

# - Into the soul journey -

## Design Garment for the Generation Z

Supervisor: Paola Bertola

Co-Supervisor: Angelica Vandi

Student: Qiu Tiantian / 10641434

July 2021

Politecnico di Milano - Scuola del Design

Design for the Fashion System

Tesi di Laurea a Magistrale

# INDEX

## TABLE DIRECTORY

### Chapter 1 Introduction

- 1.1 Background
- 1.2 Significance
- 1.3 Innovation
- 1.4 Difficulties
- 1.5 Research methods
- 1.6 Expected results

### Chapter 2 Importance of wellbeing

- 2.1 People's attitude towards happiness at present
- 2.2 Research on public policy and welfare of happiness
- 2.3 Personal characteristics and happiness

### Chapter 3 Emotional Design Concepts in Fashion

- 3.1 Features of Emotional Design in Fashion Design
  - 3.1.1 Excitement experience
  - 3.1.2 Comfortable experience
  - 3.1.3 Nostalgic experience
  - 3.1.4 Avant-garde experience
  - 3.1.5 Participatory experience

### Chapter 4 Sensoriality through embedded Technologies applied to Fashion

- 4.1 Application of Emotional Design in Fashion Brands
  - 4.1.1 Design according to the emotional needs of different customers
  - 4.1.2 Use emotional design to establish brand image
- 4.2. The use of multi-sensory concepts

### Chapter 5 Target market analysis

- 5.1 Mental health condition of Generation Z
  - 5.1 The method of interview
- 5.2 The interview with Generation Z in different occupations
- 5.3 The collection of information on the questionnaire

### Chapter 6 Case studies analysis

- 6.1 Case study of clothing and psychology
- 6.2 Case study of clothing with healing effects
- 6.3 Case study of Gen Z's experience of clothing under the epidemic

### Chapter 7 Into the Soul Journey

- 7.1 The inspiration for design
- 7.2 Research
- 7.3 Moodboard
- 7.4 Collage
- 7.5 Sketches
- 7.6 Design materials
- 7.7 Design style

### Chapter 8 Conclusions

- Summary
- Study Limitations

### References

## INDEX OF FIGURE

Figure1. Can I Measure My Own Happiness? - The Atlantic	<i>p.11</i>	Figure15. Umeda Hospital Visual Indicator System, Japan	<i>p.34</i>
Figure2. The Art of Emotion—Norman's 3 Levels of Emotional Design	<i>p.17</i>	Figure16. The 'Sphaera' dress by Alexander Mcqueen's, 2019	<i>p.35</i>
Figure3. Moschino-collection-autumn-winter-2014-2015	<i>p.18</i>	Figure17. Starbucks special interior design, 2020	<i>p.36</i>
Figure4. The Strange and Beautiful Universe of Walter Van Beirendonck	<i>p.19</i>	Figure18. Abercrombie&Fitch retail store with exclusive fragrance	<i>p.37</i>
Figure5. Retro style 1960s clothing	<i>p.20</i>	Figure19. Singapore Airlines Interior Design Sketch	<i>p.38</i>
Figure6. Johan Ku's 2012 SS Collection - Technology meets fashion	<i>p.21</i>	Figure20. CBNDData "Generation Z Trend Consumption Insight Report", 2020	<i>p.41</i>
Figure7. Schematic diagram of Kute Group data automatic flow production	<i>p.22</i>	Figure21. The relationship between clothing and color	<i>p.50</i>
Figure8. M-Dress of Cute Circuit	<i>p.25</i>	Figure22. Walter Van Beirendonck W:A.R. Bomber CC19 Green	<i>p.53</i>
Figure9. Hussein Chalayan One Hundred and One	<i>p.26</i>	Figure23. Princess Diana's shoulder pads	<i>p.55</i>
Figure10. Musical Jacket	<i>p.26</i>	Figure24. Pink winter super soft faux fur pants	<i>p.59</i>
Figure11. Smart Clothing with MP3 Attached	<i>p.26</i>	Figure25. RCA Fashion 2013 collection by Xiao Li	<i>p.61</i>
Figure12. The Mountain - Image T-shirt - 2014 SS	<i>p.32</i>	Figure26. "O" Shape Appreciation Costume Design	<i>p.61</i>
Figure13. Poster work by MUJ	<i>p.32</i>	Figure27. RCA Fashion 2013 collection by Xiao Li	<i>p.61</i>
Figure14. Gaze-Activated Interactive Dresses By Gao Ying, 2013	<i>p.33</i>	Figure28. Pink 'memory foam' sweater - Nadine Goepfert's 'The Garments May Vary' collection.	<i>p.64</i>
		Figure29. Colors with healing effects	<i>p.65</i>
		Figure30. Comme des Garçons Spring 2014 Ready-to-Wear Collection	<i>p.66</i>

# Chapter 1 Introduction

## 1.1 Background

My research background is based on the fact that during the epidemic that paralyzed the world this year, people's lifestyles have changed so dramatically that the need for "solitude" has become greater.

Combined with my inspiration from the Pixar film Soul, there is a creator's secret room - "the Zone", or the Place of Ecstasy. This space belongs to all the mental workers who come to this space when people are extremely focused, asleep or losing attention or consciousness.

At the same time, I also found that there are no mature applications on the market to help people guide and discover their inner dialogue, so my research aims to help explore people's inner world and find peace in life through textiles or clothing.

## 1.2 Significance

With the development of the information age and the continuous progress of network technology, fast fashion in many fields is coming not only in the field of clothing. We will see more and more flashy fashion products that lack depth. People face these products. Attitude has also changed from lasting appreciation to fast-paced consumption. The joy of life should not stop at unique appearance, but the pure feeling brought by design should be found in life. Compared with the fast fashion aesthetic attitude that is popular nowadays, the "healing system" design advocates that the design should bring people a "healing" effect from both mental and physical aspects.

The proposal and development of this topic will be based on the relevant theories of cognitive psychology and clothing design theory, through the analysis of visual elements such as colors, fabrics, and shapes in clothing design, summarize and analyze the characteristics of perceptual experience healing in clothing design, Summarize the design law with psychological and physical healing effects in clothing.

This article through in-depth thinking and comprehensive analysis of the modern meaning of clothing design, giving clothing design healing functions and brand-new vitality, in order to explore and improve the new direction of clothing design theory research.

Taking the design of the healing system as a clue, by summarizing the visual, tactile, auditory and other sensory perception characteristics of healing in the clothing design, using fabrics, colors, and contours as the expression methods; and using the principles of design psychology, from the psychological and physical Two aspects analyze the healing effect in clothing design.

### 1.3 Innovation

It has theoretical guiding significance

Design works that focus on psychological and emotional factors are not only lacking in modern society, but also the starting point of design. This topic uses cognitive psychology, clothing psychology, clothing design and other theories as the theoretical basis to analyze the characteristics of perceptual experience healing in clothing design. Summarize the design and methods of healing clothing. Through the analysis of the existing clothing design and other classic cases and research results in the field of design, we hope to provide designers with the theoretical basis and design methods for the healing clothing design, so it provides a theoretical guidance basis for the healing clothing design practice.

This topic is innovative

So far, research in interior design, landscape design, etc. has achieved certain results, but in-depth discussions in the field of research specifically focusing on the relationship between clothing design and the healing system are rarely involved. This article has a great deal of exploration and research on healing clothing. A certain sense of innovation.

Provide new ideas for the development of clothing design

In view of the current homogenization of clothing design that emphasizes artistic effects, healing design can be used as a starting point for designers' creativity, and new methods and new ideas for healing clothing design that can meet people's psychological needs are proposed.

### 1.4 Difficulties

1. Conduct research on the target group to gain insight into the factors that people need to have when they fall into "extremely concentrated mental flow."
2. Patterns and color designs are visual aids to the relaxed state. How to find them?
3. Application of thin flexible materials and sound insulation technology in textiles.
4. Innovative applications of multi-sensory concepts in clothing design, such as how to integrate smell and hearing into clothing design?

### 1.5 Research methods

1. Through research methods such as interviews with the target population, questionnaire surveys, case studies, etc., to understand the needs of the target population, and to investigate the current methods to help people enter the state of mobility.
2. Research on the psychological impact of visual images through data analysis, and study the aesthetic design of textile patterns and texture effects.
3. Through data analysis, researched the effects of various senses on relaxation, and designed and studied the effect of combining textiles with smell and hearing.
4. Conduct targeted research on existing technological achievements in the market, such as company visits, experimental comparison, analysis and selection of intelligent technologies that can be introduced into textiles, etc.

## 1.6 Expected results

In general, the result I expect is to design a soothing jacket with built-in music function and noise isolation through targeted research on the target population, so that the wearer can subconsciously enter a peaceful and peaceful world, so as to better help them. Listen to your own voice. The inner voice may enter a state of flow.

In terms of material, it is necessary to choose a very soft and breathable fabric to help the wearer feel soft.

In terms of colors and patterns, it is necessary to follow the research of visual psychology to realize the concept of bionic design and reflect on the subtle relationship between man and nature.

Finally, I hope to find a real target customer group, design a product with real needs, and give those anxious people who want to enter a "comfortable state" anytime, anywhere.

In general, my expected outcome is to design a soothing jacket with built-in music function and noise isolation through targeted research of the target population, allowing the wearer to subconsciously enter the world of peace and quiet, thus better helping them to listen to their inner voices or enter a state of flow.

The study found that with the current situation where the epidemic is spreading across the world, the Z generation in a high-pressure life has not only changed the previous psychological state of "only pursuing entertainment", they have begun to pay more attention to their mental health and enable them to truly find their own lives. the way. Based on this demand, I want to find a solution that can alleviate this problem.

# Chapter 2 Importance of wellbeing

## 2.1 People's attitude towards happiness at present

Here are many theories about happiness, such as "satisfaction theory", "happiness theory", "virtue theory", "self-actualization theory", etc. Finally, two theories have been formed: "hedonic" and "eudemonia". To this day, the debate between "happiness theory" and "reality theory" has not stopped.

Happiness "hedonic" believes that happiness is subjective and lies in the emotion of happiness, "happiness has absolute value, everything else has value only in so far as it contributes to the production of happiness", while happiness "eudemonia" believes that happiness is objective, "the objective development of individual and social human life is absolutely good, Whether it produces happiness or not."

Each has its own narrative, each has its own vitality, and each has its own loyal following.

In this paper and research project, we want to learn the rational elements of hedonic and eudemonia, and take the "good life" as the medium to study the problem of happiness, which goes beyond the "hedonism" and "realization theory". It follows from this that happiness is essentially a progressive chain:

Good life (self-actualization and all-round development) positive threshold of happiness and bitterness happiness.

This shows that happiness is a process of development from objective to subjective. In this way, the debate between Hedonic and Eudemonia can be resolved by bridging the gap -- the intervention of the "good life" -- by designing a garment that allows Gen Z to enter the "journey of the mind" anytime and anywhere.

## Happiness

The concept of happiness is the general view and basic attitude of people about what happiness is and how to be happy. Different views of happiness reflect different attitudes towards life, reflect people's different positions towards life, and reflect the specific social background.

### The inner logic of western happiness view

The western view of happiness mainly includes asceticism, hedonism, utilitarianism and Christianity. There is a logical relationship of negation or development between these happiness views. No matter how the desire is divided, as long as people's material and spiritual desire is in line with the natural human nature, in line with the development of human kind is everyone can accept willingly.

### The complementarity of Chinese traditional view of happiness

The traditional Chinese view of happiness does not negate or evolve with each other. They have different opinions, but they do not exclude each other. On the contrary, they can be embodied in the same Chinese. Chinese people tend to be the balance and organic unity of Confucianism, Buddhism and Taoism. In the relationship between people, they generally act in the Confucian way. When dealing with the relationship between man and nature, it may adopt Taoist

### The main misunderstanding existing in the current social happiness view

The society and economy develop rapidly, but many people lose themselves in the endless pursuit of wealth, money and social status. As a result, they are anxious, jealous, complaining and anxious. The fundamental reason is that they do not properly deal with the relationship between material happiness and spiritual happiness, personal happiness and society.

Material happiness is separated from spiritual happiness. People's life needs a certain amount of material items, but the material conditions can not meet everything of people, some people because of the quality of the material life and do not know how to show off and worry, they blindly pursue material life, but ignore the spiritual life.

Some scholars believe that "happiness is the feeling of happiness, and happiness is the opposite image of happiness, happiness is an objective reality, happiness has a certain subjective color. Happiness is the state when people's needs are satisfied. This satisfaction degree shows that people's life has reached a certain level objectively and entered a realm. Happiness is the feeling of satisfaction.

## 2.2 Research on public policy and welfare of happiness

In recent years, research on happiness has blossomed in the global social sciences. Academics have contributed detailed happiness survey data and conclusions to the society by means of public opinion surveys, publishing monographs and holding seminars.

Scholars' studies show that citizens' happiness is closely related to government's public policies, and citizens' spiritual demand for happiness urges the government to optimize public policies.

On December 22, 2011, Cambridge University launched its research report "Flourishing Across Europe", taking almost 40,000 respondents from 23 countries in four regions. The 10 kinds of positive thoughts and emotions (including optimism, self-esteem, emotional resilience, etc.) produced by citizens in the face of life were taken as indicators to measure. Felicia Huppert, director of the Happiness Institute at Cambridge University and author of the survey, said that economic measures were not enough to drive social development and that governments needed to assess the impact of happiness on social development.

The survey further showed that happiness was not related to wealth, and that status in society was the key factor in determining happiness.

According to the survey, 44 percent of respondents under the age of 30 were happy, which is attributed to the dual pressures of family and work that make it difficult for people in this age group to get real happiness from life.

What makes people happy? Although people may define happiness in their own terms, in general people mention similar things that make them happy (Easterlin 2002). Surveys conducted in groups of countries have found that the factors that people mostly mention are everyday life issues, in an extent, that they control (Easterlin 2004; Frey and Stutzer 2002b, p. 29).<sup>4</sup> Material conditions and consumption are most prominently mentioned in these surveys. A fulfilling family life, such as being married, having children and getting along with relatives is also an important part. Personal and family health is another determinant. Job satisfaction and personal character are also mentioned. Although international and domestic issues (politics, war, etc) are rarely mentioned as determinants for wellbeing, studies have found that political institutions have an influence on people's happiness (Frey and Stutzer 2002b).<sup>[1]</sup>

[1]Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, 385(9968), 640-648.

