

THE KOREAN SOCIETY OF FASHION BUSINESS 2016 International Conference

-The New Paradigm of Global Fashion Business in ICT Convergence-

Registration **09:30-10:00**

Presider: **Jiyoung Kim** (Chungbuk National Univ.)

Opening Ceremony **10:00-10:30**

Presider: **Jee-Sun Park** (Incheon National Univ.)

- National Courtesy
- Greetings
Sangmoo Shin (President of The Korean Society of Fashion Business)
- Congratulatory message
HAHN, Hern-Soo (President of Soongsil University)
NA, Kyung Won (Member of the National Assembly of the Republic of Korea)

Keynote Speech I **10:30-11:30**

Presider: **SukJoo Kim** (GNCO CO., LTD)

Kyunghee Choi (Honam Univ.)

■ **Social Media as Meme Transponder in Fashion Design**

Dr. **Piet Kommers**, Professor, University of Twente, Netherlands

Keynote Speech II **11:40-12:30**

Presider: **Hosup Kan** (Hongik Univ.)

Traoré Mossi (Mossi, Les Ateliers Alix)

■ **ICT converged Global Fashion Business New Paradigm**

- Smart textiles for the fashion

Dr. **Vladan KONCAR** Professor, ENSAIT - GEMTEX , France

Lunch **12:30-13:30**

Poster Presentations **13:30-14:00**

Presider: **Sunghee Kim** (Woosuk Univ.)

Sungheum Um (FORTIUM INC.)

International 「Korea Textile Design Award」

Presider: **Gyujin Lee** (Hansei Univ.)

Seongdal Kim (Konkuk Univ.)

FABI Exhibition

Presider: **Minji Kim** (Sangji Univ.)

So-hee Um (Gangneung-Wonju National Univ.)

Keynote Speech III**14:00-14:50**Presider: **Barbara Setsu Pickett** (Univ. of Oregon)
JaeHeon Yoon (METROCITY)**■ Fabric and Garments Comfort Evaluation**Dr. **Shadi Houshyar**, RMIT University, Australia

Keynote Speech IV**14:50-15:30**Presider: **Kyeongseob Shin** (Planning Cynthia)
Dongsik Ryu (Zionex, Inc.)**■ Fashion at a Crossroad - Is It a Science, Technology or Business?**Dr. **Moon W. Suh**, Professor, North Carolina State University, USA

Oral Presentation**15:40-17:00**Session 1 Fashion Design,
Hyungnam Engineering Building 111Moderator **Young-Sam Kim** Chung-Ang Univ.
Eun Hee AHN Galerie 89, PARIS◇ **The development of a new collection using felt****-Application of architectural and famous painting construction for felt clothing**Presenter **Orkhon Otgonbaatar*** Mochi Art design company**Mandukhai Baldandorj** Research and Training Centre for SMEs, MUST, Ulaanbaatar, MongoliaPanel **Soojeong Bae** Chonnam National Univ.◇ **FASHION and ART**Presenter **Eun Hee AHN*** Galerie 89, PARISPanel **Jiyoung Kim** Chungbuk National Univ.◇ **Hidden space—An analysis of the interior space of contemporary Japanese costume de sign based on the Japanese aesthetic consciousness**Presenter **Lei Gu*** · **Aluna-yue Lu** Central Academy of Fine ArtsPanel **Gyujin Lee** Hansei Univ.◇ **The Analysis of the Use of the Dunhuang Murals in the Clothes Connotation**Presenter **Wang Ze-Hui*** Qingdao Technical CollegePanel **Young-Sam Kim** Chung-Ang Univ.

◇ **CREATION AND FRENCH EXPERTISE ART DIRECTION TRAINING**
–**FRENCH HAUTE COUTURE LEARNING**

Presenter **Traoré Mossi*** Mossi, Les Ateliers Alix

Panel **Hendrik Hwang** Yonsei Univ.

◇ **Oriental Story – An analysis of the "Silk Road" culture in the Han Dynasty of China and the understanding and application of Chinese traditional folk**

Presenter **Yi Xiong*** · **Aluna-yue Lu** Central Academy of Fine Arts

Panel **Kyunghee Choi** Honam Univ.

◇ **The development of a fashion design using the rock art images**
- **Focusing on the rock art of Rashaan Khad in the Mongolia -**

Presenter **Mandalmaa Sharkhuu*** Mongolian State Univ. of Arts and Culture

Panel **Minji Kim** Sangji Univ.

◇ **The Value of Fur Industry in Chinese Garment Industry**

Presenter **Aluna—yue Lu*** · **Lei Gu** Central Academy of Fine Arts

Panel **Eunjoo Cho** Honam Univ.

◇ **Luxury advertising in the age of globalization**

-A comparison of advertising used in Korean and British fashion magazines-

Presenter **Porteous, Neill*** Univ. of Birmingham

Panel **Jee-Sun Park** Incheon National Univ.

◇ **A case study on prospect of ICT convergence technology for beauty industry in Korea Examples of convergence model development in EDENIQUE personalized online and offline perfumes**

Presenter **O'NEW KIM*** EDENIQUE

Panel **Sungsun Hong** Kimpo Univ.

◇ **FASHION MERCHANDISING "lapalette"- Product Planning to Sale**

Presenter **Hyerim Lee*** BEAUCRE MERCHANDISING

Panel **Eunyoung Jang** Dongseoul Univ.

◇ **Factors that affect Chinese consumers' evaluations of the product reviewed by vlogger**

Presenter **Nan Mei Na*** · **Jee-Sun Park** Incheon National Univ. · **Nan Mei Ling** WuHan Textile Univ.

Panel **Seong-yeon KIM** Soongsil Univ.

◇ **Application Vs Integration: The challenges of wearable technology from a polymeric optical fibre (POFs) textile perspective.**

Presenter **Tan Jeanne*** · **Wong Wing Chung** · **Ge Lan** The Hong Kong Polytechnic Univ.

Bai Ziqian Donghua Univ.

Panel **Sangkyung Bai** Suwon Univ.

◇ **Deceptive Textiles: Listers' Velvetloom Makes Resilitex for Decoy Trucks and Tanks in WWII and a Quick Glance at Camouflage Today**

Presenter **Barbara Setsu Pickett*** Univ. of Oregon, Eugene, Oregon

Panel **JungSoo Lee** Hongik Univ.

◇ **Comparative Study on Colors Between Pantone Trend Color and Digital Textile Printing Color - Focusing on a Color QR Code**

Presenter **Suhrin Park*** · **Jongjun Kim** Ewha Womans Univ.

Panel **Sungmin Kim** Mokwon Univ.

◇ **A Study on the Analysis of the Actuality onto Synthetic Detergents for House Using**

Presenter **Tae-Mi Kim*** Bucheon Univ.

Panel **Younghee Park** Kyungnam Univ.

◇ **Fashion Design Development Based on the Straw Clothes**

Presenter **Hosup Kan*** · **Bora Hong** Hong-ik Univ.

Panel **Sungheum Um** FORTIUM COMPANY

◇ **A study of functional compression wear for skating Athlete**

Presenter **SUNG HEUM UM** FORTIUM COMPANY

EUN SEO KIM* Yeonse Univ. **Yuko Koya** Short track skating coach

Panel **Hwa-Yeon Jeong** Kookje College

◇ **A study of functional compression wear for Taekwondo player**

Presenter **SUNG HEUM UM** FORTIUM COMPANY

YO HAN SONG* Univ. of Southhamton **Eun seo Kim** Yeonse Univ.

Panel **Taesoon Kwon** Shinhan Univ.

International 「Korea Textile Design Award」

17:10-18:30

Presider: **Gyujin Lee** (Hansei Univ.)
Sungmin Kim (Mokwon Univ.)
Reen Yang (Sangmyung Univ.)

FABI Exhibition

Presider: **Hosup Kan** (Hongik Univ.)
Minji Kim (Sangji Univ.)
YongJae LEE (Hanyang Univ.)

The Best Presentation Award

Presider: **Jee-Sun Park** (Incheon National Univ.)
Chanmee Park (Bucheon Univ.)
Hyejeong Kim (Hankyong National Univ.)

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Greetings

The Korean Society of Fashion Business is proud to host the 2016 International Conference on October 29th at Soongsil University, Seoul, Korea. I would like to express my gratitude to HAHN, Hern-Soo, President of Soongsil University and NA, Kyung Won, Member of the National Assembly of the Republic of Korea etc. for their congratulatory remarks.

The 2016 International Conference, as part of the celebration of the 20th anniversary of The Korean Society of Fashion Business, focuses on the theme of "The New Paradigm of Global Fashion Business in ICT Convergence". Many participants from the UK, USA, France, Netherlands, Australia, China, Hong Kong, Japan, Mongolia, and Korea will deliver their presentations which will facilitate meaningful opportunities to exchange their unique ideas and establish global networks. The International FABI Exhibition and the International "Textile Design Award", co-supervised with the Korea Fashion & Textile News, are also held at this International Conference.

I hope the 2016 International Conference will advance the innovative atmosphere of ICT convergence and provide a future foundation from which to launch into the new paradigm of global fashion business. I want to thank the invited keynote speakers with their innovative visions, Dr. Piet Kommers (University of Twente, Netherlands), Dr. Vladan Koncar (ENSAIT -GEMTEX, France), Dr. Shadi Houshyar (RMIT University, Australia), and Dr. Moon W. Suh (North Carolina State University, USA).

I would like to welcome all participants from the UK, USA, France, Netherlands, Australia, China, Hong Kong, Japan, Mongolia, and Korea and wish success for the Korean Society of Fashion Business 2016 International Conference in expanding our horizon to the global arena. I would also like to express my gratitude to the Korean Foundation of Science and Technology Societies, GNCO CO., LTD, YOUNG POONG FILLTEX Co. Ltd., and Textech Global etc. for their support. Thank you.



Sangmoo Shin

President

The Korean Society
of Fashion Business

Professor

Soongsil University

Congratulatory message



Hern-Soo Hahn

President
Soongsil University

First, I would like to congratulate the 20th anniversary of The Korean Society of Fashion Business.

I cordially welcome all distinguished guests from the US, the UK, France, Netherlands, Australia and China, Hong Kong, Japan and Mongolia, who are visiting Soongsil University to participate in this International Conference.

The 2016 International Conference is held under the theme of "The New Paradigm of Global Fashion Business in ICT Convergence", at the same with the International FABI Exhibition and the International "Korea Textile Design Award". I expect this International Conference will contribute to expanding the global Industry-Academia-R&D cooperative network through keynote speeches and presentations by businesses and academic institutions.

To promote the development of South Korea's fashion industry, the Korean Society of Fashion Business was launched as a place of cooperation between businesses and academic institutions. The journal of the Korean Society of Fashion Business has been published ever since and has been selected as the outstanding academic journal supporting society by the Korean Federation of Science and Technology Societies. The conference and the FABI exhibition have been hosted on a regular basis. The Korean Society of Fashion Business has been actively carrying out activities including co-hosting the "Korea Textile Design Award" together with the Korea Fashion & Textile News. The Korean Society of Fashion Business has been widely known for its remarkable contribution to globalization and advancement of South Korea's fashion industry by advancing studies, promoting information exchange, and nurturing global talents for the fashion industry.

I am grateful for passion and keen interest of The Korean Society of Fashion Business members who are at the forefront of the textile and fashion industry by enhancing advanced technology and by nurturing creativeness through ICT convergence, and I am looking forward seeing more achievements in future.

From this moment, I expect The Korean Society of Fashion Business will achieve a remarkable growth and make a leap forward. Once again, I would like to send my heart-felt thanks to President Shin, Sangmoo and her Korean Society of Fashion Business members, as well as keynote speakers and presenters coming from abroad.

I wish for the resounding success of The Korean Society of Fashion Business. Thank you!

Congratulatory message

Distinguished Participants,
Ladies and Gentlemen,

It is a great honor and pleasure to join you in celebrating the 20th anniversary of The Korean Society of Fashion Business, 2016 International Conference.

First, my special thanks must go to Professor Shin, Sangmoo and The Korean Society of Fashion Business for all the unsparing efforts and hard work in organizing this very significant event. At the same time, I would like to give a warm-hearted welcome to the presenters and the panelists who will be participating in this conference.

The Fourth Industrial Revolution is driving a new wave of changes across the world, with major implications to the fashion industry. First, from social media channels to e-commerce and omni-channel management the role of ICT technology has increased the demand for a new paradigm in the global fashion business. Moreover, it is not just the business area but also the production sector that has been experiencing incredible changes. The material science is yielding breakthroughs with new textiles while the supply chain is transforming with robots in speed factories taking care of all production levels.

Last but not the least; the Korean wave (also as known as Hallyu) has become a global sensation as the major cultural activities penetrates to all the countries around the world. The fashion industry coupled with the cultural aspects is also currently fueling the Hallyu phenomenon. Such combination of creativity and commerce is needed to further enhance the fashion industry and soar out into the global platform.

Under such circumstances, The Korean Society of Fashion Business has grown to become the leading institution in establishing global networks and play a pivotal role in the fashion industry by providing education and innovation.

This conference will be a very meaningful occasion to explore all aspects of the fashion business ranging from history of costume and textile to recent fashion marketing and social psychology of fashion. It will be an opportunity to link the first-hand experiences of the industry to the application of the knowledge and innovation of the academia.

In closing, I once again express my very best wishes for the successful conference and I look forward to the advancement and development of The Korean Society of Fashion Business.



NA, Kyung Won

Member of
the National Assembly
of Republic of Korea

Congratulatory message



Kim Shi-joong,

Chairman
Co., Ltd. Korea Fiber
newspaper

Congratulations on the 20th anniversary of the foundation of The Korean Society of Fashion Business.

Particularly, I would like to encourage the International Conference and the International FABI Exhibition accompanying the significant 20th anniversary of the society.

In addition, I am glad to hold the event of the 4th Korea Textile Awards with you that was originally intended to promote the Development of Domestic Fashion Industry and Cultivation of Human Resources there for.

The Korean Society of Fashion Business was founded in 1996 with the motto that claimed the development of domestic fashion industry and has been actively grown and realized the global network comprising overseas academic societies and global companies.

I believe the 'New Paradigm of Global Fashion Business in ICT Convergence' to be presented through papers, discussions, and presentations in the international conference will demonstrate the contribution of Korean Society of Fashion Business to the industrial development and industry-academic cooperation.

I would like to express my sincere congratulations again.

Thank you.

Congratulatory message

Congratulations on the 20th anniversary of The Korean Society of Fashion Business (KSFB). For the past 20 years, the KSFB has grown from a fledgling group of people to the most active and the most successful society. With 20 year energetic activities, the KSFB has blossomed to be one of the most important platform for conferences, exhibitions, textile design competitions, academic journals in the field of fashion business.

Given the globalization of Korean fashion business and the general tendency of ICT convergence, the topics of our Conference cannot be more timely. Today's conference is designed for us to share our ideas and search out a new paradigm of global fashion business in the age of ICT convergence. It is also anticipated today's conference will be a great venue for networking with academics and experts in this field.

I would like to take this opportunity to welcome distinguished speakers and discussant not only from Korea but also from the USA, France, Australia and Netherlands. Thank you for travelling all the way from your home to get here for this Conference. It is beyond doubt that today's conference could not have been made possible without the leadership of President and Professor Sangmoo Shin and her efforts. Finally, I wish all of you a success and fruitful results from our conference. As Autumn is the best season, I also wish you wonderful and memorable stay here in Seoul.



Sang Jo JONG

Professor of Law
Seoul National University
School of Law

Congratulatory message



SukJoo Kim

CEO & President
GNCO Co., Ltd.

Congratulations on the 20th anniversary of The Korean Society of Fashion Business and International Conference commemorating the foundation of the Society.

Following the establishment in 1996, The Korean Society of Fashion Business has sustained to publish great variety of journals and held numerous conferences and exhibitions that greatly contributed in the development of Korea's textile fashion industry.

In particular, the society has played an important role in developing communication space between the universities and the textile industry and hence complementing each other through exchange and cooperation.

I believe that such achievements are the foundations to the recognitions that the Korean textile fashion industry receives in the global market today. I sincerely hope for the development the Korean Society of Fashion Business as a global fashion-business academic association that represents Korea through extensive academic activities along with the development of talented individuals in the textile fashion industry.

Again, congratulations on the International Conference commemorating the 20th anniversary and I hope to see further developments to take place in the future.

Keynote Speech I

Social Media as Meme Transponder in Fashion Design

Piet Kommers
<http://www.pietkommers.nl>

University of Twente (1982 – now)
Utrecht University (1975-1981 and 2014-now)
kommers@edte.utwente.nl

1. Journal Editor IJWBC & IJCELL
2. Co-Chair of IADIS Conferences
3. UNESCO professor of Learning Technologies



Social Media as Meme Transponder in Fashion Design



Social Media as Meme Transponder in Fashion Design



Social Media as Meme Transponder in Fashion Design



Social Media as Meme Transponder in Fashion Design

[Keynote Lecture for the 2016 Korean Conference on Fashion Business](#)

Abstract

Social media can be seen as almost synchronous human awareness. Whereas photography and cinema triggered visual communication, social media widened the road to share taste and experience public glances.

Visual semiotics is a method to detect subtle trend triggers. Memes are mental genes and explain the swift propagation of disruptive concepts at the dawn of new fashion trends. This keynote lecture targets the understanding how web-based presence annexed the subliminal power of memes and vicarious experience. How can we include the meme mechanism in the curriculum of students? How can we understand the working of meme transpondering in the current generation of social media? These questions will be issued and illustrated.

[Piet Kommers](#)

Professor of UNESCO Learning Technologies

Social Media as Meme Transponder in Fashion Design



Social Media as Meme Transponder in Fashion Design
[Keynote Lecture for the 2016 Korean Conference on Fashion Business](#)

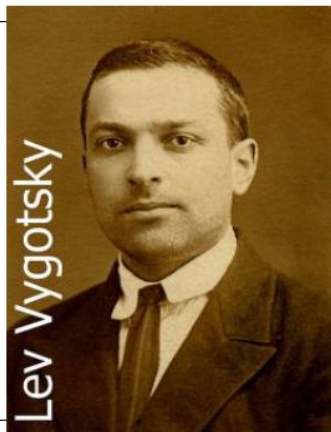
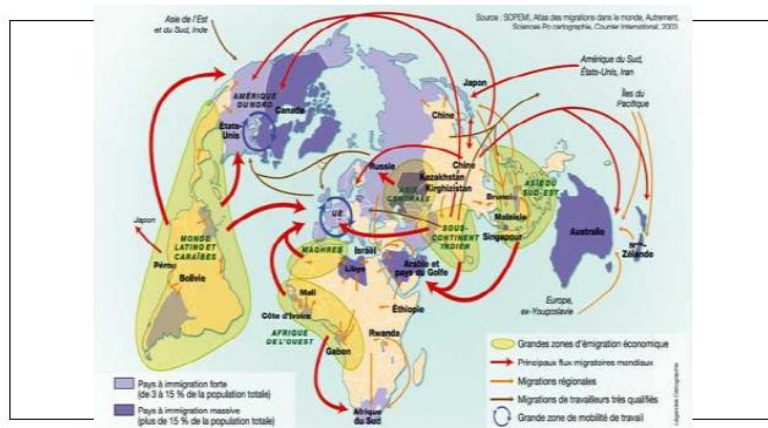
Ideas are between rather than in persons
Social media are the engine in popularity and transformation
The scale of ethnic migration is taking momentum
Open government as driver of collective awareness
Memes for copy cats
Conceptual stages in design
Demand for Bottom-Up Co-Design

Nature and Culture in Learning
Five dimensions in the innovation of learning
Playing as the linking pin between learning and working

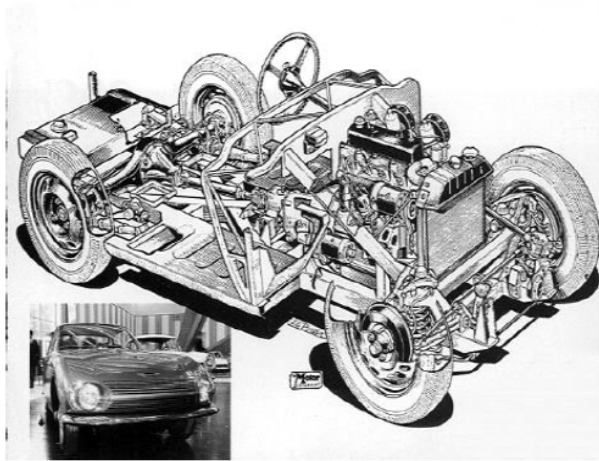
[Piet Kommers](#)
Professor of UNESCO Learning Technologies

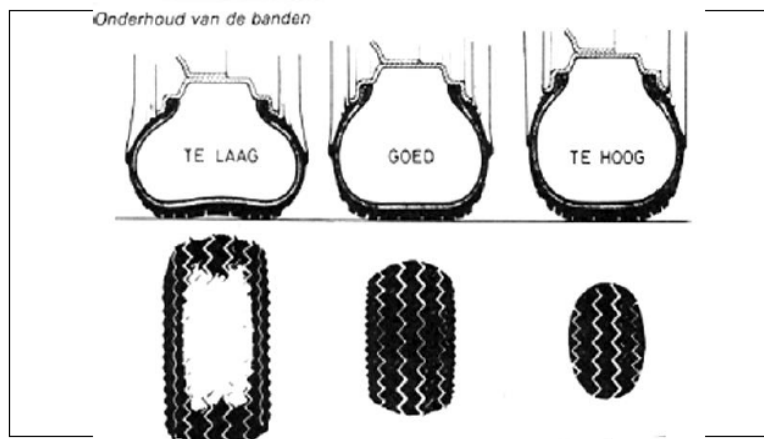
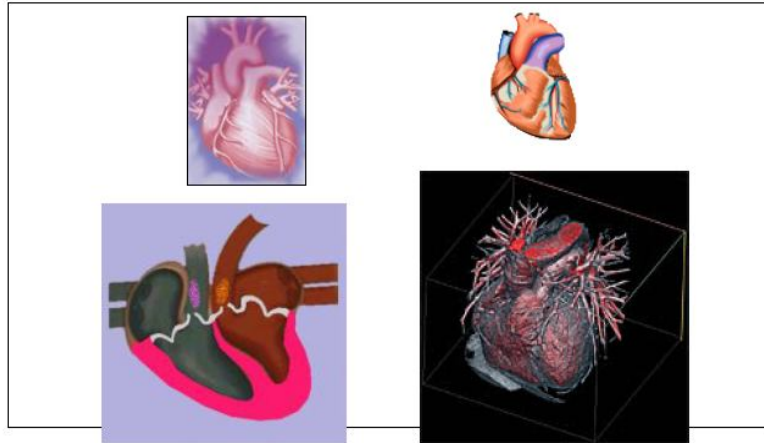


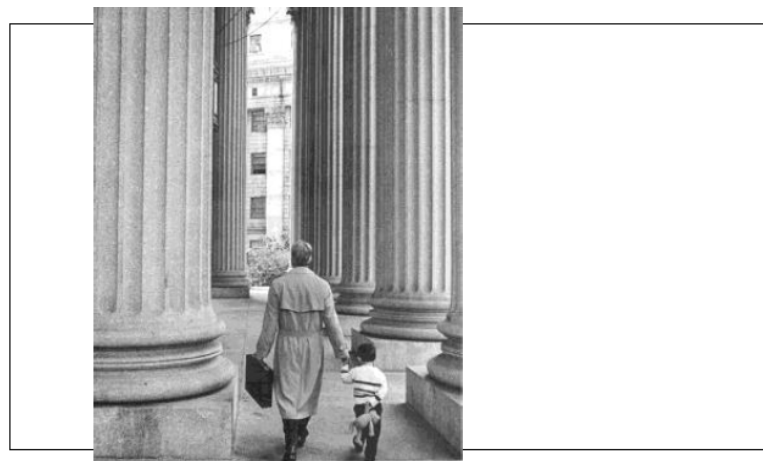
Is ICT still a
Challenge?

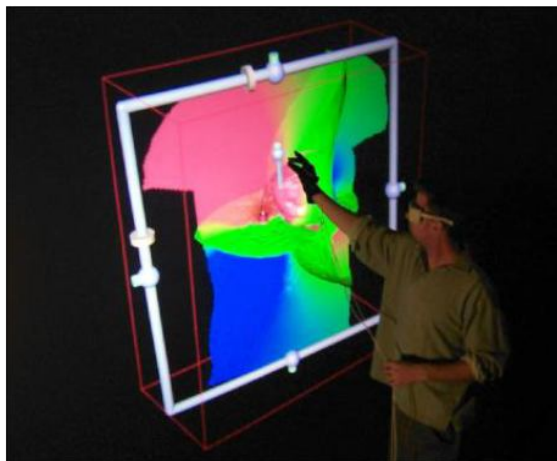
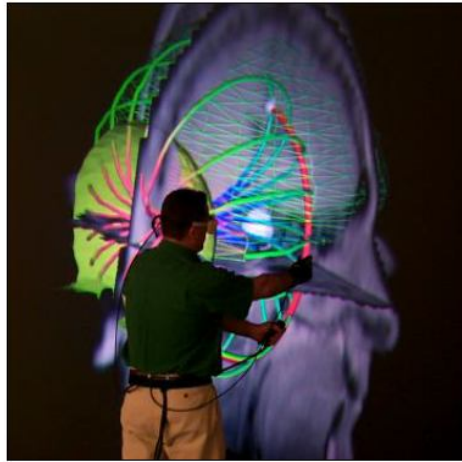


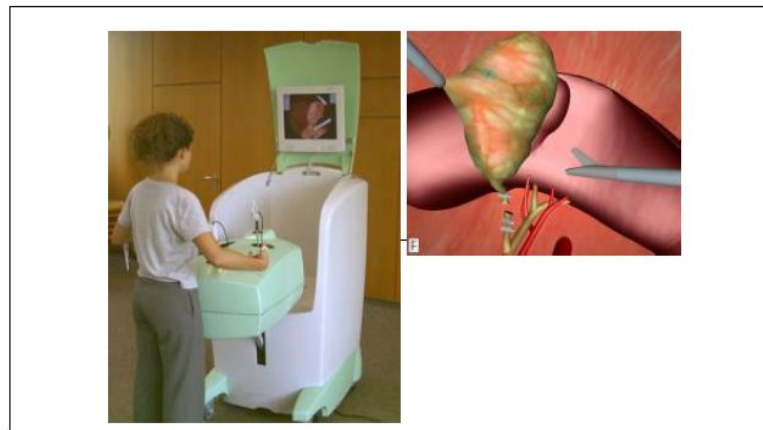
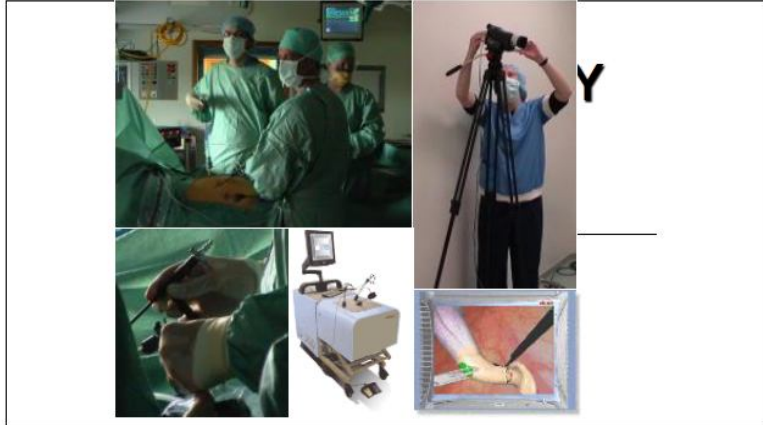
Learning and Social Evolution





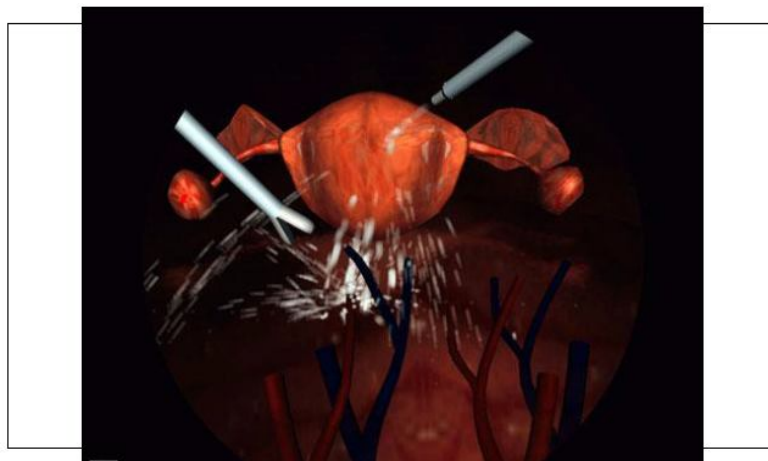
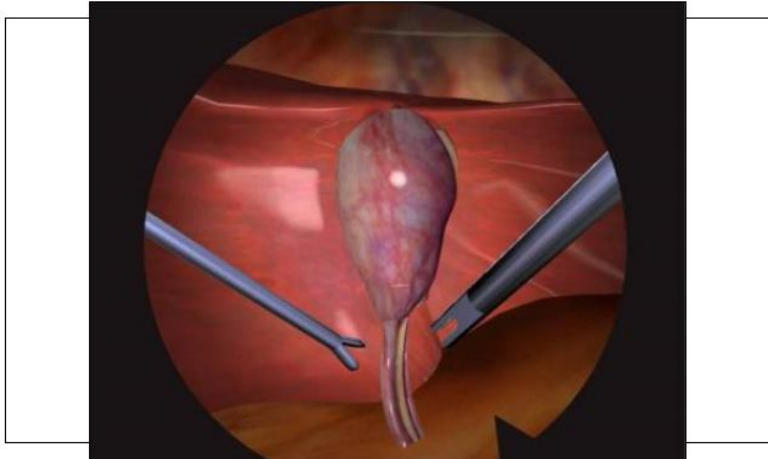


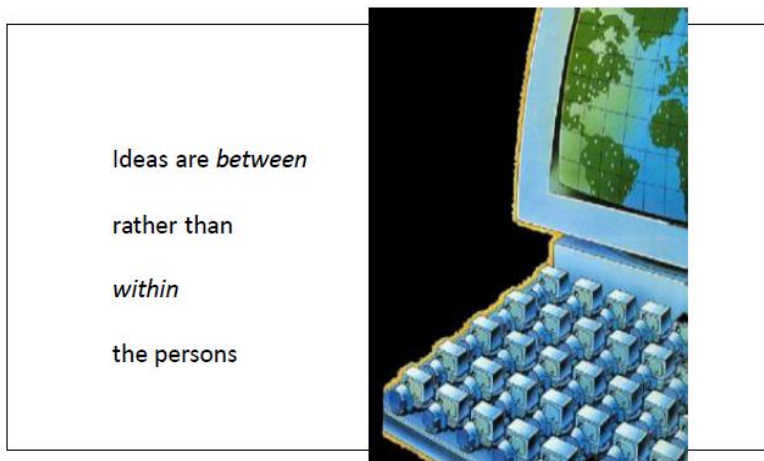
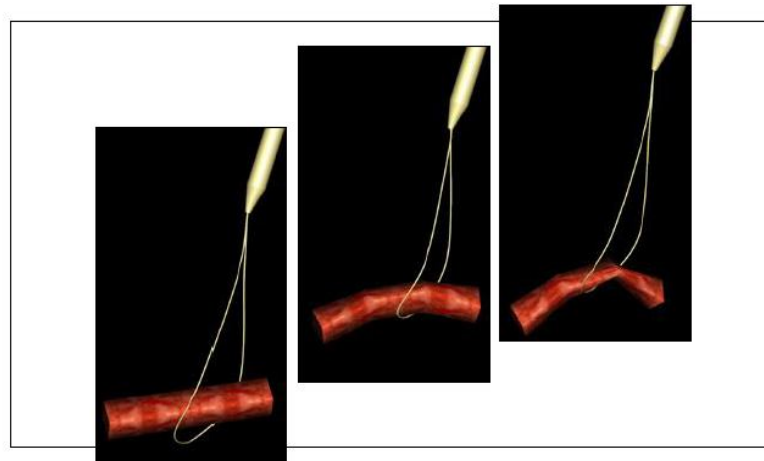
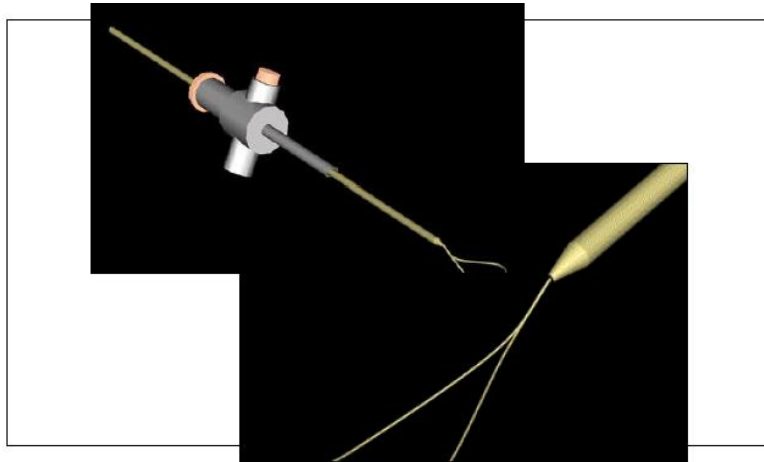




The VREST Project
Surgical Training with Haptic Devices









Burberry liked the fact that Brooklyn Beckham has 5.9 million Instagram followers



Model Kendall Jenner has 48 million followers on Instagram and 15.3 million on Twitter





Maddie Demaine photographed by Brooklyn Beckham for Burberry's Brit fragrances ad campaign

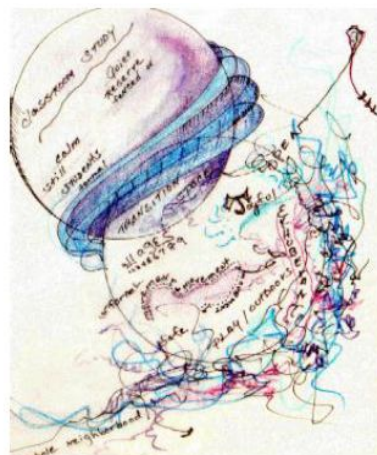


Online, and particularly mobile, is increasingly important in the fashion industry

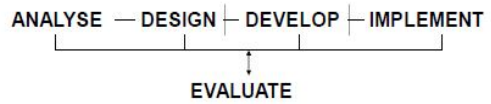


Can you tell the difference? ASOS shoes on the left, Gucci on the right.

Learning Stages in Conceptual Design

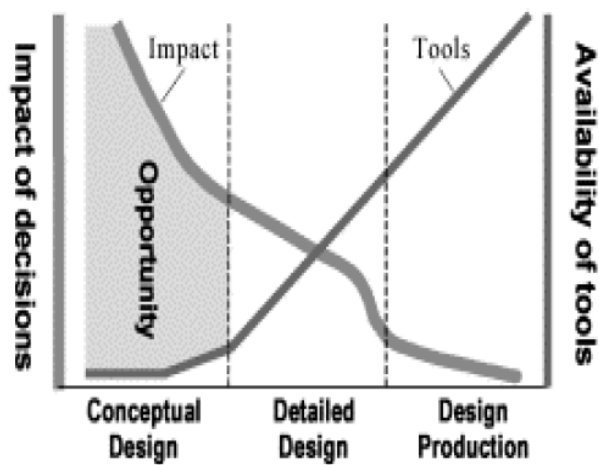


Traditional Model for Design



Early Design Stages

- Existential Analysis
- Conceptual Representations
- Metaphoric Rendering
- Structural Design
- Navigational Maps
- 3D Collaborative Concept Space

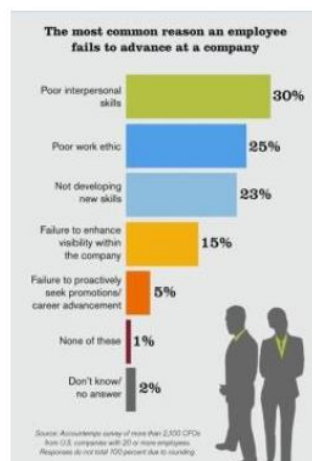


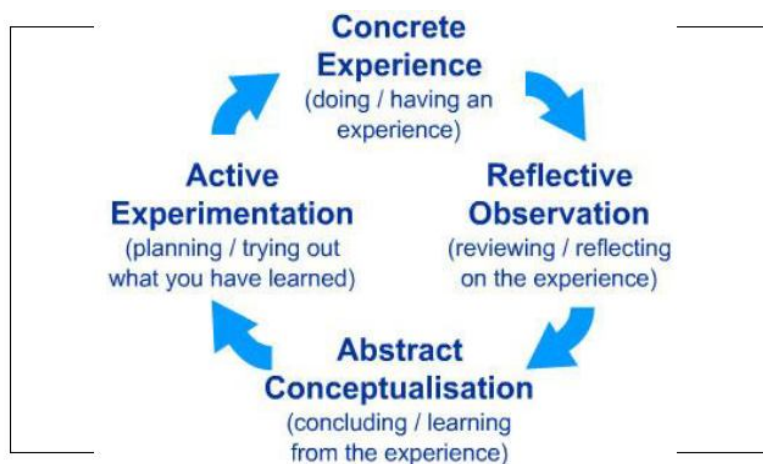
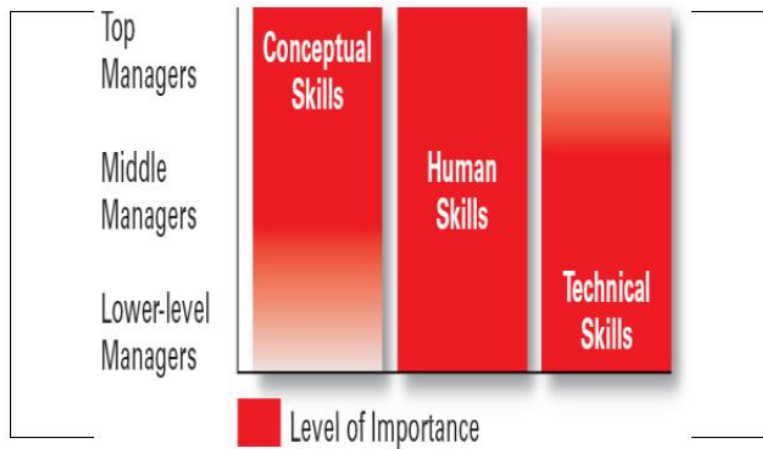
Kenneth Dunn

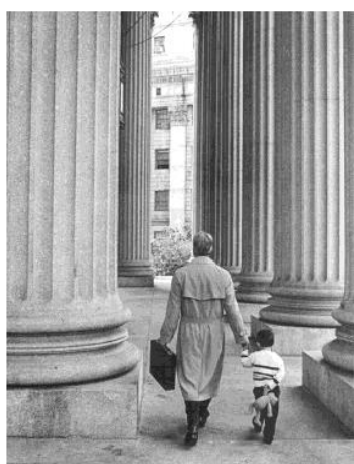
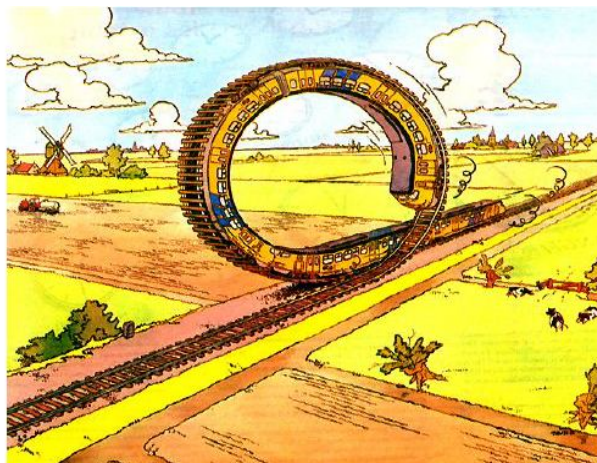
If students don't learn the way we teach them, let's teach them the way they learn.

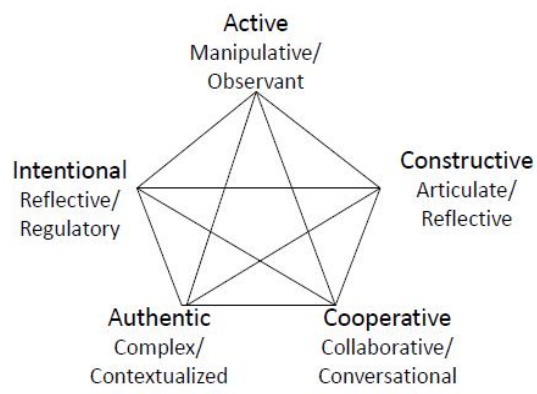
ICT-Education Partnerships

Narrative
Explorative
Constructive
Creative
Emotional

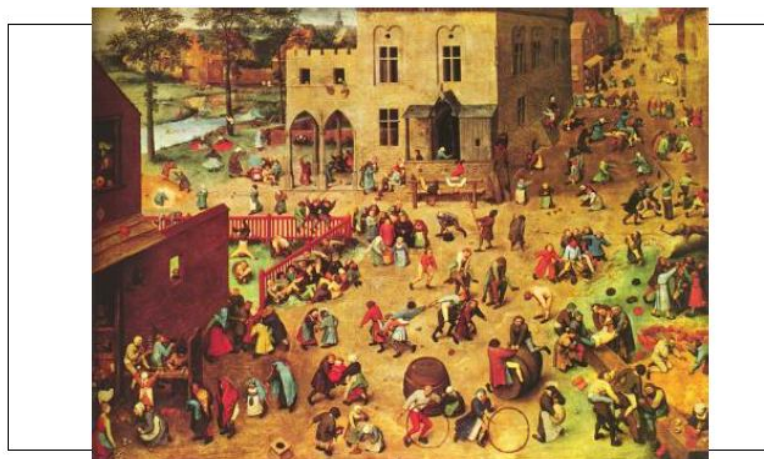


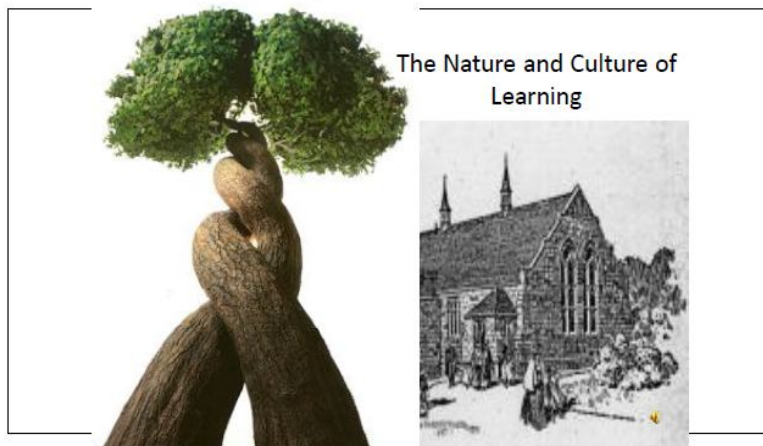
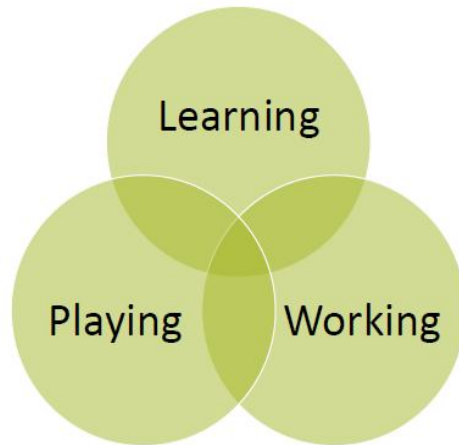






Madhumita Bhattacharya



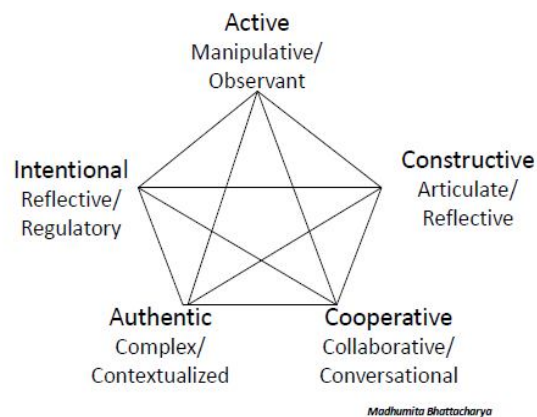


William Glasser: effectiveness of different modes of learning

- What we read 10%
- What we hear 20%
- What we see 30%
- What we see/hear 50%
- What we discuss with others 70%
- What we experience 80%
- What we teach someone else 95%

Kenneth Dunn

If students don't learn the way we teach them, let's teach them the way they learn.

