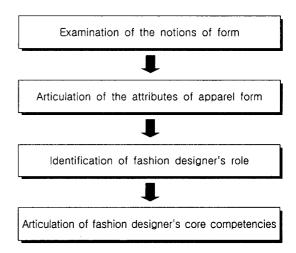


Figure 1. Inductive Logic to Articulate Fashion Designer's Core Competencies

DISCUSSION

Fashion Designer Visualizes Ideas into Apparel Form

Apparel, thought of as a type of form, is the outcome that a fashion designer is expected to promote for his/her intellectual activity. A form, in general, is referred to as the shape of a object, that is, the whole appearance or organization created by visual units in the art work (OcVirk et al., 2002). A fashion designer is a person who visualizes fashion ideas into apparel through utilizing formal elements of color, line, texture, and shape that compose the apparel form. The perceivable features of the structural composition of apparel are recognized mainly through visual and tactual sensation. The quality perceived through the structure is referred to as formal quality.

Morganosky and Postlewait (1989) found that the formal quality is perceived as more important than the expressive quality in judging aesthetic quality for apparel. This implies that a designer is expected to be highly creative with good aesthetics in forming and representing his/her ideas into an apparel product. That is, fashion designer's design competencies rely fundamentally on visual media of thought and communication.

For an artistic presentation of apparel, designers need to demonstrate intelligent usage of formal elements with the respect of design principles that unite all components of intent, concept, formal elements, and function to be utilized for a creation. The primary source of visual interest and power in apparel is the way various elements are utilized to create a sense of oneness or unity. That is, harmony is the foremost principle to be respected in composing a garment out of rhythm, variety, balance, and proportion.

A designer's creativity facilitates infinite design possibility in shaping apparel by utilizing the formal elements and the principles. Being creative and composing a design with an understanding of aesthetics leads fashion designers to greater success. Here, creativity does not mean only about being new and different. Instead, it refers to being novel, not a copy of existing design, and appropriate at the same time. Newness and an appropriate level of novelty are crucial to aesthetic experience of

apparel products. Individual designer's different approach in utilizing formal elements and design principles gives distinction and uniqueness to his/her creation, opening up infinite possibilities for a new design. Then, how can designers enhance their artistic competency?

Many contemporary designers use ethnic resources as their artistic inspiration reference. Kim, Lee, and Lee (2004) developed knit wear inspired from Korean DanCheong, being referred to as Korean-style decorative coloring used on buildings or other items. They extracted the formal characteristics of the visual elements utilized in DanCheong and represented them in their work, attempting to promote the unique formal quality in the western style dominated apparel market. Roos (1999) captured the beauty of South African tribe Ndebele's wedding dress into a contemporary apparel form by utilizing the traditional Ndebele colors and motifs. As demonstrated in those design examples, ethnical subject provides designers with the visual reference for ideations and inspirations that they can incorporate when forming a garment.

Fashion Designer Interprets and Conveys Social Meaning into a Garment

Another notion of form, expressed by Langer (1957), carries abstract sense connoting structure and articulation. Namely, a form is "a whole resulting from the relation of mutually dependent factors." This abstract sense is referred to as "logical form," a notion involving expression. This expressive quality is inherent in all design works due to the presence of the formal elements utilized for their formal structure and construction.

It has been claimed that fashion and apparel impose meanings on a raw material that either does not originally have any meaning or which has a sort of natural meaning (Barnard, 2002). She questioned, here, if fashion and apparel do impose meanings on a raw material that either does not originally have any meaning or which has a sort of natural meaning. Then, is the designer who represents the raw material into a shape of a garment the source of the meaning to that garment? The answer may be yes, but not always. Designers invest a thought and feeling into a apparel design by utilizing the formal elements and their

characteristics. Releasing emotion is an important aspect for the designer in creative activities and it further serves as an opportunity for self-expression. Expressive qualities in apparel are also appreciated by the wearers as well. Henderson and DeLong (2000) found in their research that fashion items are selectively used by wearers to express or avoid their gender, individual values for social standing, and political belief.

