

Transformable Fashion for Working Age in Bangkok

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Abstract

This paper is about the special design for clothing, which is needed for the international and ready-to-wear market. This clothing should be adapted to the environmental conditions and Bangkok life style through innovations of fabric and proper style transformation technique applicable to all weather condition and activities for working age people in Bangkok. The problems of the environment and pollution are immediate and seemingly inevitable, not least affecting people of working age faced at their workplace and travel to work with unexpected hazards of changing weather conditions.

A research survey shows that the target group of working residents at the age of 27-40 living in Bangkok has more purchasing power. In order to develop a marketing aesthetic applicable to Thai fashion, the author also interviewed experts and entrepreneurs about developing the necessary instruments to implement the production and marketing of new fabrics and styles. In addition, this paper aims to motivate both the public and private sector to collaborate in supporting this initiative - the public sector through budgeting and the private sector through supporting and developing new innovative techniques of textile production. Lastly, this paper hopes to draw young fashion designers' attention to becoming more aware of communal responsibility.

1. Global warming and the need for adaptable clothing

Global warming and climate change reflect an increase in average global temperatures. These changes to Earth's global climate and temperature have deep impacts on human life ([http :Time for change.org](http://Timeforchange.org)).

Those living that lack the skill of adaptation could easily become extinct. For many decades, the population in the world has expanded inline with the development of many new technologies that benefit living conditions, better medical services and communication.

Global warming is increasingly affecting the life of Thai people wherever they live especially in the cities where the population growth far exceeds that of the countryside. The United Nations estimates that in the next 10-50 years, the global temperature will rise approximately 2-4 degree Celsius and the sea level is predicted to rise 20-50 centimeters. The Bangkok Metropolitan Administration's data indicates that Bangkok's lowest temperature has already increased 2 degrees Celsius. Bangkok produces the most carbon emissions compared to the rest of Thailand. ([http :Thainews.prd.go.th](http://Thainews.prd.go.th))

According to the Statistic Research Institute, the working group that makes up the majority of population of Thailand is the group of middle-aged workers. They have a daily routine of commuting to work. These workers expose themselves to abrupt temperature and humidity changes through a variety of micro climatic zones. Some days the climate changes abruptly from hot to rain, cold to hot which requires the clothes they wear to be adaptable.

For example workers are confronted with a very cool environment in the air-conditioned sky train and unseasonal rain. These workers also encounter sudden shifts between the air condition environment of their workplace alternating with the heat of the sun accumulated and reflected by the city's tall buildings. In addition, lunch breaks can confront people with unexpected weather changes. After work office employees have different lifestyles such as going shopping, going to a sport club or going to a late nightspot.

This heat in the city makes for can cause emotional frustration, tiredness and worry, which cause stress and bodily dysfunctions. Bangkok, is one of most the crowded cities in the world with a hot and humid throughout the year. It has temperatures often reaching 35 Celsius (95 Fahrenheit) with high humidity. A working age person faces many conditions during the day such as being exposed to sudden rainfall, UV, heat, humidity, toxic chemicals, computers, copy machines, mobile phones, etc., all of which potentially harm the body. A contributory cause of thermatic stress is wearing inappropriate clothing or non-adaptive clothing.

The most critical urban problems of Bangkok today involve transportation. Bangkok is a city with a long-term traffic problem. All day long people commute in and out of downtown Bangkok. The popularity of private automobiles and extensive consumer credit for automobile purchases makes transport by private car the preferred alternative to the inconvenience and dangers of crossing streets and taking public transportation.

Thus, the researcher maintains that there should be special design for clothing that can be adapted to the environment conditions and their activities. Workers in Bangkok never had adaptable clothing designs.

Most of today's designs tend to serve only the market and fashion rather than promoting clothing design adaptable to the user's circumstances. The aim of this study is to encourage the design of adaptable clothing for the special needs discussed above. The design must also enhance the personality and confidence of the wearer along with providing safety, up-to-date tailoring, attractive design and UV protection.

The researcher trusts that this study will benefit the public and can be a way for fashion design to add value and build up the brand image with a new fashion trend. The innovation of fabric and proper tailoring can create clothing design that is applicable in all weather conditions and all activities under the social and economical context of people living in Bangkok in the 21st Century.