The ethics of public policy is essentially an ethics of choice, which includes both the choice of value and the choice of benefit distribution schemes. Utilitarianism is undoubtedly just one of many public policy ethics and values. In this article, the public policy that adheres to utilitarian ethics as the criterion and norm is referred to as utilitarian public policy. In view of the unique value system of utilitarianism, utilitarian public policies show obvious characteristics:

1. Intuitiveness. As a norm of ethical values, utilitarian teleology holds that the ultimate basis of moral evaluation lies in the effect or purpose of behavior, and its moral value fundamentally depends on the effect of their natural inclination. In fact, the actors of this kind of moral evaluation make intuitive judgments based on their own direct instincts. As far as public policy is concerned, the ultimate effect of its moral evaluation is undoubtedly the effect or purpose of the policy. With the acceleration of the process of scientific policy, this kind of evaluation and judgment will naturally rely more and more on technical means and mathematical statistics. However, in the process of information collection and judgment, program design and decision-making, its judgment and selection of policy results must still rely on the natural inclination and direct instinct of decision-makers.

2. Economical. Happiness or happiness is the intuitive feeling of people, and different individuals will inevitably have different feelings in different situations. Especially in the evaluation of public policies, utilitarian feelings cannot scientifically and precisely define the advantages and disadvantages of policies. Therefore, when utilitarianism conducts the moral evaluation of public policies, it has to quantify happiness or happiness, use economic indicators to calculate utilitarianism, and transform intuitive feelings of happiness or pain into concrete quantifiable economic data. Marx once pointed out that everything that people strive for is related to their interests. The moral evaluation of public policies that use economic indicators for utilitarian calculations is also inseparable from interests in actual political activities, and it must be obvious. Economy.

3. Occasionality. As mentioned above, the moral evaluation of utilitarianism relies on the natural tendency and personal feelings of an actor to seek advantages and avoid disadvantages. Its policy formulation must rely on the experience and feelings of the decision makers' pain and happiness, which must be based on desires and tendencies. The moral judgments and methods of conditions will change at any time, because any principle that depends on desire is also accidental. Second, although the intuitive perception of policy making is simple and straightforward, the length of time and the breadth of space it perceive must be quite limited. Therefore, utilitarian public policies have to bear the stigma of contingency and lack strategic vision for long-term social development planning.

4. Imbalance. Utilitarianism emphasizes that utilitarianism is the highest standard or even the only method for judging whether a behavior is correct or not. The result of its precise calculation of utilitarianism will inevitably lead to efficiency or interest first. Although it emphasizes that a good government should seek to realize the greatest interests of the greatest number of people, due to the utilitarian feelings of the government's decision-makers, it cannot rule out the interference or even infringement of the demands of their own interests on the demands of public interests. Moreover, in terms of value ranking, utilitarian values obviously take precedence over universal core political values such as equality, democracy, and freedom, and decision makers are most likely to exclude these values for the sake of utilitarian calculations. Therefore, in the actual policy selection process, due to many values, utilitarian public policies are likely to be out of balance and lead to conflicts with other core political values.

Moreover, due to the inherent logical flaws of utilitarianism, the moral and logical norms of utilitarianism and the social practice guided by it, they have also encountered numerous difficulties in the process of social development. A large number of studies and facts show that utilitarianism, as a policy ethics norm and standard, is gradually losing its moral and practical foundation in the real society.

Therefore, the policy proposition of utilitarianism mainly includes two aspects: 1. The basic basis for government decision-making and implementation is the effect or efficiency of the policy. To be precise, it is the profit and loss value of the decision-making result. 2. For the government's public policy, the greatest happiness of the most people is the only measure of correctness.

Subjective well-being is a broad construct that includes aspects of individuals' positive and negative affective responses, their satisfaction with specific aspects of their lives (e.g., work and family), and global judgments of life satisfaction (Diener, Suh, Lucas, & Smith, 1999). Although the components of subjective well-being are frequently strongly correlated with each other (DeNeve & Cooper, 1998) and thus often examined as single higher-order construct, research shows that the components of subjective well-being are separable constructs (Lucas, Diener, & Suh, 1996).<sup>[2]</sup>

---

[2]Silvera, D. H. , Lavack, A. M. , & F Kropp. (2008). Impulse buying: the role of affect, social influence, and subjective wellbeing. Journal of Consumer Marketing, 25(1), 23-33.



### 2.3 Personal characteristics and happiness

The "hedonism" emphasizes that a person's happiness is subjective. Therefore, when someone is judging whether he is happy or not, objective facts are not within his scope of consideration. As long as he is happy subjectively, he is happy. It is argued that the subjective experience of happiness is a necessary and sufficient condition for happiness.

The subjective well-being is also the result of subjective evaluation, which refers to the evaluator's overall evaluation of the quality of life according to the self-determined subjective standards, mainly referring to life satisfaction, positive emotion and negative emotion. Life satisfaction is the cognitive evaluation of the overall quality of life, that is, the degree to which an individual makes a satisfactory judgment on the overall quality of life. The latter two both refer to the emotional experience in individual life. The positive emotion includes happiness and relaxation, while the negative emotion includes depression, anxiety and tension.

Wellbeing is increasingly supplanting welfare as a central political goal for social and public policy. In academic social policy, some writers have suggested that a focus on wellbeing allows us to consider a 'fully rounded humanity' whereas welfare focuses on economic utility. This article avoids this polarisation and proposes a generative and relational view of wellbeing and welfare as mutually constitutive.<sup>[3]</sup>

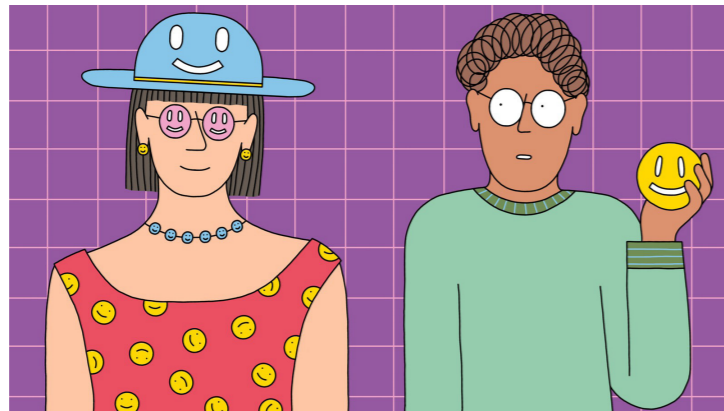


Figure1. *Can I Measure My Own Happiness?* - *The Atlantic*

[3]TAYLOR, & DAVID. (2011). Wellbeing and welfare: a psychosocial analysis of being well and doing well enough. *Journal of Social Policy*, 40(04), 777-794.

### Culture and happiness

Social comparison theory - it makes judgments about how happy you are by comparing yourself with others through horizontal comparisons.

Many studies have shown that comparing people who are happier than you, through "upward" comparisons, tends to lower your own happiness; And choosing to compare people less fortunate than themselves, that is, by "downward-looking" comparisons, tends to improve individuals' own happiness.

In making social comparison and judgment, people's subjective factors play a key role. People are often influenced by their own conditions and personality characteristics when choosing the objects for comparison. For example, optimists like to compare "down", while pessimistic and depressed people tend to compare "up".

Control is freedom from constraints imposed by family or lack of money; autonomy can be defined as self-sufficiency; self-realization is focused on enthusiasm about the future; and pleasure refers to finding life enjoyable and fulfilling. Clearly, items like: "I look forward to each day", capture something purely subjective and affective. Although other items such as: "Shortage of money stops me from doing what I want" have a more objective component, individuals must decide how much money is enough and whether they feel satisfied. Insufficient funds "to do what I want" is hardly an indication of poverty.<sup>[4]</sup>

[4]Horner, E. M. . (2012). Living well: empirical evaluations of economic welfare and subjective well-being. electronic thesis & dissertations

Cognizant that “individual” and “ecological” qualities are not truly independent of one another, namely to identify how different sources of influence (i.e., characteristics attributed to individuals, families, schools, and neighborhoods) are associated with early adolescents’ optimism.<sup>[5]</sup>

As far as public policy ethical value norms are concerned, utilitarianism exhibits unique theoretical advantages: 1. Its maximum test principle as a criterion is straightforward, easy to understand, simple and convenient. 2. When evaluating systems and policies, since utilitarianism is only sensitive to results and does not blindly rely on metaphysical propositions, this can somewhat avoid the difficulties faced by normative theory. 3. Finally, utilitarianism is a pragmatic theory. The focus on results makes it free from the constraints of customs and dogma, and shows a tendency to be willing to social reform and progress.

## Chapter 3 Emotional Design > synesthesia

### 3.1 Sensory Value in Brand Image Design

Promoting the concept of the brand, enhancing the brand's recognition, and building a positive brand memory need to be in the brand image  
Completed on the basis of the design. Establish more contact points between the brand and the target consumer group, and carry out multi-sensory brand image design in it, open people's sensory experience, and establish positive brand memories to facilitate brand promotion.

#### Sensory recognition

After the human sensory organs receive different patterns of information in daily life, they convert the sensory signals into cell signals that can be processed by the nervous system. Through the analysis of the cell signals by the nervous system, they are converted into electrical signals and transmitted to the brain. Perception and memory of events. Therefore, for the various contents included in the brand image design, an optimally designed form is needed to complete the dissemination of brand information, and to obtain consumer emotional resonance through a series of sensory recognition and cognition. In this process, multi-sensory design can break through the design dimension of traditional brand image.  
Official experience, producing a better brand recognition effect

[5]Thomson, K. C., Schonert-Reichl, K. A., & Oberle, E. . (2015). Optimism in early adolescence: relations to individual characteristics and ecological assets in families, schools, and neighborhoods. *Journal of Happiness Studies*, 16(4), 889-913.

## Sensory memory

With the rapid development of the commodity economy, brands have accelerated the pace of product innovation, and their life cycle is in

Relatively speaking, it has been greatly reduced. Under such a situation, people are pursuing new products and materials, and at the same time, their feelings about the existing product brands are getting weaker and weaker, gradually ignoring their own sensory memories of the product brands. In the process of sensory memory formation, Martin Lindström believes that people's other senses have an important influence on their final purchase decision, so he opposes the use of traditional completely visual design methods for brand images. In the process of designing the brand image, a variety of sensory design methods are used to create a perfect brand image sensory symbol by strengthening the sensory memory of the consumer's brand image, and to carry out brand communication in a more vivid way.

## Sensory synesthesia

Sensory synesthesia, also known as sensory shifting, refers to the visual, auditory, smell, and touch senses in daily contact with things.

Sense and taste senses can be connected to each other, and information is processed in the brain through associations, which results in a sensory communication phenomenon. To put it simply, synesthesia is caused by one feeling, and beyond the limitations of this feeling, and then to understand the psychological phenomenon of another feeling. Sensory synesthesia is a universal psychological and physiological phenomenon, and a high-level and complex ability to feel things that is universally shared by people. Sensory synesthesia can have a great impact on people's psychological activities and play an important role in the process of brand image design. When people's senses perceive things, through synaesthesia, the perceived sound has an image, color has a temperature, and a smell has a sharp edge. Therefore, in the process of brand image design, make full use of people's shared sensory synesthesia ability, combine brand products and sensory synesthesia design to stimulate people's emotions and leave a deep sensory impression.

## Sensory transmission

In the process of brand promotion, the brand uses a variety of senses to pass different information according to its different information content.

The design method of the brand is transmitted to consumers. After consumers receive the information transmitted by the brand through multiple senses, they pass the information to the brain to form a comprehensive sensory experience, produce an impression of the brand, and then transform this impression into a corresponding Consumer desire to complete the transmission process of the brand's overall senses. When consumers receive information from the brand, if consumers can remember the multiple sensory images of the brand, the effect of brand sensory delivery will be achieved; if they cannot recall or can only recall one sensory impression, then the effect of brand sensory delivery It will be greatly reduced. Therefore, the promotion and dissemination of brand image should rely on people's multiple senses, leaving as many sensory impressions as possible for people to remember, making the brand more characteristic of sensory experience, and subtly affecting consumers' buying behavior. However, in the process of sensory transmission of the entire brand, if too many sensory contacts are designed at the same time, it is easy to bring people a burden of sensory perception, resulting in the ineffective transmission of information, thereby affecting the sensory transmission effect of brand information. The content of the sensory design involved has a clear classification of priorities and proportions, so that the logic is clear and the levels are distinct.

Since the Industrial Revolution, fashion and technology have been linked through the textile and manufacturing industries, a relationship that has propelled technical innovation and aesthetic and social change. Today a new alliance is emerging through the integration of electronic technology and smart materials on the body. However, it is not fashion designers who are exploiting this emerging area but interaction design, performance art and electronic and computing technologists.

'The Emotional Wardrobe' is a practice-based research project that seeks to address this imbalance by integrating technology with clothing from a fashion perspective. It aims to enhance fashion's expressive and responsive potential by investigating clothing that can both represent and stimulate an emotional response through the interface of technology.<sup>[6]</sup>

---

[6]Stead, L. J. . (2005). 'the emotional wardrobe' : a fashion perspective on the integration of technology and clothing. university of the arts London

### 3.2 Features of Emotional Design in Fashion Design

Emotion is an important factor affecting people's aesthetic attitudes and values, and the expression form of costume design is the reaction of aesthetic ideas, so costume design has become an important way to express emotion.

Aesthetic concept is the main internal factor that affects people's dress, which is embodied in that people choose their favorite clothes to match according to their own values. However, clothing design is also affected by the changes of people's feelings and emotions. Emotional design is carried out according to the preferences and emotions of buyers to help buyers express their emotions externally. Emotional features have become an important aspect of clothing design.