The emotion conveyed through the formal elements in an apparel design is often developed further to a symbolic meaning. Assigning and interpreting the meaning the abstract reality of apparel stimulates the mind and activates the cognitive processes of the participants being involved in the certain use context. A concrete reality of apparel as a physical representation of materials becomes an abstract reality—a content what is intended to represent.

Apparel is a concrete realm of material representation that embodies designers' intent, consideration, decision, making, and judging in relation to society. Apparel form follows the culture in a society, while mirroring people's habits, traditions, thought, and attitude. As such fashion and apparel address more than just aesthetic satisfaction and function and entails communicative intent as well (Barnard, 2002). This abstract reality of apparel often comes to be comprehended as essential, that is, more real than the physical reality of the apparel itself. Fashion designers work with two components for their intellectual outcome: concrete reality embodied as a form and as abstract aspect configured for intent (Cho, 2005).

This dual aspect of apparel products encompassing concrete and abstract aspects expands the general role expectation for a fashion designer from a person who visualizes fashion ideas into apparel to a dynamic agent who both interprets and conveys social subjects through designs. A fashion designers' role must be in playing a rigorous role in visualizing fashion ideas for intelligible existence and imbuing intent and values into apparel items. Therefore, designers must be competent artistically and socially as well.

Understanding cultural context of apparel product use is critical to interpretation of values and expectations. Delong, Labat, Nelson, Koh, and Kim (2002) revealed that jeans perceived as a global product holds different symbolic meaning for subjects in the United States and Korean participants for the research. This result

recommends that apparel professionals understand response criteria to products in the culture where the product will be marketed. Beck's (2000) study on the use of African wrap apparel called "leso" implicates that without the entire cultural and contextual knowledge of the participants being involved in the use context, less is shared in common, so meaning is less likely to translate. The relationship between the body and apparel is understood and interpreted under cultural setting (Delong, 1998).

From the anthropological point of view, culture involves mental, behavioral, and material aspects: "what people think," "what people do," and "what people produce." (Bodly, 2000) Culture shapes people's thoughts and behaviors. People appreciate culture in tangible and intangible manners. Cultural practice can foster a fashion designer's creativity. For this reason, fashion designers are encouraged to utilize culture during their design process as conceptual criteria that guide them in considering what the intended wearers consider as acceptable options for resolving various design problems and in negotiating design issues between the users and their requirements and needs for their apparel items (Lamb & Kallal, 1992).

Humans rely on their shared symbolic languages to communicate and represent ideas. Culture is learned and transmitted to next generations through symbolic languages (Bodly, 2000). This idea has an important application for fashion designers to the social derivation of meaning through design, emphasizing the importance of understanding ideas generated within society. Fashion designers attempt to reconfigure the symbolic languages through their imagination and creativity into their works disseminate the meaning. Bormann (1999) personalized the symbolism of the Christian and the Native American in a chasuble as an effort to express the heritage of her client. Cho (2005) reconfigured the auspicious symbolism of Eastern dragon icon in her dress design. As such, culture becomes a subject and content to inspire designers' creation process. Designers use culture as their inspiration for commentary and self-expression for their work.

Symbolic meanings may be attributed to groups of people, places, or objects. Perspective diversity on various social and human issues exists in all cultures. Therefore, the ability to look is culturally determined (Wayman,

2003). Blankenship (2005) claimed that experiencing different cultural heritage through design encourages the cultural exchange. This cultural exchange through design

encourages respecting the value and spirit of coexistence and mutual vivification in the globalized life.

Fashion Designer Embodies Utility into a Garment

Barnard (2002) suggests Louis Sullivan's phrase 'form follows function' as the answer for the quest of what constitutes design. Apparel originated not only for artistic satisfaction and communicative intent but also for performance. Function in apparel may include protection and productivity of a wearer in conducting his/her tasks and its effectiveness in ease of moving, donning/doffing, care, etc. These performances are affected by many factors, such as construction, structure, and materials. However, emphasisonly on functionality is inadequate in apparel design because of its aesthetic creative status. Instead, utility should be structured within the appearance of cloth. The adequate balance between function and aesthetics decides the success of apparel product design.