2. Research plan

The following stages have been planned:

- a. Survey Bangkok workers aged (27 – 40 years) via questionnaires that examine their need for adaptable clothing to match all circumstances and life-style activities and their preferences in buying fashion products on the Thai market.
- b. Compile background information from studies on environmental matters pertaining to climate change, global warming and pollution.
- c. Study and assess ideas and theories relating to the use of design, to alter patterns of clothing such as the theories of functionalism, deconstruction and origami, which are methods related clothing designed to withstand environmental effects.
- d. Study concepts of marketing aesthetics and brand building through observations of display in places of distribution such as shops, plazas and department stores.
- e. User test these new clothing design prototypes derived from this research and evaluate the results with a review through exhibitions, experimental couture fashion, reviews by fashion experts, artists, and leaders in the textile industry.

3. A quest for answers – Interview research

The following are interviews with a fashion design professor, a famous Thai design expert, and an entrepreneur. Additionally representative people of the two target groups were interviewed. The purpose of these interviews is to learn from their insights and experiences, which when combined with theories of transformation could lead to new concepts and designs especially for working women in Bangkok.

Fashion design professor

Mr. Thomas Brigger is a fashion design professor from Marangini Institute, Paris branch Italy, who visited Chulalongkorn on February 16, 2010 as lecturer for students of fashion design commented on this project:

"It needs to be good design but affordable and I really support the idea of using transformable clothing."

Famous designer in Thailand

Mr. Jitsing Somboon; Head designer, Playhound

"The needs of customers are the main point. Korean style is very popular among customers and has its effect on Thai style in many aspects. We obviously see that the Thai market responds to that idea. The

lower market focuses on immediate fashion and affordable price, for example clothes from China are so cheap that brand designers are unable to make their clothes that cheap. So customers prefer those cheaper clothes from China instead of our local brand, that emphasizes higher quality and longer durability.

Designers want to make goods responding to customer's lifestyle and not wholesale products. This is not only for those interested in arts but also all kind of people who have special needs.

In order to respond to the environment, the designer needs to consider the appropriate fabrics to be used in designing clothes. For example, cotton is suitable for a place that needs protection from sunshine and moisture absorption. On the other hand, clothes that make customers feel warm and comfortable need to be made from different kind of fabric.

However, we always want clothes that are easy to adapt when we need to go for different kinds of activities at the end of the day or when the weather changes, For example if it starts raining after work without bringing an umbrella we might have belt transform to raincoat or belt transform to cap.

We will design alternative clothing responding to the needs of customers when it's really needed or we might have a special shop that provides transformable clothes. The idea of transformation of clothes is absolutely interesting and many designers think about it, but didn't have a chance to start doing it. It will be a huge start trying new things designing clothes in order to protect us from any harm such as weather, pollution and suit our activities both night and day."

An Entrepreneur

Mrs. Leelanuj Kamolvisit, General Manager, Hara (Thailand) Co. Ltd.

"Due to the rapid weather change in Thailand, in my opinion, I believe that fabric use in fashion has played a major role in the entire fashion industry. I think the Thai market has not yet found a brand that can provide fashion garments that are specialized in this matter, which will make this type of garment very interesting and special. However, due to the lack of fabric resources and technicians that specialize in producing a kind of fabric suitable for daily weather change or inventing a kind of technique that enables garments to transform for functional use, the trade has to initiate deep research on how to adapt this matter to local production and to avoid further complication in finding the right selling price that would suit local customers."

Two representatives of the target groups

- Ms. Tananun Unkat; age 32 creative professional, brand Maximus Saha Group

People who need to travel or commute all day. For example a working person who need to meet clients or customers to those spending their time outside the building are often faced with abruptly changing weather, hot to cold or cold to hot.

If it possible to have clothes which easily adapt to all kind of weather or activities, it would be nice and appropriate those days.

Recommended styles are flexible, comfortable clothing, good for all occasions, for example jackets for meetings and for parties at the end of the working day.

What customers really require these days are style and design. Working people have more power to purchase, especially clothes that are flexible to use for all occasions.

Adaptable clothing will be the first and best choice for customers in terms of financial management and utilization."

- Attawut Junwittaya, age 38 business owner, designer, Doctoral degree program majoring innovative management, Chulalongkorn University

"Transformable clothes is necessary for people who are not working in a routine each day. For example working at home, going to factories, schools, and meetings with the customers. Activities may be defined functionally according to true function and metaphoric (meaning) function.