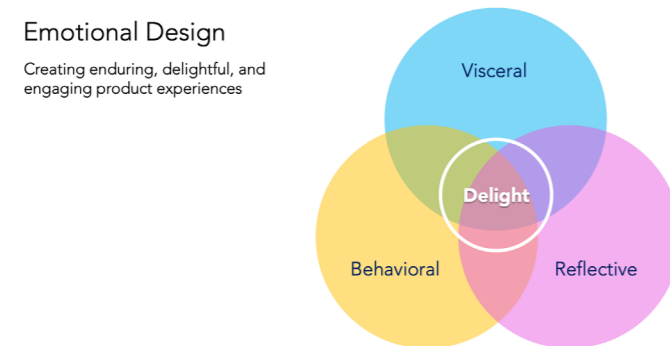


Figure2. *The Art of Emotion—Norman's 3 Levels of Emotional Design*

Consumers' demand for garment products has shifted from the focus on the physical functions of products to the direction which is more desirous of comforting the soul for pleasure of emotional experience, that is, from the pure rational demand to emotional-oriented demand, the pursuit of individual self-actualization needs. People pay more attention to personality satisfaction, the pleasure of spirit, comfort and sense of superiority. At the same time, the connotation of fashion design has also changed because of the consumer trend, apparel products are no longer limited to the value of transfer function, but more attention to the convey of culture and the intrinsic value of spirit. Based on emotional consumption and emotional design, the paper stated the main characteristics of fashion design in the emotional consumption times, analysed and summarized the related methods and strategies of clothing design, tries to provide a guiding idea for emotional fashion design.[7]

### 3.2.1 Excitement experience

Consumers usually tend to express and share positive and bright emotions in their emotional expression. Clothing design and analysis are carried out according to this characteristic. Consumers' excitement is usually associated with the feeling of happiness, freedom, happiness and harmony. The designer adds rich and gorgeous design elements in the clothing, which can bring the corresponding emotional experience for consumers.

For example, adding the "hamburger" element to the clothing design shows the cordial and humorous mood, bringing the consumers and others the dual positive experience of emotional experience and aesthetic taste. The addition of bright and lively colors can be due to the excitement of its consumers, in line with the positive emotional aesthetic value of the crowd, the color and a variety of color Mosaic processing will also produce the same effect.



Figure3. *moschino-collection-autumn-winter-2014-2015*

[7]Liu, C., & Sun, J.. (2010). Research on the Fashion Design Strategy and Approach in the Emotional Consumption Era. International Wool Research Conference; IWRC 2010. Tianjin Polytechnic University.

### 3.2.2 Comfortable experience

People's values mostly show the price tendency of safety and comfort, and comfort is a common value tendency in consumers' ideas. Designers often use design elements that make people feel safe, comfortable, warm and relaxed in their designs, and bring consumers pleasant value experience through clothing design.

For example, the designer takes advantage of other pleasant elements in the clothing, and adds comfortable factors such as music photography into the clothing. In the clothing, the jacket, strappy short skirt and earphone are combined as a whole to bring people a relaxed and pleasant experience. In some of Armani's design works, there are soft and textured knitwear, which brings people a kind of friendly and natural experience and makes consumers consciously accept the emotional values expressed in the design.



Figure4. *The Strange and Beautiful Universe of Walter Van Beirendonck*

### 3.2.3 Nostalgic experience

Time is the mainstream factor that guides the fashion design trend, but many design elements adjust and innovate with time, and become the timeless trend theme in the design, which occupies an important place in the fashion design. Accordingly, the design trend of retro and the tendency of emotional experience appear in the fashion design. Consumers often regard nostalgia as a comfortable and classic way of expressing emotions. Designers often use this method in clothing design for the public clothing design. People all have the emotional tendency of recalling the past and experiencing the history, so retro design is also a mainstream in costume design.

For example, foreign fashion designers analyze and design the "cowboy culture" generated in the history, and improve the "jeans" in line with the trend of The Times, so that the jeans appear in the modern clothing market.



Figure5. *Retro style 1960s clothing*

### 3.2.4 Avant-garde experience

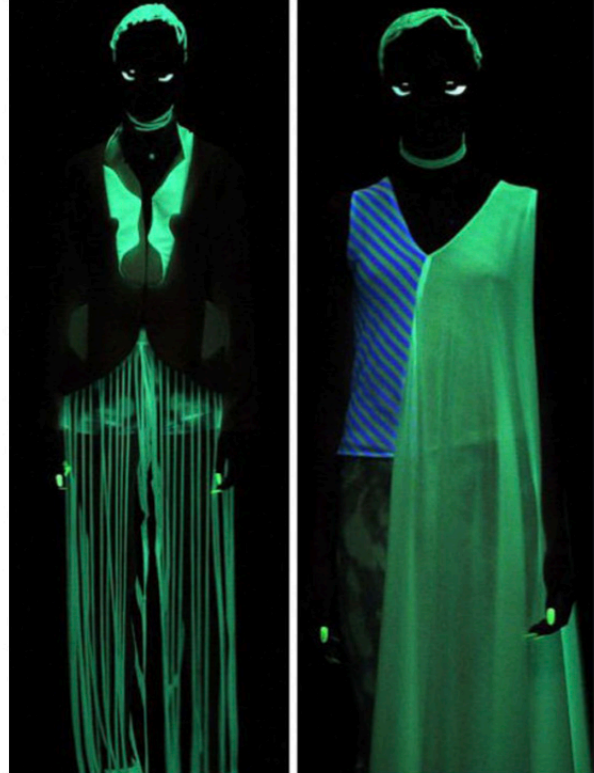


Figure6. *Johan Ku's 2012 SS Collection - Technology meets fashion*

With the liberation of people's mind, multiple values and emotional experience have emerged one after another. People's emotional experience tends to be complex and mainstream, that is, subjective experience is taken as the theme of expression, and they have a higher evaluation and attention to themselves. Some consumers pay more attention to the expression and display of individuality, and usually regard emotions and designs that are not accepted by the mainstream values as the mainstream of emotional expression. As a result, designers often take emotional stimulation and novelty as the theme of their designs.

For example, some clothes use gray, black and green as the main colors of clothing, creating a mysterious and weird range of emotional experience, bringing people an impact that breaks through the traditional aesthetic experience, and realizing consumers' demand for individuality.

In the book "Emotional Design," Donald Norman classifies three aspects of design: instinctive, behavioral, and reflective. From the perspective of the application of emotional fashion in fashion design, an introduction to emotional fashion design. Drawing lessons from this, focusing on the key elements of emotional fashion at the reflective level, and expounding the methodology of emotional fashion design at the reflective level through some specific examples, this laid the foundation for my further promotion of design theory and current fashion design.<sup>[8]</sup>

[8]Zhao, YY, & Wang, L.. (2015). Emotional fashion design at the reflective level. Art and design.

### 3.2.5 Participatory experience

With the rapid economic development today, the production and consumption behaviors are also undergoing significant changes quietly. In order to increase the added value of products and gain the recognition of consumers, more and more merchants and designers attach great importance to the communication with consumers when developing new product series. Such as apparel fabric choice and some parts of the neckline, cuffs, garments and other details design, etc, to encourage consumers and design, stimulate consumer inner thoughts and enthusiasm, make its can think method into the tangible physical, really feel the fun of clothing design and a sense of achievement, so as to satisfy the consumers in both aesthetic and emotional needs, Achieve the goal of win-win.

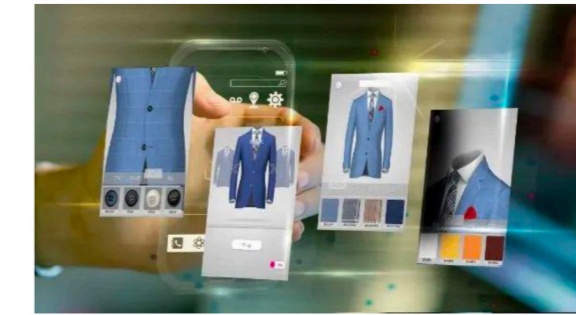


Figure7. *Schematic diagram of Kute Group data automatic flow production*

When mood, emotion and sentiment are taken into consideration, the emotion display of the clothing beauty is studied. It is believed that the line, style, color, pattern and material of the clothing all have abundant emotion contents .While all emotion character factors are discussed, the emotional meanings of various kinds of element symbols are provided.<sup>[9]</sup>

With a view to exploring the emotional exchange and interaction between consumers' sensory systems (hearing, vision, taste, smell, and touch) and clothing accessories in the context of the experience age, this study uses a combination of practical and theoretical means to study the physiological, psychological, and behavioral responses of consumers after sensory stimulation, summarizes the relationship between different emotions and body reactions, and obtains the relationship between sensory experience and material selection and functional design of clothing accessories, based on which, the factors and steps that need to be considered in advance in clothing accessory design based on sensory experience are obtained and clothing accessories design positioned for relieving consumers' nervous tension are exemplified<sup>[10]</sup>

[9]Sun, J. . (2005). Emotional expression in clothing beauty. Journal of Tianjin Institute of Textile ence & Technology.

[10]Qin, Z. . (2018). Clothing accessory design based on sensory experience. NeuroQuantology, 16(6), 460-465.

# Chapter 4 Sensoriality through embedded Technologies applied to Fashion

## Overview

At present, people's demand for sense, emotion, psychology and other aspects is more and more distinct. In product design, designers need to stimulate and delight people's spiritual experience design from various aspects, and pursue the perceptual experience that integrates vision, hearing, touch, smell, taste and other senses, so as to make products more attractive.

The concept of multi-sensory design refers to the interaction between the design concept and the consumer's feeling from the perspective of sight, hearing, taste, smell and touch, so as to develop the consumer's sensory function in many aspects and at different levels. Masayuki Kurokawa, the president of the Japanese Institute of Physics, was the first to put forward the concept of "multi-sense". He said that the 21st century was an "era of design that reflects the characteristics of body sense", as the "era of visual era is transferred to the era of touch". The concept of multi-sense can be applied to fashion design, which can develop consumers' sense function in many aspects and at different levels.

The multi-sense concept can enrich the expression form of clothing, and achieve rich and ideal design effect by mobilizing the utility of various senses

The identification function of clothing can be improved by the application of the concept of "multi-sensory" recognition. In other words, by focusing on the attention of consumers, new techniques and technologies are adopted to add sensory information expressions such as touch, hearing, smell and taste into clothing, so as to satisfy consumers' curiosity psychology. The identification of clothing can be used to enhance the cultural connotation of clothing brand and make the brand more personalized. Multi-sensory clothing can better convey the emotional connotation of clothing, and convey the concept of clothing product design through the joint action of vision, touch, hearing and taste. Interactivity When consumers are shopping, the process of psychological reaction to products is generally as follows:

Attention, Interest, Desire, Memory, Action. Its specific process is: arousing attention, arousing desire, enhancing memory, leading to action. "Multi-sensory" clothing usually has good interaction, which can lead consumers to notice the interest of clothing products, from interest to want to own, and finally put into action. Therefore, the multi-sensory concept can make clothing products more attractive in design

.An example of a Brazilian brand which applies technology in their visual merchandising is the brand FARM (Rio de Janeiro, RJ). According to Littmann, the brand offers in some of its stores interactive mirrors that allow the customers to browse products and virtually prove without removing his clothes.

Further according to FARM, the goal of these mirrors is to awaken the playful side in their customers through experience, as well as to promote quickly and easily upon purchase. Since 2007 FARM has one more item to interact with their customers. In all tasters' music channels were installed in which the customers can choose their soundtrack while sampling products. The aim of the company is to generate greater permanence in the dressing room and awaken emotional memory in relation to the brand.<sup>[11]</sup>

#### 4.1 Application of Emotional Design in Fashion Brands

Emotional design not only meets the basic functional needs of consumers and users, but also provides a way for users to express their emotions, and caters to consumers' consumption needs with a humanized concept. It is the right way to adapt to social development and consumer demand to integrate emotional concept into modern clothing design. The spiritual significance and cultural connotation it emphasizes all show more concern for and care for human nature, and reflect modern people's higher pursuit for the spiritual world on the basis of satisfying abundant materials.

This section will analyze the emotionalized features and their manifestations in modern fashion design, and discuss the guiding role of emotionalized features in fashion design, hoping to provide reference and reference for relevant fashion design and marketing workers.

The fusion between fashion, technology and design is more dynamic than ever before and this collaboration has generated the rapid development of original materials and alternative fabrics. Inspired by the growing trend for eco-fashion, wearable technology and 'smart clothing', designers are experimenting with new ideas and approaches to fabrications that will take their collections to the next level. Now innovative technologies have been incorporated and more sophisticated processes have been applied to fabrics in order to achieve modern surfaces, textures and finishes, once impossible to attain using traditional materials.<sup>[12]</sup>

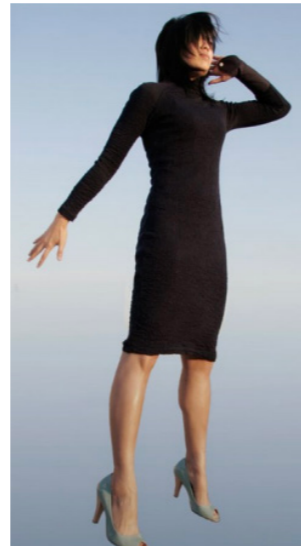


Figure8. *M-Dress of Cute Circuit*

[12]Martin, M. S. . Future Fashion: Innovative Materials and Technology.

Regarding the design related theses announced in Korea after 2000, the analysis of studies that focused on fashion-technology integration showed that most studies were related with the overall flow using keywords such as 'wearable computer', 'smart clothes', 'interaction fashion', 'hybrid fashion', and 'digital fashion' except the studies that clearly experimented with technological materials such as the studies on light-emitting design and textile design. In other words, most studies did not categorize types nor made detailed analysis based on clear criteria.<sup>[13]</sup>



Figure9. *Hussein Chalayan One Hundred and One*

[13]Park, H. , & Yang, J. . (2013). A study on the categories and contents of fashion and technology trend: focused on design field. Fashion Business, 17.



Figure10. *Musical Jacket*

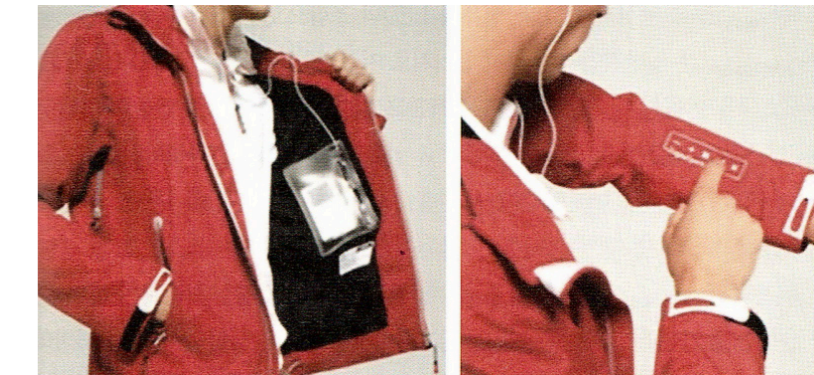


Figure11. *Smart Clothing with MP3 Attached*



#### Core value concept

The core value concept is the attribute that customers expect when buying a product. For example, the brand, color, fabric, style and price of fashionable casual wear. Nowadays, consumers have higher and higher requirements for clothing products, and they often shop around and choose from different brands. The market has formed a multi-level and multi-change customer form. Therefore, deciding whether consumers buy the clothing product is not only the basic function of the product, but also whether the clothing can give consumers psychological resonance and satisfaction. When consumers buy Donna Karen's fashionable casual clothes, they are actually buying comfortable and casual clothes. This is the content of basic value. Brand production of clothing first focuses on the basic value that this kind of clothing can provide to consumers, and from this point, it searches for the general form of core value realization: brand black woolen coat with a New York urban feel.