Technology provides a means and methodology to configure fashion ideas for function into apparel products. Integrity of function requires a diverse set of technical design intelligence; skills to utilize and keep up with up-to-date technology, knowledge and techniques derived from designer's hand-on experience and expertise, a love for inquiry about new material, technology, and methodology.

As the fashion industry has expanded their business horizon globally, apparel firms have strived to cope with significant strategic challenges by adopting the state of the art OA (Office Automation), FA (Factory Automation), and/or CAD/CAM (Computer-Aided Design/Computer Aided Manufacturing) equipments that connect design to production directly. The implementation of these technology-driven systems enable the industry to remain competitive in today's business by assuring effective and flexible processes. Technology facilitates the development of new products, generatinga multifaceted set of decision points for designer and illuminating new modes of thinking for future markets and products. Parsons and Campbell (2004) demonstrated through their digitally

printed apparel designs that a new technology expands design possibilities and freedom in expressing their ideas and designerly intent.

There is an assumption that automation deskills employees. Designers' personal technical know-how derived from their hand-on experience seems to get less attention as the production is automated and off-shored. However, consumers' demands for high quality, diverse and high fashion contents will increase. The future apparel industry will become more specialized in fabric acquisition, product design, and pre-production activities integrated with sophisticated technology, requiring higher skilled professional workers at all levels or production process. When considering that "idea generation comes from the factory workers, engineers, and managers where the work is done" (Samson, 2004), designer's artisan skills and know-how should be valued and encouraged to continuously upgrade within the venue where the work is done.

Design action is also affected by dependency on materials available in the product milieu. Innovative textiles have heralded an unprecedented level of utility leading to greater protection, safety, movement, healthcare, and enjoyment. In the past the application of technical textile was limited to protective gears for works in unique environment, such as fire fighters, meat factory workers, professional sport players, and astronauts. However, the scope of technical textiles application has been expanded to everyday apparel for ordinary people. Innovative technology have been integrated to product ideas; outdoor gears capable of sensing the physiological condition of the wearer, leisure apparel featuring with a solar panel that store solar energy and play digital devices like MP3s, and special occasion wears that reflect digital lights that correspond to the sound of music (Lee, 2005). Lee (2005) interpreted that this trend in product design reflects the well-being driven social culture and ubiquitous computing, being referred to as a confluence of embedded physical computing and pervasive wireless networking. Indeed, ubiquitous computing has become increasingly prevalent form for the delivery of information services.

Apparel becomes smarter with the integration of structure and functional materials. A designer is the person who is responsible to engineer the system. Apparel engineered by the means of such technologies will not

only suggest a statement for new fashion, but also lead to users' wellness. Therefore, new technologies, methodologies, and new materials are the subjects that designers should inquire about.

Conclusions

Fashion design is the study of artistic, social, and technical subjects that inform apparel objects. Apparel form is appreciated and enjoyed in different manners by different agents of the designer, the wearers, and spectators. Following the subjects for forming apparel encompasses design activity and aesthetic creative status and technical knowledge and skills as well.

In the design process, fashion designers are encouraged stimulate their artistic senses for formal/ expressive/symbolic representation of their ideas, identify design problems, seek for available resources, and synthesize the possible ideas with a reflective deliberation, justify suggested solutions with a rationale, evaluate design outcome within a cultural context, and cultivate a love for inquiry by being open for new technologies, methodologies and materials. That is, during fashion design activity, thoughts lead to actions and actions are derived from thoughts for product.

Designers' knowledge, skills, and the possibility for creation grow within society along with culture. What we appreciate today is the accumulated result from the past. Attempt to inquire about the past and current culture provides designers with an opportunity to project the future better. Culture inspires designer's artistic creativity and lingers his/her imagination. It becomes a subject and intent that designers can address through their design. Designer's power to leverage new creation can be harnessed by upgrading their skills and cultivating and nourishing them with new technology and concurrent information generated in society.

Also, it shouldn't be overlooked that the intellectual interest in fashion design is centered on humans. The ultimate goal of fashion design is to improve the quality of human life through the excellence of apparel product. Its focused inquiry on humans derives a necessity for

designers to develop professional responsibility. Professional responsibility can be demonstrated as designers endeavor to achieve users' satisfaction through an excellence of design. A fashion designer who is competent artistically, socially, and technically will be able to perform as an active workforce who presents excellent existence, utility, and performance into apparel products. These intellectual competencies are hard to automate into machine and/or electronic powered system.