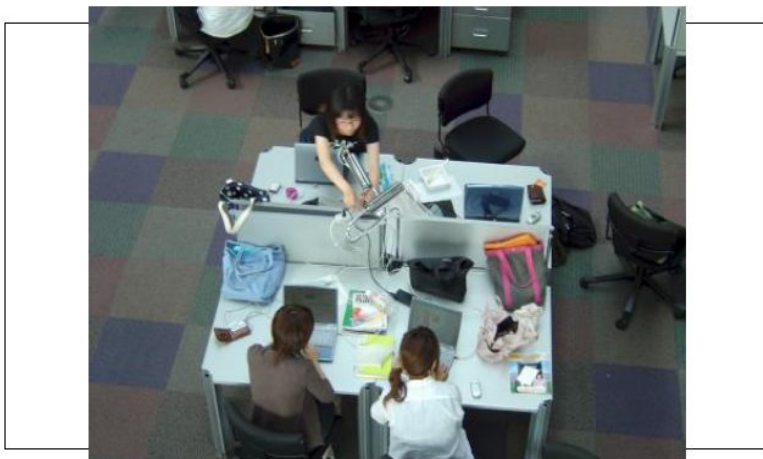


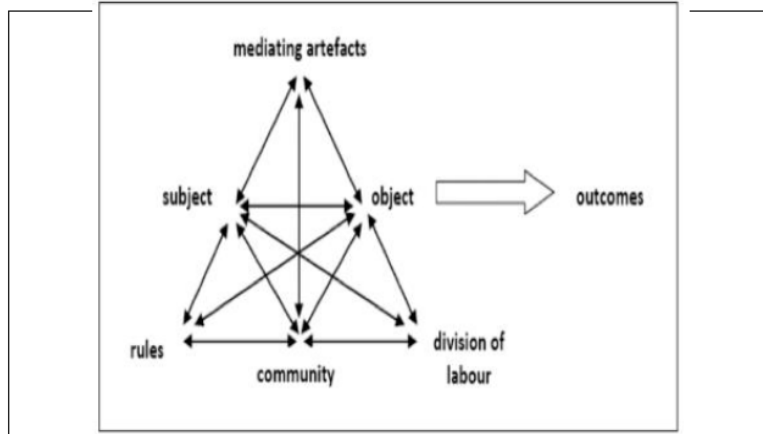
Cognitive Styles

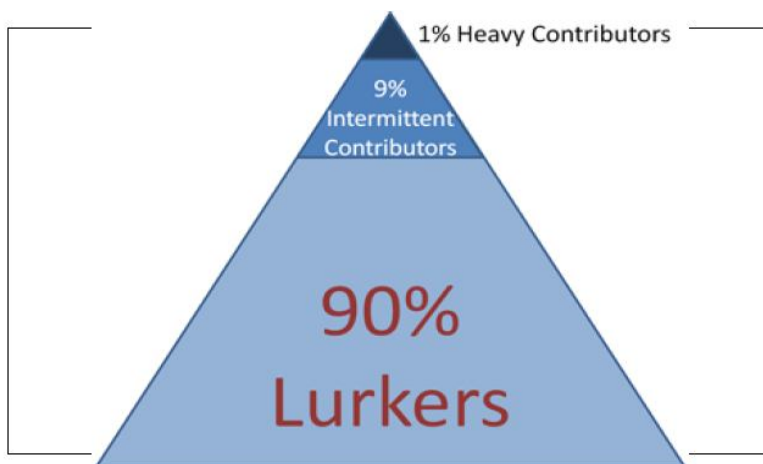
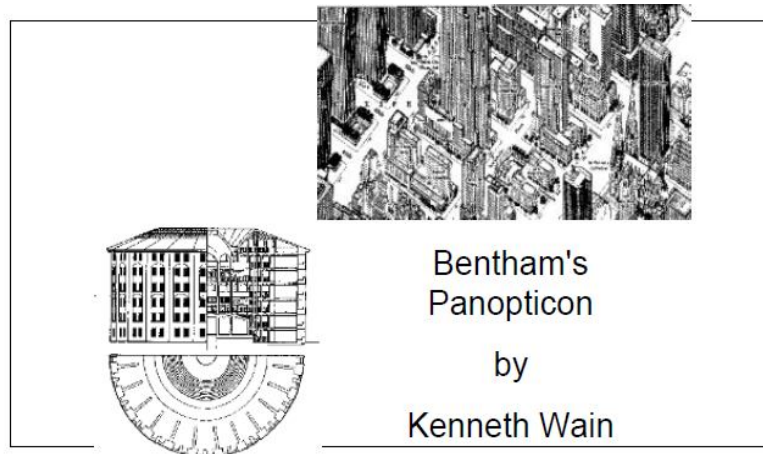
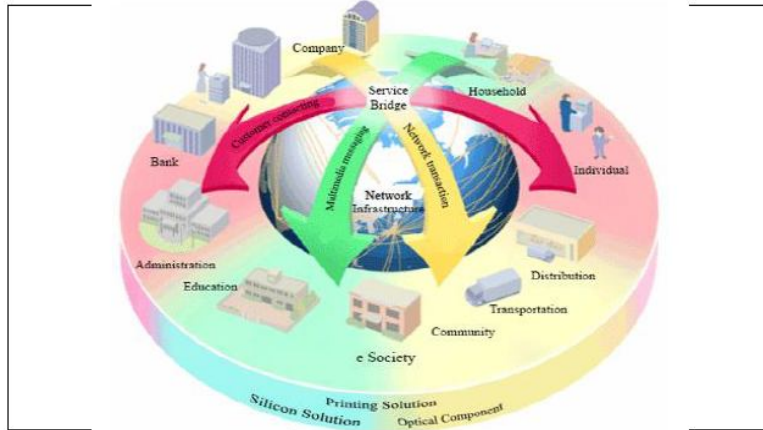
Serialist

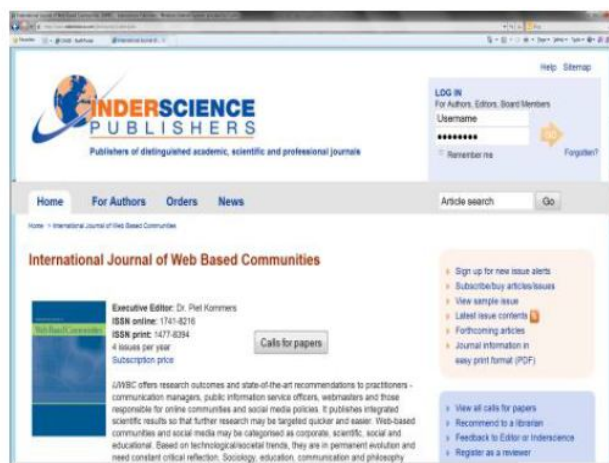
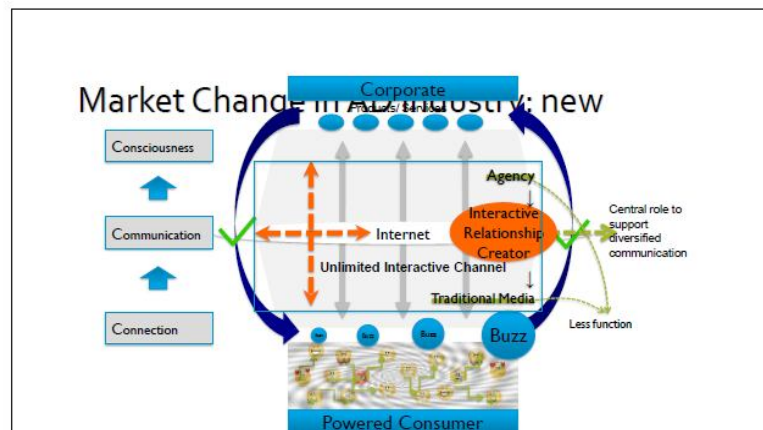
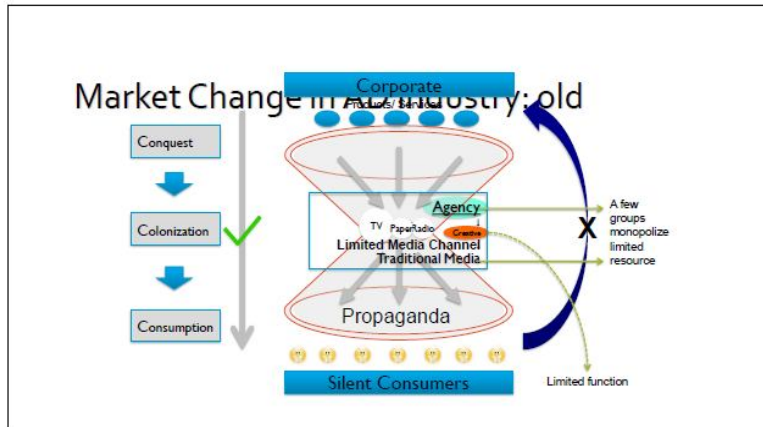
Holist

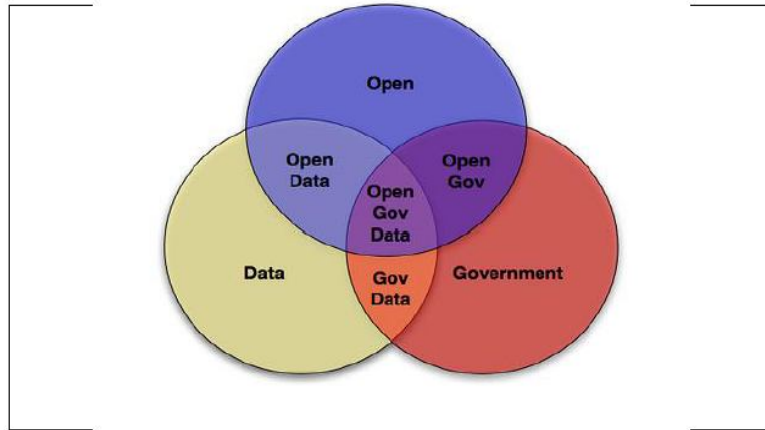












ORIGINS OF MODERN OPEN GOVERNMENT



1. OPENGOVEU - Projectmeetings



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1. OPENGOVEU - Results

- Guide on Open Government in Europe, 3 chapters:
 - Open Government
 - Active citizenship
 - Smart Cities
- Guide of Open Space Technology, World Café and other tools/methods to activate the citizens
- Best Practice Handbook, with 13 examples
- Dataset of 62 Good Practices
- Excellent evaluations on project results and projects meetings
- Ongoing dissemination of project results by project partners and fans

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Cognitive Styles

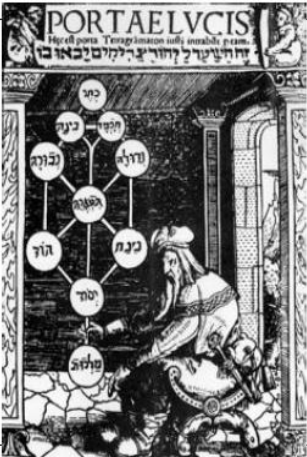
Serialist



Holist





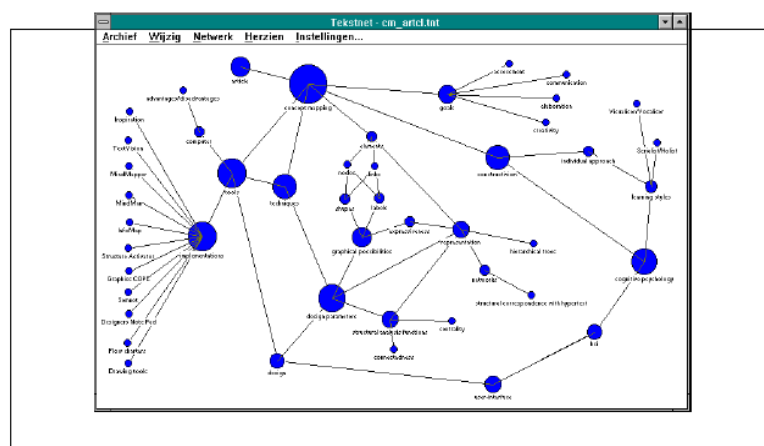


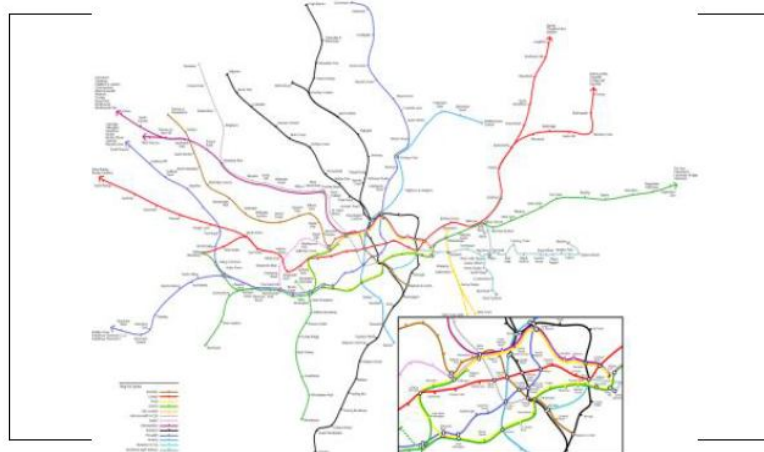
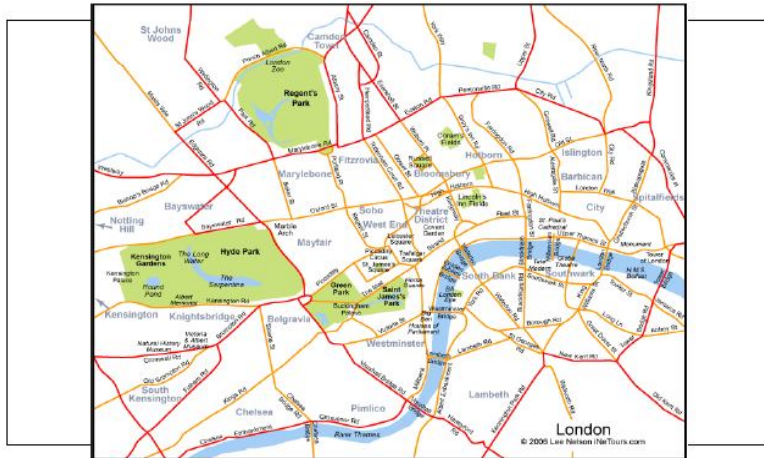
Episodic

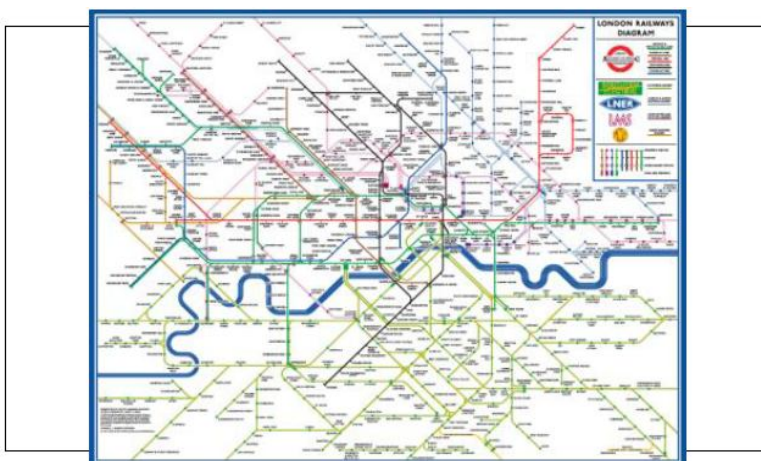
Procedural

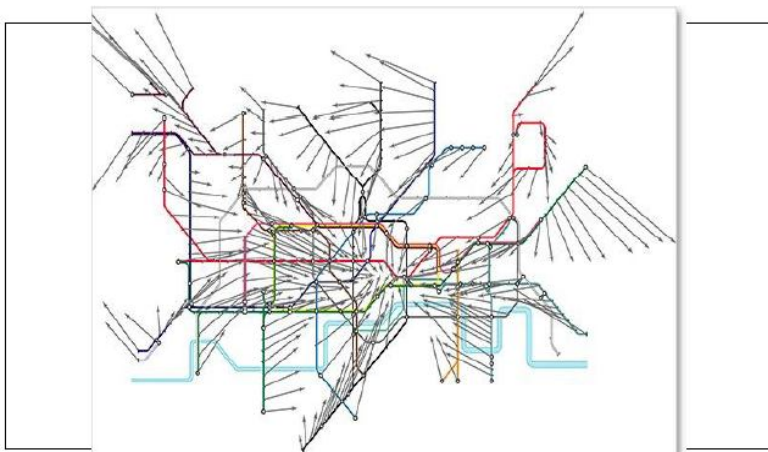
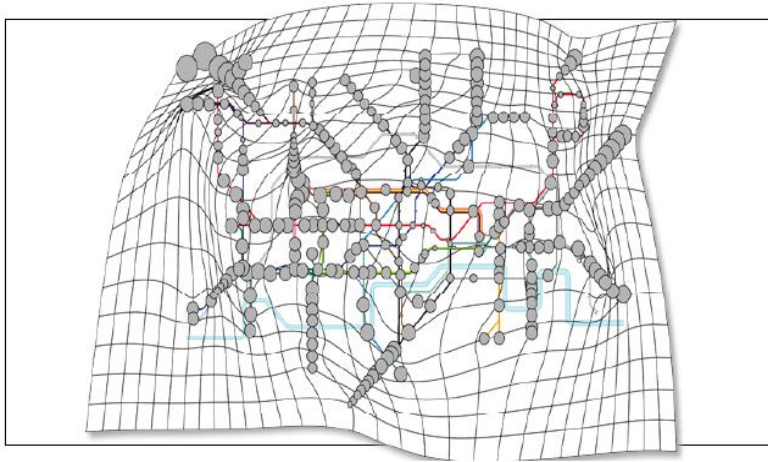
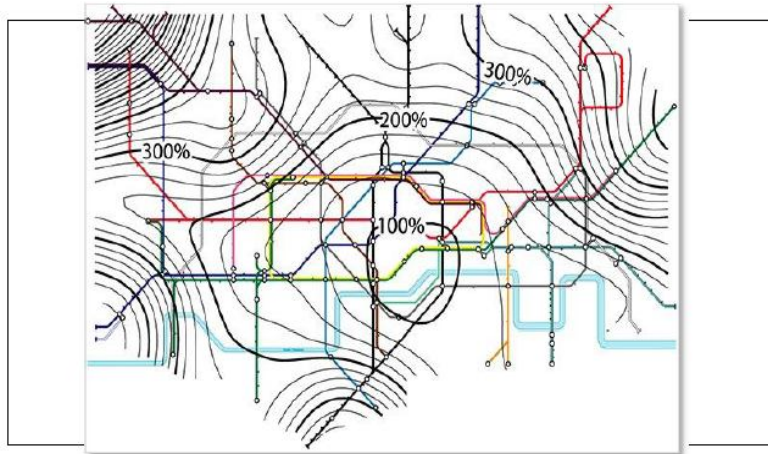
Epistemic

Conceptual











Biography



Piet Kommers

Dr. Piet Kommers is an early pioneer in media for cognitive- and social support. His doctoral research explored methods for hypertext and concept mapping in learning. Since 1982 he developed educational technology as an engineering approach for learning and teaching. His main thesis is that technology is catalytic for human ambition and awareness. His main function is associate professor in the University in Twente, The Netherlands and adjunct/visiting professor in various countries. He taught more than fifteen bachelor-, master- and PhD courses and supervised more than 30 PhD students.

He instigated and coordinated the NATO Advanced Research Workshop on Cognitive Technologies in 1990 and a large series of Joint European Research Projects in: authoring multimedia, web-based learning, teacher education, virtual 3d worlds, constructivist learning, social media, web-based communities and international student exchange.

UNESCO awarded his work in ICT for Education in Eastern Europe with the title of Honorary Professor. The Capital Normal University in Beijing awarded his work with the title of Honorary Doctor. He is member of advisory boards in ministries of education and academia of sciences in Singapore, Finland and Russia.

Piet Kommers is the initiator of the international journal for web-based communities and overall chair of the IADIS conferences on societal applications of ICT. Since the late nineties he gave more than 40 invited and keynote lectures at main conferences in the fields of education, media and communication.

His books and journal articles address the social and intellectual transformations at each transition from “traditional” into the “new” media. Instead of regarding media as extrapolating, supplanting, vicarious or even disruptive, Piet’s view is that new media elicit and seduce both individuals and organizations to reconsider human nature and challenge existential awareness at that very moment.

Keynote Speech II



ICT converged Global Fashion Business New Paradigm - Smart textiles for the fashion

Professor Vladan KONCAR
ENSAIT – GEMTEX, Roubaix, France

The Korean Society of Fashion Business
2016 International Conference
Soongsil University, Seoul, South Korea
October 29th, 2016

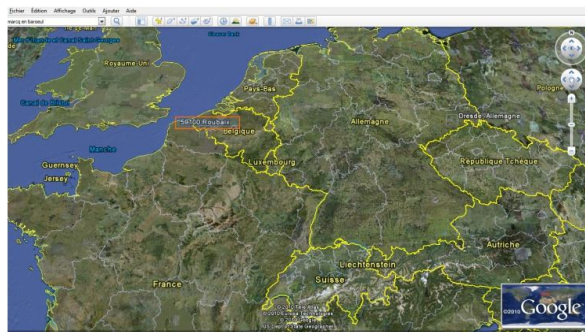


www.ensait.fr
Research & education since 1881



Research at ENSAIT - GEMTEX laboratory

www.gemtex.fr



Research at ENSAIT - GEMTEX laboratory



www.gemtex.fr

The scientific activities of GEMTEX are characterized by:

- high-quality scientific production,
- motivated contractual activity,
- strong scientific partnerships with laboratories in France and abroad,
- worldwide influence (organisation of scientific conferences, coordination of European projects),
- active contribution in the governance of 2 innovation clusters (UpTex and Picom) and in many national clusters (IAR, Techtera, Cap Digital, EMC2...).

The GEMTEX laboratory is currently based on three research groups within a strong textile team (expertise centres):

HCD (Human Centered Design) including SMART TEXTILES

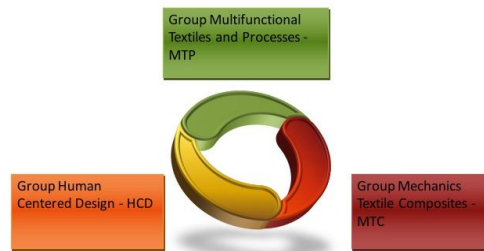
MTP (Multifunctional Textiles and Processes)

MTC (Mechanics - Textile Composites)

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GEMTEX Scientific Structure



ONE RESEARCH TEAM - TEXTILES ADVANCED MATERIALS

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At a glance



27 Faculties
8 Post doc researchers
37 PhD students
4 Engineers
3 Technicians
9 Administrative staff
3 Members from HEI

TOTAL : 81 members

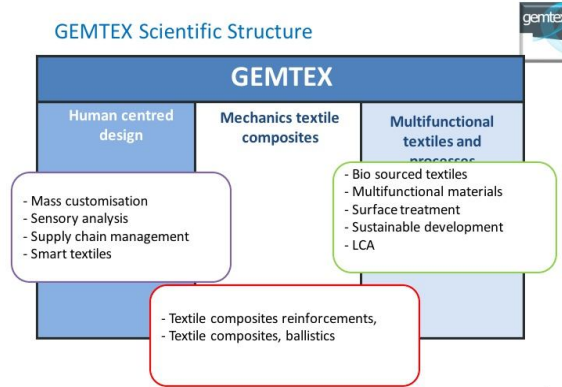
Annual Turnover : 5 M€

Fields of application : Aeronautics, Automotive, Trains,
Medical, Sport, Leisure, Building, Apparel,...

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GEMTEX Scientific Structure



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CETI European Center of Innovative Textiles



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The idea

To enable businesses to fully benefit from the prospects offered by textile materials and by technologies of new fibres and nonwovens; to provide them with the best in textile innovation so as to rethink or to create products.

The added value

To propose solutions of research, of prototyping, of industrial pre-production models to rapidly go from the idea to the product and to embark on the market research.

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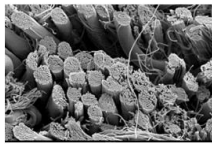
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Fibres and filaments

Spinning : mono, bi, tri component spinning line

From filaments to fibers ; crimping and cutting line



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Outlook

1. ICT and Fashion business convergence
2. Sensors for fashion
3. Actuators for fashion
4. Conclusion

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1. ICT and Fashion business convergence



Fashion business

Artistic approach
 Outfit oriented
 Following trends (Paris, Milano, New York...)
 Marketing : fashion shows, journals, music, movies
 ICT is not welcome
 New materials may be accepted?



ICT (Information and communication technology)

More and more present in our lives
 Smart phones, tablets, Apple store, Google play....
 Networks everywhere everytime, Facebook, Twitter...
 Virtual reality (E shops, Virtual clothing and try on)
 Artificial intelligence
 Tomorrow will be different



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1. ICT and Fashion business convergence

FASHION 2.0

- Connected and smart
- Not only based on the outlook
- Using applications
- Embedding functions (sport, leisure, business...)
- Integrating social networks



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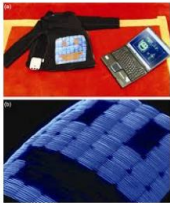
13



1. ICT and Fashion business convergence

FASHION 2.0

Hybrid social networks



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2. Sensors for fashion

Textile sensor for lengthening measurement

OBJECTIVE : Parachute canopy strain stress measurements during the opening phase



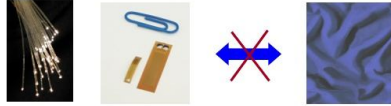
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2. Sensors for fashion

- Classical gauges (metallic or optic fiber) are non adapted



Textiles are :

- Light (Natural or synthetic fibers)
- Highly flexible
- Resistant (pre-stressed fibers)
- Elastic

➔ Creation of a specific lengthening sensor for textile

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2. Sensors for fashion

Experimental method :

Installation on a Polyamide 6.6 (PA6.6) fabric

- Light fabric, 42 g/m²
- Highly flexible
- Resisting to Chloroform

Preparation of textile surface (I) :



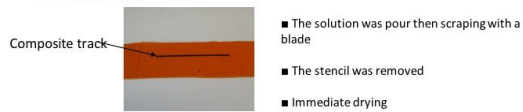
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2. Sensors for fashion

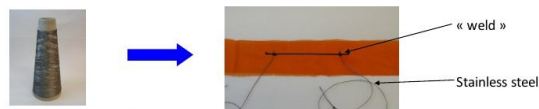
Depositing of sensor and electric connection (II) :

Coating by scraping



- The solution was pour then scraping with a blade
- The stencil was removed
- Immediate drying

Electric connection



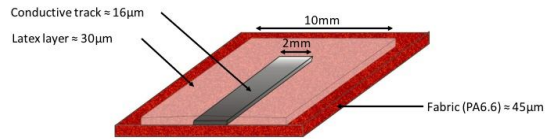
Stainless steel 316L (2 x 275 x 12 μm)
14 Ω/m

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2. Sensors for fashion

Structure of the sensor (on a PA6.6 fabric):
(Tensile thickness: 110 μm)




 Total sensor thickness : = 45 μm
 Easy to use
 No fabric deterioration

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2. Sensors for fashion

Fabric properties are unchanged :

■ Flexibility was preserved



Track 2 x 100 mm, Agpretan Latex[®] and stainless steel 316L 550 x 12 μm



■ The sensor can be removed without damage for fabric

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2. Sensors for fashion



ECG monitoring, heart rate & skin temperature



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2. Sensors for fashion



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3. Actuators for fashion



Active and passive textile displays

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Active textile displays

Optics Photonics News, April 2005



Optical Fiber Fabric Displays

Yi-Jen Kwon et al.



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Active colour changing textiles
Light emitting

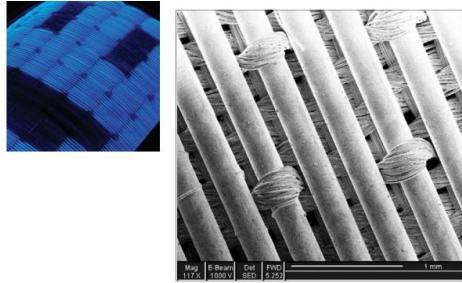


Figure 1. Scanning electron microscope picture of OFFD structure (a two-layer basic-velour fabric).

Weaving optical fibres

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Active colour changing textiles
Light emitting

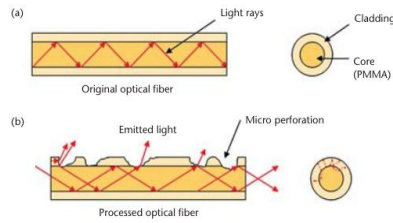


Figure 2. Principle of lateral light emission. (a) Original optical fiber; (b) processed optical fiber.

Light emitting laterally

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Active colour changing textiles
Light emitting

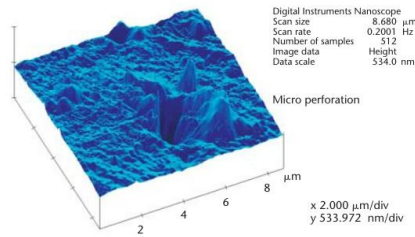


Figure 3. Micro perforation obtained by mechanical treatment (particle projected on the cladding of optical fiber). Picture obtained by nanoscope.

Light emitting laterally, micro holes obtained by projection of particles

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Active colour changing textiles
Light emitting

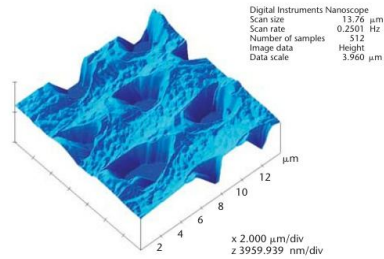


Figure 4. Micro perforations obtained by chemical treatment (solvent action on the cladding of optical fiber). Picture obtained by nanoscope.

Light emitting laterally, micro holes obtained by chemical solvent

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Active colour changing textiles
Light emitting

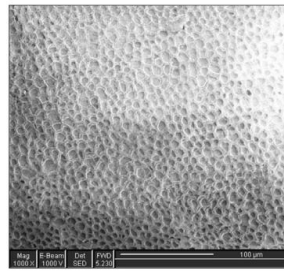


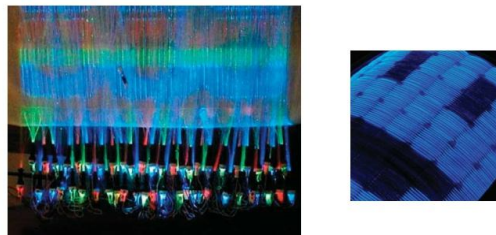
Figure 5. Micro perforation obtained by chemical treatment (solvent action on the cladding of optical fiber). Picture obtained by scanning electron microscope.

Light emitting laterally, micro holes obtained by chemical solvent

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Active colour changing textiles
Light emitting



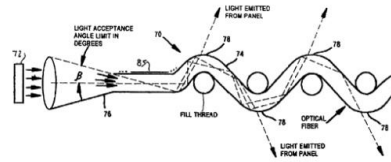
Optical fiber screens provide access to simple and animated visual information, such as texts or pictograms.

Connections of OF beams to light sources (diodes)

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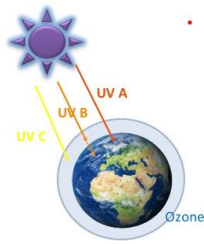
Optical fibres flexible displays, micro bending



Lateral light emitting obtained by OF bending

Actinic Keratosis (AK)

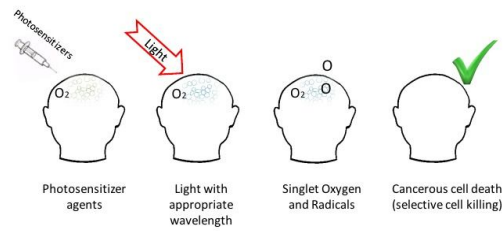
AK is a **precancerous condition** of skin which may develop into skin cancer !



- UV rays of sun
- Free radicals
- DNA changes
- Skin cancer

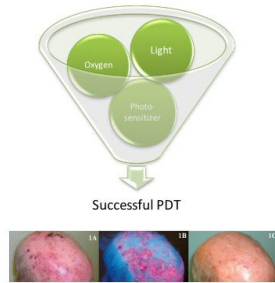


Photodynamic Therapy (PDT)



- ✓ Excellent cosmetic results
 - ✓ Cure rates 69-93%
 - ✓ Limited side effects

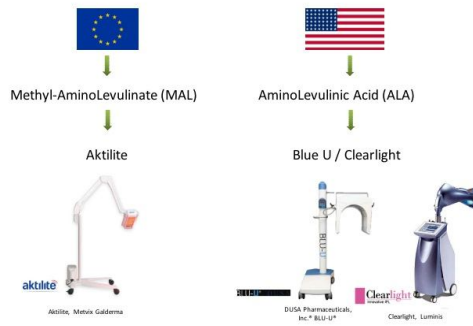
Successful Treatment



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34

Traditional methods : LED based light sources

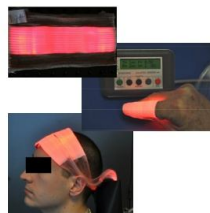


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Flexible Light Emitting Fabric (LEF)

A successful PDT treatment requires *homogeneous* and *efficient* light distribution

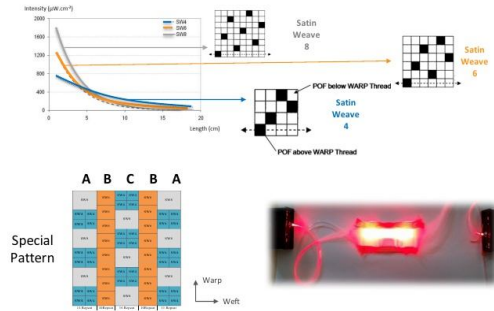


Flexible
Homogeneous light distribution
Efficient
Less painful

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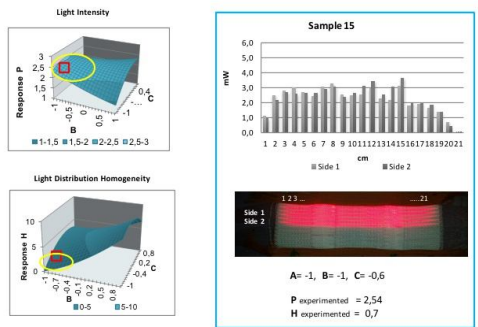
36

LIGHT TRANSMISSION



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Optimal Result of Experimental Design with Another Sample



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Clinical trials...



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Passive colour changing textiles Light reflecting



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Chromic effects



- Chromism: reversible color change caused by a stimulus [1]
 - From a colorless state to a colored state
 - Or from one color to another
- Defined by the stimulus that causes the change [2]
 - *Photochromism*: UV light
 - *Thermo*chromism: Temperature
 - *Electro*chromism: Electrical potential
- Some are already applied within textile fields

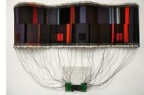


FIG. 1: Nolan, P., Electronic plaid (2003), International Fashion Machines, in Industrial Fabric Products Review, 88 (30), pp. 10-12.



FIG. 2: Winters, A., Water and Sun Reactive Demonstrator, 2011

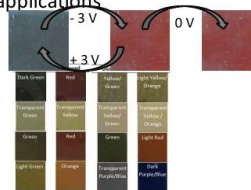
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Electrochromism



- **Electrochromism**: ability of a material to change its color, in a reversible way, when an electrical potential is applied across it [3-5]
- Linked to oxidation-reduction processes
- Still very few used for textile applications
- Main advantages:
 - Reversible color change
 - Memory effect
 - Large color palette
 - Low power consumption
 - Large viewing angle
 - Reflective



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Textile displays

- ✓ Thermo chromic textiles are available

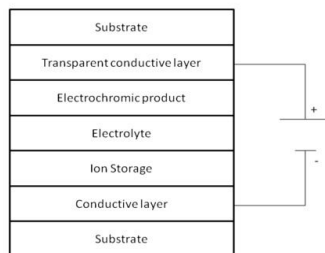


- ✓ Our objective – development of electrochromic textiles

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Textile displays



A traditional ECD with a seven-layer sandwich structure

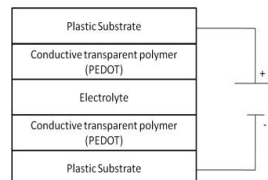
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Textile displays



An ECD with a five-layer sandwich structure

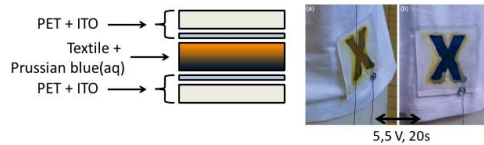


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Flexible EC display 1st generation (GEMTEX)

- Prussian blue ($Fe_4[Fe(CN)_6]_3$), aq



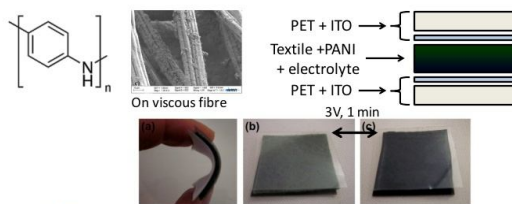
- **Pros:**
 - Feasibility proven
- **Cons:**
 - Fast ageing
 - Liquid difficult to handle
 - Spontaneous reaction, difficult to storage
 - Plastic electrodes

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Flexible EC display 2nd generation (GEMTEX)

- Fibres impregnated by PANI



- **Pros:**
 - Permanent deposited of EC materials on fibres
- **Cons:**
 - Fast ageing (10 cycles)
 - Liquid difficult to handle
 - Spontaneous reaction, difficult to storage
 - Plastic electrodes

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Flexible EC display 3rd generation (GEMTEX)

- EC polymers (polythiophenes)
 - Simple to produce
 - Many possibilities of colours

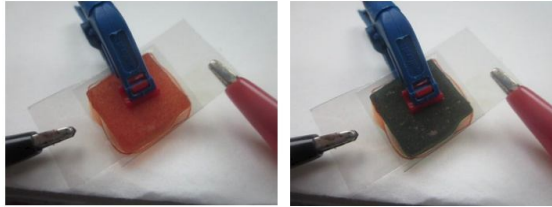


M	• Pros:	• Sol gel electrolyte used, easy to handle	acd
Pr		• Many possible colours	
2,		• Easy to produce	
3,	• Cons:	• Plastic electrodes	
		• Aging	

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Textile displays (3G)

New generation flexible display



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Prototypes 3G



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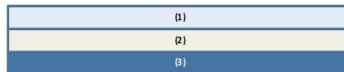
50

Textile displays (4G) 3 layers of fabric

Creation of a flexible textile electrochromic device with the ability to create and manipulate pixels and forms within the device

1. Flexible Textile ECD Structure

The proposed flexible textile electrochromic device has a novel structure essentially consisting of 3-layers (Figure 1). This work has been developed since October 2012.



(1) First/counter fabric electrode

(2) Fabric + electrolyte (structural support of the device)

(3) Second/working fabric electrode

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Textile displays (5G) 1 layer fabric

Creation of a flexible textile electrochromic device with the ability to create and manipulate pixels and forms within the device

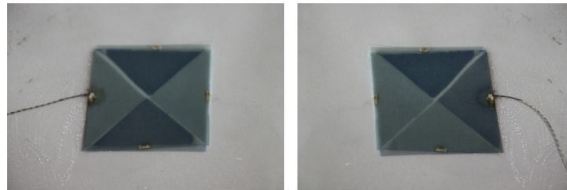


- (1) First/counter fabric electrode
- (2) Fabric + electrolyte (structural support of the device)
- (3) Second/working fabric electrode

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Prototypes 4G



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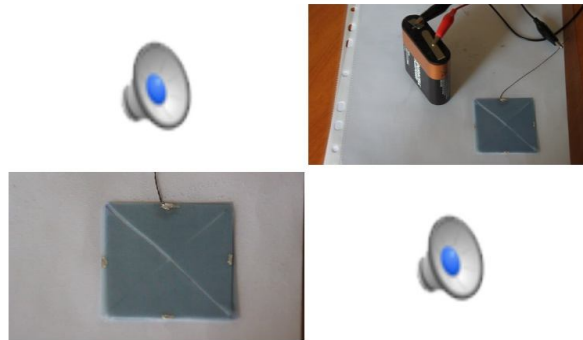
T shirt with embedded display and electronic circuit



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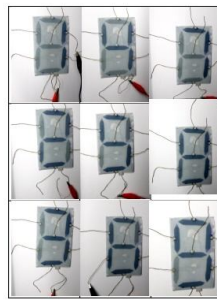
Prototypes 4G



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Flexible textile EC display 4th generation

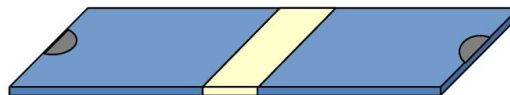


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1 layer textile EC display: 5th generation

- All the structure is located in one single layer
- Fineness and thickness improved



- (PET, cotton, silk)
- 2 electrodes

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**1 layer textile EC display:
5th generation**



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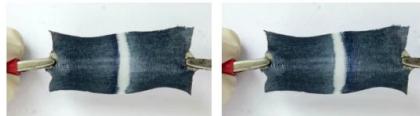
**1 layer textile EC display:
5th generation**



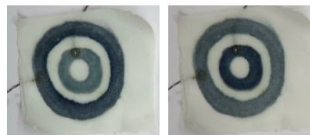
PET fabric, voltagede 5 V,
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**1 layer textile EC display:
5th generation**



Jersey cotton

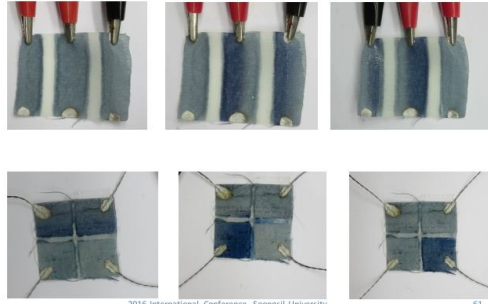


PET

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**1 layer textile EC display:
5th generation**



Concluding remarks

- Textile is an optimal support for electronics & displays
- Research is in an early stage
- Commercially available products may be expected on the market in 5 years
- Reliability & cost are important issues
- Further investments are necessary in R&D

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Concluding remarks

- Opportunities in
 - fashion
 - communication
 - advertising
 - professional application
 - military camouflage

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Biography



Vladan Koncar is Professor at ENSAIT (Ecole Nationale Supérieure des Arts et Industries Textiles) textile engineering institute in Roubaix, France. He obtained his PhD in 1991 at the University of Lille 1 in Villeneuve d'Ascq, France in the field of multirate control of complex systems.

From November 2009 to November 2015 he was Head of Research at ENSAIT and Director of GEMTEX research laboratory. Professor Koncar was AUTEX (Association of Universities for Textiles, www.autex.org) President from June 2007 to June 2010.

Vladan Koncar He has been promoted Doctor Honoris Causa of the University of Iasi, Romania in January 2010.


Professor Koncar was Scientific coordinator and coordinator of Large Scale EU Integrated Projects in FP7 and Horizon 2020 and Coordinator of National (French) research projects. He served as a Chairman of 7 International Scientific Conferences and is member of numerous Editorials Boards of Scientific Journals.

Professor Koncar is author of more than 250 scientific articles (ISI Web of Science referred), book chapters, conference proceedings and patents.

Fabric and Garments Comfort Evaluation

Shadi Houshyar
Centre for Advanced Materials and Performance Textiles
RMIT University
The New Paradigm of Global Fashion Business in ICT Convergence,
October 2016

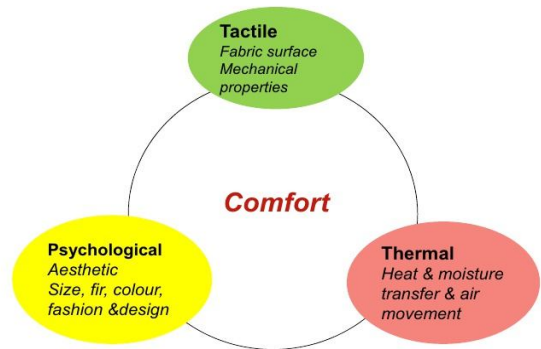
www.rmit.edu.au



*The absence
unpleasant or
of discomfort !*

COMFORT!!!