#### Value-added concept

For clothing products in the form of material manifestations, they do not originally have too much psychological added value, but with appropriate advertising, the implantation of corporate culture and the induction of consumer emotions will artificially give the product this added value. Consumers not only consume the commodities themselves, but also a certain social and cultural significance symbolized by the consumption of these commodities, including the social status, value representation and audience image represented by the clothing purchased. For example, the brand's store is dedicated to creating a unique urban atmosphere in New York, arousing the dreams of the younger generation, and fully explaining the American life. They hope that wearing this suit can become a social elite with a rich personality. The brand caters to consumers' potential purchase desires and molds the brand into a representative of a lifestyle and spiritual realm. In short, emotional clothing must have basic value, core value and potential value, so that emotional clothing can achieve true beauty, wonder and pleasure, while still being useful and usable.

Women had a greater fashion innovativeness and opinion leadership than men. Compared to men and fashion followers, women and fashion leaders had a greater tendency to enjoy processing feelings during apparel shopping. Women, fashion leaders, and participants with a higher need for affect showed a greater shopping preference than men, fashion followers, and participants with lower need for affect. **[14]**

The preference of consumers for readymade branded apparels is fast changing which is caused by the creation of personality and status with the quality and comfort they deliver. Customers have become highly brand conscious presently. Hence, brand image is a significant factor in choosing the product or brand to buy. Driven by the competitive environment in fashion business, marketers have realized that creating a favorable brand image is a key to win larger market share in its market niche. An understanding of brand image can provide better foundation for developing a more effective marketing program. The understanding of consumers' desires, behavior and of the purchase process of fashion products is extremely important to the design of fashion products collections as well as to the placement of these products in the market. A fashion product must satisfy the demands of the target customers, so the main idea (message) behind the brand (sender) must reach the consumer (receiver). The key issues are: a) how to develop the brand images through the main idea; b) how does the message, created in the very beginning of the marketing plan get through to the final consumer. **[15]**

#### Core value concept

The core value concept is the attribute that customers expect when buying a product. For example, the brand, color, fabric, style and price of fashionable casual wear. Nowadays, consumers have higher and higher requirements for clothing products, and they often shop around and choose from different brands. The market has formed a multi-level and multi-change customer form. Therefore, deciding whether consumers buy the clothing product is not only the basic function of the product, but also whether the clothing can give consumers psychological resonance and satisfaction. When consumers buy Donna Karen's fashionable casual clothes, they are actually buying comfortable and casual clothes. This is the content of basic value. Brand production of clothing first focuses on the basic value that this kind of clothing can provide to consumers, and from this point, it searches for the general form of core value realization: brand black woolen coat with a New York urban feel.

#### Value-added concept

For clothing products in the form of material manifestations, they do not originally have too much psychological added value, but with appropriate advertising, the implantation of corporate culture and the induction of consumer emotions will artificially give the product this added value. Consumers not only consume the commodities themselves, but also a certain social and cultural significance symbolized by the consumption of these commodities, including the social status, value representation and audience image represented by the clothing purchased. For example, the brand's store is dedicated to creating a unique urban atmosphere in New York, arousing the dreams of the younger generation, and fully explaining the American life. They hope that wearing this suit can become a social elite with a rich personality. The brand caters to consumers' potential purchase desires and molds the brand into a representative of a lifestyle and spiritual realm. In short, emotional clothing must have basic value, core value and potential value, so that emotional clothing can achieve true beauty, wonder and pleasure, while still being useful and usable.

#### 4.1.1 Design according to the emotional needs of different customers

Different consumers have different ways of emotional expression and emotional experience, so their choice of clothing also presents a diversified trend, but the same consumer's choice of clothing design presents a stable trend. Designer can according to the characteristics of costume design for different consumer groups, subdividing consumers, when designing clothing design different series, the overall design of the same series of emotional expression, and to the same series of elements in the details of the same process and adjustment, make the clothing presents the overall unified details and experience the emotional expression of differences.

Analyze the psychology of consumers, determine the overall style of the design according to the personality characteristics of different groups, select the design elements, analyze the color and material of the clothing, and select the general framework for the clothing design. Design according to different consumer groups can meet the diversified needs of the market.

#### 4.1.2 Use emotional design to establish brand image

According to the emotional experience of clothing design shows a designer and clothing enterprises to the consumer's humanistic care, from the needs and values of consumers, so that the designed products to meet the emotional needs of consumers. Take people-oriented as the core concept of design and sales, analyze and experience the emotions reflected in clothing design, and bring the satisfaction of consumers at the spiritual and emotional level. The emotional experience design of clothing is used to create a comfortable and favorite environment for consumers, so that consumers can identify with the brand and gradually form the loyalty to the brand.

To bring a fixed consumer group for clothing designers is conducive to the development of design work. Make use of the emotional charm of clothing to bring special emotional expression experience for consumers, and provide consumers with special ways of expression.

#### 4.2. The use of multi-sensory concepts

Visual expression of multi-sensory concept in clothing design At present, the main means of expression of multi-sensory concept in clothing design is still visual expression. The design and enhancement of visual impact has always been the most prominent effect in clothing design. It can be designed from the aspects of creativity, graphics, new technology, etc. to increase the visual appeal of clothing.

#### See

TheMountain is a well-known American brand of creative animal 3DT shirts. When 3D technology became popular in the film industry, this printing technology was also popular all over the world. Therefore, in 2012, TheMountain brand launched the first T-shirt printed with a dog head pattern, but the most special thing is that the pattern on the T-shirt is three-dimensional, which immediately swept the global fashion world. [16]



Figure12. The Mountain - *Image T-shirt - 2014 SS*

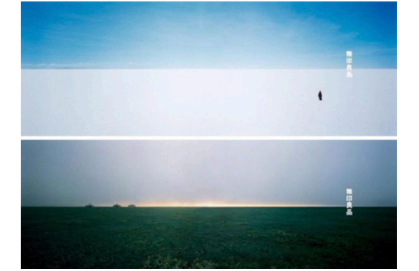


Figure13. Poster work by MUJI

The human visual sense organs have the strongest ability to accept information, and 83% of external information is received visually. Therefore, visual design has always occupied a dominant position in brand image design. Brand image logo graphics, typesetting fonts, color tone, image posters, brochures, etc. are all visual design content.

The visual image design of the brand belongs to the category of graphic design, and the design content is mainly to carry out a reasonable combination and layout design of brand information elements in a two-dimensional space. In the design of visual elements, patterns and text are the basic units of design. As the basic unit of visual image elements, text must be readable, recognizable, and aesthetic in the layout of text. The pattern is a visual element that directly spreads information through image, color and texture. For example, the "Horizon" poster design of the MUJI brand. Designed according to the concept of MUJI's "nothingness", a complete horizon neatly divides the picture into two, plus the brand logo, presenting a seemingly empty container that can hold hundreds of rivers. The calm visual effect of the picture creates an experience atmosphere that conforms to the MUJI brand's temperament, which can be used as a reference for the visual design of other brands.

It can be seen that in brand visual design, patterns and words must be related to the brand's temperament, positioning, characteristics, etc., so that consumers can successfully obtain the information conveyed by the patterns and words, form correct perceptions, and establish brand visual impressions.

## Touch

Chinese designer Ying Gao based in Montreal, Canada, used complex sensory technology to invent a garment that can move, change shape, and even glow when it is noticed by others. She installed eye-tracking technology on her clothing, so it will automatically activate when it senses the gaze of others. The tactile expression of the multi-sensory concept in clothing design is the most direct relationship between tactility and objective objects among all human perception methods.<sup>[17]</sup>

The tactile sense of clothing is mainly reflected in the fabric. The surface texture of the clothing and the secondary transformation of the fabric may be used to change the tactility and bring different feelings to people. For example, changes in fabric softness, thickness, etc. can cause changes in the sense of touch, thereby prompting changes in experience. Different materials have different characteristics and different visual and tactile impressions.



Figure14. Gaze-Activated Interactive Dresses By Gao Ying, 2013

Such as wool fabrics are soft and warm, silk fabrics are smooth and delicate, and cotton and linen fabrics are natural and simple. If different materials are mixed and matched, it can also bring contrast and different feelings to people's touch.

Tactile is a kind of skin sensation, and it is one of the oldest sensations. People's tactile perception of specific things is mainly done through the skin. The hand is the most important tactile center of the human body. The sensations obtained by touching things with hands are not only the feelings of cold, heat, pain and pressure, but also physical characteristics such as texture, weight, thickness and so on. People who do not have the sense of touch will live in a vague, numb world. In the sale of branded goods, many consumers pay more and more attention to the tactility brought to them by the material of the goods, and regard it as an important factor in determining consumer behavior. For example, the hospital identification system designed by Hara Kenya for Umeda Hospital is designed with soft white cotton fabric.



Figure15. Umeda Hospital Visual Indicator System, Japan

The fabric is used as the medium for the identification information, and the prompt information is printed on the white cotton cloth by screen printing. The soft texture and gentle touch of the fabric will bring a soft feeling to the tight space of the hospital, allowing each to come. People who go to the hospital can feel the hospital's will to ensure that they are clean, which brings psychological comfort to others, and thus establishes a good brand impression. In addition, brands can also apply the texture of different materials to different designs according to the printed materials, promotional materials and decorative environment materials in the application part of their visual image design to create different tactile feelings and enhance

[17]Research on the Application of Multi-sensory Concepts in Fashion Design, Chen Jie, Shanghai Arts and Crafts, 15.06.2018

## Listen

"Ghost" designer Alexander McQueen designed a performance costume for singer Bjork. When Bjork wears this costume and shakes with the rhythm of the music, the fragments of these clothes will collide with each other, producing a magical sound effect, just like a "percussion instrument" worn on the body. At the same time, the audience will feel the rigidity of the fragments and the friction with the ostrich feathers without touching them, creating a breathtaking effect.

The auditory expression of multi-sensory concepts in clothing design can help clothing designers convey the ideas and concepts they want to express, while pure visual language is often difficult to express some non-intuitive and abstract information. When using sound in fashion, the most common one is the perfect cross-border fusion of music and fashion.

AllaScala's 2014 spring and summer show works, the theme is "Music meets fashion show". When the singer sings passionately on the stage, the costume and music merge to bring perfect audio-visual enjoyment to the audience. The black tight-fitting dress echoes the rhythm of blues rock. It not only shows an independent and confident personality, but also outlines the tension and fast rhythm in the world of punk music.

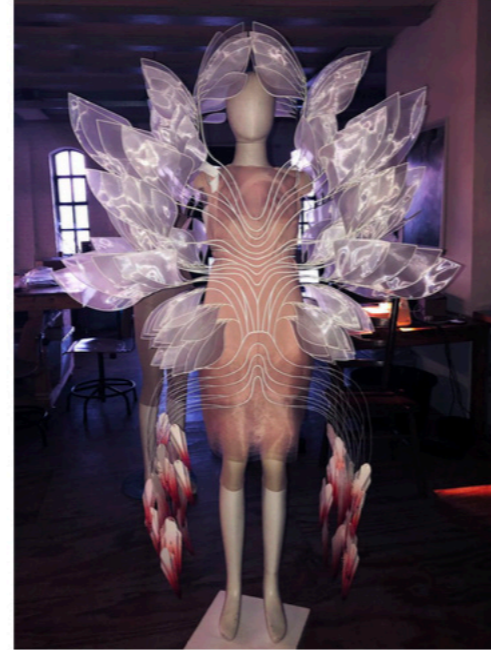


Figure16. The 'Sphaera' dress by Alexander McQueen's, 2019

The ability of human auditory senses to accept information is second only to vision, and 11% of external information is received by hearing. The famous American composer Bernstein believes that the reason why we like certain tunes is because they have a specific structure in line with their own aesthetics. When a brand is marketing and promoting, the unique sound design can greatly help the brand to improve its image recognition. Auditory design takes invisible sound as the object, which is an important part of the brand image multi-sensory design, which is mainly reflected in the sound design of the brand image. The auditory design in the brand image is mainly reflected in the background sound, advertising sound and special sound. For example, the auditory design in the Starbucks Premium Bakery in Shanghai. In the baking experience store, in addition to the background music, the brand's auditory design also has a special sound design. In order to enable consumers to drink the freshest coffee beans, Starbucks installed five slender copper pipes on the ceiling of the store to connect the bar counter bean tank with the large copper tank, and named it the "coffee symphony tube". When the coffee beans pass through the copper tube and finally fall into the bean storage tank at the bar, they will emit a very clear and pleasant sound, which forms a fresh and interesting auditory experience for consumers, leaving consumers with a deep brand impression and stimulation. Consumer behavior.



Figure17. Starbucks special interior design, 2020

In the auditory design of the brand image, different forms of sound presentation are selected. Through the use of these sounds and music, consumers can have a relaxing or leisurely emotional experience, which in turn affects their consumption behavior. Therefore, many companies need to use specific sounds and music to create a unique auditory recognition of the brand based on the psychological preferences of the brand consumer group, and bring a deep impression to consumers.

## The smell

The sense of smell and taste expressed by the multi-sensory concept in clothing design surrounds our daily lives. It will have an impact on people's emotions, feelings, memories or behaviors. For example, in the store, the design of fragrance will bring emotional feelings to consumers and guide their buying behavior.

A typical case is Abercrombie&Fitch, which is a famous American leisure brand. Its store will use its own brand perfume Fierce, so that the unique smell of this perfume moisturizes each product and has a long-lasting fragrance. This unique fragrance not only uses the luxury of perfume to highlight the expensive products, but also improves customers' sensory awareness of this brand.