True function is the design congruent with the environment, which protect against hot, cold, rain, sunshine providing the customer with a comfortable wearing fabric that helps ventilation or a thicker fabric for cold weather.

Another function is meaning or metaphor. Transformable clothes are appropriate for all kind of activities.

Due to the rapid and abrupt weather changes in Bangkok, the clothes need to be appropriate to the weather. Good clothes are not only appropriate to the weather, but also for special occasions at the same time.

Brand building is also important, but Thai people do not seriously acknowledge this idea. Brand building is part of the meaning function that is really important."

Regarding the need for new designs of clothing in line with transformation theories, the conclusion of these interviews correspond to the background of this study. The concept of using transformable clothing is very interesting and needs further support by those involved in this business.

The target group is in serious need of convenient transformable clothes to wear in their daily lives for comfort and safety. All of the experts supported the concept of

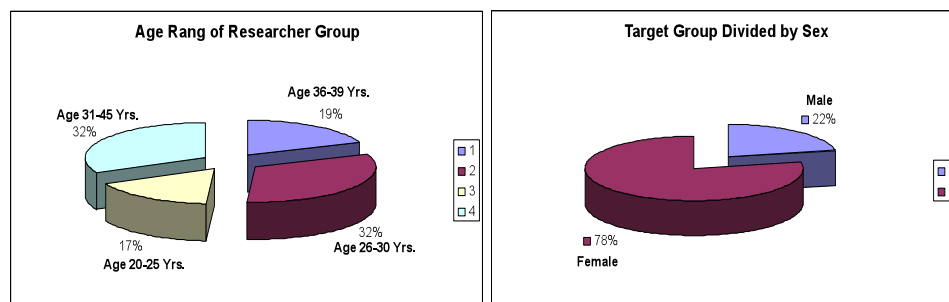
using the right fabric and transforming techniques that relate to style and fashion trends not previously known or existing in the market. Therefore, clothing design using appropriate techniques and fabrics that leads to the creation of brand identity in the future is very important.

4. Questionnaire on fashion solutions in Bangkok

This questionnaire on fashion creativity involves working age people (27 -40) with good education and fashion mindedness in Bangkok.

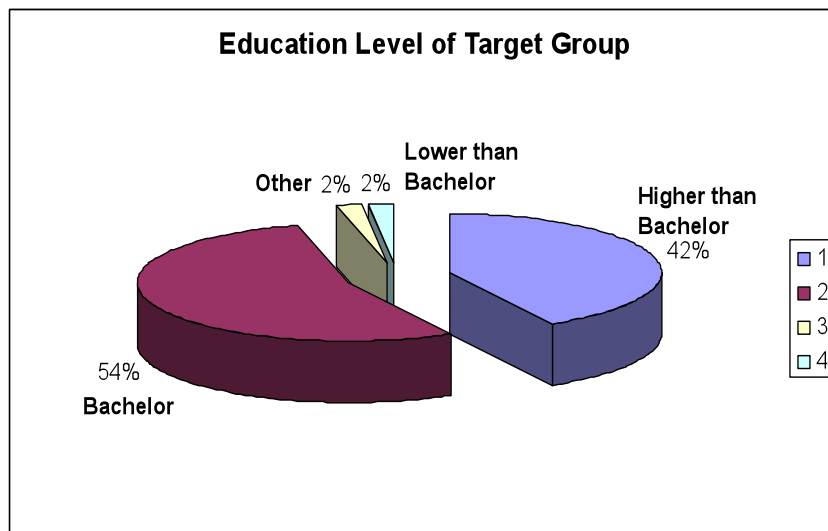
These fashion solutions must also be applicable to lifestyles and activities that are part of the daily changes of atmosphere, weather in Bangkok.

The questionnaires were distributed to workers during lunchtime 11.30 -13.30 hrs at Bangkok sky train's Siam station.



The result of the questionnaire on lifestyle, daily routine, values, taste and opinions of a target group of 55 working age people (78% female and 22 % male), age between 27-40 years old, upper and lower middle class, single, educated (higher than high school), salary higher than 20,000-30,000 baht with most of them working as senior officers at the management level in the private sector.