*Is your clothing
comfortable and what
factors influence textile
comfort???*

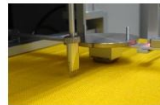


COMFORT

- Can we measure comfort properties without human trial?
- If yes, how does it relevance to the real situation (human body)?
- What properties shall be measured?

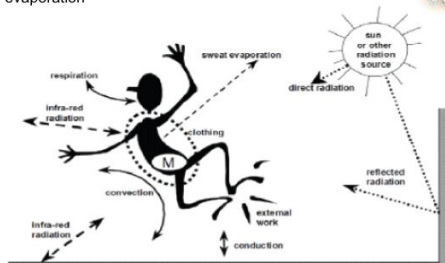
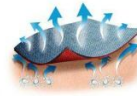
SENSORIAL COMFORT

- Sensorial comfort or “ fabric hand”
 - Prickly, tickling, rough, smooth, craggy, scratchy, itchy, picky, sticky
- What technologies and instruments can be used ?
- What properties shall be measured?
 - Tickle
 - Prickle
 - Wet cling
 - Warmth to touch



THERMO-PHYSIOLOGICAL COMFORT

- Thermal Comfort
 - Heat transfer (radiation, convection and conduction)
 - Moisture transfer by diffusion, sorption, wicking and evaporation



PROTECTIVE CLOTHING

- Protective clothing shall provide
 - Protection
 - against life threatening hazards while providing reasonable
 - Comfort
 - Thermal comfort
 - Transfer heat and moisture to the environment to prevent heat stress and thermal discomfort
 - Sensorial comfort
 - Transferring moisture to the environment to prevent sensation of wet clinginess

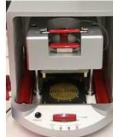


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MOISTURE & HEAT TRANSFER

- Air permeability tester (air movement and transfer)
- Wicking (both horizontal and vertical)
- Moisture Management Tester (MMT)
- Gats-demand wettability
- Drying time (evaporation and absorption) (heat transfer)
- Sweated Guarded hot plate (SGHP) (heat and moisture transfer)
- Sweated Thermal Manikin (heat and moisture transfer)
- Water repellency (Spray testing, shower test)

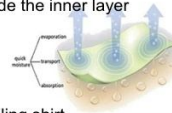


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STRATEGIES TO IMPROVE COMFORT

- Keeping the skin dry
 - Addition of extra superabsorbent layer
 - Incorporating super-absorbent materials inside the inner layer
- Reducing the skin temperature by wearing Cooling shirt
 - Results in reducing the core temperature and lowering the risk of heat stress or over heating and improve thermal comfort

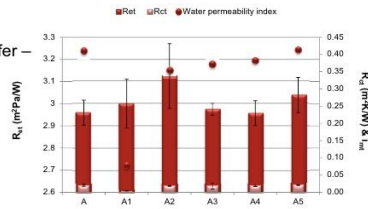


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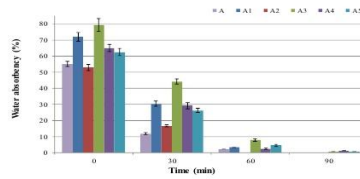
SUPER-ABSORBENT MATERIALS

- RESULTS;
- Sweated Guarded Hot Plate
- Standard test method- Heat and vapour transfer – ISO 11092:1993

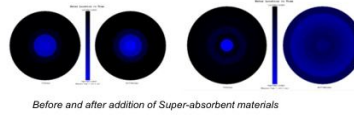


RESULTS

- Water absorbency and drying time



- Moisture management Test- AATCC195-2009



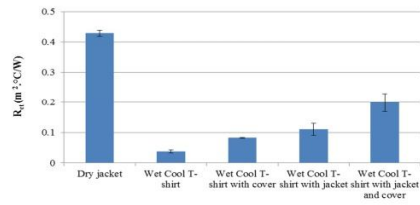
MANIKIN- METHODOLOGY



Manikin Testing condition (no sweating covered with PVC)				
Walking speed	0	1.6	2.4	3.2
Humidity	50%			
Air speed	1 m/s			

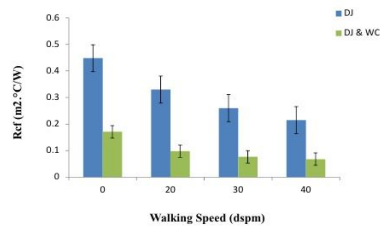
MANIKIN- COOLING SHIRT

Standing Static Condition



MANIKIN- COOLING SHIRT

Dynamic Condition, Walking at various speed



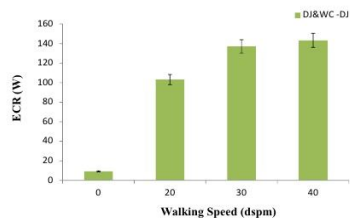
MANIKIN- COOLING SHIRT

• Dynamic Condition, Walking at various speed

Cooling rate (ECR) = ΣQ_i (new) - ΣQ_i (old)

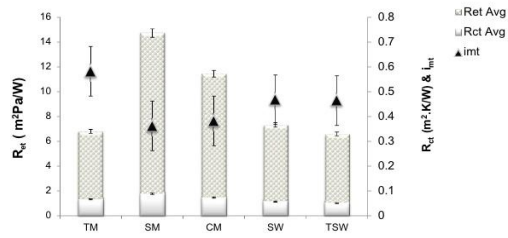
Zone power output new test (w)

Zone power output baseline (w)

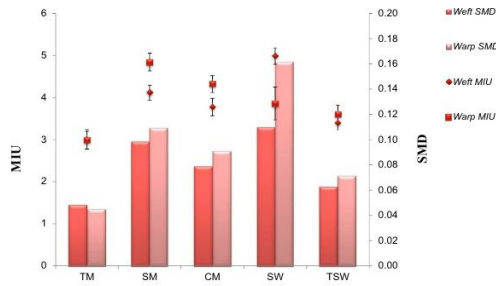


SPORT GARMENTS

- Five different new sport garments were tested
 - If the sport garment can be worn as the formal to work

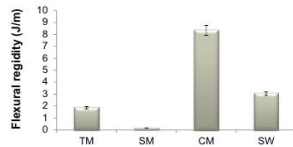
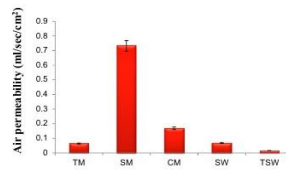


KES- RESULTS



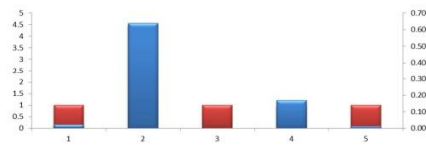
BREATHABILITY

- Air permeability- exhibit the breathability of the fabric or garment



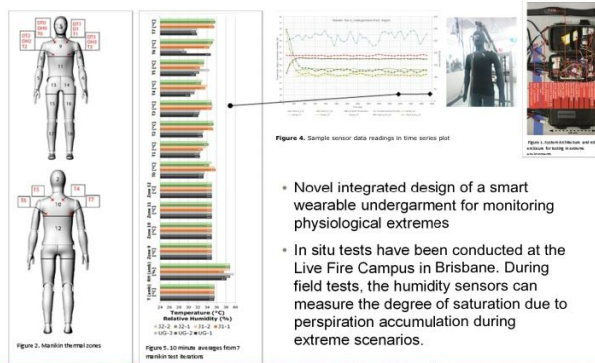
Flexural bending- show the stiffness and softness of the fabric (draping)

OVERALL MOISTURE MANAGEMENT (OMMC)



- The moisture management (MMT) test results indicate the ability of a clothing to absorb and transport the liquid from wet skin to outside or other fabric layer, which affect the overall comfort of clothing.
- Results indicate the ability of the material to absorb sweat, transport it across and through the fabric for effective evaporation.

SMART WEARABLE UNDERGARMENT



CONCLUSION

- Technology can be used to predict the comfort properties of the garments, however, human trial is essential
 - Sweating thermal manikins can help in prediction of human thermal strain
- Standard test methods for sweated guarded hotplate and Manikin are required modification to measure specific situation, e.g. wet garment

Centre for Advanced Materials and Performance Textiles

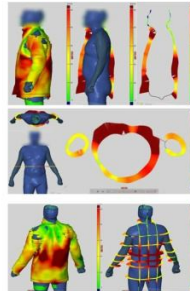
- Textile Materials- design and engineering- for Functional, Medical and High-Performance textiles
- Encompassing textile technologies based on chemistry, physics and engineering
- Protective textiles- for ballistic, blast, fire, abrasion, chemical and biological applications
- Nanofibres -production and applications in filtrations and medical
- Nano coatings- Fire Resistance, stain resistance, Anti bacterial etc.
- Phase Change Materials(PCM'S)- Textile lining for the motor bike helmet
- Composites- Aerospace, Automotive and Construction industries
- Sustainability- Mainly to reduce water and air pollution, water recycle, reduction in dissolved salts, substitution of chemicals

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SPORT AND PERFORMANCE APPAREL

- Investigation and design and construction of sport compression garments
- Sustainable Manufacturing Initiative
- Protective Garments Structures with Improved physiological comfort for metabolic stress reduction
- Thermo-physiological comfort of stop-go sport apparel systems for cold environment



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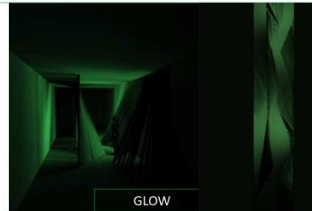
TEXTILE DESIGN

- The relationship of surface, form and structure
- 3d shape knitting, with specific focus on seamless knitting technology
- Dynamic and responsive surfaces
- Sustainability design practice for textile design



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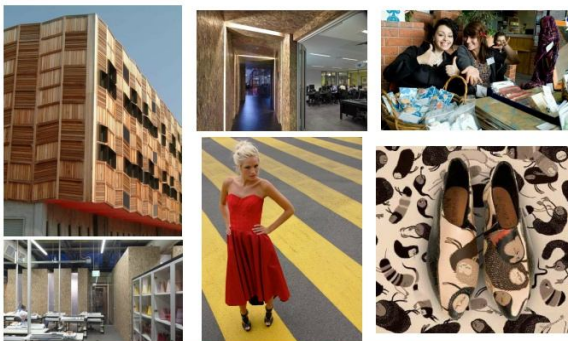
Project partners: Hysport International, Deakin University, RMIT University, and Dept. of Justice, Victoria.

Funded by DRI & industry partner

Funded by the Smart SMEs Market Validation Program (MVP)

- School Strength is in Applied Research
- Focus on Commercialisation therefore Working Closely with Various Industry Partners
- Collaborative Approach -Working with Researchers from other RMIT Schools: Engineering, Health Science, Applied Science, Architecture and others
- Strong Holistic Research Incorporating Technology, Design, Fashion and Art

School of Fashion & Textiles
www.rmit.edu.au/fashiontextiles



Biography



Shadi Houshyar

Shadi Houshyar is a research fellow at the Centre of Advanced Materials and Performance Textiles at RMIT University. She joined the department as a material scientist in 2012, since then she has conducted number of research projects on advanced materials for protection and smart textiles. She graduated in 2005 from RMIT University in composite materials. She finished her postdoctoral at CSIRO and PolyNovo Pty Ltd, focusing on biodegradable bio-materials for human application. Her research interest includes comfort properties of textiles, protective clothing, medical and smart textile and bio-materials.

FASHION AT A CROSSROAD - IS IT A SCIENCE, TECHNOLOGY OR BUSINESS?

Dr. Moon W. Suh
Charles A. Cannon Professor
College of Textiles
North Carolina State University
Raleigh, NC 27695-8301



NC STATE UNIVERSITY

NEW ANSWERS FOR OLD QUESTIONS

- *Fashion* – What is it?
- Dimensions in fashion
- Who are the consumers? What do they know?
- Fashion as an art
- Fashion as a science – what science?
- Fashion as a technology – what are the components?
- Fashion as a new business/entrepreneurship
- New challenges and opportunities
- Some New Ideas

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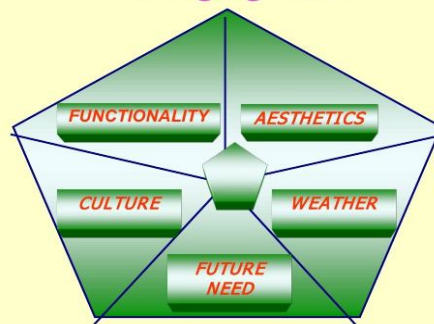
Fashion

Aesthetic values accepted by people (consumers) that changes dynamically in time.

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Dimensions of Fashion

People with unity and diversity & in changing times



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Dimensions of New Fashion

2. Shortened product life cycles with multitudes of varieties



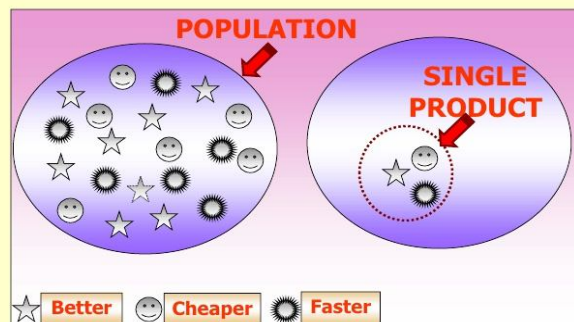
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Market Driven Fashion R&D



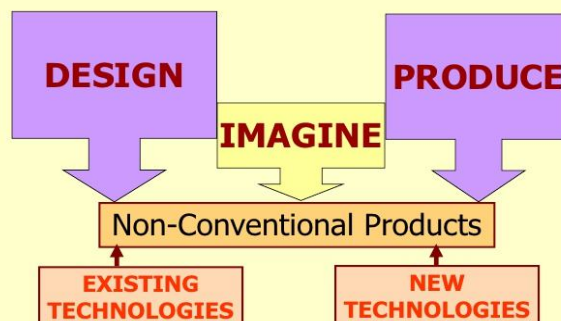
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New Needs in Fashion R&D



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New Needs in Fashion R&D



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Historical Perspectives

- **Recent years**
 - **Kansei Engineering**
 - **1/f Signals**
- **Practical tool for creating better designs & improved products**

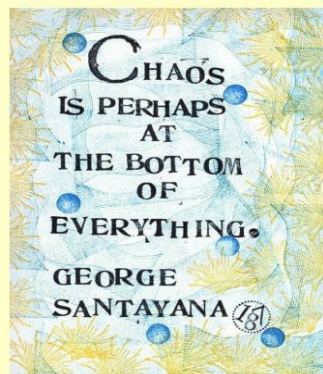
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Fractal Geometry and Aesthetics



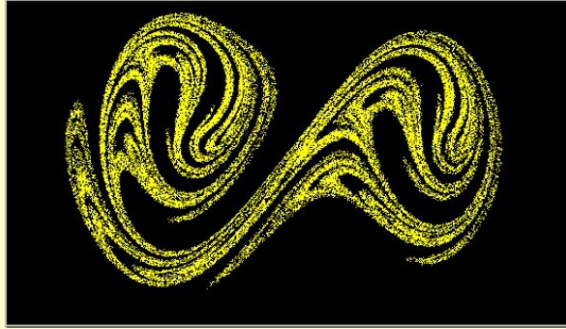
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Chaos in Universe and Aesthetics



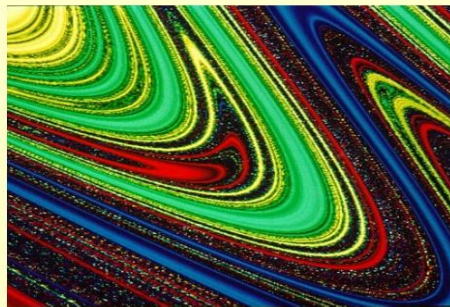
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Chaos in Universe and Aesthetics



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UMD Chaos Images



Chaos in Universe and Aesthetics



NC STATE UNIVERSITY

UMD Chaos Images



Fashion set design with an emphasis on fabric composition using the interactive genetic algorithm

Khajeh *et al.* *Fash Text* (2016) 3:8
DOI 10.1186/s40691-016-0061-1

Use of computers in fashion – how to design a fashion system utilizing a set of fabric patterns through the interactive genetic algorithm to produce artistic creativity and a set of clothes designs.

Genetic Algorithms for Textile Design “Evolving the Mona Lisa”

DNA which produces the most accurate representation of the reference image is selected over successive generations, effectively demonstrating the power of a natural selection process to produce the best candidate for any given environment.

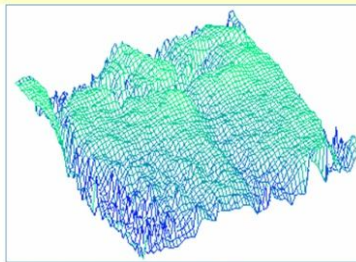


<http://chriscummins.cc/s/genetics/#>

Genetic Algorithms for Textile Design



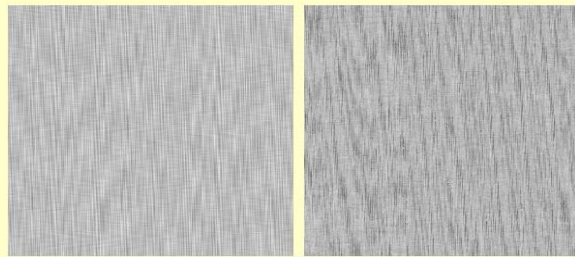
(a) The original image.



(b) The reconstructed image.

Computer Generated Woven Fabric Surfaces

Journal of the Textile Institute (2007) Vol. 98 No. 2



"Prediction of surface uniformity in woven fabrics through 2-D anisotropy measures - Part II: Simulation and verification of the prediction model"

M. Günay , M. W. Suh & W. J. Jasper Jul 2010

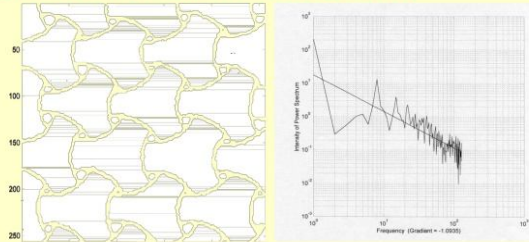
Sensory (Kansei) Engineering and 1/f in Fashion

Sensory Engineering (감성공학)

A method for measuring and translating human feelings and impressions into aesthetically pleasing product parameters. Prof. Yoshio Shimizu and Prof. Nagamachi pioneered. Ideas from 1/f signal processing was tried to apply it to product design by quantifying the customer's impression of their products. Prof. Musha of Kyoto Inst of Tech tried to apply the measured signals from human sensations to product design, including neckties and other clothing.

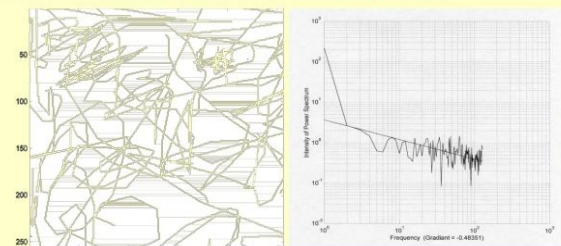
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Sensory (Kansei) Engineering of Aesthetics in Textile Fabrics - Moon W. Suh, et. al. (October 1999)



Conversion of Optical Patterns from 2-dimensional Images to Show 1/f Pattern (an example of a "good" pattern)

Sensory (Kansei) Engineering of Aesthetics in Textile Fabrics - Moon W. Suh, et. al. (October 1999)



Conversion of Optical Patterns from 2-dimensional Images to Show 1/f Pattern (an example of a "bad" pattern)

IS FASHION A SCIENCE?

Absolutely!
(Neuroscience, psychology,
aesthetics, fashion forecasting,
quantification of all)

IS FASHION A SCIENCE?

Absolutely!

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IS FASHION A TECHNOLOGY?

Absolutely!

(Aesthetics system, functional apparel, information technology, design system, quick-response manufacturing, automation, signal processing, novel machine design)

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IS FASHION A BUSINESS & ENTREPRENUERSHIP?

Absolutely!

(Mass customization, supply chain formation, global marketing, sustainability, regional production, life-cycle management, standardization, optimization)

NC STATE UNIVERSITY

The Next 10 Years

- Continuous domination by IT
- New science & revolutionary technology
- Explosion of entrepreneurship
- Mass customization
- Technology driven product development

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What Next ?....



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FASHION

"Everyone is a fashion model"

mws

NC STATE UNIVERSITY

Biography



Moon W. Suh

Dr. Moon W. Suh is *Charles A. Cannon Chair Professor* of Textile Technology and Management, and also a Professor of Statistics and Operations Research at NC State University since 1987 following his industrial career at Burlington Industries Operations Research Department. Prof. Suh holds a B.S. (Textile Eng. - Seoul National), M.S. (Textile Tech. - NCSU) and a Ph.D. (Statistics-NCSU) degrees. He is internationally renowned for his pioneering research work in the applications of statistical methods in textile sciences, manufacturing and management, R&D methods and management, and quality/process management and control, with over 230 scientific publications. Currently, he serves as Managing Editor of *Journal of Textile and Apparel Technology and Management (JTATM)*, Editorial Boards for *Textile Research Journal*, *J. of The Textile Institute*, and *Fibers and Polymers*. He is a Past President of *The Fiber Society (US)*, and was elected an Honorary Member of the Society in 2001. He is also a *Fellow of American Statistical Association* and was awarded the "*Harold DeWitt Smith Medal*" by *ASTM* in 2003 for his outstanding research and teaching contributions in fiber science, textile technology, statistical science and management.

His academic research topics and expertise include; statistical and probabilistic modeling in textile science/technology and management, quality and process control and management, decision modeling for textile operations, forecasting of textile and apparel demands, electronic imaging of yarns and fabrics, geometrical modeling of textile structures including knitted fabrics and nonwoven webs, textile/apparel database, measurement of cotton fiber qualities, HVI testing and fiber selection and blending technologies, uniformity and strength of spun yarns, theory of bundle strength and research methods and management.

Dr. Suh has been called as consultant/expert witness numerous times during the past 40 years for government hearings, standardization work, legal litigations involving patents, technology infringement and for strategic management decisions for governments, private industries and numerous law firms.

The development of a new collection using felt

- Application of architectural and famous painting construction for felt clothing -

Orkhon Otgonbaatar* · Mandukhai Baldandorj**

*Mochi Art design company, Ulaanbaatar, Mongolia

**Research and Training Centre for SMEs, MUST, Ulaanbaatar, Mongolia

The purpose of this paper is to introduce results of created unique “nuno-felted” materials— color, texture, structure for own designed fashion collection, by combining Mongolian sheep wool with other textile materials.

To create new types of “nuno-felted” materials, experimental research method had been used. Various samples were made with Mongolian traditional “fully felted” techniques and “nuno-felted” methods. Dyeing with desired colors and creating 3D objects such as spheres by matting wool itself or combining materials were possible.

Also, we’ve studied fashion trends of young people, to choose the style of their taste and explored suitable design, which expresses advantageous properties of felt.

As a result, a new felt fashion collection, inspired by Guadi’s unique architectural form and famous paintings, for young people had born.

Results of this research work are: (1) Identified possibility of creating new felted materials with desired color, textures and forms. Had created new materials for clothing by combining felt with other materials; (2) Exhibited design possibility of forming interesting shapes and structures, based on unique felting properties of wool; (3) By creating captive range of felt products, contributes to increasing usage of Mongolian wool raw material.

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E-mail : ted_orhon@yahoo.com

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FASHION and ART

Eun-Hee AHN

Galerie89, Paris, France

From the beginning of 2017 Galerie 89 will try to experiment further in combining art and fashion. Particularly, we have developed a new concept to create a unique couture collection, which will include French and Korean artists working together for the first time. French designers will select the Korean artist-painter and create clothes with their paintings. This project was born from the common wish of the brand *Mossi* and *Gallery 89* to create an encounter between art and fashion. These are two worlds with reciprocal interest for another.

This approach will create synergies between a fashion creator and diverse artists - giving a new soul to creation of both.

The clothes will be an attribute of artistic expression, where unique pieces and more accessible ones.

Each season will be marked by a collaboration with artists from various artistic domains such as photography, painting, architecture, sculpture...

The *Gallery 89* will be a window where art and fashion will meet. It will also be the main sale point of the products, inspired from the concept of boutique-gallery of brands such as *Yoji Yamamoto* and *Comme des Garçons*.

During fashion week in Paris, exhibitions open to all will be organized in several Parisian sites, in parallel to fashion shows of the brand *Mossi*. These events will allow the general public to have access to the universe of artists and the fruit of this artistic collaboration.

Hidden Space

-An analysis of the interior space of contemporary Japanese costume design based on the Japanese aesthetic consciousness-

Lei Gu · Aluna yue-Lu

Central Academy of Fine Arts, China

1. Introduction

Since the century after Meiji Restoration in Japan, Japanese has quickly absorbed the western modernization and combined it with local culture. It also focused on its traditional cultural inheritance, explored a new direction of modern art and finally formed a oriental culture with Japanese characteristics.

This paper analyses the relationship between Japanese stylists' work and inside space in the aspect of the "Qi", "space" and "mystery" from Japanese aesthetic consciousness. Based on the analysis of the expression from the fashion design of Japanese aesthetic consciousness, this paper concludes the origins of the formation of such various styles in design so as to be hopeful to provide some reference and thinking mode for us.

2. "Qi", "space" and "mystery" in Japanese aesthetic consciousness

In Japanese, there are a lot of vocabularies about "Qi", which mainly refers to "aura", or energy in English. Japanese aesthetic consciousness holds that people release something similar to "space" from inside the body, which is "aura". "Space" is a symbol of abundance and peace, garment and human body form a variety of vital spatial variation, which is the rhythm of "space" Japanese designers want to express. Yamamoto Teruji's "Deconstruction", Wakubo Rei's "filling" and Morinaga Kunihiko's "concave-convex" all reflect the "space". "Mystery" refers to hiddenness, bringing more imagination by fuzziness.

3. Interior space of contemporary Japanese garment design

The interior space of garment is the basic element hidden behind garment modeling, which is the negative structure between garment silhouette and human body. Contemporary Japanese garment design combines Eastern loose dress design and straight cutting to hid body inside a large dress, forming an inner space with human body which goes beyond its own function.

4. Conclusion

Japanese aesthetic consciousness penetrates into the daily life of Japanese people,

fashion designers exaggerate and refine the sense, and clarify design language through spatial variation between garment and human body, to make Japanese fashion design shine in the world stage.

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[Master's Degree Thesis], Design Art School of Beijing Institute of Fashion Technology

The Analysis of the Use of the Dunhuang Murals in the Clothes Connotation

Wang -Ze Hui

Qingdao Technical College

The research focus of this thesis is the flexible use of Dunhuang frescoes in clothes connotation. This thesis is divided into six parts. Chapter one is the introduction of the thesis and the research background. It mainly uses the fundamental changes of the world's economic and industrial structure in the 21st century as the background. The "cultural connotations industrial revolution" changed people's desire. The "cultural products" representing by modern high-technology, digitalization has become the focus of people's attention. The thesis has listed the British, meaning France, America, Japan, Korea and other developed countries. The governments of those countries planned and systematically cultivate their own cultural products, to create their own cultural brand, through its own cultural characteristics in order to boost content industries, the public's interest in consumer-oriented culture of the market.

Clothes consist the most important thing in people's life. And is the most important necessity in people's life. Clothing culture is an integral part of cultural connotation. Diverse elements of cultural products are inseparable from the clothes. It is the reason why the thesis chose clothes as the focus of the research. Clothes as a process with the development of human civilization, social progress in the clothes play a significant role. Meaning of the concept of clothes through the understanding of the brief history of the world's clothes industry review, that there can be clothes study can be used, the vast space that can be developed.

The basic research situation of the thesis mainly focuses on China's cultural content industry. Traditional Chinese clothes for the clothes in the world the importance of the history of Chinese clothes industry's history and current status of the review, especially the rich cultural heritage of China, is to revive an integral part of China's economic development.

During the three decades since China's reform and opening up, especially after the National Congress Party, Chinese economic development has brought a big rise of cultural content industry. Chinese government issued a series of revitalization policies to promote cultural industry, creating numerous cultural products which gain the consumers favor. Beijing Olympic Games has interpreted China's history of five or six thousand years. All of

these truly interpret the traditional charm of oriental clothes.

Currently the ancient Chinese art only limited excavation organize clothes and rescue protection, development of creative content is still in the period to be students. Motivation of this paper is based on the foundation of traditional Chinese historical and cultural heritage, the focus is not to stay in the traditional clothes of the culture of research, but by the constituent elements of heritage and cultural analysis, convert it to a number of creative new product development genes, creative design of modern fashion—clothes for the content of research, to fill the current gaps in the domestic research in this area.

The Mogao Grottoes is one of the world's cultural heritage. There preserved the world's largest, most comprehensive extended the longest era of Buddhist cave art. Mogao Grottoes in Dunhuang mainly uses sculpture and murals as their manifestations. Dunhuang grotto mural art is the most compelling part of the largest number of the most abundant, most of fresh colors. Mural art is within the scope of this thesis. Known as the "Dress for the museum", the mural art clothes of the Mogao Grottoes in Dunhuang is the main focus of this thesis. Art of the Mogao Grottoes murals mainly clothes, women clothes series of morphological characters, the ancient Chinese Tang and Song period women's dress jacket, Bei sub-theme, compatible with the Mogao Grottoes murals of early Northern Wei period outside shirt, dress clothes and the Western Xia and Yuan Dynasties Art Northwest Minority Features dress robes for the scope of the study. The research methods of the thesis include: access to books, audio-visual simulation, field trips, visual design law against the order, etc.

The second chapter of the thesis is about the art of Mogao Grottoes in Dunhuang mural features and value of clothes, reading books shipped with the law and site visits to the Mogao frescoes are two ways to dress for the classification and types of artistic generalization, artistic achievements and three aspects of artistic value to research.

The third chapter of the text elements of Mogao clothes uses the same method of reading as the second chapter, involving more specific and focused on the composition clothes in fabrics, patterns, types of the three elements of color, feature, and value to conduct research and analysis.

The fourth chapter uses vivid instance Mogao clothes utilization in content analysis. This chapter is to observe the the audio and video products of Mogao Grottoes in Dunhuang , focusing on the theatrical clothes, movies, clothes, games clothes, event clothes, the connotation of cultural products career as an example, summarized the complex nature of the original prototype, the prototype of the change, the creation of the prototype of a new prototype of the three major artistic reproduction of the Mogao Grottoes, the situation constitutes a section of clothes and the clothes and the environment, and market structure into effect to the business analysis of cultural products. This also expressed that in these works, confined to the stage and screen ornamental. And there is a certain gap

in real life.

The fifth chapter of the thesis is about the flexible utilization of the development programs of the Mogao Grottoes in Dunhuang. This chapter is the major part of the thesis. With my major—the fiber art and design expertise, and my constant devotion on it for so many years, I put the modern “digital design” into the Dunhuang Mogao Caves mural arts, through the walls of the Mogao Grottoes from the static to the painting art, and nurture a sense of clothes contents spiritual elements of the design.

By the Gestalt psychology transported home by Rudolf Arnheim *Art and Visual Perception* theory, a kind of mathematical measure to push “anti-sequence cross-thinking” or “reverse thinking” on the understanding and design methods to spring, summer, autumn and winter; round solar terms for the creative theme, through modern technology—digital technology, multimedia technology together to build the T-stage, with “Dream of Dunhuang”. Twenty-four series of fashion brand, to shaped state, fabrics, patterns, colors for the clothes constitute elements of traditional culture and cultural environment, cultural heritage and the organic lifestyle statement, taken together, so as to fashion models as the spokesperson, show between man and nature, between man and society, society and nature of the relationship between the coordinates, a guide who excited the brand consumers have the desire, not another break to make a new fashion pop culture. At the same time, I also convey the aesthetic concept to the people. The creative emotion enhanced the interaction of the dialogue between designers and consumers. It interprets the cultural heritage and life products with reasonable relations.

Through the launch of the “Dunhuang Dream” series of fashion brand, we can revitalize the Chinese nation clothing industry, with a national vision, advanced production technology, advanced design concepts, and spread the culture of traditional Chinese clothes brand to the world, guide consumers from the culture brand products to recognize and appreciate the profound art of the Mogao Grottoes in Dunhuang, to reproduce the prototype clothes connotation of the Mogao Grottoes in Dunhuang in Chinese art mural.

CREATION AND FRENCH EXPERTISE ART DIRECTION TRAINING – FRENCH HAUTE COUTURE LEARNING

Mossi Traoré

Fashion School, Les Ateliers Alix, Paris, France

Created to pay tribute to Mrs Gres and its expertise. Alix Studio is the first real fashion school in Paris training for Haute Couture and artistic direction careers in high school. 15 students are recruited from all corners of the world, to create a rich promoting as well as diversity. Preserve and transmit the richest know-how in the heart of our training.

« I wanted to be a sculptor. Fabric and stone are the same work. Once we found something personal and unique, we must fully exploit and follow the implementation without stopping and through. Similarly, perfect its own technique, not blurt not neglecting any detail. »

« One of the goals i search is perfection. For a dress to survive one era to a next, it must be imbued with extreme purity. That is the great secret of the survival of a creation. »

Mrs Grès

Oriental Story

-An analysis of the "Silk Road" culture in the Han Dynasty of China and the understanding and application of Chinese traditional folk-

Yi Xiong · Aluna-yue Lu

Central Academy of Fine Arts, China

China has five thousand years of history and civilization. Any culture artists and designers both have such problems, how to inherit the tradition, and not bound by the traditional. This is a heavy and have to consider problem for Chinese artists and designers. In the distant ancient culture of Chinese ethnic costumes, we not only see the connotation of clothing culture and customs of each nation's dynasty, but also see more of the story behind these costumes, Chinese traditional elements are not imaginary, and not a long sleeping antiques in the museum so simple, it is a found treasure sheepskin diagram, it is a valuable resource for the world of modern Fashion design.

1. Introduction

Nowadays, the fashion industry in each country and the respective cultural traditions are inseparable, such as Versace and former Dior chief designer John Galliano, and other the world's top fashion designer works are reflected, they take traditional things, joining the artistic style of his own, which was transformed into a luxury, elegance into the modern costumes.

Art and design should continue to create and explore the practice, through made a research that about Ethnic style's regional, time, business, international ,and found that many times the Ethnic style have a subliminal formula errors in the design, a lot of people think that the Ethnic style is red with green , that flower embroidery also is Ethnic style . To clearly know that we have inherited is not retro, but the spirit of artistic creation predecessors. Many elements, after the baptism of history and time has become a spirit of epoch and the Peugeot. As Chinese traditional twelve chapter pattern, its form is very complete, it is difficult to improve. Therefore, we should do is not to transform, improve, but a kind of creation and inheritance.

2. About the "Oriental Story"

With the "Oriental story" as the topic of the thesis, the purpose is to express and discuss the understanding and application of traditional Chinese folk elements in Fashion

design. Ethnic folk culture has attracted the attention of many designers's eye of Chinese and foreign fashion world.

The Ethnic and folk culture has become an important focus of designers to find inspiration and expression design.

"Hexi Corridor" relying on the Qilian mountain glaciers melt water formed in Hexi oasis, located to the west of the Yellow River in China, Shanxi, Gansu area, is an important bridge road that Chinese ancient eastern gateway to the western regions , Chinese and Western cultural exchange and commercial trade ties, it also a part of the "Silk Road", since the Han and Tang Dynasties. Desert solitary smoke, river sunset, Hu traders guest, monk artists, western region's tribute and court ministers footprint, let this land experience the rise and fall of every dynasty,

"Silk Road" of the development of the ebb and flow of the tide. At the same time, also witnessed the each a touching story. "Underground gallery", "Wei Jin mural tomb" and other ancient Hexi culture, there are the inspiration of my fashion creative origin, in my way to tell the Oriental Story.

3. Development and research status at home and abroad

China as one of the four ancient civilizations, having wealth of material resources, strong cultural heritage. China is known as the "dress ceremonies," said, from prehistoric times, down to the Ming and Qing Dynasties, all ethnic groups in the long-term production activities and social practice, creating a countless exquisite costumes. Ancient Chinese clothing has experienced thousands of years of development, clothing formed a broad and profound cultural system, which not only demonstrates the culture connotation of clothing each era, but also let us see the social situation of clothing behind; it not only left us a precious the intangible cultural heritage and spiritual heritage, but also had a profound impact on the rest of the world clothing culture .

The use of national elements has always been a flash point on the T stage. Chinese elements in today's fashion industry to a more diversified form and use, extra attention to detail design and diversification of the match. No longer a single collage recombinant Chinese symbol, now pay more attention to the texture of the material, use of color, and pattern of Chinese clothing structure of Chinese-style innovation, to achieve the unity of the self-style and Chinese elements. Many Western world famous designers are borrowing from Chinese ethnic elements, which absorb more of the essence and translate them into their own Fashion art. Such as Valentino dress printed with a very strong Chinese flavor, Dior's fashion accessories, grass weave bags, hats, watches and other accessories, the reproduction of the southern Chinese region's natural simple life Epilogue "The ethnic is the world." Is the theme of the world, it also is inevitable trend of the development of clothing. Chinese exquisite printing and embroidery, gorgeous silk fabric, the rich of

Chinese pattern totem, traditional dress cheongsam-style structure... . show a long oriental rhythm.

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*Lisu Jun, Pengjing Rong. Issey Miyake and Deconstruction clothing [J]. Beauty and the era
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"Silk" 2010 08

*German historian Hermann (A. Hermann), published in 1910, "China and Syria between the
ancient Silk Road";*

The development of a fashion design using the rock art images

- Focusing on the rock art of Rashaan Khad in the Mongolia -

Mandalmaa Sharkhuu*

*Department of Graphic design, School of Design and Art, Mongolian State University of Arts and Culture, Ulaanbaatar, Mongolia

These days, most countries of the world are striving to develop their economies and to enhance their national images. To cope with globalization, each country has to creatively convey the uniqueness of its culture, thereby enhancing its national image and carrying out successful marketing strategies. Therefore, successful management of the national image contributes to a country's prestige and economic development. It is for such a reason that interest in culture and art are increasing. Mongolian rock art is one of the Mongolian unique and beautiful heritages but it is unfamiliar still now on the world. Thus, this study purports artistically to link the rock art's unique images to fashion textile design. Mongolian Rashaan Rock is one of famous rock art and it has a high artistic value and peculiarity in that its shapes are diverse. The Rashaan Rock is the unique complex of eastern region of Mongolia having rich historical and cultural heritage covering the periods from Stone Age until the 16th century. There are a lot of historical monuments and cave paintings dates to the Stone Age and a variety of literacy artifacts, ancient inscriptions dates to the Stone-Age, and the Bronze Age, and the Iron Age, Huns, Kidan and Mongol Empire periods. The Rashaan Rock has the paintings of animals and people by perforation and carvings of hundreds of tribe seals, as well as 20 writings in the Orkhon-Yenisei, Kidan, Arabic, Persian, Tibetan, Mongolian, Manchu scripts. The field study of these seals and inscriptions have been completed and scanned on special paper with the full composition from the viewpoint of Visual Arts. Further based on the scanned and reproduced pictures we select the forms and compositions which will be most suitable to use for modern design.

This study based on field research of rock art, the point of which was to investigate the form of the rock art's images, and the creative design process. The design procedure includes at first is selection the form, second is arrangement, third is coloring and silk printing.

Selected form arrangement:

Selected forms and compositions will be arranged and shaped pages of the same pattern will be reproduced into the fabric designs.

Coloring and finishing:

Then, in the arrangement process, The rough sketch of ready fabric will be colored and final design will be completed for use in the clothing models.

This research confirmed that rock art images could be applied as design motifs and that more modern and creative designs could be developed based on rock art patterns.

We can see that careful development of any specific and national nature content based on surveys and observations can be used for modern designs serving as the national pride of traditional culture; also there are the great opportunities to improve image and authority of Mongolia promoting abroad our country. Therefore to implement them, it is important to provide comprehensive and detail comparative studies of unique sites such as the Rashaan Rock, to prove their unique characteristics at the scientifically grounding and to publish the scientific research works for discussion among the world's researchers at the international level.

Otherwise, this study is expected to improve our objective understanding of our own culture and finding identity of Mongolian modern fashion.

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The Value of Fur Industry in Chinese Garment Industry

Aluna yue-Lu · Lei Gu

Central Academy of Fine Arts, China

1. Abstract

Throughout the whole human history, human wore fur to keep warm originally, later fur became the right and symbol of totem worship, and subsequently became the symbol of high social status due to its magnificent appearance. Chinese breeding industry of fur-bearing animal began in 1956 with the current total aquaculture accounting for 50% in the world and processing volume accounting for about 75% in the world. It has become a world center for fur animal breeding, processing and trade center. So making clear the development status of China's fur industry and innovating design are of great significance to promote industrial upgrading and employment.

2. Value research on Chinese fur industry

Since 2007, the world's fur processing enterprises has begun to transfer to China, which has become a trend. Now China has become the world's largest fur processing center and the number of employment population has reached 20 million. In the next five years, global demand for fur products shows a stably upward trend. In terms of import and export, China mainly import raw materials and export fur clothing, which will effectively promote the rapid development of the domestic fur animal breeding and accelerate the process of industrialization.

3. The development trend of fur clothing design

Fur materials are eco-friendly materials, which can be completely degraded if buried in the soil during a month. Its material properties make it show a fashionable, young, diversified and humanized trend in development of fashion design. It can be predicted that fur material will, just like other textile materials or the high-materials technology material, become indispensable in clothing design of special materials: in recent years, two-sided wearing fur clothing has become the most popular style. Today, fur production process is being continuously innovated and improved, but a large number of leftover materials are still simply used for industrial production. The author of the works of "blending" series is the fur of the leftover materials made of black and white rose, and rose to spliced into experimental works made of fabric. Applying the leftover

material to the clothing, saving materials and innovating techniques are also of fashion designer's research direction.

4. Conclusion

With the rapid development of fur industry, it should be noticed there is still a gap between China and foreign countries in terms of fur quality, and 90% of high-grade raw fur is from Denmark and the United States. Making clear China's fur export status, combining technology, techniques with the design and transferring the extensive industrial development are urgent problems for us. Since the establishment of China Leather Association in 1988, through unremitting efforts, the company will be more closely connected with international trade, for the transformation of the status quo of China's industry plays an important role.

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Luxury advertising in the age of globalization

-A comparison of advertising used in Korean and British fashion magazines-

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As a result of globalization, which can be thought of as intensified flows of people, capital, ideology, media, and technology (Appadurai, 1996), the world is more interconnected than ever before. In particular, technological innovations in information communication technology and the media have led to new forms of global activity and culture (Blommaert, 2010). These global flows, however, are unequal, and this uneven balance of power has prompted arguments that Western influences have led to cultural imperialism and cultural homogeneity (Scholte, 2008). This idea, however, has been opposed as it is thought that individuals exposed to foreign cultures are not passive consumers, and globalization can in fact be described as 'glocalization' as global flows merge with pre-existing local influences (Eriksen, 2007).

As part of South Korea's globalization drive, the country has looked to Western nations in order to acquire the social, cultural and economic capital deemed necessary to become an advanced nation. Not only has this objective been achieved, but Korea has developed into a world leader in certain sectors of technology and manufacturing, as well as become a cultural exporter and trendsetter of popular culture in Asia and further afield (Ryoo, 2009). As a result of Korea's elevated global position, this study will investigate if luxury global brands advertising in Korea adapt their campaigns to the domestic market rather than use standardized advertisements. As a comparison, the United Kingdom will be used. While the UK is a more mature market for luxury goods, it is also comparable in terms of total advertising spending, population and geographic landmass.

Using content analysis and methodology previously used by Capitello, Agnoli, and Begalli (2014) to compare Asian and European nations, this study examines advertising used in Korean and British editions of influential fashion magazines Vogue and GQ. The advertisements of brands in apparel, cosmetics, and jewelry sectors that are present in

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editions in both regions are first analyzed in terms of visual, textual, and touchpoint information to understand overall similarities and differences. Secondly, the advertisements of specific brands are compared in order to understand the level of standardization used in the respective campaigns.

Overall analysis of the advertisements revealed similarities in visual information but differences in textual and touchpoint information. With regard to specific brand advertising, the level of absolute standardization was low in both Vogue and GQ. The level of standardization, however, differed according to sector with apparel having the highest level of standardization. Specific examples of advertisement adaptation will be highlighted in the presentation.