Figure18. Abercrombie&Fitch retail store with exclusive fragrance

'Scentient Beings' invents a new science of aroma delivery focusing on smell and the impact it has on health and wellbeing. It explores the concept of Re-cabling Fashion, by implanting smell technology into multi-sensorial clothing. The project promotes wellness by boosting therapeutic qualities concentrating on a more active approach to fashion design, introducing the living dress as a sensitive Smart Second Skin. By comparing fabric to skin with it's own personal scent symphony that changes with emotion, the fabric comes alive through smell by a process in which the wearer gives life to the dress. Smart Second Skin interacts with human emotions whereby the aroma dimension is an integral part of the wearers total 'wellness' sensory experience. Inspired by a quote from J.G Ballard and the mechanics of the human body, Smart Second Skin acts as a new emotional layer: "Fashion is the recognition that nature has endowed us with one skin too few,that a fully sentient being should wear its nervous system externally".<sup>[18]</sup>

[18]Research on the Application of Multi-sensory Concepts in Fashion Design, Chen Jie, Shanghai Arts and Crafts, 15.06.2018

Smell is the most direct sensation. Breathing makes us smell all the time. The smell can arouse people's memories and produce emotional responses. Psychologists have proposed that smell will subconsciously affect human feelings, judgments and behaviors. The results of this study directly prove that smell is the decisive factor for consumers to purchase, collect or use a certain brand of goods. In addition, there are many related studies that have proved the effectiveness of odor for brand promotion.

In an environment where the fragrance is suitable for consumption, most consumers are affected by environmental odors, have a pleasant mood, and unconsciously have a tendency to purchase, even if the price of goods is higher than consumption expectations, it becomes easy to accept. For example, Singapore Airlines has long started to create brand olfactory recognition, and designed a unique brand fragrance for its own brand. The perfume used on all flight attendants during the flight, the hot towels and blankets on the plane, and the entire A perfume named "Steven Florida" is used in the cabin, and this scent has been used for many years, so that every passenger who has been on a Singapore Airlines plane can smell the perfume at the moment Recall the cordial and caring service of the airline. Therefore, creating and maintaining a "unique and consistent" olfactory experience will greatly enhance the sensory memory and image identity of the entire brand, and it is an important way to enhance the brand's influence.



Figure19. Singapore Airlines Interior Design Sketch

In the brand image design, the scent representing the unique character of the brand is used to stimulate the sense of smell of consumers, and the emotional bond between the brand and consumers is established through unique contextualized experience, which guides consumers' purchase behavior and improves consumers' brand loyalty .

# Chapter 5 Target market selected

## Overview

Generation Z, what kind of generation is this? They can be said to be "indigenous people" who have benefited from the popularization of the Internet. They have grown up within the reach of electronic screens and have a natural keen sense of technology products. The values formed by the development of technology make them more self-identified, willing to try new things, and good at communicating with others through social media, but are they facing the same academic pressure as before? On Facebook or Twitter, as soon as you enter the keyword "college stress", a lot of troubles shared by Generation Z young people will pop up.

For example, a freshman from a university wrote, "I was very excited when I thought about going to university. However, when I thought about leaving home, making new friends, and taking classes at university, I suddenly felt unbearable." According to the relevant survey results, it is found that Generation Z is under tremendous pressure after entering the university, far exceeding the previous generations. The research results also show that contemporary college students believe that their pressure comes from many aspects, including the academic performance they expect and the academic expectations of those around them. In addition, the changing political environment, the financial crisis of university studies, and the sense of social anxiety all have deepened the sense of pressure among college students.

I have compiled three conclusions on this, which are of great reference value for the mental health of Gen Z.

## Gen Z faces a high risk of mental illness

The research report shows that three-quarters of the respondents (76%) admitted that they had experienced severe mental health symptoms, such as anxiety and depression, which would affect their daily life and study. Mental health problems appear in three common ways, of which 89% are suffering from overload and stress, 86% are suffering from anxiety, and 66% are suffering from different degrees of depression.

Mental health problems are emerging at high rate among students. Depression, anxiety, self-harm, and eating disorders are a few common mental health problems experienced by young people. 4 in every 5 students suffer from mental health problems. Study Life Balance (SLB) is the one of the primary objectives of Students' Talent Management objectives in order to achieve the personal and the professional aspirations of students. Having mental health is an important pre-requisite for the students to have study life balance.<sup>[19]</sup>

## Generation Z is under pressure beyond imagination

Balancing life and study, and how to achieve good grades is one of the most painful sources of stress for generation Z college students.

Although some parents are confused about this, 79% of the parents who participated in the survey rated these worries as 4 points (the highest 5 points). What does this show? Parents actually understand more or less the main pressure their children face during college, but many people are unable to give specific professional improvement plans.

In other words, even though they are aware of the existence of the problem and look at it more based on their own experience and cognition, they still think that this is a test that everyone who enters the university has to go through, without comprehensive consideration of changes in the general environment and social interactions. Objective factors such as scene change.

---

[19]Veluchamy, R. , Agrawal, V. , & Krishnan, A. R. . (2016). Perception on managing mental health of generation z students in creating student superstars: students' talent management. International Journal of Pharmaceutical Sciences Review & Research, 45-52.

### Generation Z's view on fashion changes under the epidemic

The Influencer Marketing Factory's research on 350 generations Z and millennials in the United States shows that almost half (40%) of generation Z and millennials have purchased products they previously saw in social media applications or live broadcasts.

60% of Gen Z and millennials purchase products after seeing the content posted by internet celebrities, and 46% of Gen Z and millennials say they will make at least one purchase on social media every month. Although it is convenient to shop on social apps, Gen Z likes to save specific items first, and then research brands and products before buying them. Approximately 53% of the respondents said that they like to carefully study the products they buy online before making a purchase.

In addition, about 61% of people said they prefer the "add to cart" option for shopping on social media, while 39% still prefer to be redirected to a third-party website. Among the number one items purchased on social channels, clothing (41%) is far ahead, followed by beauty products (23%), followed by technology and household products.

It is worth noting that the younger generation prefers online shopping. Sellers should also pay more attention to the social media preferences and consumer needs of the younger generation, for example, they like to interact with brands. In summary, major social media platforms are actively promoting the development of e-commerce. The development prospects of social e-commerce are still considerable, and sellers can also pay more attention to this area.

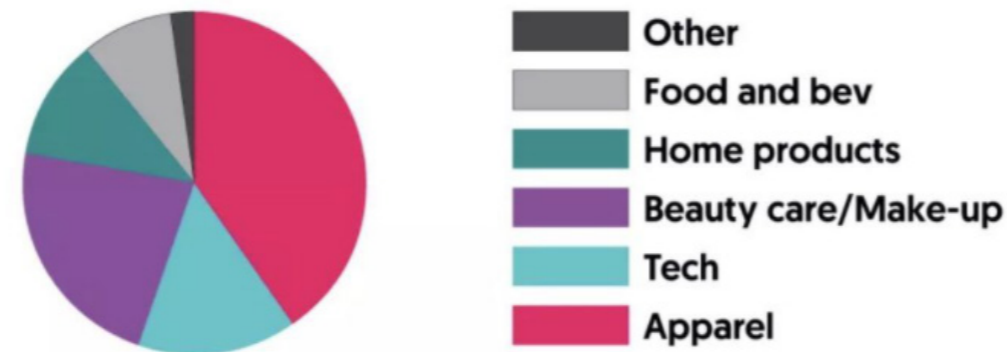


Figure20. CBNDData "Generation Z Trend Consumption Insight Report", 2020

### Follow the trendy brands, but not blindly follow the trendy brands that are over-marketed

Generation Z are keen to buy trendy brands, most of them buy it once a month. Among them, the proportion of heavy consumers of male fashion brands is higher. However, Gen Z is actually more rational in the consumption of fashion brands. They believe that if fashion brands are hyped and their value is overestimated, the product will not be cost-effective. Most Gen Z will not pay the bill.

### Local products are the most frequently purchased category

Post-90s and post-95s are the main force in the consumption of the country's tide. CBNDData "Post-95 National Trends Consumption Trend Report" mentioned that post-95 consumers particularly prefer to search for Guochao co-branded models, far surpassing other generations. The five categories with the highest penetration of national fashion brands among post-95s are canvas shoes, Sports down jackets, basketball shoes, sweaters and casual shoes.

Compared with fashion categories such as luxury brands and light luxury, domestic products are the most frequently purchased category of Gen Z. According to Huayang Lianzhong's "Generation Z Fashion Consumption Insight Report", the average frequency of Gen Z buying domestic products reached 13.6 times per year, and only 8% of Gen Z have not bought domestic products within a year, and household income has an impact on the frequency of purchases. Has little effect.

### Pay attention to environmental protection, pay attention to design and high-level sense

Environmental protection is the attitude of Generation Z towards fashion. In the past three years, the consumption of national fashion clothing with the concept of online environmental protection has continued to grow, and the post-95s have the highest consumer preference. For them, to buy a fashion or shoes and hats, the first three factors they will consider are cost-effectiveness, unique design and fabrics. Some niche brands have also begun to be favored by Generation Z. In their opinion, the "recommended by someone" on the street has lost its appeal. Only low-key and connotative brands can demonstrate their unique taste.



### **Black, white and gray are out of power, bold and bright colors are the trend**

In 2020, among the post-95 national tide consumption, the consumption growth rate of the five color series of yellow, orange, brown, purple and white will be significantly higher than that of other color series, and they do not like standard yellow, nor the eye-catching fluorescent yellow, golden, golden, and white. Turmeric and natural yellow can express individuality.

### **Good-looking doctrine is popular, and luxury consumption is not soft**

Gen Z, who pays attention to their own beauty, must also take care of their pets. Nowadays, around the needs of Generation Z, shops that provide tailor-made collars and clothing for pets continue to rise. According to the "Generation Z Consumer Attitudes Insight Report in 2020", consumption in online pet original design stores continues to increase.

### **Interview method**

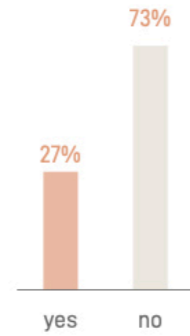
Interview is usually a qualitative research technique, which involves talking to the surveyed with open questions and collecting data on the subject. Before the interview, we need to develop a detailed research plan and questions and understand the target users' opinions for the points of interest. By analyzing and summarizing this information, we can find user pain points and guide our own design concepts.

This survey was conducted through video interviews. According to the basic information collected, user needs and pain points mining three modules to specify the problem. The photos here are allowed by the interviewer. In my interview, I identified Gen Z people with different careers (referring to people born between 1995 and 2009). Here are some of the things I found when I was surveyed.

# SURVEY ABOUT LITERATURE

The survey is based on a sample of 92 people (friends and parents).

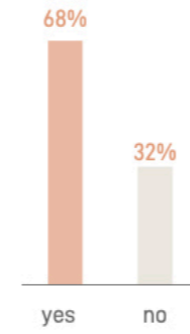
Do you understand that people's need for social distancing during the quarantine period has led to a change in fashion perceptions?



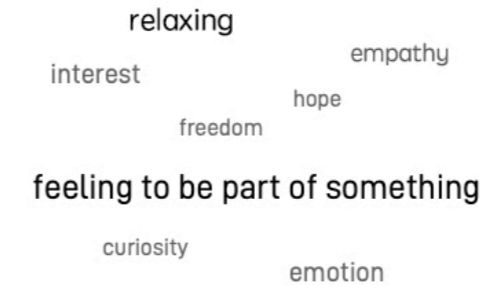
If yes, which ones?

- Loose-fitting
- Pursue the comfort of fabrics
- Can it wrap the body enough?
- The fabric can be washed many times
- Low-key colors or patterns

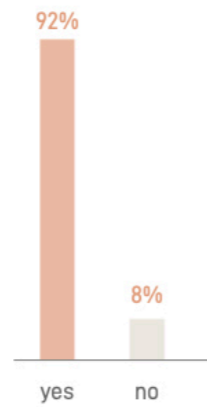
Have you noticed the changes in people's clothing in your circle of friends?



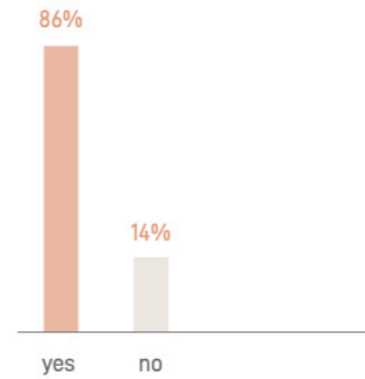
WHICH FEELINGS DID YOU FEEL?



Do you want these to continue?



Do you think healing clothing can be a way to make people feel closer to each other?



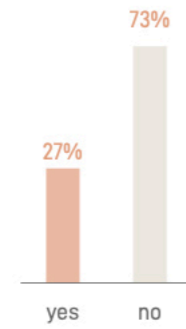
EXPLAIN WHAT IS GARMENT THAT MAKES PEOPLE FEEL HEALED FO YOU



# SURVEY ABOUT LITERATURE

The survey is based on a sample of 92 people (friends and parents).

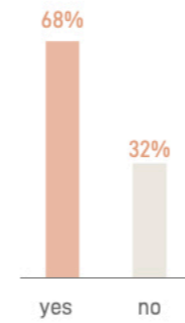
Do you understand that people's need for social distancing during the quarantine period has led to a change in fashion perceptions?



If yes, which ones?

- Loose-fitting
- Pursue the comfort of fabrics
- Can it wrap the body enough?
- The fabric can be washed many times
- Low-key colors or patterns

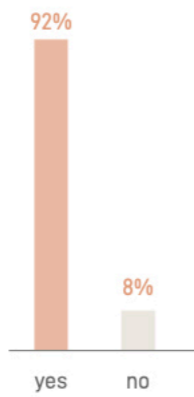
Have you noticed the changes in people's clothing in your circle of friends?



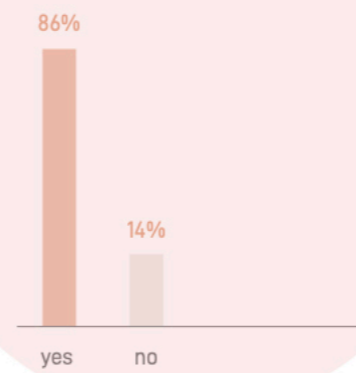
WHICH FEELINGS DID YOU FEEL?

relaxing  
 interest empathy  
 hope  
 freedom  
**feeling to be part of something**  
 curiosity emotion

Do you want these to continue?



Do you think healing clothing can be a way to make people feel closer to each other?