The education level of the target group is one of the core indicators studied in this research. The results show the major working age group of in big cities to be single females, 54 % having graduated with a Bachelor degree while nearly 42 % completed a Master degree or higher.



The social status of our target group match the characteristics of class (upper middle and lower middle class) and age ("Generation X" and "Generation O")

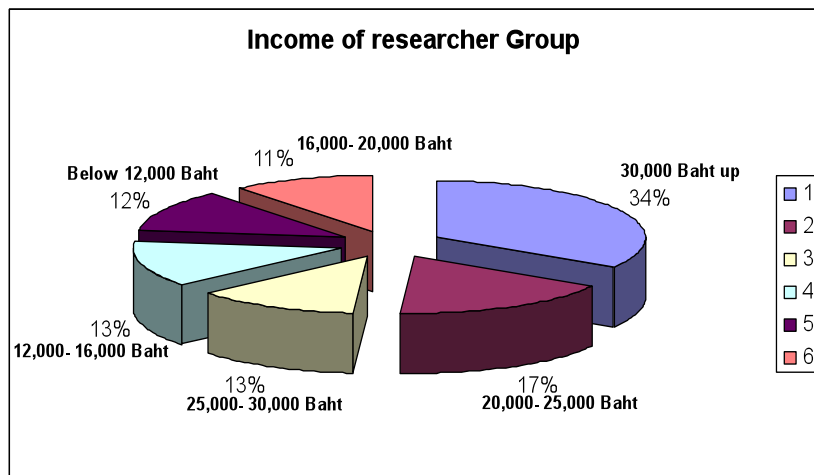
Middle Class group characteristics

1. Upper-Middle Class is a group, successful in their careers often in medium business firms, well educated and with a motivation to succeed in social relationships. They are interested in trendy and quality products.
2. Lower-Middle Class is a group who own small businesses or work as white-collar employees, with a medium financial status enjoying an efficient and simple life style. They need products with good quality. Most have a Bachelor degree.

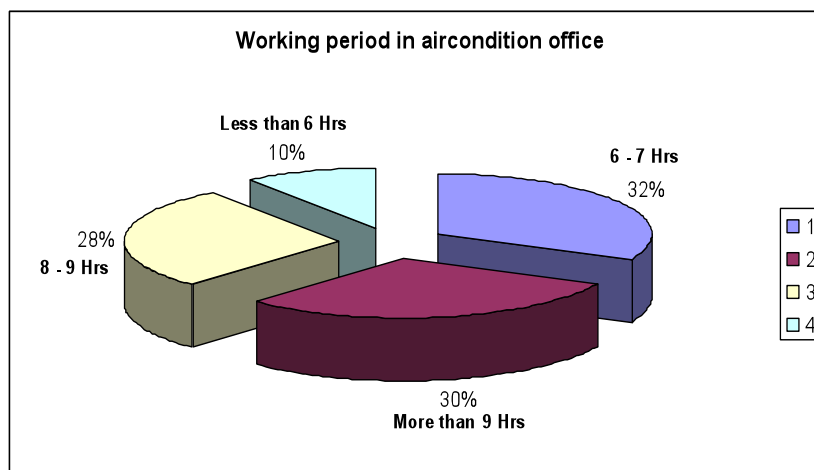
Generation X is a target group of working age people 20 – 40 years of age who were born during 1970 – 1990 motivated for enhancing their life style. They need high social status and personal image. They emphasize a balance in life and are strongly self-confident. They believe in themselves and love a lifestyle of freedom. They are willing to listen to any comments from others. They stick to a specific brand name, love family care for their health and love to travel.

From: Dr. Nivet Thamma and Marketing Environment Analysis Faculty (Bangkok: Macro-Hil Thailand 2552 pages 37-38)