주제어: 복식조형, 패션디자이너의 자질, 예술적 창조력, 사회문화 이해, 기술적 지식.

References

Barnard, M (2002) Fashion as Communication (2nd ed.). New York, NY: Routledge.

Beck, RM (2000) Aesthetics of communication: Texts on textiles from the East African coat. Research in African Literature, 31(4), 104-124.

Blankenship, S (2005) Outside the center: defining who we are. *Design Issues*, 21(1). 24~31.

Bodley, JH (2000) *Cultural anthropology: Tribes, states, and the global system* (3rd ed.). Mayfield Publishing Company. Mountain View: CA.

Bormann, C (1999) Choctaw heritage, International Textile and Apparel Association Proceedings, 135.

Cho, KS (2005) Form follows intent: Configuration of a dragon spirit into a three-dimensional dress form. *International Journal of Costume Culture, 8*(2), 105~110.

Delong, M (1998) *The way we look, dress and aesthetics* (2nd ed.). Fairchild, New York: NY.

Delong, M, LaBat, K, Nelson, N, Koh, A, Kim, Y (2002) Global products, global market: Jeans in Korea and the United States. *Clothing and Textiles Research Journal*, 20(4), 238-245.

Doeringer, P, Crean, S (2004) Can fast fashion save the U.S. apparel industry? Retrieved March 8, 2006, from http://www.sase.org/conf2004/papers/papers/ht ml

Henderson, B, DeLong, M (2000) Dress in a postmodern era: An analysis of aesthetic expression and motivation.

- Clothing and Textile Research Journal, 18(4), 237-250.
- Kim, HK, Lee, JY, Lee, HS (2004) Knitwear design applying traditional danchong motifs. *Journal of Korean Society of Clothing Industry*, 6(4), 415-420.
- Lamb, JM, Kallal, MJ (1992) A conceptual framework for apparel design. Clothing and Textiles Research Journal, 10(2), 42-47.
- Langer, SK (1957) *Problems of art*. New York: Charles Scribner. In J. W. Bender & H. G. Blocker (Ed.), *Contemporary philosophy of art*, (p. 145-150). Upper Saddle Rider, NJ: Prentice Hall.
- Lee, JH (2005, November) Digital smart clothing as an everyday apparel item that reflects ubiquitous era. In Korea Federation of Textile Industry (Ed.), The latest trends in textile technology, (62-69). Korea Federation of Textile Industry.
- Locker, S (2002) People and technology management in flexible manufacturing: An apparel industry case study. Clothing Textiles Research Journal, 20(1), 26-32.
- Löwgren, J, Stolterman., E (2004) Thoughtful interaction design: A design perspective on information technology. Massachusetts Institute of Technology. Cambridge: MASS.
- Moncarz, HT (1992) Information Technology Vision for the U.S.

- Fiber/Textile/Apparel Industry. Retrieved March 8, 2006, from http://www.mel.nist.gov/div826/library/doc/moncarz92.pdf#search='apparel%textile%20industry%2C%20moncarz'
- Morganosky, MA, Postlewait, DS (1989) Consumer's evaluations of apparel form, expression and aesthetic quality. Clothing and Textiles Research Journal, 7(2), 11-15.
- OcVirk, OG, Stinson, RE, Wigg, PR, Bone, RO, Cayton, DL (2002) Art Fundamentals: Theory and practice (9th ed.). McGraw Hill. New York: NY.
- Parsons, J, Campbell (2004) Digital apparel design process: Placing a new technology into a framework for the creative design process. *Clothing and Textiles Research Journal*, 22(1/2), 88~98.
- Roos, S (1999) African glory, International Textile and Apparel Association Proceedings, 133.
- Samson, RW (2004, September-October) How to succeed in the Hyper-Human Economy. *The Futurist*, 38-43.
- Wayman, M (2003) Looking and writing: A guide for art history students. Prentice Hall. Upper Saddle River: NJ.

(2005. 11. 30 접수; 2006. 05. 01 채택)