EXPLAIN WHAT IS GARMENT THAT MAKES PEOPLE FEEL HEALED FO YOU

independent immortal  
 entertainment  
 an another world  
 art evasion to live in other stories  
**the mirror of humanity** memories  
 it makes you feel less alone enrichment  
 a personal moment emotion community  
 to travel dream expression

## Interview conclusion

In contemporary life, many young people feel pressure in their life and work. Faced with the pressure of social culture, they choose to work extra hours, leaving little time for their mental relaxation. Most young people understand the benefits of meditation, but they don't think there is a proper place to put themselves in an independent space.

If there's a portable piece of clothing that allows them to relax anytime, anywhere, they're happy to try it.

During the interview, I collected several important suggestions:

Regarding their concerns:

1. The breathability of the fabric, and hope that the fabric can be extremely soft and make people want to fall asleep
2. Detachable built-in Bluetooth music, easy to clean
3. The importance of sound insulation, I hope that the built-in music will not be heard by others
4. They think it would be a good use scene in the airplane waiting room or coffee shop, so privacy is very important.

# Chapter 6 Case studies analysis

## 6.1 Case study of clothing and psychology

### Color

Different colors have strong and direct emotions on people, and colors can express emotions, which is an irrefutable fact. Red is high because it is associated with fire, blood and roses. Green will give people a fresh and natural feeling, because green reminds people of nature scenery; Blue is cool and soothing because it reminds people of the sea and sky, etc. Most of the overall image of the individual by clothing color.

One person to another person's identification of the first is the cognition of facial, then there is the control of its overall, in this process, color has played a decisive role, such as legal staff dressed in a black suit, show a political and legal authority and seriousness, and embodies a kind of from the personal feelings of the image of absolute justice, encourage people with the process of contact, To be able to see it as a symbol of politics and law, rather than as an individual of ordinary people.

The natural attributes of color can bring people different perception and experience. In addition, the expression techniques such as area comparison, change in temperature and temperature, contrast between virtual and real will greatly enrich the expression level of color and generate more dimensions of emotion and perception accordingly.



Figure21. The relationship between clothing and color

The reason why the human eye sees the colorful world is because of the existence of light. Objects absorb or reflect light. Different light acts on our eyes and produces different color sensations. With light, the human eye can see the color light source is the most basic condition for color. The scope of color research is to explore and study the field of physiology with the eye as the object and the field of psychology with the eye as the object. Light and light-sensitive vision are the two main factors that constitute color, plus the feelings of color caused by psychology. The changes of the three factors determine the nature of the color. They are interdependent and restrict each other.

The development of color in the field of clothing

The development of color in the field of clothing clothing has gone through a long process of development. Among them, the color of clothing represents a clear mark of the times and cultural characteristics are also signs of people in different eras. This may be the charm of colors, or it may be because of the superiority that colors bring to people. In the field of fashion, color is playing its uniqueness, and while being appreciated and recognized by people, it is replaced by new colors. The color of fashion is such a cyclical change. Fashion colors are destined to gain a new life through inheritance and reference. This is the trend of social development, and it is also a necessary prerequisite for popular colors to play important economic and social benefits in the field of clothing.

#### 1. Early 20th century

Before 1900, the color of clothes was mainly white.

"But influenced by the color of impressionism, people's aesthetic concepts have changed. People use pure ternary colors to design clothes. Therefore, colorful clothes have appeared. Art has brought freedom to the fashion industry. After a century of romanticism, colors have become the new fashion in the clothing industry. Ukrainian Sonia Di Launai applied the concept of psychedelic cubism to clothing fabrics and used red and yellow. , Blue with a mysterious round and rhombus at the same time

Appearing in a piece of fabric is an attempt that humans have never had since the cave dwelling era. In the 1940s, the color became monotonous, and the mass clothing was dark and melancholy. Only the noble wives wore brightly colored clothes.

2. In 1949, New China was born, "grey cadres from the liberated areas entered the city" and were loved by young people in the city who pursued revolution. Lenin clothes, people's clothes, and gray colors have also become their pursuit. During the Cultural Revolution, the green uniforms and military uniforms were popular all over the country for ten years. Military green became the most representative color at that time. It is the dream of every young man to have a tunic and Lenin uniform.

In the late 1950s, the former Soviet Union satellite was successfully launched, which opened a new climax of modern space exploration. It is directly reflected in the popularity of cosmic colors, which is a grayish mid-brightness hue, and its vagueness and mistiness. "It reflects people's understanding of space. The Apollo Moon Landing Project was successful in the era. Silver clothing has become the favorite of Western fashionable women. Silver nail polish has also been painted. During the drastic changes in Eastern Europe, the United States formed a fashion trend of clothing colors dominated by Eastern European ethnic and folk colors. The victory of the second station brought a new chapter in the clothing field. But yellow, camel and Hawaiian colors appeared on shirts, ties, and skirts. Christian Di Olympics has dumped thousands of women with Turkish green and pale rose dresses. The victory of World War II brought a new chapter in the field of clothing, in shirts and ties, but yellow, camel and Hawaiian colors appeared on the skirt. Max Faktor started from black and white

The color was switched to a more refined rose red color which was captured by cameras at the time. However, in the early 1960s, this rose red color began to disappear, replaced by a darker tone, and blue began to be used extensively in the design of trousers.

3. After the 1980s, the Iran-Iraq War in the Middle East affected the entire world. This war has had a great impact on young people in the West. At that time, the young people's yearning to return to nature was reflected in the color, which was the pursuit of natural beauty. In the middle of the decade, in order to erase the shadow of the economic crisis, "some European countries, while seeking economic recovery, also launched a color strategy." Light, bright colors dominated the European market. Therefore, "sexy charm and natural beauty are the two extremes of the 1980s fashion. In order to make people pay attention to environmental protection, clothing and colors have shown a diversified trend. Achromatic black and white has taken the lead. In recent years, "earth color" has become the most produced color in the clothing industry. At the end of the twentieth century, in the protection of the environment, so-called "green fashion" appeared. For example, "denim clothes dyed with natural dyes, shirts dyed with bean pods, etc." Designers in the fashion field start from the concept of globalization and design the colors of clothing that people love. An Italian fashion company chose Spanish wine color as its fashion color. Golden light, silver gray or off-white of the moon are the main popular colors of the year, reflecting a high-tech dynamic, gorgeous and natural pure fashion.

## Tailoring

The structural modeling of clothing, that is, the style of clothing, is divided into the outer contour of clothing and the internal structure of clothing, among which the internal structure can be subdivided into dividing line, local structure and dart change. Different structures and silhouette can have different influences on visual experience. From the perspective of silhouette, large-size and arc-shaped silhouette is easy to attract people's preference. If it is further combined with fluffy and soft fabric, a warm feeling will be generated. For both the viewer and the wearer, the appearance of this large silhouette evokes the special association of being in a cloud, which has a relaxing and sensual effect.

In the style, the local package will reach the cure, such as the turtleneck that covers the neck and the super long sleeve that covers the whole arm, which will not only make people experience warmth in the simple sense of temperature, but also make people imagine a kind of warm feeling in the soul. So, the healing feeling that structure brings is not limited to this aspect.



Figure22. Walter Van Beirendonck W:A.R. Bomber CC19 Green

The survey results show that the young fashion market in South Korea is dominated by neutral styles and sports and leisure of SPA brands. The fashion items of these leading brands all show the characteristics of young fashion style. Season is the main variable in the change of fashion items. Gender is not an effective variable for developing young fashion items. Fashion trend data shows that the dominant styles of young fashion present 4 styles; sporty, unisex, only for girls, and only for boys. These results show the characteristics of recent fashion trends and leading brand projects in the Korean young fashion market. To develop marketable products for young fashion, seasonal item changes and unisex design elements are more effective. Because further research is needed to investigate young fashion trends and lifestyles, while taking into account general fashion trends. [20]

[20]Sun-Hyung, Choo, Hye-Jun, Yoon, Jae-Sang and Ahn. (2014). Research on the development of youth fashion items by domestic young fashion brands-focusing on the street style of young fashion trends. Journal of the Korean Knitting Design Society, 12(2), 95-103.52.

## The application of clothing fabrics in clothing design

A clothing designer often encounters such a problem: different clothing fabric materials, the same design expression and the same clothing technology, will have different clothing effects. For example: the physical and mechanical properties of some clothing fabrics are unstable; the shape of some clothing is not stable enough, and it is easy to shrink and deform; the color fastness of some clothing is unstable, and there will be fading or discoloration phenomena, such as moisture absorption and heat resistance of fabric fibers It directly determines the requirements for the finalization and quantification of the heat treatment of clothing fabrics. The weaving tightness and density of the fabric can also directly affect the craftsmanship and methods of garment making. How should the clothing styling characteristics of different fabric materials be used in clothing design? The thick and heavy-duty fabrics are thick and crisp, have a certain sense of furry and volume, and can produce a strong and stable styling effect. The clothing shape and contour should not be too detailed and precise to fit the body. The A-shaped and H-shaped styling effects are the most appropriate. Soft fabric materials generally have good drape, softness, smooth shape and conformability. The natural stretch of the clothing outline can softly reflect the body characteristics of the wearer. Such fabrics include silk fabrics and knitted fabrics. The clothing design of knitted fabrics can omit some cutting lines and provincial roads, and adopt rectangular or square shapes to make Skirts, clothes, and trousers sag naturally close to the body; clothing made of silk fabrics mostly adopt loose-type effects.

The transparent fabric material is thin and transparent, which can show the body shape of the wearer to varying degrees. It is usually designed with natural and plump lines and varied H-shaped and truncated cone-shaped designs. The cool fabric material is natural and stiff, with clear modeling lines and a strong sense of volume, which can form a fuller silhouette of clothing, giving the wearer a solemn and steady feeling. Such fabrics include cotton, linen, wool and chemical fiber fabrics. The glossy fabric has a smooth surface and can reflect light, making it more noble and dazzling. It is often used to make stage costumes and evening dresses to obtain a dazzling, gorgeous and dazzling strong visual effect. Most of these fabrics are fabrics with satin texture. The overall shape of the clothing should be simple, fit, and slender, which can better show the body of the wearer. Fluffy fabrics generally refer to fine wool fabrics with a certain length on the surface. These fabrics generally have a sense of mercerization and appear soft and warm. Fluffy fabrics have different textures due to different materials, and silk garments have their own characteristics in the style of clothing. , Generally, A-type and H-type are suitable. In summary, different clothing fabric materials will have certain influences and restrictions on the crafting of clothing and the effect of clothing modeling.

The scientific mastery and use of different clothing fabrics can not only show the design ability of the clothing designer, but also reflect the professional technical level of the clothing designer in the design of clothing. It is necessary to scientifically use and master various clothing fabric materials in order to be able to more appropriately express the form presented by the art of clothing. For example: Italian internationally renowned fashion designer Valentino used very hard embroidered woven cotton, organza lace and metal embroidered fabrics to make romantic and feminine ceremonial clothing in his clothing design from 1997 to 1998. It became that year The clothing popular representative works in here. Metal embroidered fabrics are relatively crisp, so the designer uses decorations that are more harmonious with the overall shape, such as feathers, on the edges of the design of the clothing structure..



In other ways, there are more possibilities. In the 1980 s, for example, fashion, popular thick shoulder pads, as a female character of the person speaking, shoulder pads help women has changed the traditional contour, this is a piece of clothing out of sex, make the eyes of the society for women more equal, for women with great confidence, this is the greatest cure to women. But as a clothing viewer, the inverted triangle contour with shoulder pads may also contain female strength, which may bring a little bit of discomfort.

Figure23. Princess Diana's shoulder pads

### Science and technology of clothing materials

The scientific and technological requirements of clothing fabric materials are to meet the three aspects of comfort, durability and appearance displayed by the clothing design, and to adapt to the requirements of the development of human science and society on clothing functions, that is, clothing fabrics affect the human body. It has the function of adaptation and protection; the stability function of clothing form. With the development of science and technology, especially the development of the textile industry, people's requirements for clothing materials are getting higher and higher. In order to maximize the wearability of clothing materials and meet people's various needs for clothing, clothing materials will continue to From low-level, single type to high-level, diversified.

In 1959, the lycra fiber fabric developed by DuPont was the first time that human skin experienced a sense of affinity. Modern technology has further improved and refined chemical fibers. It is comparable to natural fibers in terms of absorption, softness and hygiene. Natural fibers are also Learn the excellent properties of chemical fiber's wrinkle resistance, shape and firmness from the original affinity. The fabric is more perfect in comfort, stretchability, waterproof and transparent, and thermal conductivity.

## Changes in the material of modern technological clothing fabrics

The renewal of modern people's pace of life is accelerating, the continuous expansion of living space, the increase in the content of various social activities and the continuous improvement of the quality of life all require the material of clothing fabrics, and the wearer's comfort, design and performance of clothing fabrics. The constant presents new and different heights. In modern society, people pay more and more attention to their health, and people also choose to travel and outdoor sports in their leisure time. Clothing fabrics suitable for tourism and sports have become the most concerned research objects. Suitable for different ages, different environments, different temperaments, and different living conditions have different clothing fabrics. The reform of clothing fabrics has also become a hot spot for clothing fabric manufacturers. The clothing fabric materials that adapt to special environments can enrich the life needs of all kinds of people. Clothing material fabrics have become a new trend in modern society. Using the reform of clothing fabric materials to give full play to the performance of fabric materials, from flat to three-dimensional, from single to multi-functional changes, to create a stylish, personalized, creative, functional wireless practical charm.

With the progress of the times, people's requirements for clothing are not just about keeping warm and hiding shame. The fashion trend of clothing shows that people not only pursue changes in clothing styles and colors, but also pay attention to the development and application of clothing materials. The basis of fashion trends. Fashion designers use color to directly reflect the style, and the style of the style needs to rely on the crispness, softness of the fabric material and his heavy style to express. The clothing fabric is also an important carrier for the fashion designer to interpret popular themes and reflect the clothing style. The birth and perfection of the product provide a wealth of theoretical basis and reliable application methods for clothing design and clothing craftsmanship. Wu Hongjie: Talking about the influence of clothing fabrics on clothing design. Therefore, as a new era of clothing personnel, there should be a detailed and forward development idea for its future development. Through the innovation of clothing fabric materials, through multi-thinking The design shows his uniqueness and fully interprets the future direction of clothing design.

## Fabric texture

### Overview of clothing silhouettes

Clothing profile refers to the silhouette of the outer shape of the clothing, which is also called outer profile, silhouette, and silhouette. Silhouette is the basis of clothing modeling and determines the overall impression of clothing modeling, because the speed at which it enters people's vision is much higher than other details and parts of clothing, and its visual impact is no less than color, which can give people A strong sense of shock. In many fashion conferences and exhibitions, fashion designers focused on contour modeling, such as the reincarnation of historical contours, the introduction of new contours and so on.