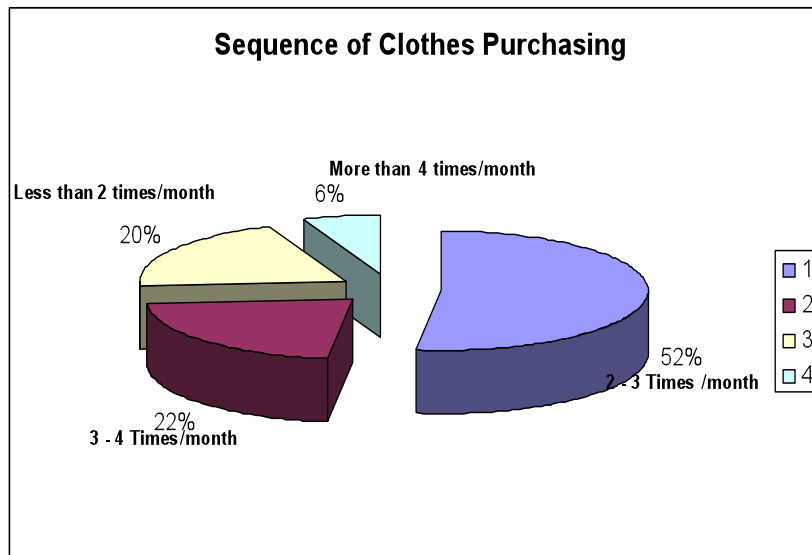
The outcome of this research shows there is a large group of prospective potential customers if we consider their income as shown in the graph below. The largest section is 34% who have an income of more than 30,000 baht.



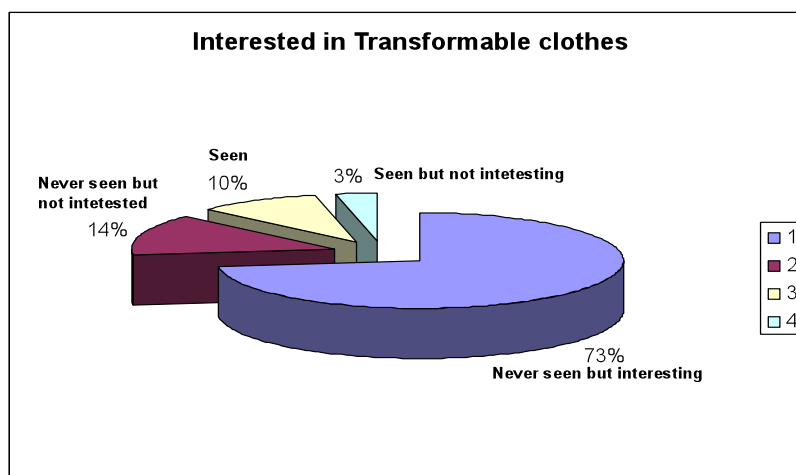
The target group works in an air-conditioned environment, with most working during standard office hours and a few of them working irregular ones. They commute to work place by car and sky train. Their problem is the transition from their office to other venues for 3 hours each day. Most of them spend time after work going shopping, having dinner and going to a bar.



The target group goes shopping for clothes more than twice a month, purchasing 2-5 pieces each time. Most of clothes are "business casual". Local brands are still popular and are purchased at department stores. Most of them are made of soft, easy-to-care and humidity absorbing fabric with good ventilation. This target group needs outfits that are easy to adjust for the weather, office climate and other daily activities.



As mentioned above, it is interesting to analyze the target group's behavior in purchasing clothes. In the questionnaire's results, 73% are interested in transformable clothing and 10% have seen transformable clothes before. So if we consider the possibility of mass production there is still a big demand in this market.



Theories of transformation and adaptation

In the field of adaptable clothing produced for the working group, the transformation theories need to be discussed.

Transformation means to make something change by pattern, style, image, characteristics, mind, picture or any object, in two or three dimensions to recreate new style into what we really wanted by using different techniques. For example, turning, moving, extending, closing, changing colors. So I conclude that transformation implies shape modification and natural adaptation. In a wider sense, adaptation refers to a process of change in people's behavior in relation to the living environment, which provides the benefit of survival, security and a sufficient supply of nourishment.

Transform means *to change image, identity, characteristics, personalities both temporarily or permanently, inside or outside by turning, sliding, shrinking, extending, twisting and coloring. In conclusion transform can really mean: obviously change, natural change, condition and genetic change.*

Transformation happens to those living in an ecosystem. All species of plants, animals and human beings demonstrate their own way to adapt.

Transformation processes may be categorized as natural or man made adaption:

1. Natural Adaptation refers to the process of change or adjustment of any part or the whole of living beings in order to blend in with the environment, providing the benefits of survival through or affording security from enemies and adequate supply of food. Plants adapt to sunlight exposure through changing color, form and size. Structural adaptation involves wrapping, spinning, and blooming. Butterflies transform from their original shape to a new one by slough, expansion and folding techniques to gain new style and new form. Insects and butterflies adapt through changing colors or patterns for camouflage or they copy other animals in order to survive or use adaptation techniques to protect from harm (protozoa).