It is hoped that the analysis will offer an insight into the print advertising strategies used by global prestige brands in the Korean and British contexts. This information has the potential to inform individuals interested in general advertising trends, as well as those wishing to have a greater understanding of current strategies being used to advertise luxury goods in Korea and the UK.

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A case study on prospect of ICT convergence technology for beauty industry in Korea Examples of convergence model development in EDENIQUE personalized online and offline perfumes

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ICT is an acronym for "Information and Communications Technologies" and it refers to information and communication technologies where IT and communication technologies combine and information is collected and it's advanced to its processing, interpretation, and analysis. For example, ICT is the data technology which allows various information such as healthcare, weather check and location information by using a smartphone to be managed by devices.

In recent years, ICT(Information Communication Technology) meets with the beauty industry so that it has contributed to the craze around Korean cosmetics, called 'K-Beauty'. The issue emerging recently is 'the smart beauty' and a new trend through the convergence of IT industry and beauty industry has been highlighted. Cosmetics and beauty industry has been predicted to have a bright prospect as a high value-added industry in the future and the production performance of the domestic cosmetics has shown 10% of average growth in recent 5 years by the influence of the Korean Wave and exports are soaring more than 30% in average over the same period of last year so that the continued rapid growth has been seen. Cosmetics exports of Korea in 2014 grew by more than 52% compared to 2013 and then 'K-Beauty' succeeded in entering to overseas markets so that its overall production even reached 10 trillion won in 2015. Also in the scale of cosmetics, there has been a lot of efforts to become a world's top 7th cosmetics and beauty superpower following the United States, China, Japan, Germany, Brazil and France. The reason that the world beauty market is expected to grow to about \$ 675 billion(785 trillion won) at the rate of 6.4% every year by 2020 is because there's the expectation that Asia-Pacific markets including Korea will grow dramatically. While the industry is growing in a such way, the competition becomes increasingly fierce and while consumers' needs become various, it seems that the convergence with other industries, especially IT industry is made in order to meet the various needs.

It's not an exaggeration to say that IT and beauty are creating changes in almost all

sectors, starting from product development to production, distribution and promotion. The most significant change can be found in the change of consumer's buying pattern. In the past, the general form to buy was to obtain information about cosmetics through commercials or recommendation of acquaintances and then buy by visiting a store or buy through telesales or door-to-door sales, but in recent years, checking via internet search, video and blog reviews and then ordering by online shopping become a common form.

Other notable changes are the fact that various beauty apps from the app which allows checking information, various reviews and cosmetics ranking about cosmetics, to the smart app which allows trying a virtual makeover. 'GLOWPICK' is an app which provides an extensive database by gathering reviews from consumers who purchased cosmetics and shows cosmetic rankings. And, 'UNPA' is an app which started from the mobile community and it shows cosmetics reviews of consumers, makeup tips and shopping information and its feature is to provide a personalized beauty tips for app users. PLUS MEI developed 'Queentip', a personalized recommendation service of cosmetics by using big data analysis techniques. Queentip is an application which recommends suitable cosmetics for the people who have difficulties to find perfect cosmetics for them. Not only beauty apps for women but also beauty apps for men who show active interests in beauty have been recently developed. Although the beauty market for men has shown a high growth rate worldwide and accordingly, there's a growing interest in the beauty from men, beauty information for men is insufficient. Because of this, it's hard for men to find cosmetics information and select right products. 'Cosmantic', men's cosmetics recommendation application, is a personalized recommendation service for domestic men's cosmetics and it provides personalized recommendation service based on cosmetic ingredients so that a suitable cosmetics can be recommended more easily and more accurately.

There are apps providing information about cosmetics as well as apps allowing seeing a individual's style through a virtual experience. Augmented reality technology which becomes popular by Pokémon GO has been used in the cosmetics industry for a long time and in fact, over 50 cosmetic companies are already running projects using augmented reality technology. Beauty apps where styling can be previewed by taking a photo of the face and then painting with various colors of lipsticks, applying eye shadow or dyeing the hair virtually are being released in the market. An app called 'Lakme' is an augmented reality app where a virtual makeover experience is available through tablet PC screen and when changing the makeup color, the makeup is automatically updated and can be checked through the screen. The fact that a virtual experience of makeup which is hard to do in reality can help find a suitable style is considered as the best thing of such apps.

Therefore, firstly, this presentation will explain the trend and future outlooks beauty industry of Korea and secondly, the direction and potential development of the trend will

be discussed by studying and analyzing the latest trend of 'smart beauty. Thirdly, examples of convergence model development in EDENIQUE personalized online and offline perfumes is to be briefly discussed. Lastly, suggestions for the future will be discussed through various case studies where ICT convergence technology is applied in beauty industry.

FASHION MERCHANDISING

-“lapalette”- Product Planning to Sale-

Hyerim Lee

BEAUCRE MERCHANDISING, SEOUL, KOREA

“BEAUCRE MERCHANDISING” has significantly expanded its businesses such as bags and cosmetics sector, led by women’s clothing brand “on & on”. I am a merchandiser in charge of Product Planning Department in “lapalette” which is one of bag brands at “BEAUCRE MERCHANDISING”. Speaking briefly about the “lapalette”, it was launched in 2009. Initially it has sold various brands of imported goods from foreign countries as a Select shop. Since then, the “horse bag” had been hit. It has been still one of the main brand in “lapalette”.

In general, most of fashion brand can be divided into BUYING and PB(Private brand). But “lapalette” doing both. it is absolutely different with other brands in Fashion market. I would like to explain how different.

Establish the product and production plans monthly by the annual budget.

For PB we have 2 brands, “lapalette” and “MOST”. This is the first point of difference. They are planning to have a different concept, name value and the price range as well. We plan goods by designer with market researching and trend and then communicate with OEM company for production.

For buying brand, the representative one “CUPCAKE”, we discuss with their Creative director for the season concept before design. This is the second point. It is the most important step for that brand. The “CUPCAKE” always has a unique motif which is more important than the structure of goods. After their designer finished create the motif, we make a decision that motif is good for the market of today or not. If it seems ok let the designer draw up a draft design and make the first sample. And quality check and check in several time.

When we finished the product planning step, we determined the production quantities according to the sales plan.

Control the cost and retail price of all brand to be proceed every time production .
As well as make spot product planning by the market trend or sale change.

“lapalette” is sold a various distribution channel such as online shops, department stores and duty free shops. They have different customer and various environment.

That’s why we have exclusive items each channel. Product Planning team “MD” work

with the retail team to release product with the right time in the proper place.
After all these steps are selected product to the consumer.

Factors that affect Chinese consumers' evaluations of the product reviewed by vlogger

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Vlogging, which refers to the video reviews created by non-professionals on product reviews on the video sharing site such as YouTube, has gained great attention from consumers, practitioners, and academicians as well. With more subscribers and comments than those for major beauty brand channels, video beauty blogger (a.k.a., vlogger) has become a huge influencer in the beauty industry. Despite the significant role of beauty vlogger played in the cosmetics industry, empirical research still remains scant. Our aim is to explore factors that affect consumers' evaluations of the product reviewed by vlogger. The current study specifically focuses on Chinese female consumers who watch beauty vlog. In China, as the the world's second largest cosmetics market, more consumers shown positive attitudes toward wearing cosmetics than ever. Moreover, the increasing use social network channels as well as beauty vlog by Chinese consumers is noticeable. Thus, the current study aims to explore factors that affect Chinese female consumers who watch beauty vlogger. Based on the literature, the current study addresses characteristics of vlog contents and vloggers, and examines the characteristics influence Chinese consumers' evaluations of the products reviewed by the vlogger.

We employed an online survey method for data collection. The survey was administered by a market research firm in China to Chinese female consumers who are in their 20s and 30s. Participants were asked to recall the most recently watched beauty vlog, which is followed by the questionnaires. Measures of the research variables were adapted from previous research. A total of 372 responses were used for data analysis (mean age=29). The multiple regression analysis using IBM SPSS Statistics 23 revealed that participants' perceived similarity and credibility of vlogger have a significant impact on the evaluation of the product reviewed by the vlogger. Also, there were significant effects of perceived usefulness, entertainment, and popularity on the product evaluation. However, the effect of consumers' perceived attractiveness of the vlogger on product evaluation was not significant. The findings of the study show that as consumers perceive the vlogger more

similar to them and more credible, they are more likely to exhibit favorable evaluations of the product. The vlogger's attractiveness, however, was not found to influence the product evaluation. Also, as consumers perceive the contents of the vlog as being informative, entertaining and popular, they tend to have favorable attitudes toward the product reviewed by the vlogger.

Application Vs Integration:

-The challenges of wearable technology from a polymeric optical fibre (POFs) textile perspective-

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Consumers are increasingly seeking products with seamlessly integrated technology which can ease their busy lifestyles. The demand for wearable fitness devices quadrupled between 2012 and 2013 and with potential to be further adopted by mass consumers in the future (WGSN, 2014). Such numbers clearly indicate there is a need and demand for integrated technology for our everyday lives. Wearable technology in the form of accessories (for example the Fitbit and Apple Watch) has taken off in terms of market consumption which is in contrast to technology integrated apparel. The tendency to skew research and development towards a technology focus may have resulted in biased products which are not readily adopted by the mass market. As noted by Dunne (2015), many existing smart apparel have little regard for aesthetics and are inconvenient to maintain thus consumers are unlikely to utilize in their everyday lives.

POF textiles offer interactive illumination and the familiar tactility of textiles. However, due to the fundamental fragility of the fibres, it is challenging to create organic structures with the POF textiles. Little had been discussed about the physical design limitations of the technology and components. The integrated technology may offer positive functionality but has little to offer in terms of comfort and ease of maintenance. The latter factors are crucial for the user longevity of the product. It is crucial for technology integrated apparel to possess fine finishing which not only contributes to the aesthetic but also the functionality of the product. Current research had focused on either the technological functionality or the surface design of POF textiles and products. This paper aims to explore the integration of technology into wearable technology from the perspective of POF textile research. It studies how the design process and technological integration are applied to develop wearable technology.

The design process of a POF fashion design requires a more complex process as there are many factors which are required to be synchronized. It is vital to consider the fashion design, the POF textile design, the technology and components in tandem. Each factor does not work in isolation as each contributes to the overall design of the garment. The

design, development, pattern cutting and construction of the garment requires a flexible design process whereby the design can be constantly refined via experiments to create fashion designs which are interactive and user friendly. The transdisciplinary approach with multiple perspectives working together to create a cohesive design is supported by both design aesthetics and technological function. Interactive clothing which utilizes POF textiles has the potential to be developed into life enhancing products in many areas such as visual performance, sustainability design and healthcare.

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Deceptive Textiles Listers' Velvetloom Makes Resilitex for Decoy Trucks and Tanks in WWII and a Quick Glance at Camouflage Today

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Camouflage is as 'the art of concealing from the enemy the disposition of men and materials, and also of indicating false positions by means such as the use of dummy equipment.'

As airplanes entered warfare in WW I, camouflage took on new significance. By WW II aerial surveillance and reconnaissance were prime tools of espionage. 'Deceptive textiles' became the name of the cloths that fooled the eye and camera.

Listers, a company in Bradford, England was the leading silk fabric producer in Europe before WWII and its huge success was largely due to their innovations in powerloom weaving velvet. A radical departure from handweaving velvet, their powerloom wove two velvet pieces face-to-face, cut them apart and wound them around two cloth beams.

The British Department of War approached them with the idea to adapt this technology and developed Resilitex, a crude slab fabric which when impregnated with a rubber substitute could be used to make life-size dummy military trucks and tank decoys.

This type of camouflage was meant to be seen and to fool the eye into thinking them not dummies but real armaments. On the contrary camouflage cloth was made to make objects and people disappear. Like Harry Potter's invisibility cloak this is a tantalizing and powerful idea.

Camouflage uniforms went from painted/printed patterns to mimic the terrains in Northern Europe to today's digital patterning and e-fabrics that constantly change to match their surrounds, shifting from daylight to night, from season to season and becoming the super stealth fabrics of science fiction.

Whether revealing a false reality or concealing from view or detection, camouflage and stealth continues to drive cutting edges of new technologies. What wonders awaits us.

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Comparative Study on Colors Between Pantone Trend Color and Digital Textile Printing Color

- Focusing on a Color QR Code -

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1. Introduction

Digital textile printing began to be distributed in the Korean textile industry market from the 1990s and its market share in the textile market is getting much higher instead of traditional printing as the technical reliability and speed have improved in recent years. It is also growing higher every year due to the eco-friendly printing method without the use of high pressure, high temperature, high water consumption. The digital textile printing is categorized in a direct printing of directly printing on the fabric or a sublimation transfer printing of transferring to the fabric with heat and pressure(K. Eom, & M. Cho, 2005). The direct printing printer uses reactive dyes, direct dyes, acid dyes and pigment. It can print on natural fiber including cotton, silk, wool, t/c(polyester/cotton), rayon, polyester, span and knit materials. The sublimation transfer printing mainly uses a polyester fabric which is synthetic fiber, but can also print on cotton mixed fabric these days(Cho M. 2010). Focusing on the increased utilization of digital textile printing, this study is to compare the recognition rate of QR code by color and fabric type of QR code printed in a variety of ways. According to preceding studies, rather than the standard QR codes, design QR codes with colors or design were found to be more preferred by users, demanding multi-faceted study of design QR codes(S. Park, 2011). However, If QR code applies to colors, the recognition rate is degraded significantly and there is also a limit in colors available. The samples in this study were printed with three types of printers including a printer utilizing the direct printing method, a printer employing the sublimation transfer printing method, and, for comparison, a normal inkjet printer that can print on paper and fabric functioning Tyvek made of polyethylene, among the digital textile printers. This study is expected to be useful for color QR code application in the fashion textile sector by printing the digital color palette including the Pantone fashion color in diverse digital textile printing methods and presenting the analysis on a sample-specific color characteristics and influence of colors used in QR codes.

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2. Research Method

For the direct printing method, Cotton 100% 10'S, 20'S, and 40'S fabrics were used in samples and printed with the Ichinose digital inkjet printer 2040 printer by using reactive dyes. For the sublimation transfer printing, polyester 100% 75D, 50D, and 30D fabrics were used in samples and printed with the Epson sure Color F7000 printer. The thermal transfer was implemented at 180°C for 50 seconds. For the normal inkjet print method, Tyvek Inkjet media of Samwon paper was chosen and Epson stylus 9900 printer was utilized.

For color, we used the digital color palette developed based on the fashion color of 2015(S/S)-2017(S/S) of Pantone site (www.pantone.com). The selected colors were used in QR codes at the QR code production site (<http://mqr.kr>). Four different applications were utilized to measure the produced QR codes. The printed colors were measured with Pantone Capsure(RM200-PT01).

3. Results

In the cotton samples printed in the DTP direct printing method, the chrominance was found larger in red colors > yellow colors > purple colors > blue colors > neutral colors in order of. The chrominance in the neutral colors was found the smallest among all. In the polyester samples under the DTP sublimation transfer printing method, the chrominance was found larger in red colors > yellow colors > blue colors > purple colors > neutral colors in order. Especially in the case of Polyester fabric, the chrominance of color value of yellow and red was found to be great and difference in brightness to be also higher. In the QR code recognition experiment, the results were found larger in inkjet printing > DTP sublimation transfer printing method > DTP direct printing in order. As for cotton, black was found to spread in printing and affect to lower the recognition.

4. Discussion and Conclusion

As for colored QR codes, their recognition levels were measured by applying the grayscale effect differences to the background and module colors presented in preceding study. This present study found different recognition levels, according to the types of printers. Therefore, it is deemed necessary to produce color QR codes based on the understanding of each printer's characteristics. Moreover, since the print form of QR code impacts people's recognition level in colored QR codes, it is necessary to understand the characteristics of utilizing digital palette colors and test any color spreading according to different fabric materials. It is, therefore, deemed important to compare and analyze the color differences, textile sample component/material characteristics, denier differences, surface texture and dye penetration in printing and apply them in printing.

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A Study on the Analysis of the Actuality onto Synthetic Detergents for House Using

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The purpose of the study is to analyse synthetic detergents for house using. This study was requested from 433 household in the Seoul and Gyeonggi, and Incheon areas. The data was analysed by SPSS 22.0 program. Level of importance when purchasing textile products, behavior for eco-friendly detergent using, level of knowledge on detergents, and level of eco-friendly practice behavior were examined through 5-point likert scale. The results of this study were as follows: first, with regard to the level of importance when purchasing textile products, 28.6% of them were answered that I tried to read them but they were too many terms that were hard to understand. And 26.8% were answered that I have never read them. Second, with regard to the importance label when purchasing textile products, the size label was the highest and the country of origin was lowest. Third, mainly behavior for eco-friendly detergent using was that the laundry when they pile up enough to fill the whole washing machine. Forth, level of knowledge about detergents was 2.41 and level of eco-friendly practice behavior was 3.27. fifth, 60.7% of them were I am aware of the Quality Certification Mark System. 57.7% of them were answered that Quality Mark makes clothes look better before making a purchase. And 42.7% of them were answered that get to choose clothes with Quality Mark rather than those without it. Sixth, detergents for house using were investigated classified into detergents for bathroom/kitchen, detergents for human, and detergents for clothes. Using of detergents for bathroom/kitchen were showed that washing-up liquid 95.8%, Stain remover 50.3%, dishwasher detergent 39.7%, glass cleaner 36.3%, detergent for fruits and vegetables 21.7%. Using of detergents for human were showed that toothpaste 98.8%, shampoo 98.4%, body cleanser 95.4%, Facial soap 91.0%, and hair conditioner 89.8%. Using of detergents for clothes were showed that fabric conditioner 94.7%, liquid detergent 77.1%, Powdered detergent 70.9%, washing soap 68.4%, bleach 61.9%, and home-dry detergent 21.7%.

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Fashion Design Development Based on the Straw Clothes

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These days we are living in an era of Big Data that has unimaginable scale of abundant information. Modern people who have passed the analogue era and are living in the society where all the information is digitalized are losing national characteristics and personal identity due to the various cultures that are created in the unprecedentedly massive flow of information.

To overcome these side effects of the information age and to establish the cultural identity of one's nation, there have been active movements in various sectors to follow and study tradition, and reinterpret it in a modern way. One of such efforts is to examine the traditional handcraft and traditional cultural asset of one's nation and to return to handcraft.

Also, to maintain the cultural identity of one's nation, countries designate and manage tangible and intangible cultural assets that maintain and inherit the traditional cultural heritage. Cultural assets are the unique culture that has been accumulated through various experiences and trial and error for a long time, based on natural and social environment of a country and they have been passed down as our own culture in various aspects of our life.

Straw clothes can easily be traced back to their origin in our lives like other traditional cultural assets. Such examples include light and cool straw hats that provide shade from the sizzling summer sun and the bags hanging down from the eaves of grandma's country house. Straw clothes have a long tradition stemming from the Bronze Age. They are proud cultural assets with regionality and historicity that were developed and handed down through the hands of many people and they have special values.

In this respect, this study aims to let people know about the beauty of straw clothes by examining the shape, material, color, texture, and weaving of them and develop fashion designs by applying straw clothes. By doing this, it will raise the cultural identity of Korea and enhance the aesthetic beauty of straw clothes as handcraft work.

The process of this study is as follows. Through historical examination, this study collected and organized straw clothes that were distributed in various sectors in many categories and analyzed the formative factors of them. Based on it, it analyzed cases of

modern designs in the collections released in the 21st century and tried to use the characteristics that were deduced from the analysis to reinterpret straw clothes in an original and modern way. Through this process, a total of 8 items were produced.

In this study, straw clothes do not include a broad range of clothing that was made of plants. They refer to clothing that uses the most natural condition of plant stems such as grass or vines, as thread or fabric without processing them. This study restricted the scope of straw clothes by distinguishing them from clothing that was made through general production process.

By applying the most outstanding feature of straw clothes, weaving and the beauty of shape, it designed the overall silhouette and details, and by applying color and material, the overall mood was expressed in a folksy way. As for materials, natural and chemical materials were used together and their proportion was decided considering durability, comfort, and ease of movement.

This paper tried to develop fashion designs that applied straw clothes, tried to make a conceptual approach to reflect the cultural background of a country and, present an appropriate model for the modern fashion industry through the design process of reinterpreting tradition. Furthermore, it searched ways to put added value to design.

Such reinterpretation of traditional motif is one of the design process in Korea that will be continued and is a big trend. It is expected that this paper will help the reinterpretation of traditional cultural assets in a modern way and be a preceding research that will raise interest in the study on straw clothes in various sectors.

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A study of functional compression wear for skating Athlete

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Modern man promotes health through planned physical training, the participation of the sport and leisure activity to maintain physical vitality and to promote health is increasing rapidly. As the sport activity is increasing, a demand for functional sports clothing is increasing, too. Functional sports clothing can prevent injuries that can occur during sports activities or improve the exercise ability by enhancing the body function.

Sports Science Institute makes a lot of effort for development of elite training, diet, equipment development, training uniform, to improve the performances of athletes.

It conducted one-off measure experiments on an impact on improving muscular and recovering fatigue of muscle of functional clothing, of 10 participants consisting of a backup national athlete. It conducted The t-test was repeated measurements and compared the record of lactic acid, win-gate cycle, 50m start.

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A study of functional compression wear for Taekwondo player

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This study conducted weight training, interval training and isokinetic training after it clothe high school taekwondo athletes located in Gyeonggi in the functional clothing made of seamless weaving techniques devised in Sports Science Institute as a training uniform of pattern style that implements a special pressure on the muscle used for operating Taekwondo. Functional wear composed of muscle shape that represents the effect of taping normalized to pressure of 10-20mmhg medical and appropriate level and flexibility of 2way structure composed of the Nile Double 6 and spandex.

Functional training compared to appear in any response to increased ratio of fatigue of muscle, muscular, muscular endurance, muscle mass of the left and right of nether extremities of taekwondo athletes and evaluated whether this is contributing to improve exercise capacity and physical factors for performances of Taekwondo athletes. This study used a double blind test and conducted 8 weeks training to a total of 16 participants who composed of each 8 people to 2 groups of experimental and control groups. After three tests, the pre-test, the tests after 4 weeks and 8 weeks were conducted, it was compared and proven.

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The Influence of Conformity of the Consumer in their Fifties on the Purchase Behavior of Outdoor Apparel products

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With the recently increasing interest in healing, travel, and health, the number of consumers enjoying outdoor activities is also increasing. Consumers enjoy an active life of travel and leisure and purchase not only mountain-climbing clothing, but also other outdoor apparel products. While the popularity of outdoor activities prompts consumers to purchase various outdoor apparel products, some consumers show a tendency for uniform conformity ("The whole nation", 2010). Conformity motivated purchase are linked to a consumer's concern with following group norms when they decide to purchase a certain product or brand (Kahle, 1995). The purpose of this study was therefore to investigate the influence of conformity of consumers in their fifties on the purchase behavior for outdoor apparel products.

The present study employed a questionnaire survey, which was conducted by a company specializing in survey techniques. The survey of 267 females and 163 males in their 50s was conducted in February 2016, and comprised participants who had purchased outdoor apparel products during the past year. Data were analyzed by means of factor and regression analyses using SPSS 22.0, and the results were as follows.

The principal component analysis of 10 questions on conformity showed that it was categorized into informative and normative conformity. The factor analysis of the purchase criteria among the purchase behavior of outdoor apparel products extracted three factors, namely practical, aesthetic, and social factors (the analysis used the principal component analysis of 13 questions). To investigate the influence of the conformity of consumers in their fifties, a regression analysis was carried out with purchase criteria, purchase place, and the number of purchases (the sublevels of the purchase behavior) as the dependent variables; the conformity factors of informative and normative conformity were set as the independent variables. The result of the analysis of the influence of conformity on the purchase criteria showed that conformity has a significant influence on the aesthetic and social factors, excluding the practical factor. Additionally, informative conformity more significantly affects these two factors than normative conformity does. Both informative

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($p < .001$) and normative conformity ($p < .01$) influenced the aesthetic factor, and conformity explained 14.9% of the entire variance in purchases through aesthetic factors ($F = 38.695$, $R^2 = .149$). In addition, both the informative ($p < .001$) and the normative conformity ($p < .001$) influenced the social factor ($F = 69.439$, $R^2 = .243$) and conformity explained 24.3% of the entire variance in purchases through the social factor.

Regarding the place of purchase, conformity has significant influences on purchasing from department stores, direct stores or authorized dealers, outlets, discount stores, Internet shopping malls, home shopping networks, and mobile shopping. The informative conformity affects purchasing at department stores ($F = 30.669$, $p < .001$, $R^2 = .122$), direct stores or authorized dealers ($F = 11.182$, $p < .001$, $R^2 = .045$), discount stores ($F = 8.264$, $p < .001$, $R^2 = .033$), Internet shopping malls ($F = 8.167$, $p < .001$, $R^2 = .032$), and via mobile shopping ($F = 47.435$, $p < .001$, $R^2 = .178$) and home shopping networks ($F = 26.851$, $p < .001$, $R^2 = .108$). However, the normative conformity influences purchases at outlets ($F = 7.152$, $p < .001$, $R^2 = .028$). The result of the analysis on the influence of conformity on the number of purchases showed that the higher the informative conformity relative to normative conformity, the higher the number of purchases made. The results indicate that conformity influences purchase behavior when consumers in their fifties buy outdoor apparel products. That is, informative and normative conformity are the factors that influence purchase criteria, place of purchase, and the number of purchases when consumers in their fifties purchase outdoor apparel products.

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A Qualitative Study on Work Characteristics of Shop Masters with Multi-channel Retail Environment

-Focus on Shop Masters in Department Store Young Casual Fashion Section-

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As the paradigm of fashion retail industry moves rapidly to the multi-channel, the role of shop master has changed as well. The main role of a shop master is thus changing from that of a simple salesperson to one who collects information for running multiple sales channels and establishing marketing strategies. Therefore this study is to look in depth at the changing role of shop masters in the multi-channel retail paradigms.

In-depth interview was conducted by using structured questions all interviews were recorded by their permission. Seven shop masters participated in in-depth interview. All of them were woman who had over five years working experience at department stores. In-depth interview was conducted one or twice individually for an hour. Researcher wrote and made a manuscript from the recording. Finally some sets of theme were generalized. Before the main study, two fashion experts who are majoring in textiles and clothing were confirm for credibility.

The results of this study are as follows: First, the roles of a multi-channel shop master include store management, management of salespeople, customer relationship management, and management in relation to the headquarters and suppliers. The relationship with the headquarters is needed to maintain its brand identity through a proper level of management regardless of online or offline channels. When it comes to the relationship with suppliers, the major roles of the shop master are managing relationship with floor merchandisers (in the case of offline channels) and online shopping mall merchandisers.

Second, it turns out that the most important capabilities of shop masters are to forecast future demand, establish information networks, communicate well with others, and create a work environment resulting in higher productivity. For shop masters involved in multi-channel, it is most important to control the shop floor by taking full control of all workflows. Their ability to secure sufficient inventory in anticipation of future online demand and establish an information network by putting together the online and offline channels was particularly important. For such shop masters, it is necessary to understand a variety of communications media, find out communications media preferred by their customers, and create a good work environment in which salespeople can work with

pleasure but without undue pressure.

Third, examples of conflict issues experienced by shop masters include problems surrounding evaluation on sales revenue results, issues arising from the integration between online and offline channels, and disputes that may occur due to human relationships. Sales revenue is evaluatedarefor both online and offline channel over the present year's sales figures vis-à-vis the previous year can increasetheir pressure.

In addition, the shop masters in multi-channel retailers suffer from conflict issues due to loss of control and a lower level of concentration as a result of online and offline integration as well as the increase in workload. In the online channel, it turns out that the decision-making power of the shop masters is too limited in terms of independent planning, exposure, coupon issuing, and minimum prices, which leads to pressure to the shop masters who were doubly under pressure owing to excessive competition with other retailers and results decline in profitability. In addition, their conflict with other stakeholders such as customers, the headquarters, and suppliers was at a serious level, according to the study results.

A Comparative Study on Consumer Complaint Intention of South Korea and China in Fashion Products(II)

- Focused on lifestyle and personality -

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The increasing interest among business firms to understand and respond more effectively to consumer's dissatisfactions, complaints and defections is prompted largely by the economics of market penetration strategies. Such strategies depend on a firm's success on two fronts: attracting new customers and selling more to current customers(Park & Lee, 2009). The consumer complaining behavior literatures from the cross-cultural perspective that has emerged now has focused mostly on general goods, and a study(Baek & Lee, 2009) has researched on the general goods including fashion products partly. Due to the recession of domestic market and FTA with China, national entrepreneurs got highly interested in entering into China where consumption market is huge. Also, because of Chinese consumer's high interest on Korean Wave, it is easy to highlight Korean product's positive accessibility.

In this perspective, research on culture comparison with China will provide implications which might be a base for companies that are planning to enter into China market.

The purpose of this study was to examine the effect of lifestyle and personality on consumer complaint intention(CCI) of fashion products, while comparing Korean and Chinese female college students. The questionnaires were conveniently sampled from March 2014 to April 2014. The subjects composed of 780 female college students living in Jeollanam/bukdo, Korea(n=441) and Yunnam, China(n=339). The mean, frequency, factor analysis, reliability, t-test, regression were used for statistics analysis.

The results of this study are as follows. The lifestyle of the respondents were classified into four types such as fashion-pursuit, accomplishment-pursuit, rationality-pursuit, activism-pursuit, and personality was classified into five types such as openness, originality, extroversion, responsibility, self-confidence.

As a result, this study's findings demonstrated that the factors of lifestyle and personality have significant and different influence on the typology of consumer complaint intention(CCI) between Korean and Chinese samples.

The finding of this study also would be useful for policy makers in both countries, Korea and China to develop invention programs for female college student(20's) that have

a strong appetite for fashion.

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The Effects of the SNS Type, Online Community Type, and Self-monitoring on Acceptance of WOM and WOM Diffusion

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With the rapid growth of social media in Korea, a considerable number of fashion companies have started to use SNS as a channel for reaching consumers (JoongAng News, 2016). Especially, this growth has led to fragmentation of SNS specifically to relationship-based SNS and interest-based SNS (Kim, 2014; Kim, 2013). Meanwhile, an interesting feature of SNS is community formation. These communities can be classified as company-based community and consumer-based community according to the host who set up the community (Ching, 2015). Because these two communities have different sources of information, they also have differences in trustworthiness which can lead to difference in WOM effects (Chu & Kim, 2011). We also would like to investigate difference in acceptance and diffusion of WOM according to level of self-monitoring because information channel adoption can be differed according to individual disposition (Jo, 2013). As self-monitoring is associated with the level of self-control regarding recognizing others, it could make differences in perception in trustworthiness and eventually WOM effects. However, a few researches have been empirically done to which type of communities in SNS can be effectively used for communication channel (Kim, 2014; Kim, 2013).

The purpose of this study was to determine the effects of SNS type, online community type, self-monitoring, and interactions among these variables on the acceptance and diffusion of WOM in SNS environment. The design consisted of three-mixed design of 2(SNS type: relationship-based vs interest-based) × 2(Online community type: consumer-based vs company based) × 2(Self-monitoring: high vs low). Data were collected from 285 female SNS users who have previously participated in community embedded in SNS and total 263 copies excluding 21 incomplete surveys were used in the final analysis. Frequency analysis, credibility analysis, t-test, three-way ANOVA, simple interaction effect analysis, and simple main effect analysis were conducted using SPSS 22.0 for data analysis. The analysis of experiment data produced interesting results.

Results showed differences in acceptance and diffusion of WOM according to online community type ($F_{1,952}=27.13$, $p<.001$; $F_{1,952}=15.01$, $p<.001$) and there was significant

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3-way interaction effect($F_{1,952}=6.44$, $p<.05$; $F_{1,952}=6.65$, $p<.05$). Thus, we did further analysis to assess the differences in WOM acceptance and diffusion. It was proven that people who have high propensity to self-monitor($F_{1,114}=5.01$, $p<.05$) are prone to accept WOM information in consumer-based community($M=9.43$; $M=8.75$) compare to company-based community($M=8.18$; $M=8.09$) in both relationship-based($F_{1,114}=22.90$, $p<.001$) and interest-based SNS($F_{1,114}=8.04$, $p<.01$). However, in case of WOM diffusion, people who have low propensity to self-monitor($F_{1,124}=11.56$, $p<.01$) are prone to diffuse information in interest-based SNS($F_{1,124}=18.97$, $p<.001$). Moreover, they diffused more information in consumer-based community($M=8.58$) compare to company-based community($M=7.69$).

In this study, we offer a practical perspective to fashion industry and marketers who have an interest in SNS marketing. The paper concludes with a discussion on managerial implications and limitations.

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A Study on the Risk Perception and Risk Reduction Behavior of eco-friendly Product according to the Knowledge of Synthetic Detergents

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The purpose of the study is to verify the impact of the Risk Perception and Risk Reduction Behavior of eco-friendly Product according to the Knowledge of Synthetic Detergents. For this study, the questionnaire was administered to 433 college students in the Seoul and Gyeonggi, and Incheon areas. The data was analysed by SPSS 22.0 program. Risk perception of eco-friendly Product, consumer risk reduction of eco-friendly Product, and knowledge of synthetic detergents were examined through 5-point likert scale. 19-items for consumer risk perception of eco-friendly Product could be categorized into 6 factors and 22-items for consumer risk reduction of eco-friendly Product could be categorized into 4 factors. For consumer risk perception of eco-friendly Product, 6 factors were extracted: Psychosocial risk, fashion-ability risk, performance risk, economic risk, time convenience loss risk, future opportunity risk. For consumer risk reduction of eco-friendly Product, 4 factors were extracted: Interpersonal information source use, label read/ guarantee buying, marketer dominated information source use, brand loyalty. The results of this study were as follows: first, knowledge of synthetic detergents was positively corrected with psychosocial risk. Moreover, knowledge of synthetic detergents have positive effect on label read/ guarantee buying, marketer dominated information source use. Second, psychosocial risk was positively corrected with marketer dominated information source use. Fashion-ability risk, economic risk, and time convenience loss risk were positively corrected with Interpersonal information source use. Performance risk and economic risk were positively corrected with label read/ guarantee buying behavior. Future opportunity risk was positively corrected with brand loyalty. Third, psychosocial risk was value mediating variable between knowledge of synthetic detergents and marketer dominated information source use.

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A Qualitative Study on The Characteristic of Global Sourcing for Korean Casual Apparel Brand and The Role of Sourcing Department

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The fashion industry is going through radical change, and the industry itself needs to adopt from this altered environment. Many fashion companies start to focus on efficient sourcing due to various consumer demands and preference and their tendency to spend money on the market. In addition, the industry needs to emphasize the efficient sourcing and the management of all related suppliers in order to maximize the profit and streamline the delivering goods to the consumers more efficiently in highly competitive market around the globe.

This study has been conducted by qualitative method: targeting the specific company whose global sourcing has been successful helping their bottom line and interviewing with the seasoned industry six experts with 10 years of experience in domestic casual apparel. In order to describe the difference of each producing method and producing country more clearly, we only consider interviewees who experienced more than two types of producing method and producing country. Moreover, to observe what domestic apparel performing global sourcing, normally practice in actual field, we have selected two interviewees from companies, which have its sales volume over ten billion won to fifty billion won, fifty billion won to hundred billion won, and more than hundred billion won. The method of interviews in this study was informal one-on-one in-depth conversation with interviewees. The main purpose of this study is to learn how domestic casual apparel companies with heavy reliance on global sourcing produce the final products and their strategies dealing with diversified contractors from different countries. As the author goes along with this study, it will reveal how to initiate the global sourcing and different approaches on each region in highly globalized world. Findings can be applied to the current business model.

The results of this study are as follows:

First, it is revealed that most effective way of saving production cost is the in-sourcing method, which the company supplies materials by itself and produce by itself. However, most of the casual apparel producers are hesitant to follow this model due to high in-put producing cost at first stage and high supply cost. There are different ways of sourcing. According to this study, the common industry standard of outsourcing is buying garments

directly from suppliers. This way of outsourcing has been preferred by parties, suppliers and brands. CMT(CUT, MAKING AND TRIM), which means brand only supplies fabric to suppliers and supplier makes and supplies clothing to brand, is preferred by the brands, but the contractors do not favor the method. . Delivering all materials to suppliers and importing garments from supplier is a third method and it cannot be used commonly due to high production cost and difficult finding the adequate site for the factory with satisfaction of schedule and wage.

Second, it is shown that China becomes least preferable destination for sourcing due to rising wage and stringent government regulation. Many fashion industries are moving their sourcing to Vietnam and Indonesia because they have lower wage and stable source of supply without facing much hardships. Some companies are considering Bangladesh and Myanmar as the next emerging producers because of lower producing costs and even lower labor wage. However, spotty quality control and poor infrastructure will erase much of the profit in longer term.

Third, it is found that the main role of sourcing department of domestic casual brand can be defined as saving product cost, quality control, delivery management, management of selecting suppliers and solving confliction between partners.

The Role of Market Maven in the Social Commerce Marketplaces

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The marketplace of social commerce has been growing fast, thereby becoming highly competitive. With this circumstance, building and keeping the relationship with customers are extremely important since retaining loyal customers is much profitable in terms of sales and revenues and/or cost to service. From the relational marketing perspective, this study focus on how relational benefits influence relationship quality (e.g., satisfaction) and relational outcomes of repurchase intention and word of mouth in the social commerce marketplace. A number of previous studies have examined the relational benefits to offline or online environment, but limited to social commerce market. Gwinner, Gremler, and Bitner(1998) define relational benefits as the benefits customers received by maintaining a relationship with service providers from the consumer's perspective, and include confidence benefits, social benefits, and special treatment benefits. In the e-business environment, additional benefits, such as psychological benefits, shopping convenience benefits, informational benefits, and economical benefits were included (Chae, 2013; Ji, Kim, & Son, 2008; Suh & Ju, 2012). This study also examine moderation effects of market mavenism. Because market maven who has general information about diverse products, places, or price, and is likely to diffuse those information to others takes important role in the marketplace (Feick & Price, 1987), it would be beneficial to identify the effect of market mavenism on the relationship framework.

The survey questionnaire was modified based on the previous research (Chae, 2013; Feick & Price, 1987; Gwinner, Gremler, & Bitner, 1998; Ji, Kim, & Son, 2008; Kim & Rhee, 2005; Suh & Ju, 2012), measuring 7-point Likert type scales. Data were collected from social commerce users in their 20's to 40's through an internet survey company. A total of 515 data were analyzed. About 50.3% were male with the mean age of 33.3 years old. More than 86% were using social commerce at least one year, approximately 85% visited the social commerce site at least one or two times per week, and 61.6% of respondents purchase clothing item at social commerce market.

By using exploratory factor analysis, relational benefits was generated into four factors, confidence benefits, special treatment benefits, informational benefits, and convenience

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benefits. Psychological benefits was combined with confidence benefit, and social benefits was included in convenience benefits, explaining 70.28% of variances. Multiple regression analysis was used to identify the relational framework, and four relational benefits showed significant influences on satisfaction ($F=283.4$, adj. $R^2=.687$) and repurchase intention ($F=197.3$, adj. $R^2=.604$), whereas only confidence benefits and convenience benefits were significant on word of mouth ($F=195.1$, adj. $R^2=.602$). Based on Baron and Kenny's study (1986), mediation effect of satisfaction between relational benefits and relational outcomes was discovered, and satisfaction was the most important variable ($\beta=.47$) to predict repurchase intention, while confidence benefit ($\beta=.41$) showed higher explanation power than satisfaction ($\beta=.29$) to predict word of mouth. Also, the relationship among relational benefits, satisfaction, repurchase intention, and word of mouth showed differences according to the level of market mavenism. For maven group, confidence benefit was the most significant predictor for relational outcomes, but satisfaction, confidence benefit, and convenience benefits were significant for non-maven group.

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Classification and global market research of cloth diapers

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The infants' diaper market is releasing various products for cloth diaper consumers using environment friendly materials, materials harmless to human body, functional and hygienic materials, intelligent materials etc. with infants' delicate and sensitive skin and pro-environment perspective in consideration (Lee et al., 2011). Cloth diapers currently being distributed in the global market can be classified into diapers for absorption of excrements, such as large square diaper, pad type insert diaper, and peanut type diaper, and diapers for preventing the leakage of excrements such as waterproof pants type diaper and all-in-one diaper. However, information required for the optimized designing of diapers in accordance to shape, structure, and measurement is difficult to acquire. Also, all-in-one cloth diapers have diaper and cover integrated, resulting in a complex structure that cannot undergo structural changes through flexible combinations with other cloth diapers. Therefore, an optimized designing of all-in-one cloth diaper requires consideration from various perspectives. From the perspective of the infant, functions such as appropriate fit, ventilation, cloth pressure, thermo regulation, mobility etc. are required and from the perspective of the parents, functions such as convenience of changing, convenience of laundry, and prevention of excrement leakage are required (Kim & Kim, 1997; Lee et al., 2000). This study collected information on the shape, material, structure, and size of cloth diapers in the global commercial market as a fundamental research for the designing of the optimal all-in-one cloth diaper that can satisfy the needs of various consumers. Information on 55 different designs of diapers are gained from www.amazon.com internet sites by using the search keyword 'cloth diaper'. Style of diapers were limited only all-in-one type and have collected the design that did not overlap. The brands of collected product were Nora's nanscry (USA), LLB (USA), Bestbottom (USA), Bumworks (USA), BumGenius (USA), Charcoal Bamboo (USA), AlvaBaby (USA) and so on. Price range of only all-in-one was \$ 5 to \$ 12 and all-in-one plus the insert pad set has been sold to \$ 30 to \$ 60. Collected data are analyzed regarding information on shape classification, seam method, material of outer and inner layer, material of insert diaper,

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number of layers, and size. Analyzed data is processed to produce frequency and percentage using SPSS Statistics 20.0(IBM Software). In the case of items with inaccessible product information, it was processed as missing value.

The shape of researched cloth diapers can be classified into 5 types. A(n=49, 89.1%) have leg gusset attached to prevent leakage and have wrinkled shape using elastic material at the back and both legs. Design feature included the insertion of pad type diapers or their fixation to the uppermost layer using snaps. B(n=3, 5.5%) has elastic contraction design at the center inserted into both sides. C(n=1, 1.8%) have no structure to prevent leakage to the legs and D(n=1, 1.8%) have long square band type design for back fixation and size adjustment. E(n=1, 1.8%) have similar shape to A with pad type insert diapers attached. As for the seam, most use snaps(89.1%) with some using hook and loop(7.3%), or both snaps and hook and loop(3.6%). Most shopping malls do not explain the used material in detail. However, using the analysis of what data could be acquired, outer layer materials are used in order of waterproof polyester(38%), TPU(6%), and waterproof PUL(5%). Inner layer material is used in order of bamboo charcoal(30.8%), bamboo viscose rayon(23.1%), and cotton(15.4%). Materials such as micro fleece, nylon mesh, and polyester could also be found. Materials used for pad type insert diaper are micro fiber(53.8%), bamboo charcoal(23.1%), cotton, bamboo fiber, and polyester. Information regarding the absorption layer of pad type insert diaper is also not offered most of the time and the analyzable data showed 4 layer(40%), 5 layer(30%), and 3 layer(30%). Size is free for all products. Most products had adjustable sizes using many snaps or hook and loop, resulting in a single product without a size system. Overall, the shape, material and size of commercial cloth diapers are very limited. For the designing of optimal all-in-one cloth diaper, further studies on whether current commercial diaper size is appropriate is required, as well as structure, shape, and satisfaction rate.

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A study on green advertisement antecedent variables of brand image

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The purpose of this study is to investigate the effect of green advertisement recognition on brand image. This research was conducted by questionnaire method, in which the questionnaires were distributed to the consumers. The usable questionnaires were analyzed by descriptive statistics, Cronbach's alpha, factor analysis, and regression analysis.

The results of this study were as follows:

Respondents' demographic information were male (36%) and female (64%), single (57%) and married (43%), 20s (43%), 30s (27%), 40s (18%), and above 50s (12%). Most of them were college education (82%) background. Vocational statuses were student (32%), company employee (21%), professional (21%), housewife and etc. (22%). Factor analysis conducted with principle component analysis with orthogonal rotation and varimax rotation. Green advertising factor and brand image factor had quite good Internal validity. There were significant that the consumers' recognition of green advertising affects brand image positively. They had very high goodness of model fit in regression. That is, once consumers recognized green advertising of apparel brand, consumers had more positive images such as eco-friendly, socially contributed, future oriented, differentiated from other brand, reliable, and professional images.