In different types of conferences or exhibitions, the silhouette of clothing is often an important factor that impresses people at first glance. The most obvious evolution of popular styles is the evolution of profile. The fashion forecast of clothing styles also starts from the silhouette of the clothing and uses it as the benchmark for popular styles. We can find out the law of clothing development and evolution from the change of clothing outline, and then better predict and grasp the fashion trend of clothing.

As shown in the picture, this pair of pants is warm, soft, furry, and has a sense of wrapping. Warm, soft, and fluffy will bring pleasure to people, while the sense of wrapping makes people discover the existence of the body, giving people the feeling of softness, warmth and care, just like human fur animal friends.



Merleau Ponty put forward the concept of body in the book *The Phenomenology of Perception*: "Body as a subject of perception."

It's part of the world and the body. That is to say, people's perception to the world, not only through the eyes, ears, these important senses, but the whole body, and all the objects in the world constitute a collection of one's own body is one of people is through the body to perceive and understand the world, and the specific relationship between body and other objects affected the human perception of the world. So touch is probably the most important sense, and skin is also the largest organ on the body. People touch things every day, and they have all kinds of tactile sensations, so what kind of tactile sensations are healing sensations?

As shown in the picture, this pair of pants is warm, soft, furry, and has a sense of wrapping. Warm, soft, and fluffy will bring pleasure to people, while the sense of wrapping makes people discover the existence of the body, giving people the feeling of softness, warmth and care, just like human fur animal friends.



Figure24. Pink winter super soft faux fur pants

## Classification of clothing silhouettes

In clothing design and fashion trend forecasting, the most commonly used and representative ones are letter type, physical type and geometric shape. There are five basic letter profiles, namely H-shaped, A-shaped, T-shaped, O-shaped, and X-shaped, which are derived from V-shaped, Y-shaped, S-shaped, etc. The classification of letter silhouettes can intuitively express the characteristics of clothing. Therefore, in modern clothing design, letters are often used to name clothing silhouettes. The physical shape is named after the silhouette shape of natural objects or the shape of objects in life, such as tulip shape, mermaid shape, tent shape, trumpet shape, wine glass shape, hourglass shape, pencil shape, etc., which are the most intuitive and clear, Easy to imagine the characteristics, can give designers endless inspiration. Geometry is the arrangement and combination of geometrical plane forms formed by straight lines or curves, such as triangles and trapezoids.

## Factors affecting clothing silhouette

### 1.The influence of human body structure on clothing silhouette

No matter how the style changes, there is always a principle that will not waver, that is, clothing design cannot get rid of the category of people's own body, and the design of clothing silhouettes must be people-oriented. Generally, the appearance of clothing is controlled by several parts such as shoulder line, bust line, waist line, and hem line. The changes in size and width between them will produce various styles of clothing with different styles. Many dresses are designed with skirt supports, so that the outer contour line of the garment is not close to the buttocks, giving the illusion that the hip line is not important in the outer contour line. In fact, the skirt is fixed and supported by the difference between the waist and hips, and in the current garment design, in most cases, the support point formed by the hip line directly determines the width of the bottom of the garment. Therefore, the human shoulder, chest, waist, and buttocks are all key parts that directly constitute the change of profile.

### The influence of clothing materials on clothing silhouettes

Clothes are ultimately composed of fabrics, and the style of clothing depends on the properties of the fabrics, so the shape of the clothes cannot be separated from the properties of the fabrics. The performance of the fabric is all-encompassing, including weight, thickness, and strength of tension. In the design process, the styles of the same shape on the plane are often expressed with fabrics of different textures, thus producing different appearance effects. For example, fabrics with good plastic properties are usually used to make stable, dignified and crisp clothing, such as suits, suits, overcoats, and so on. The soft and fluffy fabrics that are not easy to set are usually used to make soft and elegant clothing, such as wedding dresses, dresses, skirts, and so on. If the styles are similar, the former depicts a rigid, heavy, and thick appearance, while the latter gives a soft, graceful, and elegant feeling. It can be seen that the properties of different materials and fabrics have a great influence on the profile.



Figure25. RCA Fashion 2013 collection by Xiao Li

Figure26. "O" Shape Appreciation Costume Design



Figure27. RCA Fashion 2013 collection by Xiao Li

### The influence of fashion trends on clothing silhouettes

The fashion trend of clothing guides modern clothing design, determines the sales and production of clothing, and even influences the process of the entire clothing industry. So we must keep up with fashion trends when designing. The design of clothing is inseparable from its origins. It is always a popular appearance with partial shapes, colors, fabrics, cutting and matching methods of clothing, combined with people's values, consumption power, lifestyle and so on at that time. This kind of relationship has created waves of primitive power. Grasping the characteristics of fashion is a factor that must be considered in the design of clothing silhouettes.

### The influence of garment making process on garment silhouette

The production process is also a very important part of the clothing design. No matter how good the creativity, conception and design are, it must be completed through the production process. Craftsmanship is a decisive factor for garments that emphasize silhouettes. Only exquisite craftsmanship can ensure the clarity of the outline and grasp the accuracy of the garment size, so that consumers can stretch freely after wearing them, and can fully reflect the sky. The beauty of the unity of people. Many performative and creative clothing silhouettes are usually very exaggerated, with strong visual impact, and the stage performance is shocking. Of course, it is difficult to achieve without special craftsmanship.

## The influence of film and television culture on clothing silhouettes

The popularity of clothing was originally due to the imitation of people or things that worshipped. The celebrity effect is a concrete manifestation of the fashion channel of clothing. The film and television culture is one of the best media and means of communication. As early as the 1930s, it was also the era when movie costumes were leading the fashion trend. The movie costumes designed by costume designer J. Patou for black movie star Josephine Baker became the popular style of dress at that time. The reason why film costume has such a strong appeal is that it is one of the popular art forms that are closest to life.

In order to cater to people's tastes, designers have inspired the shapes of some classic screen characters. Such as Zorro, Batman, Victorian or Napoleon era costume styles. And these clothing styles affected the silhouette of the clothing for the first time. Such design cases are numerous in modern clothing design. It cannot be said that film and television culture is a decisive factor affecting clothing silhouettes, but in today's highly commercialized world, film and television culture is one of the important factors affecting modern clothing silhouettes.

## 6.2 Case study of clothing with healing effects

### Fabrics that makes people feel healing

Designer Nadine Goepfert's 2013 series of design works "The Garments May Vary" has received widespread attention. In this series, the designer selects thick and fluffy sponge materials for extruding and shaping, forming a layered fabric texture that is constantly raised and recessed. This extruded form seems to be a giant contemporary sculpture. When displayed on the human body, different angles can always present different visual effects. What is most interesting is that when the person wearing it takes off the clothes, the clothes becomes an almost abstract sculpture, rather than an actual clothes. This interesting image is also the designer's most concern. Nadine Goepfert said that choosing each material will show different changes in the lasting time. This is how clothing can temporarily or permanently capture the traces, movements and movements of the wearer. Behavioral patterns. This sponge fabric clothing presents this effect. For the wearer, the soft texture, strong elastic fabric and the difficult to move characteristics will bring a wonderful perception experience.

Sometimes I feel like an expansion like angel wings on my back, and sometimes I imagine myself lying on a soft sponge bed, or falling into the reverie of a few white rabbits entwined around the body. The use of soft and fluffy sponge material and the backlog technique not only completes the emotional communication from the fabric to the wearer itself, but also gives the viewer a real visual experience and a fleeting psychological feeling. Develop the emotional communication between clothing and body.

Different types of fabrics will give people different tactile experiences. Thousands of fabrics will bring a variety of tactile sensations. For example, soft fabrics will bring a comfortable and warm touch, while hard fabrics may bring fear. And complex tactile experience.



Figure28. Pink 'memory foam' sweater - Nadine Goepfert's 'The Garments May Vary' collection.

### The color that makes people feel healing

If you separate the color from the geographical and cultural background first, think about the color alone. What kind of color can achieve the healing effect?

Nowadays, the most popular ice cream color and cream color are high brightness colors, which will produce a bright and heart-warming healing effect. Comparing the color system and the achromatic system, the achromatic system can easily give people a sense of depression and tension, and the color system can make people feel relaxed, happy and lively. It is generally believed that colors with high brightness, high saturation, and longer vibration wavelengths will give people excitement. For example, a piece of high-purity red will bring more mood swings than a piece of low-purity, mottled blue.

The above discusses the application law of a single color or a single color system. When multiple colors appear, the area contrast, cold and warm changes, virtual and real contrast, etc., will give viewers different feelings and emotional experience, which will also be great. The degree of influence on clothing design style.

In fact, the colors that people can see are spontaneously created by the visual system. A single color is subjective and unstable. Therefore, the characteristics of color do not lie in the color itself. The establishment of a color depends on a certain color relationship and the mutual interaction between various colors, so the influence relationship between color and color is very important. If the warm and bright orange is combined with the cold and gloomy blue, it will trigger the association of diving. Looking up at the warm golden sunlight on the bottom of the sea, the whole body is embraced by the silent sea. At this moment, because this color combination makes orange better Bright, similar to the color of sunlight, blue is more pure with orange.



Figure29. Colors with healing effects

### A clothing silhouette that feels healing - contour language

Japanese kimono has a special silhouette and is also regarded as a typical cultural symbol. The earliest Japanese people in kimono usually put their hands in their sleeves or cover their faces with large sleeves. The behavior of submerging the body in the clothes is the same as the behavior of children willing to hide behind their parents when they are shy. People feel shy because of the nakedness of their body parts, so the feeling of being wrapped in a loose silhouette brings a sense of being protected. Therefore, people often think: "Clothes that can cover a large area of the body or cover the body shape are easy to achieve a healing effect that makes people feel safe."

Then, as the silhouette itself, what kind of perceptual experience will different silhouettes of clothing bring to the viewer and the writer? The answer is that styling techniques are also an important factor affecting the silhouette of clothes. Different styling techniques and processes have roughly four performances in different silhouette structures: overall circle, partial arc, large-size silhouette, and large-size part.



Figure30. Comme des Garçons Spring 2014 Ready-to-Wear Collection

The special sleeve structure of Chinese Han Dynasty clothing allows the wearer's hand to be placed in it to achieve warmth. In modern China, people always put their hands in the sleeves for warmth. In modern times, because the sleeves are no longer suitable for placing another one. Hand, people turned to put their hands in their pockets, but this popular habit has not disappeared. The leading factor of this phenomenon has gradually changed from keeping warm to a habit of doing nothing, and it has the same development in Japan.

There are many applications and manifestations in Yamamoto Yoji's design. The philosopher Kiyichi once described his experience of wearing a long-sleeved suit jacket of Yohji Yamamoto in "Strange Body". He said: "I had a lot of trouble when I was wearing this dress and I couldn't carry my bag. I can't see the watch even if I stretch out my hand. I can't respond quickly to various situations and feel all kinds of inconvenience. However, I found some unexpected and comfortable places in wearing and wearing. I no longer always think about what to do next. Always let the body respond quickly to various emergencies and stay in a state of preparation for a long time."

This kind of "unprepared clothes" is actually a modern continuation of Hanfu. It has evolved from inserting the hand into the sleeve of the other hand to hiding the hand in the sleeve, always letting people relax physically and mentally. The original tightness was released and the healing effect was achieved.

### 6.3 Case study of Gen Z's experience of clothing under the epidemic

Ultra-loose underwear, and home sweaters that were only worn for leisure in the past, will become the mainstream trend after 2021 with the impact of the epidemic and the new trend of generation Z, which will also affect the next fashion design and wearing trends.

#### Tight or loose?

Recently, a war of words between Millennials and Generation Z has been triggered on Tik Tok. According to the "Guardian" report, the social media platform Tik Tok, which is sought after by generation Z under 30, has had about 270,000 micro-videos of "No Skinny Jeans" since January this year. The younger generation chanted their attitude: "Throw it into the trash can; cut it out and make shorts or something else; or simply burn it!" It can be seen that the loose silhouette of the love of Generation Z is more in line with current social trends.

## Gen Z emphasizes diversity and tolerance

The morbid aesthetic standard behind the leggings is a standard that most people cannot achieve. It has also visibly distorted many young men and women's concept of healthy body shape, affecting their mental health. In recent years, generation Z has been regarded as an aesthetic hegemony and has been strongly resisted. The Z generation is voiced for minorities and disadvantaged people, as well as the influence of gender and racial equality thinking, emphasizing diversity and tolerance, and affecting their pursuit of fashion. More and more brands reflect their demands and start to use large models on the runway and in advertisements. Some media have also begun to put large models on the cover to resist the fashion mainstream of "fear of fat" and "humiliating fat".

Most research into consumer behaviour and branding focuses on the reasons why people choose certain products and brands. Research related to anti-consumption emphasises the opposite: its aim is to explore reasons behind the rejection of different products, brands, or even consumption as such. Relevance of this issue is not negligible: knowing what consumers do not want (and why) is at least as important as knowing what they do want (and why). Survey results, related to the five categories of brand avoidance – experience avoidance, identity avoidance, moral avoidance, deficitvalue avoidance and advertising. **[21]**

## Representing the "awakening" of the 21st century

To be sure, the clothing that liberates the body represents the 21st century's "waking up" mindset. This "relaxing mind and body" trend also coincides with the normal home office work under the epidemic, and it matches these years of high street clothes, sports and leisure. With no/transgender fashion, tight clothing finally "popped".

Last month, during the 2021-2022 Fall/Winter Men's Wear Week in Paris and Milan, many brands, from high-end to fashion brands, including Louis Vuitton and Hermes at the helm of the celebrity Virgil Abloh, all released male models to push loose pants. JW Anderson blurs gender in his brand and Loewe, who is the founder of his brand, and asks male models to wear trousers that look like long skirts and take pictures.

---

[21]VV Kovács, & G Zsóka. (2020). Brand avoidance behaviour of Gen Z towards fast fashion brands.

# Chapter 7 Graduation Design Practice

## 7.1 The inspiration for design

Different colors have strong and direct emotions on people, and colors can express emotions, which is an irrefutable fact. Red is high because it is associated with fire, blood and roses. Green will give people a fresh and natural feeling, because green reminds people of nature scenery; Blue is cool and soothing because it reminds people of the sea and sky, etc. Most of the overall image of the individual by clothing color.