2. Man made adaptation refers to responses to environmental change for reason of survival by human beings; like using adaptable materials in constructing houses, furniture, etc. In humans this adaptation may be compared to designing clothes by color choice, thick or thin fabric (for temperature control), or using color to disguise, attract or warn (like using fabric that glow in the dark). Humankind in comparison with other living beings is a creative species using arts and design to suit the environment. Researchers identify 8 techniques used in man-made adaptation:

- a. Extending
- b. Stacking
- c. Wrapping
- d. Spinning
- e. Adjusting
- f. Folding, flipping, switching
- g. Module change
- h. Removing

Origami

Origami is an art, which not so many designers are really interested in, but the technique plays an important role in various kind of art like graphic design and architecture, furniture, clothing and accessories. An architectural example, is the Prada transformable building in Seoul using rotation and other techniques in order to adapt to particular functions.



Pleated dresses by * Louise Critchley: Inspired by architecture and origami
[cruststation.files.wordpress.com/...ign1.jpg](http://cruststation.files.wordpress.com/2009/09/24/le-creative-sweatsho-accessories/)
<http://www.pleatfarm.com/2009/09/24/le-creative-sweatsho-accessories/>

Summer fashion show in 2009 by André Lima, which was inspired by Origami technique to design shape, style and decoration.



Origami uses techniques of folding, turning over, and twisting to change the shape and form to geometric shapes and freeform shapes. Butterflies first close and then extend their wings. Adaptive clothing design might include collars designed to extend like butterfly wings or an umbrella to cover their heads and bodies. Another design could facilitate the spinning, folding and flipping of sleeves just like a rose blooming and closing.

Modular theory is well known as we have seen it daily applied in furniture, toys and building design. This technique consists of dividing the object into pieces, then make components for re-assembly. They substitute, replace or shuffle these elements into new shapes or styles in order for the product to be more flexible (Heizer and Render. 1999: 204)

The Module System

Modules means parts used to build or connect with another parts and put together as a whole without it being necessary to change the small parts. Modules can be use in architecture, building design, furniture, folding paper forms, and clothing design to benefit us in several ways.

Modular technique shares the same constructive principle with Origami in the repetitive use of small parts put together in order to gain new structures. This technique can be used in creating new styles based upon the design ideals and concept. The style can be strong using

geometric shapes or free shapes at designer's will. Modular techniques can be used in clothing design making it more productive and adaptable in relation to its dimensions and variations of style.

Graphic design is man-made and incorporates styles or forms from nature as a guide to create and develop new styles.

Constructivism and De-constructivism

Constructivism is characterized by the use of industrial materials such as glass, sheet metal, and plastic to create nonrepresentational, often geometric objects. The constructivists' preferred industrially manufactured materials, such as plastics, glass, iron steel, marble and bronze. The works of Vladimir Tartin, for example, were not formed by carving, modeling and casting but by twisting, cutting, welding or literally constructing, leading us to the techniques of assembling, stacking and extending.

De-constructivism is characterized by ideas of fragmentation, an interest in manipulating ideas of a structures' surface or skin, non-rectilinear shapes, which serve to distort and dislocate some of the elements of architecture such as structure and envelope. In nature butterflies deconstruct their bodies from pupa to maturity and flowers bloom and then de-foliate. The finished visual appearance of buildings that exhibit the de-constructivist "styles" is characterized by a stimulating unpredictability and a controlled chaos. All of the above theories are useful and necessary for designing technique in this and further studies in fashion design.

Conclusion

The result of the participant interviews, target group questionnaires and application of theories, could provide the special designs of adaptable clothing, which is needed for the domestic and international ready-to-wear market and building brand identity. This style of clothes can be adapted to the environmental conditions and Bangkok's lifestyle by proper attention given to the innovative transformation of fabric and design for working age people of Bangkok. However, this paper is also intended to motivate both the public and private sector to collaborate in carrying out these objectives. The public sector should be more involved in promoting and supporting this project's budget. Also, the private sector should participate more in developing and innovating textile design and production techniques. Lastly, this paper hopes to draw young fashion designers' attention to the necessity of greater communal responsibility and involvement.

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