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Embedding CSR into Supplier Selection Process

-Home Shopping Business-

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Corporate social responsibility (CSR) has become a critical issue for many businesses worldwide (Shin & Thai, 2015). As a member of the moral community, a business has a responsibility to meet the legal, ethical, and discretionary expectations of society (Carroll, 1979). In congruence with CSR, the triple bottom line (TBL) emphasizes the responsibility of a business within a society in terms of economic, social, and environmental sustainability (Székely & Knirsch, 2005). Supplier selection is a vital process in ensuring efficient supply chain management. The decision process for selecting a supplier is a challenge for managers, especially home shopping managers who deal with many suppliers. Compared to other countries where CSR is well established, such as the US and UK, the implementation of CSR in business management is in an early stage in South Korea; the importance of CSR has just begun to emerge (Soh, Kim, & Whang, 2014). With regard to CSR, both a buying manager's personal characteristics and a firm's management culture play important roles in managers' decision making when selecting new suppliers (Goebel, Reuter, Pibernik, & Sichtmann, 2012; Hemingway & Maclagan, 2004). The purpose of this study was to (a) explore home shopping buying managers' consideration of CSR in supplier selection criteria based on TBL (economic, social, and environmental sustainability), (b) investigate the management culture within home shopping businesses, and (c) examine home shopping buying managers' perceptions of their roles and understandings of CSR. This study was conducted using a mixed-method approach. For the first phase, Data were collected from 26 buying managers who currently work for a major home shopping business in Korea and engage in the supplier selection process. Before the initial data collection commenced, a pilot test was conducted with five buying managers. A paper-based questionnaire including scale ratings and open-ended questions was used. The scale rating measures included 10 supplier selection criteria with 30 items (Choi & Hartley, 1996; Goebel et al., 2012), management culture (e.g., ethical behavior of top management,

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incentives, implementation of a code of conduct, level of obedience to authority; Goebel et al., 2012), and the perceived importance of CSR. Four open-ended questions were incorporated into the survey questionnaire. Participants were asked to describe their role as buying manager, challenges they face during the supplier selection process, and their perceptions of corporate social responsibility. Using SPSS 23.0, descriptive statistics, the Cronbach's alpha coefficient, and exploratory factor analyses(EFA) were employed. Each EFA performed on the 15 major constructs revealed one factor and the Cronbach's alpha coefficients revealed a good internal consistency. To enhance data quality, in-depth interviews with five buying managers were further scheduled during the second phase of this study. For data analysis, the constant comparison method was adopted.

The mean age of participants was 34.7 years old and most were female (n=19, 73.1%). Participants' position in the business included junior (n=7), senior (n=10), and director (n=8). On average, these buying managers had been involved in the supplier selection process for about seven years. Participants worked in a wide variety of sectors, including apparel, beauty, home furnishing goods, food, and travel. Among the three dimensions of TBL, economic sustainability was the priority consideration for selecting new suppliers, while both social and environmental sustainability were relatively less considered by buying managers. Overall, consistency was the most important consideration (M=6.14, SD=.62) when buying managers select new suppliers, followed by reliability (M=5.79, SD=.64), relationship (M=5.55, SD=.62), service (M=5.50, SD=.68), flexibility (M=5.43, SD=.84), technological capability (M=5.15, SD=.96), finance (M=4.95, SD=.80), price (M=4.32, SD=1.35), environmental sustainability (M=4.24, SD=1.42), and social sustainability (M=4.11, SD=1.36). Regarding the management culture related to CSR, participants' perceptions of ethical behavior of top management differed by their position. The mean scores reported by those in higher positions were higher than those reported by participants in lower positions (M_{junior}=2.94, SD=1.38; M_{senior}=4.30, SD=.96; M_{director}=5.09, SD=1.32). In contrast, buying managers in a junior position expressed the highest pressure on obedience to authority (M_{junior}=5.04, SD=.90; M_{senior}=4.60, SD=1.19; M_{director}=4.83, SD=.80). All five interviewees acknowledged the lack of an overall understanding of and perceptions toward CSR. Implementing CSR practices in businesses is critical for the long-term survival and profitability of all businesses. The results of this study exploring how home shopping businesses in Korea are incorporating CSR into their management emphasize the need for guidance to promote CSR in Korea.

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The Effects of the Type of Apparel Private Brand and Advertising Appeal Type on Consumer's Purchasing Attitude in the Discount Store

-focused on Print Advertising-

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1. PURPOSE OF THE STUDY

Recently, Discount stores being stagnant on each peak of growth are concentrating respective marketing effects and investment in fashion business to compensate depressed sales volume. Thereby, the sales amount and market of PB apparels of discount stores have been growing and the more effective and differentiated marketing strategy is needed accordingly. Thus, this study was designed to delve into the business sector of PB apparel to examine effects of each type of PB apparel and advertising appeal type on consumer's purchasing attitude.

2. METHODS

The two-way factorial design of 2 respective populations (2 Types of PB Apparel (PB vs. NPB) and 2 Types of Advertising Appeal (Appeal to Reason vs. Appeal to Emotion) was employed for the analysis. And 273 females aged from 10 ~ 50 years old living in Seoul and Gyeonggi-do province were participated in the study through questionnaires conducted from April 27th to May 13th, 2015. Collected data were analyzed through two-way ANOVA and simple main effect analysis furnished by the SPSS 18.0 statistical package. also, the study verify confidence for subordination variable.

3. RESULT

First, the types of PB apparel and advertising appeal carried on advertising leaflets of discount stores revealed significant effects on consumer's quality perception, favorability, and purchase intention as the following. Consumers preferred the product of 'Daiz' brand of discount store to other products of independent PB when it was released by an

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affiliation with the famous NB, 'PROSPECS'. In respect of the types of advertisement, the type of advertising appealed to reason appeared to have invoked higher consumer's purchasing attitude regardless of each advertisement of 'Daiz' alone or that affiliated with famous NB, 'PROSPECS'.

Second, the effects of types of PB apparel carried on advertisement leaflets of discount stores upon quality perception and favorability of consumers appeared significant depending on the types of advertising appeal. However, in respect of consumer purchase intention, neither the types of PB apparel nor those of advertising appeal showed significant difference. That is, in the case of PB apparel (Daiz) which was developed by discount store, the advertising appealed to reason rendered higher quality perception and favorable response of consumers than the advertising appealed to emotion. For the case of NPB apparel, the types of advertising appeal did not exhibited significant differences in favorable response and purchase intention of consumers. But, regarding the quality perception of consumers for NPB product affiliated with famous NB (PROSPECS), the advertising appealed to reason appeared to have brought higher quality perception than that appealed to emotion.

4. DISCUSSION

In this study, the effects of types of PB apparel and advertising appeal type on consumers' purchasing attitude were empirically identified, and this was estimated to be significant in that it has expanded the field of research on Private Brand of apparels. Thus, as the potential of such factors was found to have effect promoting consumer's purchasing attribute, the necessity of further exploration on diverse variables is suggested.

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Effects of Relational Capital on Fashion Retailer's Value

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Over the past decades, the globalization of markets, short product life cycles, and fast-changing customer demand have driven fashion retailing firms to focus more on knowledge and resources (Keller, 2008). It is not sufficient for fashion retailers to know the perceptions that customers have about their firms; it is also necessary for them to know the factors causing these perceptions so that fashion retailers can control these aspects efficiently and effectively (de Leaniz & del Bosque, 2013). Although we know that company resources result in competitive advantages, which bring profits to firms, only a few empirical studies have investigated the direct effects on customer value that these resources such as intellectual capital can bring (Chiu, 2013). Specifically, relational capital (RC), as a dimension of intellectual capital is crucial for success as it can lead to the creation of positive consumer perception of a fashion retail firm and the value it offers. RC is an organization's efforts to establish, maintain, and develop external relationships with customers (Hitt et al., 2011) and is determined by the firm's relationships with its customers (Duffy, 2000; Edvinsson & Malone, 1997; van Buren, 1999). If a firm is more customer-oriented, customers will have positive feeling toward a firm. Such positive and strong relationships will contribute to trust and increased customer loyalty. Therefore, the purpose of this study is to identify underlying dimensions of RC and empirically examine its relationship with customer value.

A total of 286 student sample at a Southwestern University in the U.S. completed self-administered questionnaires asking RC(18 items), customer value(seven items), and demographic information with a 7 point Likert scale. Overall, the survey collected data on customers' perception of the value which is created by a retail store. This study used the U.S. fashion retailers as the research context to understand how fashion retailers' resources were related to customer value in the fashion retail stores. An exploratory factor analysis(EFA), confirmatory factor analysis(CFA), and structural equation modeling test(SEM) using AMOS 23.0 were conducted to identify the underlying dimensions of each construct and to test proposed hypotheses.

The majority of respondents were female(73%), and approximately 89% were between

the ages of 18 and 25 years. The results of EFA identified three underlying constructs of RC as customer affection ($\alpha=0.965$, 59.663% of variance) which a customer identifies with a retail store and views the relationship as a bond or connection that produces positive feelings, customer orientation ($\alpha=0.918$, 12.788% of variance) which a customer believes that a certain retail store cares about customers and builds strong relationship with customers, and customer loyalty ($\alpha=0.914$, 8.517% of variance) which refers to the tendency to be loyal to a certain retail store. CFA confirmed that RC was consisted of three dimensions with 14 items ($\chi^2_{(72)}=195.600$, $p=0.000$; $\chi^2/df=2.717$; NFI=0.952; CFI=0.969; RMSEA =0.078).

Prior to examining the hypothesized relationships, CFA validated the measurement model. The results of the measurement testing indicated the acceptable fitness of measures for constructs ($\chi^2_{(177)}=422.355$, $p=0.000$, NFI of 0.881, CFI of 0.932, and RMSEA of 0.047). Subsequently, construct validity, convergent validity, composite reliability (ranging from 0.755 to 0.961), and discriminant validity of the measurement model were obtained.

A SEM was conducted to test the hypothesized model. The result displayed the acceptable model fit ($\chi^2_{(179)}=479.185$, $p=0.000$; $\chi^2/df=2.677$; NFI=0.919; CFI=0.948; RMSEA=0.077). It also revealed that customer affection ($\beta=0.457^{***}$, $t=5.082$) and customer orientation ($\beta=0.165^*$, $t=2.291$) were positively related to perceived transaction value while customer loyalty did not influence perceived transaction value. Customer affection ($\beta=0.513^{***}$, $t=6.968$) and customer orientation ($\beta=0.199^{**}$, $t=3.227$) also positively affected perceived acquisition value however, customer loyalty had no impact on perceived acquisition value.

The success of a retailer is connected, in part, to its available resources and to the ways in which these resources are utilized (Wernerfelt, 1984). Conceptually, this study argues that a fashion retailer's relational capital can effectively create value for its customers, and this value, in turn, can be a source of competitive advantages. Overall, the results of this study suggest that the commitment to improving relational capabilities with customers is very critical for retailers to be competitive in today's ever changing fashion business. Retailers must build strong, solid, and lasting relationship with customers while they continually improve the quality of their products and services. Because customers are more satisfied with a firm that uses a customer-centric approach to build long-lasting relationships. Despite the increased focus on retail brand management, limited attention has been paid to the concept of intellectual capital in previous studies.

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The Effects on Consumers' Attitude and Intention to use of O2O Fashion Mobile Commerce

-Focused on the characteristics of consumers and O2O mobile commerce-

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Online-to-offline commerce (O2O) is a business strategy that draws potential customers from online channels to physical stores. O2O commerce identifies customers in the online space (e.g., through emails, internet advertising, mobile advertising) and then uses a variety of tools and approaches to entice the customer to leave the online space and go to brick-and-mortar stores. O2O commerce combines great customer experience and excellent price competitiveness from offline and online commerce. Despite the steady rise of e-commerce since the 1990s, e-commerce sales accounted for about eight percent of US retail sales (<https://www.census.gov>) and consumers still stroll through malls and shops. Many global E-commerce brands are investing in ways to bring about that same emotional connection offline (Hickey, 2016; Rampell, 2010).

This study examined consumers' attitude toward and use intention of the O2O mobile commerce. It sought to investigate consumers' enjoyment, perceived risks, expected values, and innovativeness factors and the effects of the convenience and personalization of O2O mobile commerce on its perceived usefulness and ease of use and further on consumers' attitudes and intention to use O2O mobile commerce.

A research model was developed using the Technology Acceptance Model (TAM) and a questionnaire was developed based on the previous research. A mobile survey was conducted through smartphone messengers and SNSs targeting male and female college students in their 20s who are living in Seoul Metropolitan Area. Of 195 responses, a total of 192 questionnaire responses excluding unreliable ones were used in the analysis.

Of the 192 respondents (male-80, female-112), 139 (72.4%) respondents had known about O2O mobile commerce, and 125 (65.1%) had used it. "Getting discount rate" topped the list of the purposes of using O2O mobile commerce followed by "getting the information on events and promotion" and "the information pertaining to new products". It was also found that "KakaoTalk Plus *Chingoo* (friend)" was used the most by the respondents followed by "SYRUP WALLET" and "YAP" among the O2O mobile commerce

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service providers.

The results of the multiple regression analysis are as follows: 1) The enjoyment, one of the consumer variables, ($\beta = .280$, $p < .001$) and the expected values ($\beta = .187$, $p < .001$) were found to have a significant positive (+) effect on the usefulness of the O2O mobile commerce while the innovativeness and the perceived dangers were found not to have a significant effect on it; 2) As regards the perceived ease of use of the O2O mobile commerce, the enjoyment, one of the consumer variables, ($\beta = .384$, $p < .001$) and the expected values ($\beta = .177$, $p < .05$) were found to have a significant positive (+) effect on the usefulness of the O2O mobile commerce while the innovativeness and the perceived dangers were found not to have a significant effect on the perceived ease of use; 3) The convenience, one of the characteristics of the mobile commerce, ($\beta = .348$, $p < .001$) was found to have a significant positive (+) effect on the usefulness of the O2O mobile commerce felt by consumers, but the personalization was found not to have a significant effect on it; 4) The convenience, one of the characteristics of the mobile commerce, ($\beta = .267$, $p < .001$) was found to have a significant positive (+) effect on the ease of use of the O2O mobile commerce perceived by consumers, but the personalization was found not to have a significant effect on it; 5) The perceived ease of use ($\beta = .619$, $p < .001$) was found to have a positive (+) effect on the perceived usefulness of the O2O mobile commerce; 6) The perceived usefulness ($\beta = .338$, $p < .001$) and the perceived ease of use ($\beta = .332$, $p < .001$) of the O2O mobile commerce were all found to have a positive effect on consumers' attitudes toward the O2O mobile commerce; and 7) Consumers' attitudes toward the O2O mobile commerce ($\beta = .829$, $p < .001$) was found to have a positive (+) effect on their use intention.

Among the consumer characteristics, only the enjoyment and the expected values were found to make consumers feel that the O2O mobile commerce is useful. In addition, the innovativeness and the perceived dangers were found not to have a significant effect on the perceived ease of use. On the contrary, it is thought that the usefulness of the O2O mobile commerce has little to do with consumers' innovativeness and that the invasion of privacy and the fear of the social perspective under the category of the perceived dangers of using it are not the factors great enough to make changes in consumers' perception that it is useful. Hence, as consumers feel the O2O mobile commerce is more enjoyable and get greater values from it, they think it more useful, companies need to establish marketing strategies to put more emphasis on the enjoyment and expected values felt by the consumers who use the O2O mobile commerce, by offering them convenient, practical, and useful benefits.

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Proposal and Selection of Designs to Make Uniforms

-focusing on actual cases of school staffs uniforms-

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nudesign

1. Purpose

It is considered that wearing a uniform performs a very much significant role not only both functionally and aesthetically but also expressively. When a person wears a uniform, a group which he belongs to is represented by the person and since a uniform comes in an identical design, it improves job performance of a member. In addition, colors should be proposed in association with how CI will be used which would help a uniform design match an image of a group (company), and how a uniform of this group would go together with these of other groups in the same place needs to be considered when fabrics, colors and styles are offered. In the light of that, as for a uniform design proposal, this study aims to come up with uniforms of different administration and maintenance workers based on concepts by grouping the uniforms.

2. Method

This is an actual case of design selection to make a working uniform of an administration and maintenance worker prior to an opening of a target school. In order to learn the target school's CI and principles and to develop a design of a facility maintenance worker's working uniform, the study consult with a person in charge at school and improved understanding on a worker's tasks, labor intensity and working environment through a preliminary investigation. Working uniforms in diverse designs were offered and they were divided into groups depending on two concepts. A proposal is eventually presented in the process of design illustration.

3. Results and Discussion

1) Concepts and Functions of Uniform

Uniforms carry social meanings which are more important than these of general clothes and while they are worn by one to smoothly perform tasks, they discriminate a group from others, make a wearer feel how he belongs to a group and express one's identity, occupational consciousness and images of companies and organizations as well.

2) Roles of Uniforms and Applications of CI

No one should simply regard uniforms decided by workplaces as working clothes. It

cannot be denied that uniforms are basically worn to perform duties but still, other than that, uniforms also work for a strategic purpose which is called CI (Corporate Identity), a promotional strategy of a company to improve the company's image. As for a purpose of CI, it is about how to establish a company's image which would make inside people act to the company's strategies.

3) Uniform Design Factors

When it comes to forms, they should focus on how to make functions harmonize with styles (practical design) which would, in the end, help job characteristics and work efficiency. Regarding fabrics, functionality should come first before anything, and fabrics of successful anti-fouling, durability, hygroscopic property, intensity and washability are considered effective. As for colors, visual communication is a priority and therefore, color images should blend in with purposes and styles of uniforms.

4) Uniform Selection Process

As for a uniform selection process, a uniform request is received first and then, a preliminary survey is conducted. Concepts are determined and a presentation is delivered. After a design is revised, a sample is produced to be introduced at a test. The design is approved and production begins. Uniforms are delivered and a customer service is carried out when necessary.

4. Conclusion

Various uniforms of workers at the target school were introduced and after revision work, the study selected designs from Concept 1. As for uniform development, due to second suggestions and others in the process of selection, only these uniforms for facility staffs, cleaning ladies, cooks, teachers and others were selected, and working clothes for workers in minority groups were excluded. Proposing concepts by grouping them turned out to secure the harmony of many different designs with each other, represent and preserve CI of the organization which definitely differentiated the organization from others. Add to that, an image of the school uniform and another image of the school as the best educational institution were successfully recognized. In terms of uniform design in the future, this study believes that it will vary, be specialized and be different from other designs which will improve images of companies even more successfully as uniform design corresponds to demands of a society.

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A study on antecedent variables of eco-friendly apparel purchase intention

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Nowadays, eco-friendly consumer buying behavior has been emerged. Eco-friendly apparel product indicates non-harmfully produced to humankind with environmental protection. The purpose of this study is to investigate the effect of eco-friendly value on purchasing intention of eco-friendly apparel. This research was conducted by questionnaire method, in which the questionnaires were distributed to the consumers. The usable questionnaires were analyzed by descriptive statistics, Cronbach's alpha, factor analysis, and regression analysis.

The results of this study were as follows:

Respondents' demographic information were male (50%) and female (50%), 10-20s (42%), 30s (50%), and over 40s (8%). Most of them were college education (43%) background. Vocational statuses were student (19%), office job (18%), professional (26%), production job (11%), service job (10%), housewife (3%), and etc. (14%). Social aspect of eco-friendly value factor, personal aspect of eco-friendly value factor, and purchasing intention factor had quite good Internal validity. There were significant that the eco-friendly value such as personal aspect and social aspect in descending order affects eco-friendly apparel purchasing intention positively. It had high goodness of model fit in regression. This result indicates that consumer still considers personal aspect more seriously and significantly than social aspect. In spite that, consumer takes social aspect of eco-friendly value enough to have intention to buy eco-friendly apparel.

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Funology Characteristics of High Concept in the Contemporary Fashion

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In a world of material abundance, people's aspiration for spiritual values has been changing the society to be more oriented towards 'concept' and 'emotions'. Consequently, we are witnessing the dawn of a high concept era where the creative and ingenious minds produce intangible values. Furthermore, more people are involved in activities to seek basic emotional values such as fun, pleasure and excitement to relieve the stress and the pressure from the rapidly changing society. As a result of such emotion centered consumer trend, which involves expressing humor and individuality as well as pursuing fun and excitement, 'fun' appeared as a significant cultural code of the 21st century giving birth to a concept of 'funology'.

The important ideas of high concept includes: fusion of unrelated objects; combination of distinctively different objects; encounter of totally different genres; unexpected outcome of rather odd combinations. Daniel Pink presented six specific high concept aptitudes that he feels are essential in the new era. The six senses include: design, story, symphony, empathy, play, and meaning. This study therefore characterizes funology as a form of fun that realizes new concept of fun satisfying the six essential high concept aptitudes.

As high-concept is a new concept that involves evoking emotions and empathy from the consumers based on intangible differentiation that has been neglected by the conventional enterprises, there is a need to examine funology through high-concept as an important part of capabilities to create and implement new ideas at a time when fun has become a significant factor. This study aims to identify the special features of high-concept funology demonstrated in the contemporary fashion by exploring funology in an era of high-concept, the emotional paradigm of the 21st century, with the purpose of contributing to creating new emotional values in the future fashion business.

The research method involves exploring previous literature related to the high-concept funology displayed in today's fashion plus studying on the past website articles on design and culture as well as exploring related case studies. The research period covers 10 years from 2006 when the concept of 'high-concept' first appeared in Daniel Pink's book A

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Whole New Mind; fashion related resources of the period (2006-2016) are collected and analyzed after verification by five fashion professionals of FGI.

The high-concept funology can be characterized as follows: First, 'virtual reality' where the virtual and the real world align with each other to realize what had only been imaginable, creates a new environmental changes transcending reality as the boundaries between imagination and reality are either destroyed or become ambiguous. Second, there has been changes in consumption pattern, shifting from function or performance centered consumption to image consumption seeking emotional value satisfaction; such 'form transformability', an integration of ideas totally unrelated to the product has potential for a market in which people are prone to seek naive and fun products other than serious and grim ones. Third, 'integration of unrelated fields' that demonstrates a distinctive lifestyle with the integration of those genres least expected to be encountered creates a new emotional value destroying boundaries between different fields and ideas. Fourth, 'experience playfulness' which involves stimulating five senses in a space of an entertainment setting to engage people in interactive activities and experiences enhancing brand intimacy as a result of enhanced mutual relations.

Today's fashion industry is producing new concepts based on the high-concept aptitudes according to the lifestyles of the consumers who spend money to satisfy their emotions and images. Such trend contributed to strengthening commitment of the loyal customers with the attempts made by the fashion industry to collect skills and techniques used today to transform their products into something that fit into the new and fascinating concept, using consumers' emotional needs to their advantage.

The high-concept funology in today's fashion can be explained as follows: First, 'virtual reality' often seen in fashion shows and fashion commercials enhances consumers' participation and involvement with blurred boundaries between the real and the virtual world. With the expansion of various forms of real time communication with the consumers, positive images of the brand are being projected to the consumers. Second, 'form transformability' which is often found in the fashion products promotes customers' purchase desire as they are able to present themselves in a more versatile ways in the fashion product that is changeable to various designs. Third, 'integration of different fields' easily found in various fashion goods engaging consumers in a mutual interaction under an entertaining setting with the product that is made to satisfy their needs attuned to their digital lifestyle. Fourth, 'experience playfulness', mainly recognized in the fashion stores and the commercials characterized by its interactive playfulness that encourages consumers' participation through entertainment contents, promotes brand intimacy eventually adding more value to its name.

This study has been initiated by the aptitude of high-concept that provokes the sense of empathy and bondage through emotions bringing pleasure and heartfelt emotions to the

today's people. As the high-concept funology which pursues fun and pleasure, is expected to have a continuous impact on the future fashion industry as a driving force that will serve to realize a new concept of intangible difference, it can be concluded that analyzing the special features of funology from the present perspective using high-concept has its significance in terms of creating emotional value of today's fashion.

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A Study on the Color Characteristics of the Brand FENDI

Fur Fashion Design

- Focused on the Collection Since 2000 -

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Fur designs, which are also used in props, use various designs and colors in order to keep pace with the modern society.

FENDI has constantly made use of fur clothing since the 1965 Pret-a-porter collection. While the fur clothing before the 2000s had a color of natural fur, those using diverse colors have been recently introduced during the F/W collection.

In order to analyze this new image of FENDI, I take past researches on color characteristics as references. Colors are classified via tone classification in PCCS(Practical Color Coordinate System) which divides the color analytics and color effects.

The research finds that achromatic color is more used than chromatic color, and that dark color is used after vivid color. Among achromatic color, black is used more than gray. The specific content is as follows.

Firstly, vivid colors -PB, G, R, Y, B, RP, YR, P, BG- is more often used in order. In terms of tone, vivid tone and dull tone are often used, while mix and matching everyday dresses and fur by harmonizing contrary colors has been made possible. In regard of color analytics, the combination of 4 colors is most often used(16, 28%), while 3 colors(14, 24%), 2 colors(10, 18%) follows. The combination of 4 colors appears to take place by using black, white, and red and then adding either blue, yellow, green, or gray. By using bright complementary colors, one can produce a hybrid style which has a dynamic, ethnic, light, casual, and sporty image.

Secondly, R, YR, Y, are the most often used among the dark color of chromatic in order, which is the natural color of beige, ivory, brown, and khaki. In regard of tone, dark is the most often used, displaying a classic style by combining black and producing a heavy, hard, and decent image. In terms of color analytics, the combination of 3 colors and single color are the most often used(20, 40%), followed by the combination of 2 colors(9, 18%) and 4 colors(1, 2%). One can notice a tone in tone and also a mono tone, maintaining a constant image with mild, soft, elegant, and natural sense. Basically, these

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take use of brown colors and fall under dark colors, having a nostalgic style.

Thirdly, among achromatic colors, black N1, white N9.5, gray N9-N2 are the most often used in order, which are high- and low-contrast pictures. Fur clothing with one color(24, 65%), 2 colors(9, 24%), 3 colors(4, 11%) are respectively the most often used. Mono-colored fur clothing is black, the most heavy, classic, calm and decent among all colors and adding a masculine image. The achromatic color used with black gives a modern image. In addition, one can notice the high contrast in combinations using more than 2 colors, which belongs to tone on tone. Fur clothing using black, white, or blue gives an urban and modern image with an epicene and androgynous style.

Fourthly, it is confirmed by the analysis of color in the case of FENDI that achromatic colors are more often used than chromatic colors. One can also see that, after 2010, vivid tones are the most often employed among chromatic colors. This makes it possible that people of all ages use fur clothing with hybrid style. Among chromatic colors, dark tone has the color of natural fur which gives an elegant and luxurious atmosphere and nostalgic style. In addition, it is proved that the use of achromatic colors gives the image of an urban woman with a decent and androgynous style.

Therefore, this research confirms that FENDI has been showing a different style from before 2010 by using a various range of color giving birth to a style which a wide range of people can wear.

As this research focuses on FENDI collection after 2010, it is not expected to generalize the characteristics of fur fashion design colors. Therefore, the study leaves it open for future researches to examine colors in fur fashion designs of more brands. This research is expected to help understand characteristics of colors in FENDI fur fashion designs and serve as foundational resource for using colors in fur fashion designs.

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A Study on the Design Changes and the Acceptance of Identity on Luxury Brand Bags

- Focusing on the Fashion Collections of Louis Vuitton, Gucci, and Chanel -

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A luxury brand bag is a medium to symbolize brand identity and plays a role in enhancing brand value. A typical example is a designer signature bag such as Hermes Kelly Bag which symbolizes Grace Kelly, the Queen of Monaco, Birkin Bag which was made for Jane Birkin, an English actress, and Lady Dior Bag which was named after Diana Spencer, the Crown Princess of Great Britain who used the bag regularly. These luxury brand bags have been loved by fashionists who take much of their sensibility as well as the specific upper classes.

The purpose of this study is to analyze the design changes and acceptance of identity of luxury brand bags and examine the design features that succeed to the value of a luxury brand bag. The subjects of the study focused on Louis Vuitton, Gucci, and Chanel bags which were always included in top five brands based on the rank selected as high value luxury brands for recent several years. Photos were collected from www.vogue.co.uk based on the prêt-à-porter collections from S/S 2007 collection to S/S 2016 collection. Finally 1,087 photos which could analyze design were sampled. The study methodology was to analyze the kinds, shapes, colors, materials, and ornament of subject bags based on previous studies. The kinds of bags included grip bag, tote bag, clutch bag, shoulder bag, evening bag, cocktail bag, attaché case, notebook bag, suitcase, vanity bag, golf bag, tennis bag, beach bag, and Boston bag. Shapes included square, cylinder, round, triangle, trapezoid, sack, and polygon. Colors were divided into 10 colors of the Munsell Color Order System and achromatic color(Wh, Gy, Bk, and transparent color). Materials were divided into materials used(leather, patent, fur, PVC, beads, cotton, plastic, fabric, and others) and patterns(plain and pattern). Patterns were classified into natural, geometric,

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symbol, and abstract patterns. ornaments were classified into metal, plain, handcraft, and complex ornaments. The results of the study were summarized as follows.

First, the most common kind of bags was a tote bag in Louis Vuitton(38.5%) and a shoulder bag in Gucci, Chanel(37.9% and 39.5% respectively). The most common form of bags was square(Louis Vuitton, 72.0%, Gucci, 72.8%, and Chanel, 75.1%). The most common color of bags was YR(18.4%) and Bk(17.1%) in Louis Vuitton and Bk in Gucci and Chanel(24.3% and 22.2%, respectively). The most common materials were patent in Louis Vuitton(41.1%) and leather in

Gucci, Chanel(62.6% and 31.0%, respectively). The most common pattern was logo in Louis Vuitton(40.7%) and plain in Gucci and Chanel(74.8% and 56.0%, respectively). The most common ornament was metal in Louis Vuitton and Gucci(29.2% and 66.0%, respectively) and complex in Chanel(37.9%).

Second, for the formative characteristics of Louis Vuitton, the common bag was a tote bag from 2007 to 2014, a shoulder bag in 2015, and a grip bag in 2016. The common form was square. The common color was YR until 2013 and Bk from 2014. The common materials were leather until 2012 and patent from 2013. The common pattern was logo until 2011 and plain from 2012. The common ornament was metal until 2013, plain in 2014, and handcraft from 2015. For the formative characteristics of Gucci, the common bag was a shoulder bag from 2007 to 2015 and a grip bag in 2016. The common form was square. The common color was Bk until 2013, R or RP in 2014, YR in 2016, and Gy in 2016. The common materials were leather until 2012 and patent from 2013. The common pattern was plain until 2015 and GRG strap or logo in 2016. The common ornament was metal for signature closure in the whole period. For the formative characteristics of Chanel, the common bag was a shoulder bag but the frequency of a cocktail bag became high in 2012 and 2014. The common form was square. The common color was achromatic color such as Gy or Bk in the whole period. The common materials were patent until 2012, leather from 2013 to 2015, and fabric in 2016. The common pattern was plain until 2014 and stripe from 2015. The common ornament was complex until 2012, handcraft from 2013 to 2015, and metal in 2016.

Based on the findings, in Louis Vuitton, the form of a tote bag was generally high such as Speedy Bag, a representative signature bag. Formative changes were added in the aspect of ornament or color to enhance brand identity. In particular, it was remarkable to use handcraft and metal ornament rather than plain ornament. It may be an attempt to reflect changes in modern girls' sensibility. In Gucci, GRG strap and signature closure were continuously used to show brand identity. Recently, a logo pattern has been frequently used. However, unlike the past when the logo pattern was singly used, artistry was added such as the mixture of colorful flower. In Chanel, materials were changed from leather to patent and tweed but design succeeded in a quilting bag.

The results of the study will contribute to brand differentiation strategy necessary for fashion bag launching, enhancing brand identity, and renewal for new market which targets new consumers.

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Transcontinental Fashion Crossroads between the US and Korea in the 20th Century

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Women's fashion reflects the Zeitgeist of the 20th century (the spirit of the times), in particular as related to changes in women's social roles and status. Especially as the Korean society had evolved from a preindustrial to modern industrial society, women's fashion has always reflected changes in women's status and roles in society as well as played a key role in the history of women's liberation movement and participation in political activities. This research demonstrates how American culture had influenced the dramatic and dynamic changes in women's fashion in Korea during the 20th century. The first United States expedition to Korea (the Shinmiyangyo) took place in 1871; a trade treaty between Korea and the United States was negotiated in 1882; with this treaty agreement, mutual friendship and extraterritorial rights for American citizens in Korea have been established.

The first American Protestant medical missionary and a diplomat to Korea was Horace Newton Allen in 1884. The early American missionaries brought changes to the ancient Korea (the Choson Dynasty) especially in women's education. They founded schools and universities for young Korean women in the early 1900s. During this early industrialization period (in the late Choson Dynasty), women's fashion in Korea had been largely influenced by Westerners from the US and its influences had persisted after the Korean War in the 1950s through the 1990s largely due to the close military alliance between the US and Korea. The purpose of research is to investigate similarities in fashion trends between the US and Korea and to examine how US women's fashion trickled down to Korean women's fashion in the 20th century.

Adoption of Western Dress

"Ewha Hakdang" was the first women's educational institution founded by Mary Scranton who was the first Women's Foreign Missionary Society representative to Korea in 1886. Early US missionaries established churches, Sunday Schools, hospitals, etc. to provide education to children especially to women who back in the 1880's Korean society, were not even recognized with their own names, only as someone's daughter, sister, or mother.

Emergence of Modern Girls ("Shnyoja" 신여성)

During the Colonial Korea era (1910 – 1945), even though Korean women's education and social activities were extremely restricted, a few women of the upper class pursued their education abroad such as in the United States or Japan. They were called the "New Women". The New Women became a social icon showing a new female identity of modernism. They supported feminism and actively protested for marital institution in the early 20th century. They argued for a more functional and practical outfit for Korean women to improve their hygiene, health, and self-image.

American Pop Music through American Forces Korea Network (AFKN)

After the Korean War, a large number of U.S. troops stationed in Korea and American pop music was introduced to Korean society. Famous US singers such as Nat King Cole, Marilyn Monroe, and Louis Armstrong held shows in Korea for the U.S. Army. In 1957, the U.S. troops began their radio service, American Forces Korea Network, and in 1959, television service followed. Open auditions were also held to recruit musicians to perform at the U.S. army clubs. Since Korea was impoverished after the Korean War, skilled Korean singers regarded performing for the U.S. troops as a good means to earn money. The shows at the U.S. army clubs became so popular. The performance at the U.S. army clubs provided an opportunity for Korean artists to gain exposure to Western pop music like country, rhythm and blues, and rock 'n' roll.

American Image through Hollywood

Through the modern American culture depicted in Hollywood movies, the new industrialism arrived in Korea during the 1960s and 70s. Hollywood movies became big hits drawing hundreds of people to the theaters in major cities in Korea including "A Street Car Named Desire", "The Godfather", "Bugsy", "Breakfast at Tiffany's", "Waterloo Bridge", "Giant", "Sabrina", "Casablanca", "The King and I", "Roman Holiday", etc. In addition, American First Lady, Jacqueline Kennedy's formal look, called the "Jackie" style and Hollywood movie star, Audrey Hepburn's elegant style, called the "Hepburn" style became style icons and adopted by many women in Korea.

Working Girl fashion shown in American television series

During the 1980s, American television series were popular in Korea including "Charlie's Angels", "The Bionic Women", "The Six Million Dollar Men", "Wonder women", "Heart to Heart", and etc. Most heroines in these TV series were independent and professional career women who were highly admired by Korean young women. The professional looks worn by actresses were androgynous and unisex looks, sophisticated looks, and power shoulder styles, which became very popular among Korean young career women and college

students.

The results of this research suggest that the two countries' fashion shared similar trends and the trickle-down theory can be applied to explain how the US fashion styles had spread down to young fashionable women. Further research is called for to look at fashion interactions across different countries in the contemporary globalized world.

The format type and communication style of fashion film

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Modern fashion film enables an efficient delivery of brands' story to satisfy consumers' inner life and sensitivity, correspondingly goes beyond the boundary of time and place to communicate with consumers. Fashion film is highly appreciated not just in its commercial purpose but also in artistic value, and it helps to increase brand influence as a cultural trend by conveying brand value. Although fashion film is mostly created to promote brands and products, the focus of the previous studies has been limited to fashion film's artistic value. Thus, this study is designed to analyze the format type and communication style of fashion film from the perspective of promotion and advertisement.

As for the method of analysis, reference research and case study were used. The object of this study is fashion brand which ensures fluent and continuous communication with consumers by directly offering video contents through their official websites and YouTube channel. Specifically, fashion films made by 7 brands were selected based on the highest number of uploaded fashion film videos, views, subscribers – Chanel, Dior, Fendi, Gucci, Louis Vuitton, Prada, and H&M. The study analyzed their 30 fashion films which have been made over the last nine years between 2007 and 2016 when the condition was created for an uncomplicated production & distribution of fashion film due to the launch of YouTube. The selected fashion films were also verified by five professionals in the fashion industry. This study does not cover mid to full-length films running for 40 minutes or longer which have to be viewed at theater or through DVD, and instead focuses on short-length films which are created to promote & advertise products in a short period regardless of time and place.

In this study, format type of fashion films is categorized to movie type, video clip type, animation type, and music video type by how the story of fashion film is structured.

Movie type of fashion films are classified as films that convey story through lines and provide interesting element as well as artistic value. A Movie delivers story through acting and lines of actors; the lines are most direct and clear way to deliver the story to audience.

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Video clip type films consist of intriguing sections in a short-length film. The growth of mobile industry and free video-sharing service like YouTube enabled people to watch video clips anytime, anyplace, anywhere. This changes had led fashion brands to communicate actively and effectively with consumers through video clips.

Animation type films deliver message through virtualized world and created character. Unlike reality, animation can create any backgrounds and characters that perfectly carries brand's value and concept.

Music video type of fashion films use music video's technique with music. Music video techniques such as rapid cutting, inter-cutting, dissolve, and superimposition are used to increase consumer's interest.

Communication style of fashion film is divided into direct expression type, metaphorical type, and documentary type by expression method of product and brand.

In direct expression type, collection of clothes and accessories are worn or directly exposed in fashion film. Fashion films promote their products in effective and expressive way by exposing directly or developing a story around a products.

Metaphorical expression type of films visually deliver image of brand and product. Most of perfume advertisements uses metaphorical expressions because a scent of perfume is difficult to deliver, but the films can convey the appealing image that consumers can get through perfume.

Documentary type delivers brand story and history based on facts. Typically documentaries are far from commercial profit but fashion brands continue to create documentary films. The reason is it can increase a positive image of brand and promote brand values.

Fashion film transcends the boundary of picture and image and embraces incorporating of video, music and fashion as well as its use will continue to increase as it is a new medium of communicating with consumers. Fashion film is an effective means of enhancing brand awareness because it promotes products, creates cultural value, and satisfies consumers' diverse senses. Until now, most fashion films have been made by luxury brands which have long-tradition and brand story, and financial capacity to produce films. However it is expected that the domain of fashion film will be further expanded and this will contribute to more diverse contents and style of fashion film.

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A Study on the Formative Relationship Between Clothing and Shoe Designs from the Theoretical Perspectives of Wölfflin and DeLong

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Clothing and shoes design continues to interact organically, reflecting cultural and artistic trends in each time and changing in a new way. In particular, shoes are not limited to an accessory element which is matched to clothing in modern fashion. Rather they express unique formative art in various forms and ways as an independent clothing formation and are used as an important formative medium to represent the autonomy and diversity of aesthetic expression. This study aims to analyze the formative relationship between clothing and shoes design in modern fashion from a new visual framework which is constructed based on formalism by Heinrich Wölfflin(1950/1994) and a formal contrary concept by Marilyn DeLong(1987/1997) who adopted formalism as methodology to review a clothing form.

The study methodology was to review Wölfflin's 'sehform(視形式)' and DeLong's classification system of formative types and construct an analytic framework to analyze the formative relationship between clothing and shoes design. Then the formative relationship between clothing and shoes design was analyzed in the fashion collection. The analysis subjects were 158 high brands which consecutively participated in the collection from 2011 to 2016 and photos of the 2016 F/W prêt-à-porter collection were collected from the VOGUE US website. Maximum three designs which contained the representative clothing and shoes design of each collection were sampled. Then 474 high resolution photos were sampled for visual distinction to accurately grasp formative elements such as form, color, materials, and ornaments. Finally the formative relationship was analyzed in the aspect of clothing and space, shoes and space, and clothing and shoes based on newly constructed concept pairs.

The results of the study were as follows. First, Wölfflin who is representative of the formal analysis in art history in the early 20th century formulated five pairs of opposed or contrary precepts based on an individual mode to understand representation forms of

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architecture, paintings, and sculpture based on 'sehform': 'linear-painterly', 'plane-recession', 'closed form-open form', 'multiplicity-unity', and 'absolute clarity-relative clarity'. Delong suggested five criteria of contrary classification to observe Apparel-Body-Construct(ABC) to objectively analyze a visual effect of clothing when clothing is worn on the body: 'closed-open', 'whole -part', 'planar separation-planar integration', 'flat-rounded', and 'determinate- indeterminate'. This study derived new concept pairs which observed the formative relationship of modern clothing and shoes design based on five pairs of basic precepts by Wölfflin's formalism and Delong's formative character of ABC contrary construction. They included not only the relationship with and movement of the body wearing clothing and shoes, but also the relationship between clothing and space, shoes and space, and clothing and shoes. Firstly, for the closed form(CF) and open form(OF), while CF has a definite silhouette and contrary color which are distinguished from space, OP is characterized by interaction by a discontinuous and complex silhouette and see-through and light materials. Secondly, the flat form(FF) and rounded form(RF) are divided by a form and difference in material feeling, texture, ornament expression, and brightness. Thirdly, for part recognition(PR) and whole recognition(WR), PR recognizes a part in clothing and shoes first, but WR does the whole first. It depends on silhouette, texture, pattern, and color. This study integrately considered by including the recognition preference of shoes in clothing. Fourthly, for determinate form(DF) and indeterminate form(IF), DF describes sharply, regularly, and neatly treated surface and plain or small and regular patterns, but IF represents a less definite way to occupy space and has many irregular forms and surface textures.

Second, the formative relationship was analyzed in the aspect of clothing and space, shoes and space, and clothing and shoes. For CF and OF, while CF was common in clothing and space and shoes and space(70.0% and 71.3% respectively), OF and CF showed similar frequency in clothing-shoes(55.1% and 44.7% respectively). For FF and RF, RF was 55.1% and FF was 44.7% in clothing and RF was 50.6% and FF was 49.4% in shoes. It suggested that RF was more common than FF in both clothing and shoes but frequency was similar. For PR and WR, while PR was 57.6% and WR was 42.4% in clothing, indicating similar frequency, WR was 61.8% and PR was 38.2% in shoes. WR was 59.1% and PR was 40.9% in clothing-shoes. It suggested that shoes played a role as united clothing formation rather than had formativeness distinct from clothing. For DF and IF, DF was common in both clothing and shoes(73.4% and 86.1% respectively) but IF was 53.8% and DF was 46.2% in clothing-shoes. It indicated that shoes were in response to the formative elements of clothing such as form, color, and materials and had an organic association.

Third, 213 types of space-clothing-shoes were found by the analysis of the formative relationship in the aspect of clothing and space, shoes and space, and clothing and shoes.

Then types including more than 10 designs were sampled and finally 6 typical types were derived. The most frequent type was that both clothing(FF) and shoes(RF) were CF and DF but clothing-shoes was OF and IF(20 designs). The next frequent type was that both clothing and shoes were CF and DF but clothing-shoes was OF and IF(18 designs). The third type was that both clothing and shoes were CF and DF, but clothing-shoes was OF and IF; clothing was OF and IF, shoes was CF and DF, and clothing-shoes was OF and IF; and both clothing and shoes were OF and IF but clothing-shoes was OF and IR(12 designs respectively). Finally, clothing, shoes, and clothing-shoes were all CF and DF(10 designs). In many cases, although each of clothing and shoes had a closed and definite form, they had an open and indefinite characteristic through organic formative elements in the whole clothing which means the whole recognition. However, when both clothing and shoes had closed, partly recognized, and definite characteristics, design with closed-part elements also appeared in the aspect of clothing-shoes.

In conclusion, shoes are not limited to an accessory element which is matched to clothing in fashion design but organically appear with clothing as an independent clothing formation and form a formative relationship in various forms and ways. This study is meaningful as it gives an opportunity to highlight the formative value of shoes design and extend its aesthetic expression area, provides basic information and new design trends for shoes design to meet consumers' desires, and builds up the theoretical basis to develop a shoes design field into the high value-added industry. Further study will derive the types and characteristics of formative relationship and formative art through the extension of the time range of fashion collection analysis and the specific analysis of formative elements and also grasp the aspects of changes by period.

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The Roles of Sketches in the Fashion Design Process: A Pilot Study

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The purpose of this study is to reveal the roles of sketches in the creative fashion design process. This research attempts to empirically examine the cognitive process of idea development through a professional's design problem solving skills through the medium of hand sketching.

Sketches are the language of a designer. A fashion designer often uses sketches to develop his/her ideas and display the final outcomes. The specific properties of sketches, such as ambiguous (Goel, 1995), self-generated (Goldschmidt, 1991), and economic (Goldschmidt, 2002), allow the designer to effectively work. Previously, a few studies about the roles of sketches were discussed on cognitive science, architecture design, and fine art. However, how a fashion designer utilizes sketches during the idea development process has rarely been studied.

To understand the roles of sketches in the design process, a semi-constrained design experiment with a professional designer was conducted. The designer was asked to design a small ready-to-wear womenswear collection from the given source of inspiration. The video/audio data of the entire design process was recorded, and an open-ended interview was conducted immediately after the experiment. The collected sketches were analyzed based on the corresponding interview data.

The analysis of this design process shows that there are two phases of the sketching design process. First, the designer transfers his visualizations to paper. In this process, both conceptual and superficial interpretations from the source of inspiration unfold on paper without any judgment about the ideas. Second, the sketches from the first phase are further developed for the design concepts and details. During this phase, the designer interprets and re-interprets the sketches through self-reflection and eventually arrives at the final concepts and outcomes. The first and second phases correlate with Goel's (1995) theory of sketch types, termed *lateral transformation* and *vertical transformation*.

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Sketches are the windows of a designer's cognitive process. Understanding the designer's sketching process will help to identify design knowledge, which is used during the idea development process and ultimately triggers creative idea generation.

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Study on the Types of Health Care Smart Fashion

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1. Introduction

With the increased interest in Internet of Things (IoT) devices, such as smart home and wearable devices, the convergence of design and technology for integrated processing of information in the design field appears more prevalent. As for "smart fashion" which is considered the most outstanding example of the digital convergence, the human sensibility ergonomics, IT, high-tech materials and design are being developed based on the multiple properties of fashion. With the advancement of medical technologies and the extended life expectancy, health care smart fashion business has emerged as one of the promising business realms of the future.

According to the ABI research, it was predicted that health care and management will be the key factor that will determine the success of smart fashion. However, being in its early stage, there has been no discussion in Korea and around the world as to what extend it will encompass. Currently, it is difficult to draw its boundaries since there is an uncertainty to predict how far it will evolve in the future. This research therefore, examines the current status of the health care smart fashion through case studies and classifies its types accordingly, with the purpose of setting the foundation for smart fashion.

2. Research Method

As for research method, studies on the previous literature and case studies were conducted. The literatures involved are smart fashion related publications and dissertations. The period set for the case studies is from 2000 to 2016 and is limited to the wearable fashion. Starting from 2000, the computer device was developed into miniature wearables with the enhancement of soft technology; consequently, the patent for the smart fashion related technology increased steadily, providing sufficient grounds for determining the study period.

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3. Study on the Types of Health Care Smart Fashion

Smart fashion is a concept progressed from those personal computers that could be worn or attached to the human body; it represents the future clothing in which information technology and the new biotechnology are being integrated. In 1960, the wearable computer first appeared then in 2000, it has changed into a new concept of smart fashion as people began to see clothing as the best option to undertake the digital function. People's increased desire for a healthy life gave birth to wearable devices, and with the reduction in its size, the bio-signal measuring instrument can now be embedded in clothing. For the purpose of this study, smart fashion with health care function has been analyzed: first, the active smart fashion that identifies and reacts to body changes; second, intelligent smart fashion that undertakes any function specified by the programmed manuals embedded in the clothing.

The active smart fashion helps to get immediate treatment with a sensor embedded in the clothing to monitor the body to detect specific warning signs. For example, smart clothing designed by Sensatex, Inc. checks bio signal of a baby and sends out an alarm when abnormalities in his/her body are detected; the baby's heart and breathing rates plus temperature are sent to a personal computer and sets off an alarm when the baby stops breathing. Moreover, Contagious Media has developed sensor equipped underwear, which is designed to monitor the human body for 24 hours to help reduce the death rate of elderly suffering from heart disease or diabetes.

The intelligent smart fashion, on the other hand, involves clothing programmed to perform multi functions simultaneously or to process new functions combined with cutting edge technologies. For instance, Corpo Nove has developed a motorcycle riding jacket that detects temperature of different body parts and supplies heat to the rider while riding a motorcycle. The jacket has the lining embedded with computerized micro processor to help regulate body temperature using electric heat pad. In addition, Alexandra Fede, an Italian designer made a man's suit and woman's evening gown equipped with a vibration pad that massages any part of the body.

4. Conclusion

Platform business is changing the fashion industry. The newest fashion design which had been the center of attention in the past no longer bears its significance as the industry is shifting towards IT industry that enables transmission of physical information. Today, more people are interested in leading a healthy lifestyle, and their aspirations have created a new industry of health care smart fashion, the convergence of IT and clothing. Against this backdrop, this study hopes to contribute to the development of smart fashion industry in the future.

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A Study of the Types and Strategies of Customizable Fashion Design on Web Media

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Nowadays when everyone can equally read and actively participate in fashion information through the internet and social media, customized design service, which is reflecting the sensitivity to express oneself, is being recognized for its design value. This means that consumers desire to become a brand and want to have their own special products even in the existing brands of the present society. In response to this demand, companies have begun to put out customized design service where consumers become the subject and participate in the process of making, which is called mass customization(MC). In the fashion field, customizable products have become the center of public interest by expressing consumer's individuality through creative design and user's active participation. The purpose of this study is to analyze fashion brands' contents and characteristics of users' participation platform to examine the types and strategies of MC.

For study methodology, this study selected 92 brands that sold customizable fashion products on the web through Internet searches and related book reviews for one month in August, 2016. Analysis was made of the categories, design selection elements, personalization elements, and MC types of fashion brand products and the Creativity, Flexibility, Ease of use and Durability of participatory design to derive the characteristics and types of customizable fashion design. The product category included menswear, womenswear, unisex wear, shoes, bag, and others. User's design selection elements included form(silhouette, detail, and trimming), color, and materials. The personalization elements included pattern print, monogram, and size customization by anthropometry. MC types were analyzed based on Lampel & Minzberg(1996)'s five types according to customization strategy(Pure Customization, Tailored Customization, Customized Standardization, Segmented Standardization, and Pure Standardization), Gilmore & Pine(1997)'s four types according to products and expression methods (Collaborative, Cosmetic, Adaptive, and Transparent), and Duray et al.(2000)'s four types according to time of customer involvement and modularization (Fabricators, Involvers, Modularizers, and Assemblers). For the elements to embody participatory design, creativity was analyzed

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based on Sanders & Simons' four-stage Creativity levels. Flexibility, Ease of use, and Durability were divided into four stages.

The results of the study were as follows. First, the results of customizable fashion brands analysis, most fashion brands sold one professional content. Shoes brands(28.3%) were the most common, followed by bag(17.4%), unisex wear(13.0%), menswear(10.9%), and womenswear(8.7%). In consumer's design selection elements, 85.9% of brands could change design elements. Changes in color and materials(46.7%) were the most common, followed by changes in form, color, and materials(13.0%), changes in materials(7.6%), and changes in trimming, color, and materials(3.3%) and changes in silhouette, detail, color, and materials (3.3%). For the personalization service elements, 76.1% of brands offered the service. Monogram service(23.9%) was the most common, followed by pattern print and monogram(18.5%) and monogram and anthropometry(14.1%). In particular, when consumer's body sizes were measured, the way to measure was explained with a video image. For shoes, sometimes 3D photographing was made through a mobile application.

Second, the results of MC types analysis, for the customization strategy, Customized Standardization(38.0%) was the most common, followed by Tailored Customization(27.2%), Pure Customization(22.3%), and Segmented Standardization (12.0%). For the types according to changes in products and expression methods, Cosmetic(63.0%) was the most common, followed by Collaborative (22.8%) and Adaptive(14.1%). For the classification according to modulation, Modularizers(31.5%) were the most common, followed by Involvers(25.0%), Fabricators(23.9%), and Assemblers(19.6%). The Creativity, Flexibility, Ease of use, and Durability of MC were evaluated. For Creativity, brands in the making stage(55.4%) were the most common, followed by adapting(27.2%) and creating (16.3%) stages. For Flexibility, although brands showed different methods, they could have high flexibility by modularizing design elements of products and accomplishing various design through consumers' participation. The Ease of use for various expression was generally high together with Flexibility. On the other hand, for Durability, because consumers could receive end products only when they participated in the assembly stage in the on-line purchase, their continuous participation was not possible, so they participated only once.

Third, the typical types and strategy of MC were analyzed. The Customized Standardization type was the most common in shoes, bag, and womenswear brands. It was the Cosmetic type which could change colors and materials, the Modularizers, and had high Flexibility and Ease of use and low Durability. The second common type was Tailored Customization and Pure Customization. The Tailored Customization type was the most common in unisex wear. It was the Cosmetic type which could change colors and materials and freely apply pattern prints and monograms designed by consumers, the Involvers, the making stage, and had high Flexibility and Ease of use and low Durability. The Pure Customization type was the most common in unisex wear(jean brand). It was the

Collaborative type which could change form, colors, and materials as well as monogram carving and customize size by anthropometry, the Fabricators, and the creating stage. It had high Flexibility and excellent Ease of use as consumers could easily understand through 3D simulation but low Durability. Finally, the Segmented Standardization type was the most common in shoes brands. It was the adapting type in which the design was not changed by consumers and personalization elements. However, it was offered in the semi-finished product form, so it was possible for the consumers to change parts by consumers after purchase and continuously participate in exchanging parts and design by the users, which was a very important characteristic.

In conclusion, many kinds of customizable fashion products are sold on the web media, and 3D scanning and simulation are offered to check the changes of design elements selected by consumers. This means that consumer-based flexibility and ease of use are secured. Also, on-line MC service types are variously developed according to fashion product kinds. This study is important because it analyzed the characteristics of contents and user's participation platform of brands which sold customizable fashion products via the web media in a time when it is becoming important to provide brand services to consumers who want to directly participate in design. A further study will attempt to explore MC strategies and construct a platform by the analysis of MC characteristics according to some variables such as the identity and products of fashion brands and customer's characteristics.

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A Study on Fashion Design Activity for Social Design

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As design of the day more focuses on human-centered design, it creates value for society and also fulfills its social responsibility. In fashion area, the design activity used as a type of fashion design to realize social value of design in changed society was defined as Fashion Design Activity.

The objective of this study is to empirically research design activity as a practical value of the day when the social contribution of fashion design is rising importantly in overall society through the research on the practice of Fashion Design Activity adapting to changes in fashion design paradigm based on the understanding of social design of changing design.

Regarding the study method, literature research and case study were combined. We examined the meaning of social design by reviewing literature related to social paradigm, and analyzed cases in which the effects of fashion design on society were realized through practical activities. Also, we defined the role of fashion design based on analysis of different design types based on previous research.

Dividing the roles of fashion design for social design into 'design fulfilling social responsibility', 'design practicing sharing', and 'design creating value', it dealt with discussions of efforts in different ways. As the research concept of Fashion Design Activity for social roles, first, it is a design fulfilling a social responsibility as a role of design in which members of society of the same period share through interactions and also solve problems in the social system. Second, it is a design emphasizing the usability based on the human-centered design for the convenience of members of society. Third, it is a design emphasizing social values for social contribution in the context of sharing, help, tolerance, and interest, instead of a design only for consumption. As the practice of Fashion Design Activity, it suggested cases of human-centered fashion design for social design that should be reviewed with the consideration of social influence of fashion design, and also usability-centered fashion design replacing familiar idea with fresh paradigm. Based on changes in awareness of that fashion design paradigm emphasizing humane/moral/social value aims for social contribution and value consumption, it would be

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necessary to have changes for sincere development.

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A Study on the Color Characteristics of Angela Merkel's Fashion

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Alvin Toffler, famous for his 『The Third Wave』, mentioned that in the near future status of women would be improved and women's leadership would stand out in 'World Women's Forum' held in September, 2007. Also, John Naisbitt, called as two prominent futurologists along with him, called the 21st century as the period of 3F, that is, the period of Female, Feeling, and Fiction. Just like reflecting this point, recently female politicians ascend the highest political leader in every place of the world, remarkably leaping. Particularly, Angela Merkel is the most influential woman in the world as well as the first female prime minister of Germany at the youngest age, presently has become the longest term prime minister in Europe. Female politicians are more inclined to be determined based on their appearance and style compared to male politicians, Merkel also was criticized as a 'Fashion terrorist', however she has established a political asset by gaining evaluation to display her consistency and discretion, highly regarded in German political circles, through continuously wearing 3-5 button jacket and pants with composure. This way, fashion is not a mere means to dress up, but a tool to express oneself, furthermore, deliver one's political message. Among the factors, color is considered as an important symbolic means in modern political world. Hence, the purpose of this study is to provide data for establishing strategy on fashion of female politicians by analyzing color characteristic of Angela Merkel's fashion.

As the research scope, this research targeted pants suit, Merkel's representative fashion since January, 2006 to December, 2015, in order for the analysis by year from the fashion that Merkel has worn since November 22, 2005 when she ascended the prime minister. As the analysis material, this research finally selected total 1581 images except the photos taken from various direction with the same dress, photos that cannot identify the color, and dress and skirts (12 pieces), which are in the low ratio, among total 1839 images extracted from www.zimbio.com, www.gettyimage.com, etc. As the research method, this research collected color data from fashion photos mainly with the main color, then extracted color chip and RGB value using Eyedropper Tool of Adobe Photoshop CS5, and changed RGB value into H V/C value of Munsell Conversion. As the color characteristic,

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this research analyzed based on 10 colors and N of Munsell color system, then analyzed color shade characteristic by dividing into 11 color shades of PCCS and W, Gy, Bk.

The result of the studies is as follows.

First, as the result of analyzing 3162 color data extracted from total 1581 pants suits that Angela Merkel has worn, single color(94.56%) appeared more frequently than multi colors(5.44%). Jacket appeared more frequently with single color (89.31%) than multi colors(10.69%), while pants appeared almost single color(99.81%).

Second, in respect of overall color distribution, achromatic color(63.60%) appeared more frequently than chromatic color(36.40%), and chromatic color appeared in order of YR colors(7.08%), R colors(6.67%), and PB colors(5.53%). Also, color shade distribution appeared in order of Bk(52.06%), Gy(8.60%), v(8.00%), p(6.36%), and d(5.76%), and the overall color/ color shade distribution most frequently appeared in Bk(52.06%), next in order of Gy(8.60%), R/v(5.72%), and Y/p(2.97%).

Third, when investigating the overall color distribution per item, jacket color distribution appeared more frequently in chromatic color(66.29%) than achromatic color(33.71%), and the achromatic color appeared in order of R colors(13.28%), Y colors(11.07%), and PB colors(9.30%). Also, color shade distribution appeared the most frequently in Bk(20.30%), next, in order of v(16.00%), d(11.45%), Gy(11.32%), while color/ color shade distribution in order of Bk(20.30%), R/v(11.45%), Gy(11.32%), and Y/p(5.82%). On the contrary, pants color distribution mainly appeared in achromatic color(93.49%), while chromatic color appeared in order of YR colors(3.10%) and PB colors(1.77%). Color shade distribution appeared the most frequently in Bk(83.81%), next, in order of Gy(5.88%) and W(3.80%), then color/ color shade distribution appeared equal to color shade distribution.

Third, when investigating color distribution by year, jacket color appeared the most frequently in Bk(44.38%) in 2006, next in order of Y/p(10.11%) and R/v(7.87%), while in 2007, in order of Bk(30.73%), R/v(12.85%), Y/p(11.73%). In 2008, in order of Bk(26.00%), Gy(24.67%), and R/v(13.33%), and in 2009, in order of Bk(22.45%), Gy(19.73%), R/v(11.56%). In 2010, in order of R/v(16.55%), Bk and Gy(respectively 11.72%), in 2011, in order of Bk(19.23%), R/v(9.23%), and Y/p(8.46%), in 2012, Bk(16.03%), RP/dk(8.40%), and YR/d(7.63%). In 2013, in order of Bk(10.74%), R/v(9.40%), and B/d(7.38%), in 2014, in order of R/v(12.72%), Gy(9.83%), and Bk(8.09%), and in 2015, in order of R/v(14.57%), Gy(14.07%), and Bk(11.06%). Pants color appeared mainly with Bk from 2006 to 2015. When investigating color/ color shade next to Bk, in 2006, in order of Gy(3.93%), YR/dkg and PB/ltr(respectively 2.25%), in 2007, in order of Gy(5.59%) and YR/dkg(3.91%), in 2008, Gy(14.00%) and W(2.67%). In 2009, in order of Gy(12.93%), YR/p and W(respectively 1.36%), in 2010, in order of W(3.45%) and Gy(2.07%), in 2011, in order of YR/ltrg and Y/ltrg(respectively 3.08%), PB/dk (2.31%). In 2012, in order of YR/ltrg and W(6.11%), YR/g and Gy(respectively 2.29%), in 2013, in order of GY/p(4.70%) and Gy(2.68%). In 2014

and 2015, in order of W(respectively 15.61%, 5.53%) and Gy(respectively 6.94%, 6.03%).

As in the above, Angela Merkel frequently dressed up with pants in Bk, also, the same in Jacket from 2006 to 2009. However, ratio of Bk got lower since 2010, were wearing jackets of different chromatic colors and color shades, in particular, when emphasizing the message and leadership, by wearing the Bk and R/v, Angela Merkel's fashion has established her own image by using jacket, pants, and colors. Based on the result, there's a difference from an advanced research that mentioned dark color shades as Bk, W, and PB colors intensively appeared until 2013. This research has a limitation in respect that it conducted a research by limiting design factors to colors, also, there might be significant difference from the colors of actual clothes, since the researcher collected the fashion photos from the internet. Here, the researcher intends to conduct a comparative analysis of fashion styling with other politicians along with other design factors besides Angela Merkel's colors, henceforth.

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A Study on Formativeness of Modern Art Nouveau Fashion Design

- Focused on Alphonse Mucha' Style-

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1. Research purpose

Costume is one of the typical elements, which are reflecting era. Out of it, the period of art nouveau, which resisted to the acceleration of industrial development, began from seeking a desire for novelty that is against the uniformity of mass production in machine civilization. Modern society is the era that pursues beauty through seeking own individuality, not mechanical simpleness like unification and standardization. In this regard, the art nouveau period and the modern society have close relationship. The aim is to proceed with developing by integrating art nouveau into contemporary society through comparing and analyzing culture and art in the period of art nouveau.

A human being has continuously enjoyed diverse aesthetic elements. The art nouveau style shows vividness in planar surface through organic curve. This dynamic expression is closely related to aesthetic element. Owing to these characteristics, the art nouveau period has constantly been re-analyzed in the fields of art and culture. Out of it, Alphonse Mucha's art nouveau is giving a great inspiration even to modern fashion with expressing luxurious and elegant line and representing rich color. Accordingly, the purpose of this study is to consider formativeness of art nouveau fashion design that was expressed in modern times based on the general understanding.

2. Research method and contents

This study aims to examine the formativeness of art nouveau design that was shown in contemporary fashion based on the overall understanding of art nouveau. The aim is to deeply figure out a research by searching for the characteristics peculiar to Alphonse Mucha out of the art nouveau style in the collections after conducting a research through previous materials of academic journals related to art nouveau style. It made an analysis through classifying it into form(silhouette), pattern, material & detail, and color of art nouveau style shown in art, and aims to consider through comparing it with modern fashion.

Analyzation will be done on theses following 5 collections from 2012 FW ready-to-wear that was inspired by Alphonse Mucha's art nouveau: Gucci, Louis Vitton, Marni, Stella McCartney, and Lanvin.

3. Result and consideration

Silhouette is the most outstanding formative characteristic out of Alphonse Mucha's art nouveau style that was shown in theses following 5 collections from 2012 FW ready-to-wear :Gucci, Louis Vitton, Marni, Stella McCartney, and Lanvin.

This emphasized a woman's curved line by using hourglass silhouette. Also, it expressed a hip with O line, thereby having analyzed it with silhouette that maximized the waist more thinly, and applied art nouveau style by decorating flounce and feather.

A difference was given to the expression of pattern by making it a contrast with different material even if background is same color along with pattern. As for the expression of fluid and flowing materials in art nouveau, a rhythmic sense in art nouveau was newly expressed by using knit, feather, tweed and velvet as well as using chiffon, silk and organdy.

Finally, a formative characteristic in art nouveau was used vine and flower pattern. In terms of color, the art nouveau style was used a color in pastel tone. But the modern fashion was differently made the mainstream of deep tones such as brown, blue, gray, dark green, and purple.

4. Conclusion

This study analyzed formative elements such as silhouette, pattern, material and color in order to grasp a characteristic of art nouveau fashion design. The results are as follows.

First, the art nouveau fashion design was characterized by S silhouette and hourglass silhouette by stressing chest and hip. Hobble skirt, which is gradually tightened in the closer to ankle, could be known to have been re-analyzed in the form of being spread with being shortened or tightened the length. A dress in the form of drape, which had been influenced by Japanese kimono, added a belt to waist, thereby having shown a new style.

Second, the patterns such as flower & vine, fruit and arabesque as natural patterns were used. Contemporary fashion designers can be known to have expressed it even in the form of embroidery, sequin and print by integrating it with characteristics in rococo age or baroque period.

Third, the materials, which were shown especially in Alphonse Mucha out of the art nouveau, were formed the mainstream of chiffon, silk and organdy, which are easy for expressing a drape form of the natural overlapping. Detail was much used feather ornament, fur and lace.

Fourth, the fashion design in art nouveau style is characterized by severity, which is linked to naturalness of a drape through using color in pastel tone.

The art nouveau style can be said to be essential activity of aesthetic consciousness in people who seek beauty of having come from the era of the mechanized confusion. Accordingly, this study is expected to be likely an opportunity that re-illuminates the art nouveau fashion design. Furthermore, it is desired to be utilized as basic data for understanding the art nouveau fashion design.

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A Study on the Categorization of Sustainable Fashion Brands

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The movement of sustainability is on the stage together with the society, nature and human being in harmony. In fashion area, the sustainable fashion can be defined as a time tested ones, protecting the environment, bearing the social responsibility and also creating the economic gain. It is also enhancing the condition of the labor like the termination of abuse of child, and freedom from restrictions on the working spots, minimum wage, affording a comfortable environment of labor. Thus, the sustainable fashion is focused on the view of the society, environment and economy. The slow fashion, ecology fashion, recycling and up-cycling fashion would be categorized in the sustainable fashion. However, the category of sustainable fashion is not clear yet. The purpose of this research is to categorize the sustainable fashion in the various fields of fashion industry. For this purpose, 40 Korean and foreign sustainable fashion brands and design were reviewed and classified them according to Triple Bottom Line by English businessman and author John Elkington(1949-). Triple Bottom Line(TBL) means to check company's performance on the basis of three main factors. One is financial factor, second is social factor and third is environmental factor. We can not do complete explain the performance only on single bottom line which the net profit or net loss. It may be the part of total performance.

In this research, the sustainable fashion was categorize into 4 parts, social, environmental, economical and cultural section. First, in the aspect of social, the fair working, labor's working lights and ethical production-consumption were included. second, in the light of environmental section, up-cycling, recycling, usage of eco-friendly materials and action of climate change were included. Third, in the aspect of economy, fair trade,

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improve transparency in management and revival of regional economy were included. Lastly, in the cultural section, acceptance of diverse culture, lace and multi-culture were included.

In conclusion, nowadays producers and consumers concern about the sustainability, so that they are keen on recycling, up-cycling, re-design, fair trade, fair pay, abuse of child labor, ethical production and consumption. Thus, sustainable fashion brands make a remarkable growth of fashion industry. 16 Korean sustainable fashion brands were categorized into environmental section. 2 fashion brands were categorized into economic section and 2 fashion brands were categorized into cultural section. However, 12 foreign sustainable fashion brands were categorized into environmental section. 6 fashion brands were categorized into social section, and 2 fashion brands were categorized into economical and cultural section. Generally, environmental section showed highest frequency in sustainable fashion brands, all those brands produce small quantity or few handcrafted fashion products with brilliant up-cycling or recycling design ideas. In the foreign sustainable fashion brands showed high frequency in social section.

Today, we are facing floods, earthquakes, tsunami and other disturbance of nature. Due to this, people loss billion dollars and face death. The sustainable fashion will built up an important industry in the immediate future.

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A Study on Contemporary Fashion Design inspired from Korean Traditional Costumes

-Focused on the Fashion Brand '*Tchaikim*'-

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The elements of the traditional costume of each country act as motifs that give great inspiration to contemporary fashion design. Korean traditional costume is one of them. Recently, hanbok designs have appeared, which maintain the traditional beauty and at the same time, add functionality and practicality in a contemporary sense. Accordingly, young people's interest in hanbok is increasing, and new fashion brands have emerged, which satisfy the youthful sense with modernized fashion designs utilizing hanbok.

This study aims to reveal the design factors of practical hanbok that made itself popularized as everyday wear among young people, which had been worn only by middle- and old-aged people through an analysis of the methods of contemporary and popular expression of hanbok appearing in each item and what traditional costumes were materialized or what components were used by examining the items of the design hanbok of '*Tchaikim*,' of the hanbok brands.

The research method was an analysis of the pictures updated on the '*Tchaikim*' Homepage and Official Blog after the July 2013 launch until June 2016, of a total of 124 pieces of the photo materials, excluding 27 pieces with an ambiguous link to hanbok, 97 pieces were selected as the subjects of the final study. Applying the item names presented by '*Tchaikim*,' they were divided into five categories such as outerwear, top, dress, bottom, and accessory. This study analyzed the items, silhouettes, colors and materials of the selected photos and analyzed their characteristics concerning how the traditional clothes or their components were implemented or applied in each item by category.

'*Tchaikim*' is the second brand of '*Tchai Kim Young Jin*,' which is a ready -to-wear brand with a free nomad sentiment of Namsadangpae (traveling entertainers), one of the Korean traditional performances, as the basic concept. It gives comfort with natural textiles, mixes and matches traditional textiles with contemporary textiles to show details delicately and shows as excellent splendor and practicality as those of Western costumes, adding activity

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by materializing the traditional costume design.

As a result of an analysis of the designs of the brand '*Tchaikim*' products in this study, to examine the kinds of items of a total of 97 pieces by category, outerwear was divided into jacket, vest and coat, and it turned out that the most kinds of the traditional clothes or components such as Durumagi, Baeja(waistcoat), Shimui, Aekjureum, Dapho, and Cheolic were used in the items, and in particular, many kinds were materialized in coats. For the tops, Jeogori was expressed mostly as a shirt or blouse and designed, emphasizing its distinctive collar. Most dresses were one-piece dresses, designed, using Cheolic and Dansokgot. The bottoms were divided into waist skirt and pants, and the waist skirt was materialized almost like the traditional clothes as they were. Dansokgot was used, too. It was found that there were accessories such as bags, scarfs, necklaces, and bracelets. Of all the items classified into each category, one-piece dresses were 26 pieces, which were the most, followed by the coats, waist skirts, and jackets.

The methods of the development centering around the traditional clothes most often used are summarized as follows: First, Cheolic was modernized by reducing the width of the sleeve and hanging the collar twofold or differing its width, and the variation was given to the waist part connecting top and bottom by putting a line. Through changes in the total length, it was applied to one-piece dress and in addition, it was applied to the jacket and coat designs with various textiles. Second, skirts were expressed in a design that could accent the slimness of the waist on which it was properly worn, unlike the traditional skirt, put on the upper part of the chest. It is a design representing '*Tchaikim*,' showing an effect as a single item, as it was worn by a mix match with Cheolic one-piece dress. Third, Jeogori was designed as a shirt or blouse in the form adjusted using Goreum or used in a jacket or coat, like the contemporary tailored collar, differing the shape of the collar. In addition, it was used in the traditional clothes such as Dangui, Baeja, Dansokgot, Jeonbok, Shimui, Durumagi, Dapho and Daegeumhyeong Sangeui (symmetric collared jacket). In addition, component, Sagakmu(square gusset) added unique silhouette, used on the sideline of one-piece dress, and Aekjureum was used as a detail spicing up the design, used on the sideline of the coats.

As the conclusion drawn through this study, of the distinguished items, the category that materialized the most kinds of hanbok appears in outerwear. The composition of hanbok was mostly an open front type, and most of them were a Po form using this in the clothes of both sexes, so it seems that they come under the outerwear. Of them, it has been known that the form using Cheolic in one-piece dress and layering it on the waist skirt is the main item of '*Tchaikim*' and the signature product representing the brand. In addition, in the traditional clothes, there were distinctions between male and female costumes, while the modernized hanbok has the big characteristic that they were materialized without any distinctions. This study was conducted with only one brand, but it

is expected that studies on brands other than 'Tchaikim' and studies on hanbok for men will be conducted.

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The Comparative Analysis of 3D Software Virtual Clothing and Actual Wedding Dress

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1. Purpose

Recently, small weddings became popular and more people are showing interest in wedding dresses that are both aesthetically and economically satisfactory. However, considering that many consumers find it difficult to try on the dresses due to time and economic constraints, as well as resources wasted during the complicated manufacturing processes, a new system is needed in order to reduce the production and distribution processes and fitting time, and, thereby, increase customer satisfaction. In this study, a virtual garment created by using 3D software was put on a virtual model and then compared to a human model wearing the real version of the garment, for the purpose of investigating how clothes can be reproduced by 3D software technology and examining the efficiency and possible improvements of the 3D software.

2. Method and Content

The characteristics of small wedding were identified based on previous research, news, books, and internet search, and, taking into account the characteristics, a wedding dress was designed to fit the model, in three pieces – with one top and two interchangeable bottoms. The top was made of a white jacquard fabric to represent purity and beads and ribbons were added in a leaf shape, and the mesh skirt was designed in A line silhouette that comes down to the floor, considering the small wedding size. The pleated skirt is highly versatile and can be worn for parties and other events. It was made of the same fabric as the top and cut asymmetrically, with the front coming down to the knees while the back reaches the calf. Next, to create a virtual model that has the same body measurements as the real model in this study, the size of the model were measured, before creating a body model by using the avatar feature of DC Suite developed by Physan. And then, in order to implement the design in 3D, draping with pleat was performed and the photography of the actual pattern was imported into DC Suite to

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create the pattern. Then, the size was modified to fit the body of the model. Lastly, the simulation was completed by entering the properties and textile of the actual fabric. The finished pattern was printed by using a plotter, after including the internal lines and grain lines. To create a real garment, in DC Suite, the pattern was aligned and the amount of fabric required for the garment was measured. Then, the required garment was purchased and used for making a real dress, which was decorated with beads, ribbons, and embroidery. To add these decorations to the virtual garment, by using the photograph of the real garment and Photoshop, the identical texture was created and inputted to DC Suite, and then, the patterns and decorations were applied to the 3D garment. Lastly, to examine the harmony between the garment and model, a face avatar was created by using the frontal photograph of the model's face and PIO system. And then, the 3D wedding dress was put on the virtual model. Subsequently, the front, side, and back images of the virtual garment of the 3D model were compared to the photos of the real garment worn by the actual model, based on the silhouette, color, and details, in order to analyze the utility and limitations of the virtual garment created by using the 3D software.

3. Conclusion and Discussion

When designing a virtual garment by using a 3D program, the production time and cost were radically reduced, as it does not require tacking, or additional fabric when replacing the fabric or modifying the size. Also, it was possible to easily change and create different designs on the computer program. Furthermore, changing the size and creating curves were much easier because the figures were displayed on the program. In comparison between the actual garment and 3D design, the 3D garment showed properties that were identical to the actual garment, and the pattern, polish, and texture of the textile were similar to the actual garment. Also, the overall color was identical between the two garments. However, the beads did not look as clear as in the actual garment, and the glitter was less strong than the actual garment. Also, in the 3D garment, it was difficult to drape the pleats and, therefore, the pattern was created in 3D by measuring the angle of the pleats made on the actual body by using a cotton cloth. Also, the simulation took a longer time when the pattern required a larger area and had more wrinkles.

4. Conclusion

This study proposed a direction for a new process that allows consumers to try on different styles of wedding dresses based on their body measurements, similar to the conventional process of trying on different wedding dresses in front of a mirror, by adopting a virtual reality technology in the wedding industry. Using 3D programs in the wedding industry reduces the time and cost required for making a real wedding dress, improves the efficiency and fitting time and space, which used to be problematic in the

traditional wedding industry, allowing consumers to review more design options and make a satisfactory choice. In this study, I created a garment by using a 3D program and, as a result, the production time and cost were reduced. Also, the silhouette, properties, textile, texture, shading, and color of the 3D design were identical to those of the actual garment. Therefore, the efficiency of the proposed process was verified. However, the details such as beads and glitter were not as clear as in the actual garment, and, for draping, the pattern had to be manually inputted. Also, the simulation took a longer time, according to the area of the pattern and pleats in the dress. If these technological problems are resolved in the future, using a 3D design may revolutionize the wedding industry.

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A Study on Armors in the Eras of the Dang and Song Dynasties in China

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1. Research purpose

Clothing serves as a sort of mirror by which the politics, economy and culture of a particular age can be understood. And that is one of barometers to indicate the social position, status and roles of the wearer and even his or her situations. The Dang and Song Dynasties in China were glorious eras in terms of history, economy, culture and military, and the dynasties boasted great military strength. For instance, armors that were coated with yellow lacquer and glittered with golden color were used in the Chinese royal families, and it could be inferred from these armors that the military power of the dynasties was extremely great.

The characteristics of armor vary from era to era. The purpose of this study was to examine armors in the Dang and Song Dynasties of China and to make a comparative analysis of differences between the two in formative elements of form, pattern and color.

2. Research method and contents

Armors from the ages of the Dang and Song Dynasties were investigated after offering an overview of armor. Armor-related data from academic journals were analyzed, and then the formative elements of armors in these ages were analyzed, which were form, pattern and color.

To lay the theoretical foundation for the study, literature, Internet materials and domestic and foreign earlier studies about these ages were reviewed. As for data of the armors, photographs of the armors were selected from literatures, and domestic and foreign online visual materials were also collected. And then the collected data were analyzed.

3. Result and consideration

As for the patterns of the armors, military uniforms differed with rank in the Dang Dynasty. There were several patterns in these uniforms of this age including symmetrical

embroidery patterns of tigers, leopards, falcons, deers and wild geese. Soldiers wore uniforms without embroidery in ordinary days.

In the Song Dynasty, armors for the face and the body were developed. Metal scales were weaved on the coats of the armors using straps and Kapjung. There were no significant differences in basic form between the armors and those from other countries, but more metal scales were used to bolster defective power. The forms of the armors were simpler than those from the Dang Dynasty

In terms of materials, the materials of uniforms for military officers and soldiers in the Dang Dynasty were leather and armor. The materials of helmets were Kap, leather and do-rag. As political and economic levels in this era were higher than in other Chinese dynasties, splendid and colorful materials were used a lot. In the Song Dynasty, uniform material for military officers was leather, and that for soldiers was Osgap. Hats were mostly made of leather.

4. Conclusion

As a result of making a comparative analysis of the pattern, materials and color of armors between the Dang and Song Dynasties in China, the lines were relatively simple, and steel was used. And there were a variety of expressions with gorgeous golden color. This study is expected to make it possible to have a more perfect understanding of armors from different dynasties of China, and to provide some useful information on research into these armors.

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A Study on Aesthetic Characteristics of Granny Look

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In the fashion industry, styles from the past such as retro and vintage have been admired for a long time. For that reason, phrases like 'retro mood' and 'vintage mood' are frequently used for explaining different fashion trends. In addition, the 2015 FW season coined a new phrase 'granny look,' which is an emerging look that belongs to the conventional category of 'retro' or 'vintage' fashion.' The purpose of this study is to analyze examples and characteristics of granny look and understand its difference from conventional retro fashion, in order to identify aesthetic characteristics of it. As a research method, the examples of granny look found in the collections during the last two years, 2015 and 2016, were examined. This study is focused on analysis of example. Since 2015 for 2 years, Granny Look is come out and I analyze the collection under silhouette, material, color and item.

As the word granny (grandmother) suggests, granny look is refers to a fashion style that reinterprets old fashion and style in a sophisticated way. It originated from the trend in the 1970s when young girls used to wear the women's fashion from the 1920s and 1930s, i.e., generation of their grandmothers. The look is characterized by the modern style created with old fashion items. Unlike retro and vintage fashion, granny look is a reinterpretation of grandmother fashion.

Main items of granny look include hand-woven knitted sweaters; ankle-length pleated skirts; skirts To dresses with fine floral prints; blouses with large ribbons or ruffle details; fur coats; thick tweed coats; and vintage jackets with pearl or metal buttons. To these items, beret or glasses, flat shoes and socks are also matched. In the 2016 S/S Gucci collection, granny look was presented with beret, jacket with large ribbons around the neck, and other items of retro fashion, and the traditional Gucci stripe with red and green was applied to a vintage bag. In the 2016 S/S Dolce & Gabbana collection, lace and knitted fabric and fur detail around the neckline were used for creating the granny mood. Particularly, the mid-length sleeves and skirts characterize granny look. The brand hired an elderly woman for promotion of the collection to enhance the granny look mood. The 2016 S/S Fendi collection used denim to add a casual and sophisticated element to the

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granny look, which was created with the exaggerated, puffed shoulders and frills around the V-neckline.

The aesthetic characteristics of granny look can be explained by admiration and recreation of the past, scarcity through search of a new design, and hand-craftsmanship reflecting the couture from the past. Granny look is an expression of the longing for the old time and purity without artificial elements. However, instead of simply copying the old fashion, it applies the old elements to the current fashion, based on modern and time-appropriate reinterpretation. Also, it helps reveal unique individual styles through personalized matching and styling, proposing a new design based on old fashion and, as a result, obtaining scarcity value through new looks. Lastly, the granny look fashion actively adopts handmade elements, which were frequently used before the 1960s, shows the handcrafted aesthetics that are rarely found in contemporary fashion.

The admiration and desire to reinterpret old fashion is embodied in different forms in the fashion industry, and modern reinterpretation of past fashion has become an established area in the industry. Granny look can be also included in vintage or retro look as a sub-category, because it was created through the aforementioned fashion design process. However, the high level of attention paid to granny look cannot be simply explained by the refreshing term. It is special because the look reflects the wish of the younger generations to respect and preserve the tradition of the past and of the grandmother. Because it conveys the respect for and interest in tradition, granny look has the aesthetic characteristics of handcraft, which recognizes the recreation of the past, scarcity of new expressions, and value of the past couture. In the future, granny look will continue to be reinterpreted by different designers within the bigger category of retro fashion.

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An Analysis Study on the Bag Trends for New Generation Women Consumers in China

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China with 1.3 billion customers shows high growing rate while Korean fashion industry needs to find a breakthrough as their domestic economy is stagnant for many years. Global companies are keenly competitive to catch Chinese customers. To have competitive power in Chinese market, understanding own characteristic of Chinese customers and knowing the changes of consuming subjects are the high priorities. As bags are products, they are sensitive at trend. Its design, color and external shape are one of the most important features with having decorative purpose. At the moment, the recognition of items like bags and preference factors are diversified by regions and by class. We can check through the market size of the bags in China that the interest in bags is getting high. As for bag industry, we need to pay attention to various consumption level and changes of consuming ways in China. As there is positive atmosphere to Korean products in China due to Korean wave, it is good to establish trendy design marketing strategies about Chinese women.

They are the subjects of this study defined as new generation. It is because that the characteristics of Chinese domestic market are large consumption of young generation and tendency of women having big control on the market. They are Ba ling hou and Ju ling hou who are the major consumption class of Chinese bag industry and the leading group of Chinese fashion industry. The purpose of this study is to help increase competitiveness by offering marketing and product development information about bag designs which are preferred by women consumers in Ba ling hou and Ju ling hou. As for research method, shapes of the bags are classified and defined based on literature materials and literature reviews. To see the current state of the bag items, Chinese street photos are classified according to bag type, shape, material, color, and pattern.

The results of this study are as follows. The most used color arrangement of clothes and bags were different chromatic colors, followed by same achromatic colors, different

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achromatic colors, and same chromatic colors. Color match items between clothes and bags didn't go well generally. The most used type of bags was shoulder type, followed by cross type, tote type. Leather material, black color, plain pattern were most preferred. As for fashion image, different chromatic colors were most preferred. Each fashion image showed differences in bag types rather than color arrangement with bags. In other words, tote bags were preferred in classic image and the rest were almost shoulder bags. Lastly, in fashion image, leather material, black color, plain pattern were preferred mostly. Through these results, customized products can be provided and, at the same time, differentiated products can be provided by analyzing the needs of Chinese women. Then, Korean bag industry which intend to enter China or already entered in China can be more competitive by having design competitiveness and it can lead to the chance for another leap forward.

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Research of Tartan Check Usage in Contemporary Fashion

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1. Research Purpose

We believe pattern of Tartan check is not only the reflection of one's consciousness, but also the outcome of cultural creativity by those who design it. What's more, a Tartan pattern can be recognized as a conventional symbol among the group who conceived it. Because of this, people can grasp the symbolic meaning behind the pattern, without actually seeing the materialized product that reflects this trait. Therefore, we can assume that Tartan pattern of this trait can be categorized as an art that was born by people who share and agree with this cultural byproduct.

Tartan check from Scotland is the typical pattern that symbolizes its culture, which has been loved since the middle ages for more than 1700 years. In present times unlike the way it was used in the past, it has been incorporated into major fashion collections with modern twist by using weaving in different textiles. The purpose of this research is how Tartan check from the past has been influential in current contemporary fashion as well as what it symbolizes from the past to present.

2. Research Method

A method of this study aims to define the traditional Tartan check of Scotland through a related documentary research and how this pattern started to get incorporated into modern fashion world. Also, the aim is to analyze how this particular Tartan check design started to pop up in various modern fashion designs and what it symbolizes in today's point of view.

3. Result of Research

Common Tartan-check characteristics that are visible in contemporary fashion

(1) Color: Main two colors were red and green. By contrast, placing these two colors together created interesting visual effect.

(2) Pattern: As Tartan check is composed of vertical and horizontal stripes with different breadth and thickness, the visual perception of this pattern may vary depending on how it was weaved together. This is one of the main reasons why this pattern is attractive

because of its diverse combination.

(3) Form: A Kilt is a knee length skirt originating in the traditional dress of men in the Scottish Highland that had a Tartan check patterns and design. One of most popularized styling that is being used today is tying the Tartan-check-shirts to the waist.

4. Conclusion

This research concluded with four distinctive characteristics by analyzing its use of Tartan check pattern from the inception to present.

First of all, as a result of analyzing design elements and its history, the Tartan check stood for these following characters of resistance, legacy, uniqueness, and common usage and receptiveness of this particular textile according to the historical background.

The symbolism of wearing a Tartan checks in modern fashion world represents resistance movement that this pattern is known to have. Incorporating Tartan Check patterns into modern fashion world is well represented since most fashion trends tend to be ambiguous.

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Study on Characteristic of Metallic Color in Fashion Trend

-Focused on the Collections from 2012 S/S to 2016 F/W-

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1. Purpose of the study

Color is the element that first jumps to one's eyes in all design work including fashion. It expresses the image of the concept vividly. Also it has a power making completely different image even though it has the same shape. Metallic color has a particularity with the color itself and reflection of the light which makes it three-dimensional. That is why metallic color is used widely in design as a suitable color for formative language in these times that digital and sensitivity are on the rise. As colors and materials are getting diversified in 21st century, metallic color is used in various places. Also Samsung Fashion Institution picked metallic colors as a trend color from 2013. Like these aspects, metallic color is a rising color.

The purpose of this study is to analyze the characteristics and aspects of metallic color as a trend color used in fashion for recent years. Also this study aims to found out the value of metallic color in modern fashion and give various ways to use it.

2. Research Methods and Contents

Literature research refers to literature reviews, books of fashion, fiber colors, and design, periodical publications, domestic and foreign newspapers, and fashion information sites(www.samsungdesign.net). Case studies extracted fashion collections from 2012 S/S to 2016 F/W when metallic colors were used actively. Also periodical publications(Mode et Mode, Fashion News, Textile View) and related sites(www.style.com, www.vogue.com, www.firstviewkorea.com) were referred. The research subjects were clothes with colors that include metallic reflected light such as gold, silver, bronze, colored metallic colors and so on. The contents of the research are the definition of metallic color and analysis of its color, material, fashion style and color combination.

This study defined the notion of metallic colors and analyzed metallic colors and materials

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and fashion styles with them.

3. Results and Considerations

Metallic color is a polished metal color which color and reflection of light appear at the same time. Gold appears with yellow, red, and brown. Silver is usually gray with white and bronze is alloy of copper and tin which appears brown with green. Nowadays, the range of metallic color is getting wider with coloured metallics and holographic color.

This study divided materials that are used to express metallic colors in fashion into woven and non-woven. Generally metal processed fibers called metallic materials can be varied by the amount of reflection depending on the direction of fibers. They are lamé which is a clothing fabric with metallic strands, lurex made of cold and smooth metallic yarn, and materials using various coating method like pearl. Non-woven is not a material itself but giving glittering effects by putting metallic ornaments like spangles, sequins, stud, and beads.

Fashion expressed by metallic colors and materials can be classified by six styles. Futuristic Style is a typical style using silver with white as a main color. Recently holographic colors are included and standardized style is changing. Silver in modern style is the most used color not only in fashion but also in architecture, electronics, cars representing 'modern' image. The main color in glamorous style is gold with spangles, sequins, and beads making more glamorous and luxury image. Sportive Style is a distinctive case in 21st century making metallic surface with knit, denim, jersey, and waterproof and water-repellent cloth. Before it used vivid colors as a point color, it now uses main color in all items showing wide range and bold tendency. Ethnic Style shows gold and bronze with various tones often with embroidery and textured printed fabric. Glam Style affected by glam rock expresses sexy and louche beauty and free style.

4. Conclusion

The reason why metallic colors which were not used in fashion design widely before is now rising as a trend is that it became diversified including bronze, coloured metallics, adding pearl, and holographic color not just using gold and silver. As metallic colors were used frequently in all design, it became to be felt friendly. Also one of the main reasons is that it came to be used in modern style, glamorous style, and sportive style as a daily fashion. This study gives basic information that reflects modern culture and makes wide range of attractive modern fashion to get out of the limits of usual colors and materials.

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A Study on the Symbolization of Dragon Patterns in Chinese Royal Robes

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1. Research purpose

Each age in China is characterized by unique language, culture and clothing. Chinese clothing has a quite long history, and the decoration techniques and patterns of different sorts of clothing implicitly show unique Chinese culture and history.

Among a variety of patterns, dragon patterns are highly regarded as a pattern that represents China. Dragons were described a lot in Chinese myths. A dragon was looked upon as a mysterious animal that could bring clouds and rain, and it also was a holy animal that appeared most often in Chinese history. In addition, it was considered as an auspicious animal and the head of phoenixes, giraffes and turtles. Especially, it was the symbol of imperial power in and after the Han Dynasty. Chinese emperors thought of themselves as dragons, and everything they used was decorated with dragons. In other words, they intended to identify the magnificent power of dragon with their own authority. The purpose of this study was to examine the symbolization of dragon patterns in Chinese royal robes of different dynasties in an effort to shed light on how the symbolization of dragon was reflected.

2. analyzed to collect and analyze

Domestic and foreign literatures and earlier studies were analyzed to look into Chinese royal robes. To determine the symbolization of dragon patterns, photo materials included in the literatures on Chinese royal robes and domestic and foreign online visual materials were analyzed to collect and analyze the images of the royal robes.

3. Result and consideration

The characteristics of dragon patterns differed from age to age, and they were used in various sorts of garments. The forms of dragon patterns in clothing were a barometer of status. Specifically, the dragon patterns on the clothing of emperors were a symbol of royal authority and power.

The followings are brief explanations on the characteristics of dragon patterns in each

age: In the pre-Qin period, dragon patterns looked rough in terms of image, and most of dragons had no foot, which makes them similar to reptiles in form. In the Jin and Han Dynasties, dragon patterns were in the form of animals with foot, but there were no scales. So every dragon was embroidered in the walking posture. In the Myung dynasty, dragon patterns were in more advanced form, as the bodies of other animals were assembled into the bodies of dragons. For example, there were the head of cow in the place of the head; the horn of deer in the place of horn; the nose of lion in the place of nose; the mouth of donkey in the place of mouth; the claw of falcon in the place of claw; and the tail of fish in the place of tail. In the period of the Myung Dynasty, the symbolization of dragon became more significant, and nobody was allowed to wear clothes with dragon patterns except emperors.

In the Chung Dynasty, dragon patterns were used a lot in clothing, as there are a variety of clothes for different occasions, there was a continual change in dragon patterns that were embroidered. The clothing of emperors in this period was divided into three: ceremonial dresses, garments for auspicious events and ordinary clothes. And it was divided into two as well: with dragon pattern and without it. Besides, a new form of garment that was called "Guohjijon" was established as a regular royal robe. In this robe, a gold-colored dragon each was embroidered on the parts of breast, back, shoulders, front end and rear end. Therefore five dragons were respectively visible on the front and the back.

4. Conclusion

The symbolization of the dragon patterns of Chinese royal robes are three-fold. First, power and authority were symbolized by black robes, patterns of dragon and cloud and strong color contrast. Dragon patterns accounted for 70 percent of the whole patterns as a way to show the power and authority of royal family.

Second, there was something unexpectedly playful. The faces of dragons embroidered on the middle of robes were separated from their bodies, and the faces and the foot were described in a playful manner. Third, there was mythical fantasy. Lucky signs and pines were embroidered with dragons on the robes in order to hold them sacred.

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A study on the Tectonic Expression in the High-Tech Fashion

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I. Introduction

This study aims to explore the concept of tectonics through analyzing features of high-tech architectures and fashions. In this process, the study focuses on the Karl Bötticher's dualistic expressions to further identify how tectonic features could be adapted in the high-tech fashion. This study is also designed to present the integrated and complex rationality of design and structure required in modern design while building the elements of aesthetics and function, the long-cherished desire of plastic arts.

II. Materials and Methods

The term, Tectonic, is originated from Greek word 'Tecton' including the meaning of builder and designer, and is the concept of explaining the technical standards and aesthetic value in integrated terms. That is, tectonic can be defined as the arts or science of structure related to artistic design and its use, and is applied as an important word in that it is a kind of complementary concept connecting technical aspect and artistic aspect in the structure. This thesis analyzed the high-tech fashions based on dualistic feature of core form(kernform : coreform) and artistic form(kunstform : artform) of Karl Bötticher.

With regard to the study method, literature research and empirical study were conducted. Empirical study has collected the works of fashion designer implementing high-tech architectural space in collection, selected and analyzed the photos suitable for analysis in terms of tectonics. Scope of study includes the works after the year 2000 among the works that have been presented up to now since late 1980's which show various kinds of high-tech features, and are extracted from professional fashion data and internet data, www.style.com. I used 230 pictures for this study. Data was analyzed through F.G.R. and 3 people with over master's degree in clothing major participated at this selection process.

III. Result and discussion

As a result of analysis on the high-tech fashion focusing on the dualistic(coreform, artform) feature of Karl Bötticher, describing tectonic as the combination of function, structure and symbolism, the tectonic feature of high-tech fashion found in fashion after 2000's is as in the following.

First, It proposes new structural morphology by technology and formativeness. It was found out that structural feature of line, shape and surface structure was expressed in 3 dimensional space through the creation process of integrating dualistic feature of aesthetic area and function.

Second, it was found out that dualistic feature of coreform and artform occurred simultaneously with the same layer in several elements since only one of them could not be emphasized in high-tech fashion. 1) Coreform expresses the functionality by technology, and the structure and function that belong to this, contain the program of clothing focusing on the form of human body and express the morphological motility. The second classification, 2) Artform expresses the aesthetic feature, and the symbolism that belongs to this, appeared from the epidermis and physical form from external skeleton exposed outside. Only, it was found out that convergence of coreform and artform occurred simultaneously. Simply, This high-tech fashion has both technical functionality and aesthetic expressivity, and can be classified depending on (1) clothing focusing on engineering technical functionality, (2) degree of clothing concentrating aesthetic expressivity. The former develops around future-oriented coreform expression —focusing on technical functionality using technology and attachment of artificial intelligence, while the latter is focuses on artform expression using new fashion materials with high-sensitivity through application of high-tech material, detail decoration or emotional pattern, rather than focusing on technical function.

As a result of the study, it was found out that dualistic tectonic feature was connected in high-tech fashion and has occurred simultaneously in several elements and that convergence design by combination of high-technology and aesthetic formativeness is an important element in fashion design as required by the times. Fashion has now combined science technology and arts in connection with the state of the art technology. It has been found out that features shown in high-tech fashion such as praise for technology, variability and detachable arts are combination of function, structure and symbol, and is constructive element that makes tectonic feature more remarkable.

Such study is meaningful in that it can forecast the future fashion armed with both function and beauty and can further present the vision for creation of original design accepting the advanced technology.

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Multifaceted study on the Aesthetic Composition of Chanel's design

-Aspects of Realization of Public Fashion and Sense of Feminism-

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It meant to show their social status and power for men to wear clothes in the age of rationalism and to make their body 'public'. The clothes worn on men's body were used as an instrument of power and consolidated men's public image. As women's advancement in society gradually expanded, they got to occupy 'public domains', men's exclusive space, and they also began to utilize fashion as political means carrying their desire and will as men had done. Women in public domains tried to find ways of making their body 'public' through outward appearance.

Representative female leaders who succeeded by utilizing fashion in a strategic way in the public domains are Jacqueline Kennedy and Michelle Obama called 'a second Jacqueline Kennedy'. The common ground of fashion they wore is they exercised Chanel's design philosophy. Like this, the design Chanel created has lasted as a crucial code of making women's body 'public' transcending time. It is estimated to connote 'public' aesthetics in the signification that Chanel's fashion design has been continuously worn by the female leaders at formal meetings from the 20th century through the 21st century. Hence, the purpose of this study is to reestablish the concept of women's clothing by feminist thinking as part of reexamining the significance that Chanel takes possession in the contemporary fashion design and to investigate 'public' aesthetics of the aesthetic consciousness that appeared in Chanel's design who formulated a tangible system of a fashion style.

The scope of the study is defined to the fashion items from around 1906 when Chanel's personal style appeared, 1920s when she got international recognition, through 1930s and to the time when she made a comeback a designer after World War II and Chanel style was established as classic costume(1954-1971). The content of the study is examine the concept of public domains in order to define the concept of public fashion and through this, comprehend the characteristic of public fashion.

The results of examining 'public' aesthetic consciousness inherent in Chanel's design as

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public fashion.

First, The characteristics of Chanel's public fashion that contains her will to express an independent, active and dignified woman can be divided into will of resistance, autonomy, moderation and of combination.

Second, will of resistance expressed in Chanel's design means aesthetic consciousness derived from reject the order of fashion which was formed from the existing custom and social framework and denying traditional feminine beauty. The design elements that Chanel's aesthetic consciousness was expressed are the use of black, various suits and pants. Chanel shaped the meaning of 'power' in women's dress for the first time by borrowing the color black that is a main element of men's clothing, a suit that a top and a bottom are separated, pants which are a symbol of men's unique identity to instill women's sense of superiority, spirit of independence and sense of self-sufficiency. This kind of power dress code has been used as female leaders' fashion strategy in the public domains with the flow of time.

Third, the will of autonomy expressed in Chanel's design is aesthetic consciousness displayed in the fashion that was independent from male-dominated rule and gave freedom to the body. Chanel's design that implied such aesthetic consciousness gave freedom to women's spirit along with liberation of women's body. In other words, The simple hat that Chanel created gave freedom to the head, the removal of a corset that projected oppressive power on women brought freedom to the waist, a knee-length skirt gave freedom to the legs and by providing a chance of expressing oneself freely to maximize the freedom of feminine consciousness.

Fourth, the will of moderation expressed in Chanel's design means Chanel's expression of her values aiming for a life of independence. This is a means of destroying dependent, passive and traditional feminine image and aesthetic sense displayed in a simple and understated dress without exaggeration and distortion. A representative item that has the will of moderation comes down to 'little black dress'.

Fifth, the will of combination presented in Chanel's design can be the aesthetic consciousness, which is expressed by playing a variation of and synthesizing 'garçonne look' adding the elements of men's clothing to the women's and appropriately combining masculine and feminine beauty and total fashion' which takes account of modern women's lifestyle. Especially, The completion of Chanel's total fashion established tangible system of modern fashion along with modern feminine ideal to formulate a new feminine style.

As examined above, Chanel's personal 'will' to render women's appearance in public is well displayed in Chanel's revolutionary fashion, and this is Chanel design's philosophical foundation and is thought to have set up the backbone of public aesthetics.

The significant aesthetic compositions that consist of Chanel design's public aesthetics are the will of resistance, autonomy, moderation and combination, and such aesthetic

consciousness is thought to have embodied in Chanel design and formed a value as a public fashion.

This study is expected to be utilized as basic data to set up female leaders' 'public dress code' in the public domains where androcentric order is still operated.

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HISTORY OF INDIAN FASHION IN THE CONTEXT OF THE MUGHAL EMPIRE

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The Mughal Empire was existed from 1526 to 1858 in the Indian subcontinent state. The heartland of the Empire was located in the northland Indian Indus-Gangetic plains around the cities of Delhi, Agra, and Lahore. The Mughal Empire had a much higher standard of living than Europe at that time.

1. Introduction

Research on history of Indian fashion in context of Mughal Empire costumes-

This research goal is to show the importance of the Mughal Empire in Indian history during the late fifteenth century and early to middle eighteenth century. It was the greatest empire to ever exist in Indian history. The word Mughal (Persian) came from the English word Mongol, which means powerful person. During Mughal period the textile industry had a very high demand for silk and cotton which varied in many colors and designs. The fact that artistic life existed during the Mughal rule, it impacted and encouraged the idea of arts and crafts/architecture and trade of fashion items and materials. It affected many markets throughout Europe and Asia by building them up through trade which included trade of fabrics and unique designs.

2. The fashion of the Mughal Empire

They were different in the fact that they used the techniques of the Persians to help guide what designs they used in creating designs in clothing. The ladies and gents of the Mughal Empire wore beautiful and expensive clothes made from the finest materials and adorned themselves with jewellery from head to toe. The garments of Mughal ladies were made of the finest muslins, silks, velvets and brocades. The muslins used for their clothes were of three types: Ab-e-Rawan (running water), Baft Hawa (woven air) and Shabnam (evening dew). They used to wear silk jackets, short sleeved and a round shaped skirt, with ornamental design and large metal button-plate on the chest. The universal headwear for both Muslims and Hindus was the turban. The most important accessory for an Indian man was his turban, which proclaimed his status, religion, caste and region of origin. To

submit a turban to anybody was a sign of total subjugation and the removal of a turban was the most humiliating punishment that could be inflicted on any man. Ornaments are worn not only for the purpose of attracting the attention of others around but also as a distinctive mark of status, rank and dignity. Different types of head ornaments, ear ornaments, nose ornaments, necklaces, hand ornaments, waist belts and ankle/foot ornaments were used in the Mughal Empire.

3. Development in fabric and style

Development of Indian costumes and style was characterized by luxurious styles by Mughals during 16th, 17th and 18th century where luxurious clothes were made with fine muslin, silk, velvet and brocade elaborate patterns including dots, checks and waves were used with colors from various dyes including cochineal, sulfate of iron, sulfate of copper and sulfate of antimony were used. Fabrics of that time include wild goat's hair cloth and pashmina, light and warm wool. Silk were often embroidered with gold and silver thread and embellished with laces. All of these clothes were scented with rose water. They also developed special embroidery patterns including floral patterns, birds, elephants, and traditional patterns.

4. Conclusion

Their contribution to Indian architecture and clothing was so marvelous so that even now famous Indian designers including Manish Malhotra, Shyamal and Bhumika, Anita Arora and others are developing the traditional designs into trendy and stylish designs. The fact that the Mughal Empire was an Islamic Empire set forth the motion, it gave the nation the hope it was looking for to explore new ideas, when it came to fashion and art and not setting restrictions on what their religion allowed to do, and how it inspired them to make great art. And it definitely changed the way India looks at fashion now. In the coming future this can prove to be a milestone for the bloom of fashion industry in India to reach its zenith.

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A study on aesthetic characteristics of fashion model image shown in image-based Social Network Service

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Social Network Service(SNS) has created a communication environment that requires instant mutual response. A third generation SNS based on visual images is emerging as an effective means of marketing for global consumers using non-verbal ways to conveniently deliver information. SNS accounts have significant name recognition and ripple effects with many followers in the fashion sector. Clothes and cosmetics appearing in photos and videos help promote brands or products. This study analyzes expression types and inherent characteristics with a focus on fashion model images show in the image-based social network service 'Instagram'. This study also examined effective methods to produce and use SNS images as new visual media to persuade consumers before utilizing them as visual marketing data.

The methodology and scope of the study consisted of theoretical research conducted through image-based SNS, books on fashion models, previous studies and Internet materials. Quantitative and qualitative research focused on image data(photos and videos in the last five years from 2012 to 2016) that appear in accounts owned by the top ten male models(based on the number of followers) determined by Instagram in consideration of 'social rankings' announced by models.com.

Quantitative analyses showed that the expression types of fashion models posted on Instagram could be categorized into six groups: lifestyle image(46.2%), model reputation image(33.8%), emotion sharing image(9.8%), brand suggestiveness image(5.7%), product suggestiveness image(3.2%), and information sharing image(1.3%).

Characteristics of Instagram images of male fashion models generated based on the analyses of image type and theoretical research on SNS attributes can be summarized as follows. First, attractiveness is expressed by maximizing personal charm through enhanced empathy with SNS users and unexpected images that are different from those of the public conscious. Attractiveness stood out in terms of model reputation image, lifestyle image and emotion sharing images. Second, the identity of a brand(for which one works as

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a model) and image appropriateness for advertising products. Appropriateness stood out in terms of model reputation image, product suggestiveness image, brand suggestiveness image and information sharing image. Third, playfulness refers to evoking a pleasant feeling in followers through images that capture everyday life and special moments. Playfulness was expressed through lifestyle images and emotion sharing images.

The study categorized visual images that fashion models publicly share on Instagram in order to understand related characteristics. Advertising represents an effective method to promote fashion brands and products. The attractiveness of models can be indirectly maximized(or naturally expose products and brands) through lifestyle images, sensibility sharing images, methods of utilizing photos, or videos where the model reputation image matches the product image and brand image in terms of fashion brand appropriateness.

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The Innovative Design of Modern Clothing in the Part Of Chinese Traditional Elements

-The Study about Paper-Cut of Application-

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Paper cutting is Chinese art and culture inheritance .It is famous for conciseness,vivid images ,pureness,gravity ,colorful style and ancient history,so people called it the mother of folks art .The paper cutting has extended space for development in the costumes.Paper-cut element is filled with enormous graphic sense which has been reflected in the earlier application of costume design for its classic without any pompous characters and unique indicators.Paper-cut is still being highly valued by distinguished garment designers from home and aboard for its unique geographic style and enthusiastic culture atmosphere even under the circumstances of developed rapidly.Paper-cut has been widely used in human lives since it was coming into people's sight ,among which the costume design is one of those many uses.A good many of distinguished clothing design makes the diversity of paper cutting .Paper-cut can be showed no matter in simple and elegant style or extravagant type.

Therefore,I view the purpose of this study about paper-cut arts as an important opportunity to explore and search the course of its development, styles as well as characters and to use and express it reasonably in the society in the progress of making costumes.

1. The History Of Paper-cut

With five thousands years history and cultural heritage,the elements of traditional crafts in Chinese Nation has emerged in endlessly . Paper cutting's unique art characters make themselves outstanding,as one of those many elements ,such as simple, solemn,vivid and colorful.Paper cutting was brought among the people with a long history(BC73-BC79).Paper cutting can only be defined as paper-cut after the invention of paper.So people carve hollowed-out work by their hands made of thin materials.Truth to be told,paper cutting is counted as paper-cut from the beginning of the appearance of paper.The invention of paper in Han dynasty promote the emergence ,the growth and the inheritance of paper cutting.

2. The Application of Paper-Cut patterns in costumes

Paper-cut has been frequently used in people's life since it was showed, among which the application of it in the costumes is one .The kinds of Paper-cut patterns are different and each has its characters .All these caused the diversified of paper-cut arts in the costume design.From simple chic and elegant style to the extreme enchanting luxury ,paper-cut performs the best.The paper-cut pattern is accompanied by human,fowls,landscape,manito,character and religion.Because of the difference of regional and national characteristics, even if the same thing or person, it will be showed the same in their own different style.All these make people have different vision effects to the distinctive patterns at the same clothes.

The show of creative paper cutting makes the patterns on it more rich and plentiful,and makes the original and square paper-cut clothes becomes more vigorous through changing the shape of traditional paper-cut patterns and applying it to costumes.

3. The types of pattern in the clothing

There are some kinds of the main type of paper cutting in the clothing.First of all,it is used to be embellished with the fabrics of clothing,like as hollow out design.This method of expression is relatively complicated so that designers have some paper cutting knowledge ,and skillful experiment and craftsmanship.The designers also decide the size of pictures according to the type of clothing.Last but not least,other methods of expression which I used in my design is using color picture of modern computer technology:The finished paper cutting Patterns is not only by physical production but by printing technology which sprays the paper-cut patterns to the piece of clothes after cutting and then makes these piece of clothes seam up,and has finished at last.The last method has both advantages of the above method,which is not only performing the beauty of the costume,but it also gives the clothing more utility than showing.

4. Conclusion

With the development of the human society,every work of life is growing rapidly,among which rag trade ranks the first in the all basic necessities of life,such as food clothing,shelter and transposition.The elements of the paper cutting bring new challenges to the costume designers and many opportunities as well as infinite development space.The mixture of elements of paper cutting with costume design is puzzled at people all around the world,whenever the designer wants to express distinguished or simple.However,some problems have been gradually showed out with its application.

① To make a perfect efficiency ,paper-cut elements using in cloth is not only rely on making and opting by heart in the paper-cut itself,but what also is important is the choice

of fabric. But how to choose the proper fabric? The best answer is according to the features of paper-cut's colors and patterns as well as shapes. When the fabric and style in costumes are extremely fit for the patterns of paper-cut, you will be the right.

② It will be another question before us how to blend the both perfectly after completing the making of patterns and the option of fabric. There are many ways to mix the patterns with costumes and the designers could choose any ways they want, just following their heart.

③ Although more and more designers use widely the elements paper cutting in their design and their skills become more and more practiced, it also exists many imperfect things waiting for us to perfect. We should be uninterruptedly innovation and create more of the fusion process, composition, shape and color collection, etc. This ancient artificial art which is bequeathed to world for thousands years, can be advanced by leaps and bounds nowadays. What the designers should do is not only spread the arts, but what is the most important thing is creative. I'm looking forward to the designers who are influenced by the paper-cut elements designing more wonderful works so as to more and more people could feel the eternal charm of the paper cutting.

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A Study on Formative Relationship between Chinese Minority Women's Clothes and Accessories

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1. Research purpose

In China, there are 55 minorities exist officially besides Han race, accordingly, various cultures coexist in the country. Among them, costume of minorities take an important position in Chinese traditional costume culture. Particularly, accessories including hair accessory, waistband, bag, shoes, etc. are important costume factors, deeply related with color, material, and pattern of clothes. Meanwhile, advanced researches have focused on minority race clothes and hair accessories, and research on formative relationship between women's clothes and accessories has been insufficient, accordingly, necessity of research has been raised. Therefore, the purpose of this research is to provide the source of design inspiration in modern fashion by analyzing formative relationship between Chinese minority women's clothes and accessories distributed in overall China.

2. Research method and content

Research scope was to investigate social-cultural background by dividing 55 minority races in overall China into northeast-inner Mongolia region, northwest region, southwest region, and mid-southeast region, and analyze representative characteristics of accessories including regional minority women's clothes, hair accessory, waistband, and shoes. Research method combined literature research and case study. For the literature research, this research use the secondary materials from the former researches and internet data of costume history for theoretical consideration. For the case study, this research qualitatively analyzed formative relationship between clothes and accessories mainly with color, material, and pattern by selecting total 165 pieces, 3 pieces from 55 Chinese minority women's costume. The direct relationship between clothes and accessories can not be judged from

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the form of Chinese minority women's costume, therefore, form were excluded from the research objects of this thesis.

3. Result and consideration

1) Color

When concretely investigating total 165 pieces of Chinese minority women's costume as the research target, relation appeared in red, yellow, blue, green, white, which were utilized in detail of Tu women's clothes, and utilized equally in hair accessory, waistband, and shoes. On the contrary, color of clothes and accessories were found with the case of clothes of Achang and Pumi that expressed in complement color relation, the former utilized various colors as pink, yellow, and green, etc. in hair accessory, showing gorgeousness through strong color contrast with black skirt, and the latter showed contrast harmony by expressing basic color of the three primary colors in top, skirt, and waistband.

2) Materials

Silk was utilized as the material for women's clothes, hair accessory, waistband, and shoes of Sala, Tahui, Mongolia, Sibbo, Yuku, Tu, Paoan, Miao, Chuang, and Pulang. Also, similar harmony with cotton and cotton, hemp and hemp, lace and lace, etc. was found in the clothes of Li, Maonan, Tuchia, Nu, Pai, Puyi, Yao, Yi, Hani, Wa, She, Kelao, Tulung, Shui, Jinuo, Pumi, Lahu, Tartar, Russia, Tung, and Hoche. Besides, other minority races except ethnic Korean and Man of Northeast-inner Mongolia showed unity of material by utilizing leather and wool for women's clothes and accessories. On the contrary, minority races as Khalkhas who utilized chiffon and felt or chiffon and rattan vine for clothes and accessory materials, Penglung, Tai, and Lisu who utilized hemp and rattan vine or hemp and jewelry for clothes materials, Uzbek who utilized glossy material and leather for clothes materials, Lopa and Tibet who utilized wool and animals' teeth, or wool and jewelry for clothes materials, and Achang who utilized silk and hemp for clothes materials, etc. showed strong contrast harmony in texture, transparency, and gloss of materials.

3) Pattern

When concretely investigating the clothes of 44 minority races besides the people with no pattern in this research, the cases of wearing hair accessory and waistband decorated with splendid embroidery as the role to give a point to simple cloth design were found in clothes of Nahsi, Achang, Hani, and Kelao, showing the clothes composition that well shows accessories. The flower pattern decorated in Pai women's hair accessory, waistband, and shoes were unified on the whole with clothes decoratively by ben repeated on the tip of sleeves, collar, and tie. Similar structure to this could be seen in the rest minority women's costume.

4. Conclusion

As the result of this research's analysis on formative relationship between clothes and accessories mainly with color, material, and pattern of 55 Chinese minority women's clothes, clothes appeared to have a close relation with accessories such as hair accessory, waistband, and shoes, etc. Complementary colors were mostly used in color, and the cases that showed unity frequently appeared, since the same materials were utilized in clothes and accessories in respect of material, and pattern was utilized in unity with clothes as the emphasis. Based on this research, the researcher could determine deep relation between Chinese minority women's clothes and accessories. This research is significant to provide impression to modern fashion design and various development directions, furthermore, basic material for human costume culture.

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A Study on the Costumes expressed in the Peter Lindsay Weir's Film 'Witness(1985)'

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Witness is a 1985 American crime thriller film directed by Peter Weir and starring Harrison Ford and Kelly McGillis. The screenplay by William Kelley, Pamela Wallace, and Earl W. Wallace focuses on a detective protecting a young boy who becomes a target after he witnesses a murder in Philadelphia.

A young boy is sole witness to a murder; policeman Harrison Ford as John Book goes into hiding in village to protect him until the trial.

The film was nominated for eight Academy Awards and won two, for Best Original Screenplay and Best Film Editing. William Kelley and Earl W. Wallace won the Writers Guild of America Award for Best Original Screenplay and the 1986 Edgar Award for Best Motion Picture Screenplay presented by the Mystery Writers of America.

Fashion style in movies delivers their image the atmosphere and becomes the means for containing the personality, spiritual world and inner thinking the characters in the movies and including its plot.

As for the scope of this study, the social and cultural background and the background in terms of western history of costumes in the 1980s, the backdrop of film 'Witness, were researched and then the symbolism and the meanings of costumes in the movie were studied.

When we analyzed the fashion style in the movie, we could notice women usually wore solid colored dress and men also wore discolored clothes to express their faith and beliefs to religion. Main characters costumes showed european styles in 18 century. Their roles were plain people.

Their dresses didn't decorate anything with buttons, frill fringe, embroidery, etc. In the movie, Kelly McGillis as Rachel said "we don't fasten with buttons". Fastening systems were just hooks and eyes and pins. Thus we can guess that the buttons are symbolized wealth in western history.

Men and boys wore dark-colored suits, straight-cut coats without lapels, broadfall trousers, suspenders, solid-colored shirts, black socks and shoes, and black or straw

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broad-brimmed hats. Their shirts fastened with conventional buttons, but their suit coats and vests fastened with hooks and eyes. They did not have mustaches, but they grew beards after they marry.

The costumes in the film are implied from cultural phenomenons, times, and life styles showing mutual human relationship.

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A Study on the oldest trousers in the world

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Introduction

In Central Asia, in the eastern region of Turfan, a pair of trousers was excavated by the Eurasia Department/Beijing Office of German Archaeological Institute in 2011, which are dated between the 13th and 11th century BC; it is considered to be the oldest pair of trousers ever found. The legs of the trousers are cut straight and narrow fitting, the legs are connected with a stepped crotch part, this appears to be a very suitable form for a nomadic lifestyle. The trousers are not tailored, instead they are woven precisely according to the body measures of the person wearing it. This makes the trousers very important research material for the study of fabrics. By an analysis of the form of the trousers and the used fabrics, this research aims to reconstruct a picture of the lifestyle and dressing culture from the people of this era. This study refers to data, which has been extracted from reviews of literature, articles and excavation data of German Archaeological Institute.

Analysis and Conclusion

The pair of trousers consists of three parts. There are two straight-fitting parts, one for each leg, and a wide crotch-piece connecting them. Trousers of this form increase flexibility, making them very suitable for a nomadic lifestyle and in the end this would be even supportive for the way of horse-riding warfare. The trousers are made of wool textile. Radiocarbon dating indicates that the fabric is 3,200 years old, and should be dated between the 13th -11th century before Christ. This means, that the trousers are even older than the finds, which are dated to Scythian times. This makes the trousers the oldest trousers in the world, that we know of. The 13th-11th century was the time when animal husbandry in combination with a nomadic lifestyle was widely spread in Asia. This is why, it can be assumed that the trousers belonged to a nomadic culture. The trousers were not known until the end of ancient oriental culture. It is believed that they occurred first during the Achaemenid Empire, in the north-eastern, and north-western regions of Persia and their neighboring regions. Until now, the oldest found of a pair of trousers, which are documented in "research literature" are the trousers worn by northern-east Arian

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tribes during the 9th century; these trousers were made of leather and had attached socks (Anaxiriders). A bronze figure of the 10th century BC is proofing this observation. This figure is a depiction of the "bull-rider" as described in the Arian legend of Avesta (Avesta, Yasht 5: 50, 130). The rider wears a long garment, which is reaching down to his ankles. The fact that the person is riding a bull instead of a horse and the fact that he is wearing a garment instead of trousers indicates that the Arian people of the 10th century lived an agricultural lifestyle. It can be said, that there was a change from an agricultural lifestyle to a nomadic lifestyle during the 9th century BC, the period to which the trousers are dated. But the discovery of these trousers from the 11th-13th century BC indicate that the shift to a nomadic lifestyle took place much earlier in the eastern parts of the Central Asia than in the Middle East. These observations prove that the form of dressing is related to the form of living and can be a strong instrument to investigate the environmental and cultural circumstances of an era.

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Understanding the Wisdom and Philosophy behind Fashion

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Abstract

Profound philosophy can be read in any kind of common clothes. We should be aware of more wisdom behind the fashion, rather than the fast copy of fashion.

Key words : Beauty,Actually

1. Introduce

1.1 The concept of earliest clothes

The fashion that we talked about at earliest was actually clothes which originated from covering up humans' embarrassment and defense since the dawn of mankind. Clothes can not be separated from the spiritual content given by people. In terms of the relationship with people or things, there is the combination of subjective and objective awareness in the universe. There will be no civilized clothes without people and things, and vice versa. In accordance with the Christian legend, after tempted the snake to eat the fruits the tree of good and evil, Adam and Eve started to perceive the world. They were the first ones to perceive the naked of ego and created to use coverings produced by leaves to shield their bodies. The continuous evolution of clothes culture constitutes today's fashion. This kind of consciousness, whether wisdom and clothes or man and nature, makes humankind world colorful.

1.2 Silence speaks better than sounds

Clothes express more inner emotions of human kind. One's appearance, intentionally or unintentionally, will reveal the secrets of his heart. Mankind expresses their emotions and thoughts through language while clothes reveal the inner worlds of the creators and the wearers through silent language. Silence speaks better than sounds. As documented in the ancient literature named Book of Rites: "The deepest sorrow is the full display of grievousness. Removing decorations is getting rid of beauties." It is recorded that clothes is closely bound up to mankind's' emotions.

1.3 "what on earth fashion is"

Clothes are the carrier for showing the spiritual civilization of mankind. Styles of clothes are personalities of human. Human civilization develops continuously. Tradition cultivates

fashion and fashion formulates tradition. In this connection, fashionable styles constantly show up and the unique and flirtatious expressions of clothes present new appearances. For this reason, more designers are desperate to worship fashion, pursuing one wave of fashion movements after another. However, natural fashion at present becomes increasingly artificial. In the era of science and technology when mankind become gradually socialized. Fashion, as a product of spiritual civilization of human culture, is less sensitive to reality and beauty. In terms of fashion, we can continue to expand scales to develop ourselves, and benefit from more powerful strategic effects in fashion. But in society, the ever-expanding passions for fashion empowers us lose more cognition of clothes. Whether ordinary people or top people in fashion, abandon the original and true answer to "what on earth fashion is". Designers unceasingly appropriate good design brand to themselves. This is not fashion. Many people are not likely to get fashion through traveling faster. Where on fashionable people go? The authenticity of fashion is doubtful. As society advances continuously, human begin to pursue more beautiful things. How should people who chase after fashion comprehend fashion? When pursuing fashion, we should not be dominated by this kind of absolute fashion. As regard to the changes of models of fashion, what is more important is that we should find out our inspirations and maintain ourselves, which is committed to world fashion. We should find the significance of fashion in the cycle and change of rapidly-changing fashion trend. This, in effect, is fashion.

Various kinds of complicated mentality of human beings can be delicately reflected from clothes. Cowboy suit boasts strong popularity among the public, in that its original roughness can be regarded as a kind of balance and counterweight of sense of indifference and powerlessness of normalized urban life. The Japanese kimono and Chinese costume are not fashionized, but actually worn on bodies in a graceful gesture, embodying limited and elegant life pace of Orientalism. We can read profound philosophy in any kind of common costumes rather than being disturbed by the steps of the world, going after fashion and replicating fashion.

2. The importance of the wholeness of Fashion

Fuller once said: "tailors and writers must always pay attention to fashion." A famous German philosopher also said: "people achieve this goal by changing external things. What a pity for the stigma of life in his inner heart." We should pay attention to not only the moment when fashion brings us joy, but the integrity of culture and system of clothes.

3. Conclusion

To put it in a nutshell, the beauty of one lies not in how "fashionable" one's clothes is, but in how to perfectly show the combination of spiritual realm and personal ideal. When we are attracted by a unique one, what actually catches your sight? It is not just

gorgeous clothes, but one's fashionable spirit and temperament which catch your attention and heart and the profound philosophy of fashion.

Natural Dyeing of Fabrics by using Aronia Extraction

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This study was examined to know the dyeing characteristics of Aronia extracted solution on cotton and silk. Aronia contains anthocyanin, polyphenol, flavonoid and tannin which help to show such unique colors as red, purple and blue. As Aronia contains abundant antioxidant materials, it becomes popular health food and has been used as a food coloring for a long time. Since it was known as good anti aging health food, local production of Aronia has increased rapidly, however, increasing number of fallen fruits and accumulating damaged ones which missed the right harvest time requires proper measures to applicate.

Aronia fruit pigment is highly affected by pH, and it is known that it shows red, purple and blue in acid, neutral and alkaline solutions respectively, and its pigment is decomposed in strong alkaline solution. On this basis, this study analysed the dyeing characteristics of Aronia extracted solutions in line with pH and would like to help to enhance its utilization.

Samples were cotton and silk, and alum was used as mordant. And dyeing solution was extracted from frozen Aronia. After mordant treatment of 30 minutes in 80°C 20%owf alum water solution, they were rinsed in water and drained for natural dry. Dyeing solution was extracted twice repeatedly for four hours from Aronia of 1:1.25 liquor ratio at 60°C and mixed for experiment. Dyeing was done with the bath ratio of 1:250 by adjusting pH of Aronia extracted solutions to 3.5, 7 and 10.5 respectively.

Huh(2016) reported that optimum dyeing condition was 40°C considering quantity of dye exhaustion, fabric damage and dye efficiency. Hwang & Ki(2013) reported that pigment was decomposed over 40°C. For this experiment, dyeing was done at 40°C for 60 minutes in dyeing machine DL-6000. After dyeing, several times of drain and rinse was made until clean water came out to dry naturally. To assess the colors of the dyed samples, it was checked three times by Pantone LLC, X-Lite SP62 Portable Spectrophoto-meter and its average value was used to measure L*(Whiteness), a*(Redness), b*(Yellowness), ΔE value and Munsell values H, V, C. To assess the fastness of color, color

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fastness to washing(KS K ISO 105-C01) and color fastness to light(KS K ISO 105-B02) were checked.

According to the analysis of dyeing property of cotton and silk dyed by Aronia solutions, it was found that both cotton and silk dyed red with 6.1RP-6.2RP at pH 3.5 regardless of mordant. In pH3.5 acid dye solution, mordant treatment did not affect the dye property, and, at pH7, in case of silk, color difference showed greatest from 33.38 to 66.34. And it increased from 12.51 to 32.57 at pH10. In neutral solution(pH7), it was dyed blue with Munsell color of 4.41P and 6.42PB. Both cotton and silk were dyed favorably in acid and neutral solutions, and, specially, alum treated silk in pH7 dye solution showed the best dye property. This is because protein fabric of silk contains several $-NH_2$ group or $-COOH$ group which keeps high dyeing affinity with dyeing solution in its molecular structure. Dyed fabrics of various colors with Munsell color value of RP, P, PB, GY was obtained by Aronia solutions, and this is because one of the silk ingredients amino acid combines with a part of anthocyanin to show blue. The measurement result of color fastness to washing showed that, in pH 3.5 and 7 dyeing solutions, degree of fading was low with 1st or 1-2 rate and degree of contamination was favorable with 2nd or 3rd-4th rate. Color fastness to light showed 1st rate in all of the cases except the one in which silk was dyed at pH7 with mordant treatment. It seems to need further study on dye temperature, mordant density etc. in the future.

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Design Development for Fashion Cultural Product Using Traditional Patterns

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Modern fashion is being newly born through the development and deformation of color and fabrics within the cycle of returns and repetitions. Fabric development can be divided into performance and pattern.

A pattern refers to the representation of dots, lines and colors to arouse aesthetic senses. It is able to satisfy the esthetic sensitivity and pleasure of comfort for humans the best. In fact, it has changed and been applied in diverse manners in contemporary background and flow.

Despite *Hallyu* ('the Korean Wave': the rise of Korean culture) around the globe, it's been hard to find products or contents with Korean traditional beauty in design. In fact, items designed in Korean traditional patterns have only been found at a souvenir shops in large art exhibition halls such as National Museum of Korea and Seoul Arts Center.

This kind of design has been created based on a basic unit motive. If a new method is applied to this motive, it would be able to create more diverse designs. This study attempts to apply tessellation to this kind of pattern. In the Republic of Korea, however, this pattern is mostly used as a math material with little studies on fashion and culture.

Tessellation is created when a shape is repeated over and over again covering a plane without any gaps or overlaps. Another word for a tessellation is a tiling. Tessellation is called, 'Jjokmae Machum' in Korean. The word "tessellate" is derived from the Ionic version of the Greek word "tesseres," which in ehave only been found at a souvenir nglish means "four."

And It's a material for math education that highly associated with our real life, so it can be used Wallpaper patterns, Precast pavers, Precast pavers, Tile etc. Also develop designer's creativity and ability to design.

Maurits Cornelis Escher, One of the Representative Tesslation designer. A lot of tessellation designs which can display the beauty of symmetry were created using geometric patterns.

Most famous Architecture is a fourteen century Moorish castle in Granada, Spain.

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Is it possible for a single regular polygon tessellation into shape, equilateral triangle, square, hexagon

Patterns were utilizing the traditional pattern of culture portal provided by Korea Culture Information Service. Is it possible for a single regular polygon tessellation into shape, equilateral triangle, square, hexagon.

The author has designed the application in accordance with the conditions tessellation, mainly using animal, natural landscape patterns.

Tessellation in which math and art are mixed would be an infinite configuration concept among designers as well as a tool for creative education & training to understand the composition principles of ancient culture and build modern design senses.

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A Study on UV Protection of Materials Processed with Medicinal Herb Extracts

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The increased amount of ultraviolet rays reaching the surface due to the destruction of the ozone layer. It has become caused by environmental pollution a problem resulting variety of skin disorders of the human body including sun burns, photoaging, pigmentation, skin cancer, and etc. Currently, various clothing products are produced in order to protect the body from ultraviolet rays but an organic ultraviolet absorbent among ultraviolet absorbents used in the production and processing stages are harmful to the human body. Some are known to cause skin irritation when exposed for a long time and have side effects such as allergic reaction and etc.

Thus, this study was to extract machilia, eucommia bark, granat, chestnut shell, Morinda officinalis and Noni which are medicinal herbs reported to contain a large amount of tannin ingredient and process them in clothing materials. By measuring the UV blocking rate of the processed materials and comparatively analyzing the blocking effect, we were obtained the basic data for the development of highly body friendly and eco-friendly UV protective materials.

The fabrics used in this experiment include cotton, silk, tencel, nylon(Sombe Co., Ltd.). As medicinal herbs, machilia, eucommia bark, granat, chestnut shell, Morinda officinalis and Noni(Samheung Wholesale Medicinal Herb Store) were used. In order to prepare medicinal herb extracts, medicinal herbs of 50g each were extracted for 3 hours with 1ℓ water in the water bath maintaining 85°C. Extract was adjusted to pH 4 (20% CH₃COOH aqueous solution) and each fabric was treated with it. In order to compare it with the UV blocking rate, tannin acid solution 3% and 6% were treated in fabrics for the analysis. Fabrics were dyed at 85°C for 60 minutes by using the DL-6000 automatic dyeing machine. In order to measure the UV blocking rate of processed fabrics, UV-A sensor module and UV-B sensor module were used. The blocking rate compared to UV light transmittance was calculated. For colorimetry of the processed fabric, Pantone LLC and X-Lite SP62 Portable Spectrophotometer were used. CIE L*, a* and b* values were measured with 10° view D65 light source. Points in the 3D space coordinates were colored and ΔE value

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expressing the distance between two points with color difference was calculated.

The UV blocking rate of materials processed with medicinal herb extracts was measured and as a result, all processed materials had a blocking effect compared to untreated materials. In order to find out the UV-blocking effect, the analysis was carried out based on the blocking rate of fabrics treated with tannin acid solution 3% and 6%. In the case of cotton, the effect was found to be good in the order of granat > chestnut shell > machilia > Morinda officinalis > eucommia bark > Noni and granat was the most effective blocking in blocking. In the case of silk, the effect was found to be good in the order of granat = machilia > eucommia bark = Morinda officinalis > chestnut shell > Noni. In the case of Tencel, the effect was found to be good in the order of granat > chestnut shell > machilia = Morinda officinalis > eucommia bark > Noni and in the case of nylon, granat > chestnut shell > machilia > eucommia bark > Morinda officinalis \geq Noni. In the UV blocking rate of cotton, silk, Tencel, nylon, granat was measured to be the highest and the rate was found in the order of chestnut shell > machilia > Morinda officinalis > eucommia bark > Noni. The difference between Morinda officinalis and eucommia bark was found to be subtle and UV blocking rate of Noni was found to be lower than that of other materials processed with medicinal herb extracts. When comparing cotton, silk, Tencel, nylon processed with medicinal herbs, L* value decreased in all kinds of samples. a* value of eucommia bark, machilia, Noni of cotton decreased, reducing red and a* value of the remaining samples increased, increasing red. b* value increased in all the cotton, silk, Tencel, nylon, increasing the yellow ingredient. A correlation between ΔE and UV-A blocking rate, ΔE and UV-B blocking rate of materials processed with medicinal herbs was analyzed and as a result, there is a tendency that UV blocking rate increases as the color difference of processed materials increases.

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Natural Dyeing of Silk Fabric Dyed with Mori Folium Extracts

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The pollution is caused due to application of synthetic dyes and the intermediates formed during their synthesis, and has use of safe and eco-friendly products. Around the globe, growing cautiousness about organic value of such eco-friendly products has generated new demands of consumers towards the use of textiles. Thus the use of natural dyes in textile application is growing and gaining popularity because of their non-carcinogenic and non-hazardous nature. Natural dyes are usually deeper and softer in color shades than synthetic dyes. Because of the increase worldwide concern for the environment, use of natural dyes is being widely studied. Natural dyes may overcome many defects of synthetic dyes such as harmfulness to the human body and water pollution.

In this study, the availability of Mori Folium leaf was used as a natural dyes for producing well-being fashion material and its proper conditions are examined through the evaluation of the dyeing property by the dye processing conditions and by mordanting when silk fabric is dyed and mordanted.

Moraceae is a family of flowering plants that comprises about 40 genera and over 1000 species. Belonging to this family, Mori Folium(*Morus alba* L.) is a genus of 10-16 species of deciduous trees native to warm temperature and subtropical regions of Asia, Africa, North America, and southern Europe. Mulberry trees are fast-growing when young, but soon become slow-growing and rarely exceed 10-15 m tall. Their fruits are multiplied, 2-3 cm long the leaves, being the sole food source for silkworm (*Bombyx mori* L.), the cocoon of which is used to make silk, have a big ecological and economical importance. The leaves have been shown to possess diuretic, hypoglycemic, and hypotensive activities, whereas the root bark of mulberry trees has long been used for antiinflammatory, antitussive, and antipyretic purposes.

The proper colorant concentration, dyeing temperature, dyeing time, and pH for the dyeing of silk fabric with Mori Folium leaf extract were 100% v/v, 80°C, 100 minutes and pH 5, respectively. In various mordanted methods, the K/S values of pre-mordanted methods were higher than those of post-mordanted methods. And the Fe mordant showed

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higher K/S values than those of other mordants.

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A study on Life Cycle Assessment of Polylactic Acid

- End-of-life options of PLA -

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1. Purpose of Study

The objective of this study is to analyze the environmental effects of disposal of polylactic acid (PLA) to figure out the best end-of-life options. Nowadays, the most important tool to evaluate the environmental impact of a bioplastic is life cycle assessment (LCA) that determines the overall impact of a plastic on the environment by defining and analyzing several impact indices directly related to production, utilization, and disposal of the considered plastics (Gironi, F., Piemonte, V., 2011, p.459). This study mainly covers the final waste treatment among all process steps from raw material to production of the used PLA. Most of the life cycle studies on bio-based and biodegradable materials, which limit themselves for the production phase, neglecting the post-consumer waste treatment stage completely (Hermann, B.G., et al., 2011, p.1160). It is therefore important to analyze end-of-life impacts of PLA in further detail and identify which waste treatment option is preferable.

2. Methodology

This study is progressed investigating on preceding research concerning lifecycle assessment of polylactic acid. In particular, the studies are examined in accordance with criteria of global warming and resource depletion. Global warming impacts indicate carbon dioxide production relevant to the process and emissions from the decomposition of the polymeric material. Resource depletion impacts means total energy demand mainly affected by energy credits. There are six disposal scenarios for used dry packaging considered in this study: mechanical recycling, industrial composting, anaerobic digestion, direct fuel substitution in industrial facilities, incineration with heat recovery in municipal solid waste incinerators, and landfilling.

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3. Result

1) *Global Warming Impacts*

V. Rossi et al. (2015) insisted that a net total ranking considering decomposition impacts as well as treatment credits is following: Mechanical recycling<Landfill, Direct fuel substitution<Anaerobic digestion<Municipal incineration<Industrial composting. Mechanical recycling recovers original packaging material in recycling. According to Couturier et al. (2010), the landfill gas collection rate was 49% in Europe in 2008 (the rest is emitted to the atmosphere), of which 45% is recovered for energy, most of it with gas engine to produce electricity. Therefore, 22% of the generated landfill gas is recovered for energy. For composting, anaerobic digestion, direct fuel substitution and municipal incineration, the treatment impacts are similar due to the conversion of the embedded carbon into CO₂ releases. High treatment credits for direct fuel substitution, anaerobic digestion and municipal incineration substantially decreases the net impacts of these options. Direct fuel substitution restore a large amount of thermal energy and electricity and thermal production are considered to substitute fossil fuels used in the industry. For Anaerobic digestion, methane produced during the biodegradation is considered to replace natural gas supply and combustion for heat production. It works on carbon-offsetting and energy recovery in post-digestion. For incineration, the facility provides for the energy co-generative recovery (electric and thermal energy) by the incineration of PLA bottles and it displaces grid electricity and the process heat used for PLA granules production (Gironi, F., & Piemonte, V., 2011). In contrast, industrial composting has high environmental impacts since it cannot replace fertilizer. The degraded polymers almost completely have a very low N-P-K (nitrogen, phosphorus, and potassium) content which is the major element in plant nutrition.

2) *Resource Depletion Impacts*

According to V. Rossi et al. (2015), a net total ranking is Mechanical recycling<Direct fuel substitution<Anaerobic digestion, Municipal incineration<Industrial composting<Landfill. The impacts of all scenarios are insignificant and similar on the whole, but the major influence of ranking was energy credits. Landfilling and composting got the highest net impacts close to zero. The four scenarios with lower impacts is concerned with energy recovery derived from transformation of heat into usable energy. On the other hand, landfilling has relatively high impacts on resources depletion, give that very limited benefits are generated related to low rate of methane capture to produce energy. PLA is hardly degraded in a landfill over the 100-year time scale considered, which is equivalent to a biogenic carbon sink (V. Rossi et al., 2015).

4. Conclusion

Among the end-of-life scenarios, mechanical recycling seems to be the best way to disposal residual PLA because it generates lower environmental impacts. However, other factors, such as the quality of the recycled polymer produced, must be taken into consideration. The polymeric material cannot be mechanically recycled several times due to the loss of mechanical properties and quality deterioration (de Andrade, et al., 2016). In the current life stream, there are few existing facilities and many operators are not happy with accepting packaging materials. They are concerned about high rates of contamination of PLA recycle and inefficiency because it is not easily distinguishable from conventional plastics and absence of treatment technology and clear policy. To make all scenarios to be potential end-of-life options, facilities should be well-equipped in on-site lifecycle process. Also, all members including producers, retailers, consumers, transfer stations, composters should cooperate and involve into recycling stream altogether.

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Evaluation of durability characteristics of cashmere knit, produced by semi-worsted yarn

- Research result of fine cashmere durability characteristic –

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Since Roman times, cashmere products have been glorified and used for its nature of softness, warmth and beauty. As continuing rapid change in consumption, aesthetic culture and technology, requirements on color, design and quality of knitted garment is growing. There is a need for amplifying a product range.

Mongolian cashmere is classified as a Classic Asian Cashmere by its structure, characteristics and features, signified by its long and flexible nature. Based on this significant characteristic, number 48/2 - 60/2 pure cashmere yarn was produced by semi-worsted spinning system. With this yarn, light-weight, fine and smooth surfaced textile can be produced on 14-18 G knitting machine. This work summarizes results of research on durability and the usage of textile knitted by semi-worsted yarn spinning system. The research result validates high score on drapability, endurance and pilling. It is also possible to knit all type of patterns on automatic knitting machines.

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The Method Explorations for Green Design of Jeans

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1. Research purpose

The production process of clothes not only affects the environment, but also gradually becomes a major part of the solid waste pollution sources, since the old clothes are non-degradable, non-landfill, incineration of non-nature, which do harm to the environment immeasurably. As taking jeans are familiar with most people, no one can realize that the bad impacts on environment from jeans are enormous rather than other clothing. In this writing, the writer will take jeans as the research object, using the concept of green design to explore how to make green design of jeans.

2. theoretical observation

2.1 The concept of green design

Green Design is also known as Ecological Design. Eco Friendly Design is a kind of design concept presented by the United States and Europe in the 1980s. Namely, the production and consumption sectors must reduce the adverse effects on the environment. While ensuring the proper function of the product, service life, quality and other requirements, people should follow 3R principles-Reuse, Recycle and Reduce in order to reduce the environmental pollution and energy consumption, reuse or recycling the products .

2.2 The idea of green design for costume

Green Design of costume refers to that when we meet the requirements of nature environment, health and comfort, at the same time, we should attain the sustainable development under the premise of doing no harm to ecological environment. Green costume design must take full account of the selections of clothing fiber and raw materials, the choice of fabrics, the processes of productions, packaging design, marketing, wearing washing, recycling which possibly affect environment.

2.3 Situation and problems

2012 German documentary "Der Preis der Blue-Jeans " recorded jeans production process a few years ago. Although some inaccuracies in it, there were some real problems shown jeans production. The washing process of jeans is an enormous demand of water.

Besides wastewater discharges occupy a very large part. As a part of life, the clothes occupy a very large consumption of resources and make impacts on the environment, starting from raw materials production to garment dyeing link which emit large quantities of waste water. Because of the short design cycle of fast fashion brand and low-cost characteristics, for example, each jeans with the price of EUR 9 is in a huge high consumption and at the same time makes a bad influence on the environment as well. For these problems in the production process of jeans, it is clearly important how to improve the production process of environmental pollution is an urgent need to address social development issues.

However, the pollution not only be produced in the production process which can affect the natural environment, but also appeared in dealing with old clothes. In China, every year about 26 million tons of old clothes are thrown into the trash, and gradually have increased. Due to the low recovery of old clothes, old clothes and most trash can only be landfilled or incinerated together, increasing the burden on the environment. In spite of the annual consumption of British Textile reached 1.9 million tons, only 17% are recycled. Also in Japan, every year about one million tons of clothing are thrown away as waste, only 10% are recycled. Many old clothes directly throw away as waste. This is not only a waste of resources, but also a damage to the environment.

3. The method of green design for jeans

Jeans is the most well-known clothing, as in everyone's wardrobe the most common clothes. As the research object, it is important to apply the green design to the design of jeans. And in this foundation, to study the method of green design in order to reduce waste of resources and pollution of the environment and achieve recycling is crucial as well.

Firstly, in the selections of fabrics, the main fabrics of jeans are currently the cotton fiber. In the future, people can develop new environment-friendly fiber materials as denim. At the same time, to ensure wearable non-toxic, people also can consider facilitate the recovery and reuse regenerate, or able to degrade. On the other hand, under the concept of recycling, waste can be recycled fabric manufacture again. In 2012, Professor, Tony of the University of Sheffield and the London Institute of Clothing designer, Helen designed a green jeans. This environmental jeans, covered with a layer of titanium dioxide particles which can cause air pollutants nitrogen oxides and form environmentally friendly water-soluble nitrates. These nitrates can be washed off in. This can not only clean the air without prejudice jeans people wear, but also has no effect on human skin. The formation of nitrate is not environmental pollution. If the fabric can be widely used for environmental protection, it is also very useful.

Secondly, in the selection of raw materials which need to meet the garment industry

production, conventional cotton production uses a lot of fertilizers and pesticides, leading to the land and environmental pollution. At the request of the green design concept, organic cotton instead of the traditional cotton has become a new generation of environmentally friendly fabrics. Organic cotton, which is the ecological fabric (Eco Fabric), is a kind of cottonseed cultivation without the treatment of the pesticide. No need to use pesticides in the cultivation process, organic cotton is under the use of insecticide-treated by hand or physical way rather than the traditional cotton. There will be a 75% reduction in water consumption which also reduce the consumption of resources and environmental pollution. Furthermore, taking Levi's Eco jeans series as an example, it uses 100% organic cotton in terms of materials and also utilizes the natural materials in dyeing methods. Also, some of the ornaments used recycled buttons, nails and zippers. If all the jeans are made by raw organic cotton, the consumption of resources and environmental pollution will be greatly reduced.

In addition, it should reduce the use and consumption of resources of chemical materials in the craft design process. Per 1 kg of traditional textile dyeing consumptions usually takes 95-150 kg of water, which has become an important source of water pollution. CO₂ present situation of waterless printing technology can largely solve this problem. After the complement of dyeing, the remaining fuel and CO₂ can be recovered and recycled, greatly reducing the need for water and sewage and saving energy consumption. Spain Jeanologia Textile Company has developed GFK laser technology to replace the traditional stone processing and adding chemicals jeans bleaching technology. This new technology can not only save costs, but also reduce the amount of water as well as the use of chemicals, which two techniques for traditional jeans.

When jeans are in green design, the most important thing is the recycling and reuse of them. In developed countries, the awareness on textile and garment waste recycling and environmental is far beyond the developing countries. Developed countries have set up a special company to deal with old clothes. They give each family with clothing collection bags, and then take away by the staff or on clothing recycling bins for classifying clothing. The first category is a good clothing that can be donated for charity. The second category is no longer used by the textile material classification, re-use of textile weaving technology of textile fibers and fabrics, and re-use. Since most of the recycling of used clothes are in the new state, the cause of being dropped is unfashionable or do not meet the size. For this reason, resource consumption and waste is also a certain degree. On the one hand, due to the heavy wear denim fabric, yarn small or a large piece of cloth that all can be reused. Furthermore, it is a good use of waste which can be made into jeans to bags, back cushion, sofas, carpets and so on. To achieve the secondary use of the jeans, the jeans can not be reused, the yarn can be used to achieve the second value of jeans or turn into biofuels. Sweden has developed into the discarded jeans biofuels

technology. Old jeans soaked in a solvent, the jeans in cotton fiber is separated from the polyester fibers out of the cotton fiber into ethanol or other biofuels, and the remaining polyester fiber recycling reuses in textiles .

On the other hand, the relatively intact jeans, people can set up recycling bins for donations as a result of maximize the value of old jeans. At present, people still lack awareness of recycling clothes. The awareness of cloths by classification process should be strengthen for citizens. In China, as people do not have this consciousness, it causes that the clothing have been directly discarded and an environmental pollution. South Korea has set up the laundry bins in the streets, but it is quite lacking for clothing collection concept.

4. Conclusion

Green design has become a new trend in the field of design. However, nowadays people's awareness of the concept is still weak and needs further development. It will be crucial that through the research of green design for jeans, people can apply the green design concept into jeans design. Green design also can be used in jeans in order to reduce waste of resources and environmental pollution as well as to achieve the effect of recycling. By doing so, the direction of the future development can be focused on the sustainable development of society and it awakes that environmental protection is everyone's duty.

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A study on using of department store and cosmetic behavior of students in beauty classes

-Focused on Department store's culture center-

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In accordance with the social phenomenon emphasizing appearance more than ever and active engagement of women in social activities, the number of women attending in the beauty classes has been increasing. As the necessity and importance of such beauty classes have been emphasized, the beauty institutes including culture centers in department stores have been gradually increasing. The culture centers in department stores are the education institute where women wanted to attend the beauty classes the most. Furthermore, those culture centers play the important roles for attracting customers to the department stores. Thus, the culture centers make significant contribution on creating new customers and increasing sales. Accordingly, this study tries to identify the cosmetic purchase behaviors of students in beauty classes in the culture centers in department stores and the features of their usage of department stores. The analysis results may be used as the marketing data for operation of department stores.

For in-depth identification on the features related to the usage of department stores by the students in beauty classes in culture centers in department stores and their features in using department stores, the qualitative analysis approach was adopted. In-depth interview and participatory observation were executed. For feasibility, triangulation was applied, which used a variety of data and checked members. The respondents were 19 women from 24 to 58 years old who had the experience in attending the beauty classes in culture centers in department stores in Seoul more than twice. For data collection, one-to-one interview was executed from Jan. to March 2016. The interview per person took about 60 minutes. Furthermore, I executed the participatory observation by directly attending in the beauty classes from Dec. 2015 to July 2016. The interview was recorded and transcribed after acquiring the consent from interviewees. The interview comprised the questions on cosmetic purchase behavior of students in beauty classes and those on usage of department stores.

The interviewees of this study answered that their purchase frequency of cosmetics and

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amount of payment for those cosmetics were increased after attending in the beauty classes in culture centers in department stores. Even though they had the cosmetics, the purchase motivation was generated as instructors of beauty classes recommended cosmetics in beauty classes and the necessity of certain cosmetics was generated. In particular, the recommendation by instructors played the significant role because the students in beauty classes had the confidence on the instructors in the culture centers related to the purchase of cosmetics. The word of mouth among students in the same beauty classes had also significant roles. Accordingly, the department stores need the marketing strategy by word-of-mouth or SNS related to cosmetics.

Moreover, the students had the awareness that acquiring information on cosmetics during beauty classes was more positive and convenient than acquiring information on cosmetics in cosmetics shops. It was because the students could test the cosmetics in the same illumination as the general one in our daily life during beauty classes while it was difficult to observe the change of cosmetics depending on the lapse of time and the illumination in cosmetic shops in department stores was different from that in our daily life. Accordingly, if a certain cosmetic brand in a department store sponsors a beauty class in a culture center in that department store, it will be directly connected to the purchase of cosmetics by students in the beauty class.

For the usage of department stores, the frequency of using department stores and amount of payment were increased after attending the beauty classes. It was found that students looked around department stores before or after the classes because they needed to visit the department stores when there were beauty classes in the department stores. The students in beauty classes got to know the configuration of a department store and the locations of shops as looking around department stores and became more interested in discount events as the sense of closeness to department stores was increased. Thus, department stores can increase sales by notifying the information on discount or promotion events at the entrance of the culture centers of department stores or sending SMS or DM related to such events to students in culture centers in department stores.

In case of the features of using department stores, women in 20s and 30s tended to shop alone or with one friend, but students in 40s or older used the department stores in a group of 3 to 4 members. Furthermore, the students made a group meeting with those who became friendly as attending in the beauty classes and continued the group meeting as taking other classes or re-taking the beauty classes. It was estimated that women in 40s or older recognized the culture center in a department store not as the simple learning space but the space promoting friendship. Moreover, they used department stores for meals or appreciation of cultural performances as well as shopping as attending in the classes in the culture center. However, most beauty classes at present had the limit because they focused on those in 20s and 30s. Thus, it is required to develop the beauty

class curriculum which women in 40s or older can also attend.

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The types of contemporary men's fashion images through personal color system

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This study is to analyze and patternize contemporary men fashion images applying for personal color system. It is researched by the means of 'Taste Scale Method' developed by Japan Emotion Marketing Researcher which its practicality and accuracy are being proved by enterprises large-scale project and widely used as indicators of emotion marketing among color-image scales deeply related to personal color system. The purposes of this study are to analyze the features of each image and mutual-related extracted contemporary Men Fashion Images based on color images in 'Taste Scale Method'.

Our approach and extents are to collect materials in related documents, researches and articles primarily focusing on personal color contents and to extract 1,359 fashion images men fourth collection in Milano, Paris, New-York, London for the last 2 years(F/W season in 2015 ~ S/S season in 2017 in firstviewkorea.com). 110 men fashion images are finalized as main objects of extracted men fashion images regrouping by color images in 'Taste Scale Method'. It refers to collection review in firstviewkorea in order to accurately analyze 110 images. It is analyzed by workshops composed of fashion MD, fashion designer and fashion specialist well-experienced with fashion business practices and educational careers. The result of this study are following :

1. Color images such as 1. Cute, 2. Romantic, 3. Noble, 4. Soft Modern, 5. Clear Sporty, 6. Soft Casual, 7. Feminine, 8. Soft Elegant, 9. Elegant, 10. Sporty, 11. Casual, 12. Traditional, 13. Natural, 14. Elegant Gorgeous, 15. Dynamic Sporty, 16. Folklore, 17. Classic, 18. Gorgeous, 19. Wilderness, 20. Dandy, 21. Hard Modern, 22. Formal.

These mutual related contemporary fashion images were extracted as final 16 fashion images classifying types of fashion styles through preceding research except repeated fashion images. Extracted fashion images were reclassified as a fashion image appropriate 22 color combination taste scale color images by a workshop with fashion professional group. As a result, the fashion images were classified by total 10 images : romantic, elegance, classic, traditional, modern, sophisticated, casual, natural, active, ethnic.

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2. The features of classified images are following : 'Romantic' is suitable images for spring-type in personal color system as soft and feminine one. 'Elegance' is a high-class and amiable summer type image. 'Classic' is generous, mature and masculine image suitable for autumn and winter-type. 'Traditional' is autumn-type mainly with traditional and practical men suits. 'Modern' is appropriate for summer and winter-types as urban and tidy image. 'Sophisticated' is good match with autumn and winter-types alongside elegant and brilliant image. 'Casual' is well-mixed with spring-type image as jaunty one. 'Natural' is friendly autumn-type image. 'Active' is energetic and functional image being proper for spring-autumn-types. 'Ethnic' shows exotic autumn-type image.

There are not only 1-matched image but also 2-matched image according to the classification of personal color system in fashion image. This is considered as 'Warm', 'Cool' and 'Tone' classification standards are more important than personal color system color types. It is significant this research suggest fashion style materials utilizing personal color in personal color system for contemporary men and color images in 'Taste Scale Method' applying for personal color system. Especially, at a point of time diversifying men fashion style and color, it will be newly informative in image-marketing area for men by means of fashion style related to personal color system. Furthermore, it is expected to make the best use of this study's for personal color in men fashion style.

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A Case Study on the Strategy of the USP Cosmetics

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1. Purpose

This study is to investigate the USP of marketing strategy, differentiation strategy as part of the design strategy. Maintaining customer satisfaction and profit enterprises and want to investigate the case of cosmetics USP strategy that speaks a successful marketing strategy designed to maintain an effective and sustainable competitive advantage.

2. Method

This study is to recognize the marketing strategy of differentiating USP strategy to continuously maintain an effective competitive advantage for competitors to differentiate by product differentiation design strategy, public relations and advertising strategies due to technical factors. Cosmetics USP strategic use cases of the prior study, to be examined based on the company's advertising and promotional materials, advertising strategies related media commentary.

3. Background study

(1) Brand Positioning Strategy of USP

Positioning of the benefits is that its products offer benefits compared with other competing products imported property and other discriminatory features is a strategy that recognizes the customer. In terms determined that the brand name and provides the benefits and interests of consumers discriminatory in comparison with competitive products when determining brand positioning strategy can take advantage of the USP.

(2) Product Differentiation Design Strategy

Product differentiation is a strategy to gain a competitive advantage by generating companies a higher value than the value that consumers are aware of the products or services of competitors. This study is intended to discover the USP success of a cosmetic achieve competitive advantage and create something that could be perceived as unique by allowing customers to differentiate their products or services, product differentiation

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strategy.

(3) Unique Selling Proposition (or Unique Selling Point) on Advertising Strategy

USP are interpreted as a "unique selling proposition" or "unique selling point", a term usually used to specify the 'element that can be a differentiation in various fields. Although presented as a theory in the 1940s to describe a pattern of successful advertising campaign by Rosser Reeves of the Ted Bates & Company, recently it changed and extended up its meaning, it is used as a brand positioning, product differentiation strategy, design strategy and promotional strategy. USP of the goods or service is used mainly as a subject of the advertisement to the exceptional benefits of buying the "product. A customer may be referred to as USP unique benefits of buying the product or service. Based on a thorough product research and consumer surveys repeatedly to be appealed the inherent advantages of the product to consumers.

(4) Requirements of USP's strategy

Several criteria are needed to develop and use a USP strategy. First, it must provide specific product benefits. Second, the product should be unique benefit is not used to competing brands. Thirdly, the benefit is to be strong enough to be sold. Benefit should be to the physical or psychological benefit or benefits consumers get from buying the product. It should be known exactly what the motivations of consumers to put the characteristics of products to benefit consumers. Such convenience solves some problems of the consumers. Propose benefits to the costumer, that is solved the problems of consumers. Benefits shall be has not yet been used in competitive brands. Today, difficult to maintain a distinct feature of the products as long as the development of technology. It is difficult to maintain a long time the product inherent advantages because of the development of technology, so USP stratage should be considered from this kind of problems.

4. The Cases Study of Cosmetic USP Strategies

(1) SKII - Brand Positioning and Naming Strategy of USP

SKII is a luxury cosmetics brand, launching at Korea with advertising in top models. SK II brand positioning strategy was expanded into a brand naming. SK II means secret key to clear skin. Key Item is facial treatment essence included "Pitera Enzyme". Pitera Enzyme is one of the galactomyces fermentation filtrates which is the fermentation leaven of the process of creating a alcohol drinks. Wrinkle free hands of the old brewery man was creative ideas facial treatments essence making. So SK II's Pitera is powerful unique selling proposition as itself.

(2) Sulwhasoo(雪華秀) - Product differentiation design Strategy: High quality Korean Medicine Cosmetics

Sulwhasoo means that It brings the beauty of flowers in old age women's skin.

Sulwhasoo one based on herbal cosmetics archaeological research has made the most basic skin care Sulwhasoo of 163 kinds of herbal ingredients of the study and its 3,000 kinds of raw reconciliation through consultation experts.

The appropriate brand logo design, cosmetics containers, etc. This means Loose oriental flair Korea expressed the graceful beauty in color and design. Herbal products are components of Sulwhasoo gives breathed new life into the tired skin deep skin conveys a touch of the therapists elaborate. Essential tools and unique treatments of cosmetics jade, porcelain, such as a mask after obtaining the motif of wisdom passed down by ohdeon Korea traditionally provide the functional and aesthetic benefits to the customer only the effects of the unique products of the Sulwhasoo.

(3) AHC - Excellent quality and differentiation strategies on advertising strategy

A.H.C. Eye creams as a whole face aesthetic cosmetic brands from professional distributors started home shopping channel. Eye Cream is a topical product recognized by only a small amount around the eyes. However, AHC 'Real Eye Cream For Face (30ml)' is a product of the planning that's inspired by the beauty smearing unincorporated eye cream on the whole face of the actress.

With an emphasis on usability, eye cream AHC was felt to customers the unique benefits only use AHC. And also the beauty secrets of storytelling and aesthetic functionality of the professional cosmetics with eye cream using a strategy of actress to share their experiences with the image of the brand.

5. Conclusion

This study investigated the cases of USP cosmetics brand strategy around the USP (unique selling proposition) strategy of differentiated marketing strategy. USP strategy is "unique selling proposition" repeatedly deliver the benefits of product-specific (inherent advantages) based on a thorough product research and consumer research to the consumer. The distinctive characteristics associated with the brand image of the cosmetics brand positioning and marketing operations recognized as convenience and value of the product.

Cosmetics marketing differentiation to strongly appeal to the convenience and value from the technical and psychological aspects that competing brands unique does not use the specific products with differentiated presenting the benefits and value, advertising, distribution and customer service perspective must operate is expected ultimately to have a sustainable competitive advantage.

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A Study of the Digital Virtual Beauty Content Utilizing Education Program Effectiveness

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The purpose of this study is Take advantage of the content through the virtual digital virtual beauty fusion program recognized the principles and types. Take advantage of the training programs of the digital virtual beauty content satisfaction. This study is a literature research, Internet navigation, was composed by way of case studies. Virtual reality in the field, the game industry, healthcare, education, tourism, factories and distributors related to various fields such as blends with a wide range of associated with the industrial front and rear. Virtual reality based on artificial technology of computing device made real and such similar technologies. Virtual reality environment or a real, rather than any particular situation or means such as the technology itself. In this study, the digital virtual beauty content with regard to gender, age, type of program satisfaction attributes provide a way through. Research on the distribution of women by gender was higher with% 68.7. All teenagers had, with 42.3% 15.7%, 15.3% for 20s, followed by 17.2%, compared to 40. Age less satisfying for the digital virtual beauty content program and interest is high. Those digital virtual research awards, one of the most important techniques of the program content of beauty 3-dimensional face is called the model program. In addition, the biggest advantage was the answer. By age 10 for 3D face models and realize that color is important to the program's fusion technology and answered. And there are a variety of real-world uses for 40 minutes to answer one of the most interesting technologies, which can be displayed as Chapter tool. This study is about Digital Fusion program applicable to the content of the virtual beauty programs which are designed to apply training or are willing to provide a basis. And improving broad perspective of relevant fields would have to play a big role.

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Chinese Female Consumers' Perceptions of K-Beauty: A Qualitative Study

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China, as the world's second largest cosmetics market, has gained great attention from global cosmetics companies. Recent reports show that the cosmetics market, especially the market targeting young female consumers, has been continuously growing at a fast rate. As being called 'she-economy', the growing influence of young female consumers on domestic economy in China is noticeable. One of the product categories the young female consumers spend on is cosmetics. The purchasing power of young female consumers in China makes global cosmetics brands pay great attention to them in order to lead in the cosmetics market. China is the Korea's largest trading partner. Many Korean cosmetics brands expand their business to China. While the competition in cosmetics market in China has become gradually severe with dominant global brands and Chinese local brands, Korean cosmetics brands also attract Chinese consumers. Partially aided by K-wave phenomenon in China, Chinese consumers' attitudes toward Korean cosmetics are favorable, which lead to their consumption of Korean cosmetics. Although many of Korean cosmetics brands target consumers in China, little empirical research has been conducted on their perceptions of this phenomenon of consuming Korean beauty products. Considering the market size and the continuous growth of cosmetics market in China, it is important to gain an increased understanding of Chinese consumers who consume Korean cosmetics in terms of their perceptions and consumption behavior of Korean cosmetics. Thus, our aim is to explore how young female consumers perceive K-beauty.

In order to understand individual consumers' experiences and meanings attached to K-beauty, we conduct in-depth interviews. Young female consumers with age from 25 to 35 living in Beijing or Shanghai who have experienced K-beauty products were selected. Interviews were started with a broad question regarding their experiences of cosmetics and their experiences of Korean cosmetics consumption. Follow-up questions were based on each interviewee's answers. Drawing on in-depth interviews with 10 participants, our data demonstrated that consumers perceived Korean cosmetics products as being sophisticated

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in style, reasonable in price and quality, and unique in packaging. While K-beauty was found to be related to K-wave and Korean celebrities, the association was not shown to be strong. Our data suggest that young female consumers in China tend to have greater interest in cosmetics and to search for the information about the cosmetics more often than ever before. The findings also suggest that social network media, especially vloggers, have a great influence on consumers' evaluations and consumption behavior of cosmetics. Moreover, consumers who use social media as the information like to acquire the information about functions and qualities from products, and pursue cosmetics brands from Japan or Europe. It may be partially because Korean cosmetics are associated more with reasonable price and unique designs and less with functions and qualities.

Comparison of moisture absorption depending on the location of seam of cloth diaper

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Diaper, a necessity for infants, is not only used over long terms but also directly contact the infants' skin making the parents' choices of diaper be of utmost importance. Until recently, disposable paper diapers were popularly used due to superior absorption and convenience of not having to do the laundry but currently interest in cloth diapers is rapidly increasing as paper diapers gained negative image because of issues concerning the baby's health, green environment, and economy(Lee, Han & Koo, 2011). However, cloth diapers are not used much as urine leaks to the sides, skin problems occur due to contact with wet diaper, and cumbersome laundry is required. Previous researches on cloth diapers are mostly on shape and material of commercial cloth diapers or the relationship between wet skin and infants's dermatitis(Wilson & Dallas, 1990; Lee & Koo, 2010; Kanimozhi & Sasikala, 2016), with almost no research on the development of cloth diaper shape. Therefore, this research, as a fundamental research for the development of optimized cloth diapers, analyzes the difference in absorption depending on the placement of seam line. Firstly, diaper pattern is designed with the shape of the infants' crotch in consideration and three different patterns are composed with the same crotch shape but different seam placement. Specifically, the three patterns are the linear-pattern, with vertical seam through the center of diaper, the darts-pattern, with 6 darts in the crotch part, and the I-pattern, with two horizontal seams at the 4.5 cm backward from the center of diaper and a vertical seam of an between two horizontal seams. The cloth diapers has been made in total double layers, part touching the infants's skin is jacquard fabrics made of 100 % bamboo material (rayon 60%, cotton 40%) and the other side is flannel fabrics made of 100 % cotton was used. The locations of liquid spraying are set as 1 cm forward from the center of diaper pattern respectively for baby boys and baby girls. For precise measurement of the absorption, liquid used in the experiment is water with watercolor as urine is composed 96-99 % composed of water. The amount of liquid is set as 20 ml infants

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urinates, and the 20 ml of liquid is sprayed over 10 seconds to keep the rate of spraying constant. As a result, the darts-pattern and linear-pattern diapers have similar absorption area but the I-pattern diapers have narrower absorption area. The location of liquid spraying does not induce much difference between the patterns but the rate of spreading is reduced for the I-pattern when sprayed at the center due to horizontal seams. Using the results of this research, it is expected that the upward spreading of urine can be prevented through the implementation of horizontal seam. However, all diapers are incapable of absorbing the liquid 100 % and leaked through the sides. This is expected to be solved by widening the crotch area of the pattern or adding wing shapes to both sides of the crotch. Therefore, further studies should focus on the said problems and difference that occurs when material and waterproof covers are worn at the same time.

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A Survey for the development of a 3D printing related course in Fashion Design Department

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3D printing has entered the world of clothing with fashion designers. In the world of high fashion courtiers such as Karl Lagerfeld designing for Chanel, Iris van Herpen and Noa Raviv working with Technology from Stratasys, have employed and featured 3D printing in their collections. In 2014, Government announced that it would support 3D printing industry so that Korea can be a leading country in the industry by 2020 and would nurture 10 million related human resources to make it happen. To keep pace with the trend, 3D printing related subjects should be given in fashion design departments in Korea colleges. The purpose of this study is to provide fundamental data for the development of a new course on 3D printing in fashion design department. In order to investigate the perception and educational needs on 3D printing, the data were collected from 266 students(female 68.8%, male 31.2%) majored in fashion design of 18-25 age living in the capital area. The questionnaire consisted of 19 questions, and which were designed to elicitate the perception and needs on 3D printing as the elective subjects in college.

The results of this survey showed that when investigating the perception on 3D printing, it was found that 68.8% of answerers had heard of 3D printing. Regarding the path they came to know about 3D printing, mass media like TV was the most frequent answer(54.6%). Additionally, to the question asking if they have bought 3D printing product through Internet or mobile search, more than 95% answered they had no purchase experience. On the other hand, to the question asking the intention to take the subject if given, about 71% said " Yes". The area they wanted to learn most out of 3D areas was modeling to embody design(68.3%) followed by after process such as printing modeled products(19.0%) and coloring printed materials(11.6%). The type of certificate that they wanted to acquire most was 3D printing master certificate(68.1%). Also, if modeling class is given, the division that they wanted to explore most in the fashion industry was fashion jewelry followed by fashion subsidiary materials.

Finally, to the question asking the interest in starting a business 71.1% answered that

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they had interest. Out of answered that they had interest, to the question in which field they wanted to start a business, the most frequent answer was fashion online shopping mall. To the question asking the intention to open a business using 3D printing, only 57.9% answered affirmative.

As 3D printing techniques are actively applied to fashion industry overseas, creative education is needed through integration of fashion and 3D printing technology by introducing 3D printing related programs in colleges. Through this, we need to materialize their ideas through 3D printing technology and lead them to actual businesses as another exit for them who want to work. It is thought close relationship between industry and academia is needed to nurture quality human resources in 3D printing related industry which is expected to grow gradually in the future.

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Comparative Analysis of the educational torso type slopers using 3D Virtual Dressing Program

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A sloper is the most basic type of pattern that is widely used in all kinds of fashion designs, as a basic pattern that is transformable in many ways depending on the design of clothing pattern. There are body slopers and torso type slopers in top slopers, which can be used in different ways depending on the use.

This study is aimed to develop the torso type slopers among the top slopers and analyze the issues by comparing the patterns of the torso type slopers described in the university course materials and assessing the appearance through the 3D Virtual Dressing System. In addition, given the fact that most of the students are in their early 20s, the study aimed to suggest the basic data that reflects the students' body types to develop the educational torso type slopers.

The study chose seven teaching materials that propose the semi-fitted torso type slopers, focusing on the materials that have been published since 2000 (below, each sloper is called 'sloper A' to 'sloper G'). The study selected the design with the chest and waist darts in the front and the shoulder and waist darts in the back for the basic torso type sloper design in the teaching materials for education. It targeted Avatar of the 3D Virtual Dressing System as a subject and sized its body to the average size of those in their early 20s (age 20-24), which was presented in the 'Report of the 7th SizeKorea 2015'. The study drafted the patterns using the CAD program (PAD system) and compared and analyzed the required measurement of each drafting method and the size of each part of the finished drafting. In addition, it combined the slopers based on the chest circumference and the centerlines in front and back, and analyzed the difference in size of each sloper. The appearance was assessed by the virtual clothing assessment using the 3D Virtual Dressing System. Appearance evaluation was conducted among 20's female students 20 people and the highest score is 7 points, the lowest score is 1point.

According to the measurement analysis of each sloper, it was analyzed that each sloper had different front neck widths at 6.3-7.3cm and the front neck width was mostly narrower than the back neck width. There was a huge deviation in the shoulder length of

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each sloper ranging from 11.5~12.9cm, which is considered to be influenced by the trend. The average back armhole circumference was 20.85cm and the average front armhole circumference was 20.2cm, with the difference between the front and back of 0.65cm. The margin of the chest circumference amounted to average 2.7cm after converting the figure to ' $4/B+\alpha$ ' and the average margin of the hip circumference was 1.2cm after converting the figure to ' $4/H+\alpha$ '. The average margin of waist circumference was 1.5cm after converting the figure to ' $4/W+\alpha$ '. The sloper with the closest margin to the average was 'sloper E'. According to the virtual clothing assessment, Sloper E earned the highest score in the appearance assessment but gained the medium score in the dart length.

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A Study on the Marking Efficiency of Men's Tailored Jacket

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Clothing companies that produce ready-made clothing now tend to standardize by using CAD for marking, which is more accurate than manual labor, and has the capacity to reduce losses in materials. Existing studies on marking efficiency generally focus on women's wear and, thus, there are insufficient studies on the marking of menswear. Furthermore, marking techniques and conditions that apply to women's wear cannot be applied to menswear, because menswear tends to be larger in size and generally uses different widths of cloth.

The purpose of this study is to propose an efficient marking system by providing base data to reduce costs and improve productivity. To this end, marking results are analyzed for material and garment conditions of basic models of tailored jackets, which constitute the highest percentage of men's clothing. This study addresses three specific matters: 1) to compare marking efficiencies based on the widths of cloth; 2) to compare marking efficiencies based on the number of marking pieces; and 3) to compare marking efficiencies based on the direction of marking deployment.

This study is conducted using Yuka CAD System 2.11 VER. The jacket pattern used in the study is a basic pattern obtained from a manufacturer, listed as one of the top-ten bestselling manufacturers of menswear in Korea. The selected pattern was transformed into an industrial pattern by grading the four sizes most commonly used by menswear manufacturers and then inserting seams. Two sizes of cloth were used in the marking process, with widths of 132 cm and 150 cm, which are the most common sizes in menswear production. The number of marking pieces were two and four pieces, and the directions for marking deployment were nap-one-way (NOW), nap-up-and-down (NUD), and nap-either-way (NEW), based on the width of the cloth and the number of pieces. In total, 12 marking process conditions were established and analyzed.

Comparisons of the marking efficiency based on the above conditions yielded the following results.

In order to compare the marking efficiency based on the width of the cloth, the widths were divided into two sizes, namely 132 cm and 150 cm. The study analyzed the

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differences in the marking efficiency of jackets based on the number of marking pieces and the direction of marking deployment. The results showed that in the case of two marking pieces, the marking efficiency was 81.65–83.17% for all marking deployment directions, which is higher than in the case of the width of 150 cm by 2.72–3.31%. On the other hand, in the case of four marking pieces, the marking efficiency for the width of 150 cm was higher than that of the width of 132 cm by 0.3–1.06%. Comparing the marking efficiency based on the number of marking pieces and sizes showed that for the one-directional marking deployment of cloth 132 cm wide, the efficiency with two marking pieces was higher than that with four marking pieces. On the other hand, in the case of cloth 150 cm wide, having four marking pieces was more efficient than having two marking pieces. These results are congruent with those of one-directional and bi-directional marking deployment.

The marking efficiencies for the various marking directions were tested for a one-directional marker, one direction for each size marker, and a bi-directional marker, with different widths of cloth. The results are as follows. When the width of cloth was 132cm with two marking pieces, the marking efficiency was 81.65%, 83.17%, and 83.17%, respectively. In the case of four marking pieces, the marking efficiency was 81.42%, 81.91%, and 82.89%, respectively. In the case of two marking pieces and a cloth width of 150 cm, the marking efficiency was 78.60%, 79.86%, and 80.45%, respectively, and for four marking pieces, the marking efficiency was 81.71%, 82.97%, and 83.67%, respectively. After testing the marking efficiency in each case and for all production conditions, the marking efficiency was highest for the bi-directional marker, followed by one direction for each size marker, and then a one-directional marker.

. According to this study the material consumption rate of men's basic tailored jackets can be reduced by adjusting the width of cloth, the number of marking pieces, and the direction of marking deployment.

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Status quo of compression wear for ice sledge hockey players

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Functional sportswear is developed into concept of performance gear, and thereby contributes to the improvement substantial competitiveness by maintaining the best condition. Recently compression wear receive attention because it is known to help improve the athletic performance of the sports participant in addition to the comfortable function in typical sportswear. Production and selling for high-functional sports inner-wear known by the name underlayer in Korea are expanding from specialized sportswear manufacturer to the general fashion manufacturer. The wear range of these functional sportswear is gradually spread from professional athletes to the general public. Since the mid-20th century, doctors have used compression garments to treat patients who were recovering from or at risk of deep vein thrombosis. The consensus suggests it's a 1987 study in the American Journal Of Physical Medicine, when doctors Michael Berry and Robert McMurray revealed that athletes wearing compression stockings recovered faster than athletes not wearing them. Thus compression wear is useful in people who stand long in work or have blood-flow disorders. And in order to shorten the recovery time, it is used to be worn after exercise. Compression wear maintains the comfortable body, reduces fatigue and corrects the posture of the body. Also It is effective in improvement of endurance by vibration suppression of muscle and preventing injuries to support the joint site.

Therefore, the purpose of this study analyze the situation of manufacturers which sell high-functional compression wear to design for the ice sledge hockey player. This study includes five global brands and 2 domestic brands. They produce high functionality and compression wear that takes into account the movement of the muscle including a typical compression wear: Under-amour, Skins, Xbionix, Enerskin, 2XU, Scelido and the Fortium. There are comparative analysis for each of the size systems, price and how to make.

Under amour(U brand) sells tops for hockey players and is subdivided into nine sizes. Enerskin(E brand) sells the total 10 kinds of size and is using materials with the taping technology. X-bionic is classifying items by the type of exercise, such as cycling, running to prevent injury, and improve exercise capacity and selling 3sizes. They are made by

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specialized materials with various elastic properties, depending on the muscular motion. Tops of Scelido, the golf and baseball players wear in Korea, are manufactured using taping technique with various elasticity and pattern dividing by muscular motion. Its items are classified according to bonding tape kind and pattern shape. There are 3 or 4 size as per item style, but in spite of same size standard, there are different body size range because of elastic degree. In Fortium, it has no gender classification and has 4 sizes. Its productions are made by seamless technology which connect pattern of different intensity depending on the muscle movement without seam.

Skins and Xbionic make customer consider their chest and height. Under armour adduce chest and waist size chart for customer's selection. Scelido makes customer refer not body size but actual measurement of item. A compression wears(top) are sale US\$90-300 in price range. Scelido and Under armour sell items(tops) at about \$100 and Enerskin sells items(tops) at about US\$300 price. Price difference appeared US\$200 or more among manufacturers. Global brands have a subdivision of the size and the distinction between men and women but there is no distinction between men and women or highly functional under layer for women in domestic brands. Also global brands have a wide size range and various types of items sectioned by sports type and application as compared with domestic brands. Construction methods of Items are how to connect different elastic materials patterns cut depending on muscle motion and shape, how to bond elastic tape on functional fabrics and how to knit without seam. Typical functional sport wear makes by sewing patterns which minimize ease to be adhered to skin. But high-functional compression wear makes almost by using stretch fabric bonded elastic tapes depending on movement.

According as public interest increases in highly functional sportswear and these sport-wear become more common, domestic brands are necessary to subdivided size system by gender and sports like global brands. This will help in the development of high performance sport inner wear for the unpopular sports player, including the disabilities players.

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