One person to another person's identification of the first is the cognition of facial, then there is the control of its overall, in this process, color has played a decisive role, such as legal staff dressed in a black suit, show a political and legal authority and seriousness, and embodies a kind of from the personal feelings of the image of absolute justice, encourage people with the process of contact, To be able to see it as a symbol of politics and law, rather than as an individual of ordinary people.

The natural attributes of color can bring people different perception and experience. In addition, the expression techniques such as area comparison, change in temperature and temperature, contrast between virtual and real will greatly enrich the expression level of color and generate more dimensions of emotion and perception accordingly.

7.2 Research



**Graphene Jacket**

(graphene "nanoplatelets," stacks of graphene that were then blended with polyurethane to create a membrane)  
Absorb and conduct heat  
Waterproof and breathable



**Blackout Relaxation Hoodie**

(works like a portable isolation tank designed with the sole aim of isolating the brain from external stimulation)  
Soft and breathable  
Water repellent



**Indestructible Puffer Jacket**

(Made from Dyneema which is the strongest fibre, an ultra-high molecular weight polyethylene)  
Lightweight  
UV light and chemical resistant



**"VOLLEBAK"**  
Cut off outside light and sound  
<https://www.vollebak.com/product/relaxation-hoodie-navy/>



**Sound-absorbing material**  
A material that absorbs incident sound energy through its own porosity, film effect or resonance effect



The colors of "relaxed" and "tranquil" from The World's Favourite Colour Project. Courtesy of G F Smith.

**"A jacket for spiritual travel"**



**ZEROi Bone Conduction Smart Hat**

Bone Conduction Zero uses bone conduction audio technology to transmit sound through vibrations to your inner ear.



**Design Bionics**

Reflect the spirit of combining art and science, nature and mankind



• MOODBOARD

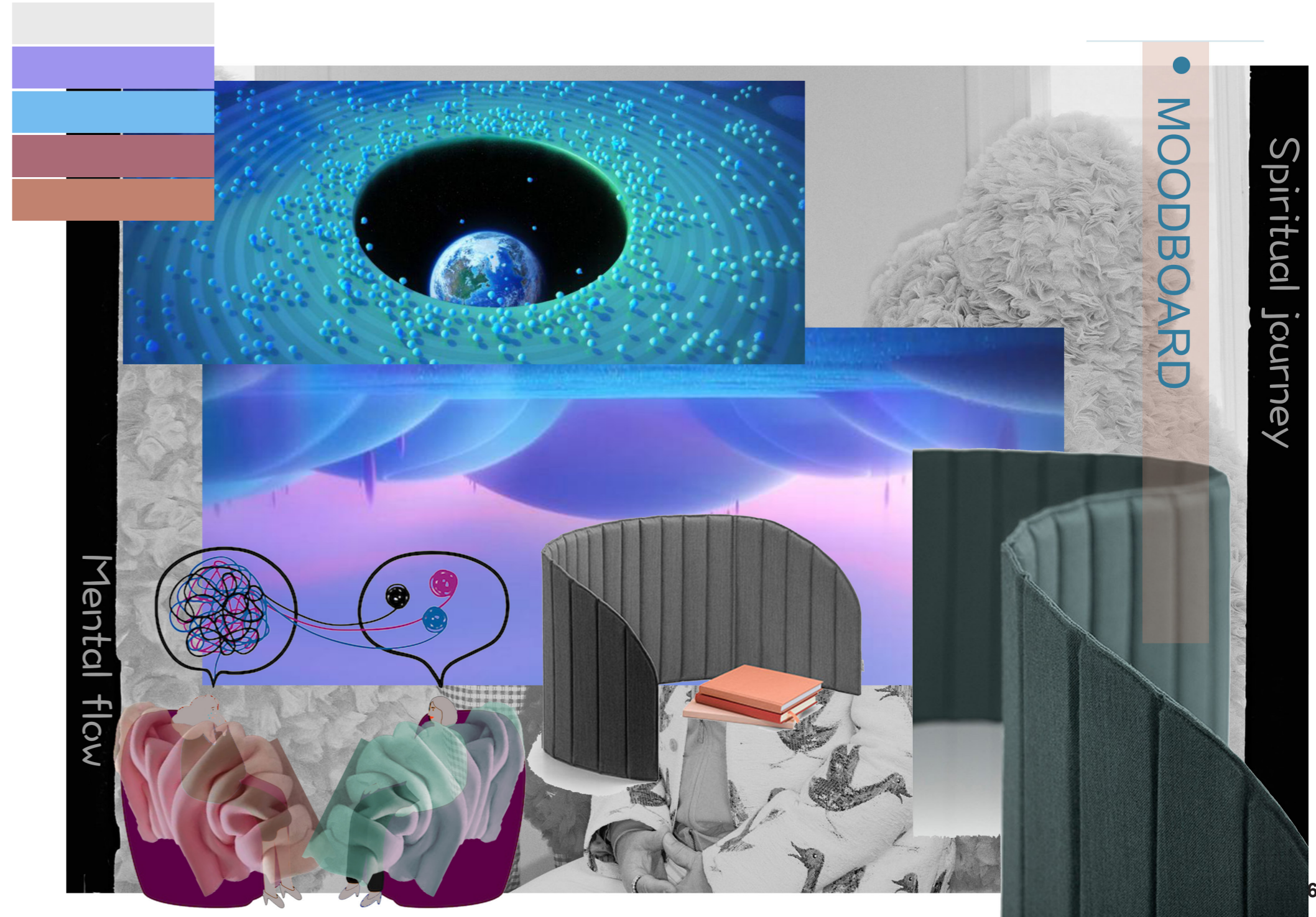
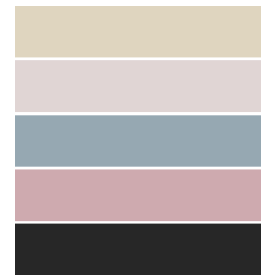


Feel the darkness

Embrace blue

Fleeting

Comfortable and warm



• MOODBOARD

Spiritual journey

Mental flow

## 7.4 Collage



### ● Collage

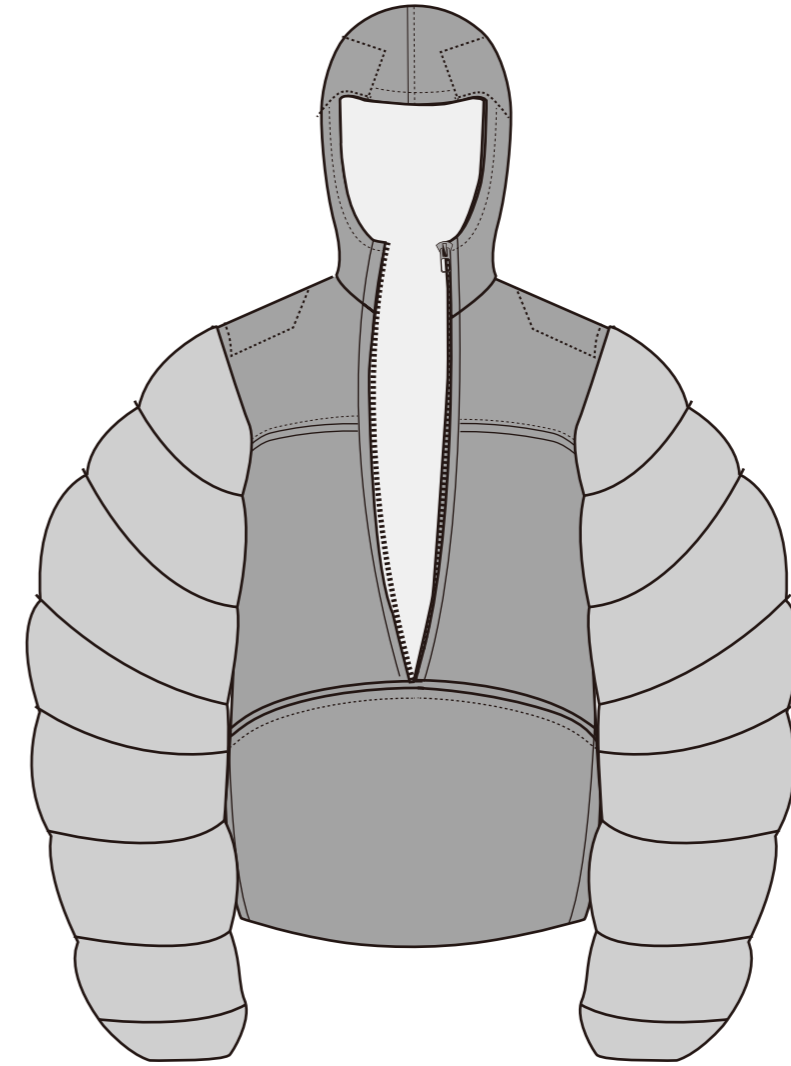
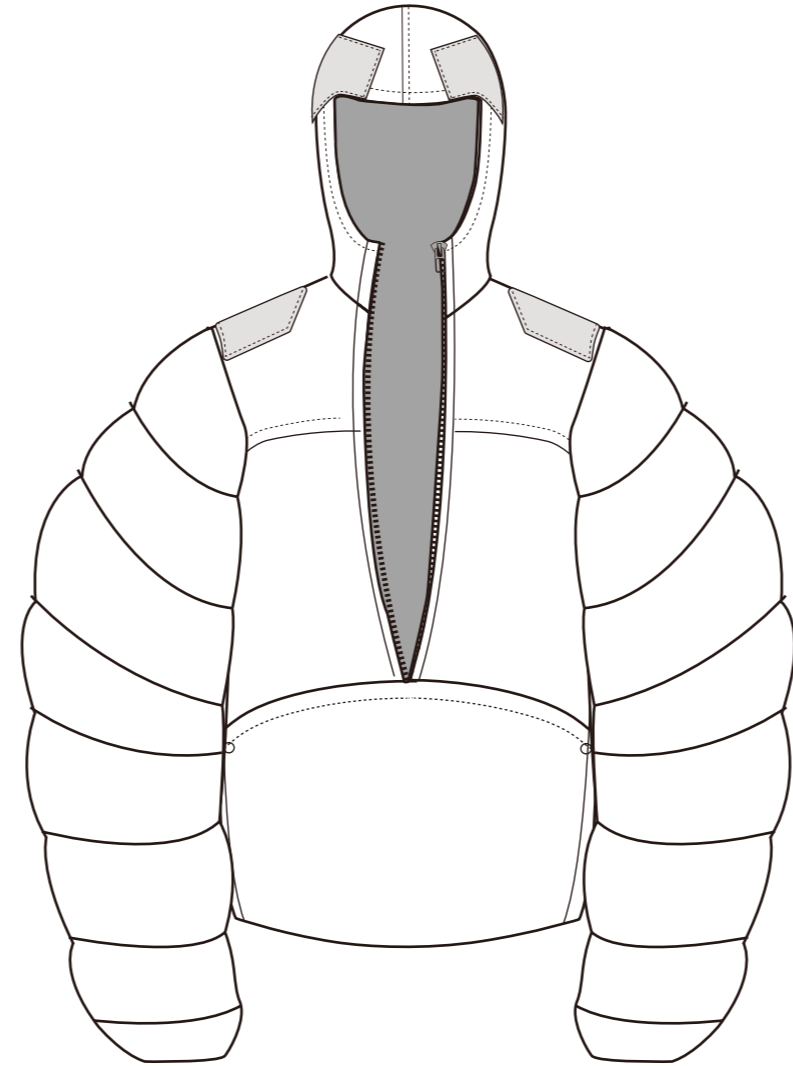
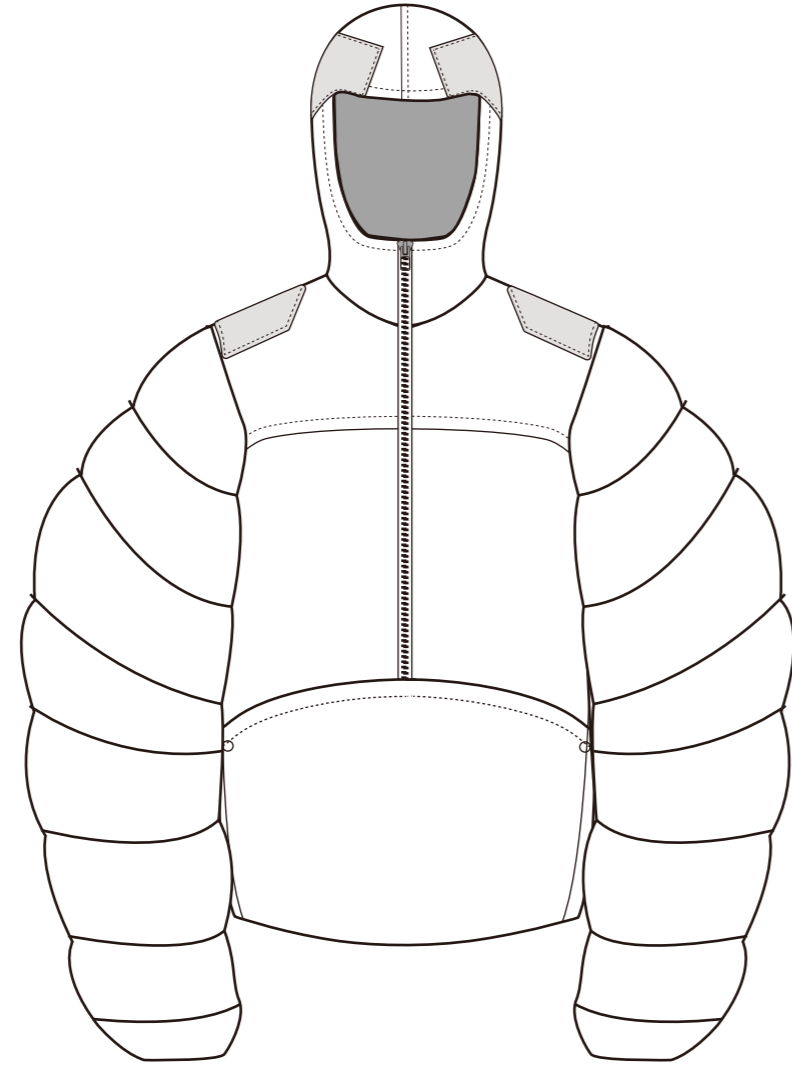
WITH ARMOR AS THE MAIN BODY,  
COMBINED WITH INSTALLATION ART FOR COLLAGE

## 7.5 Design Sketches

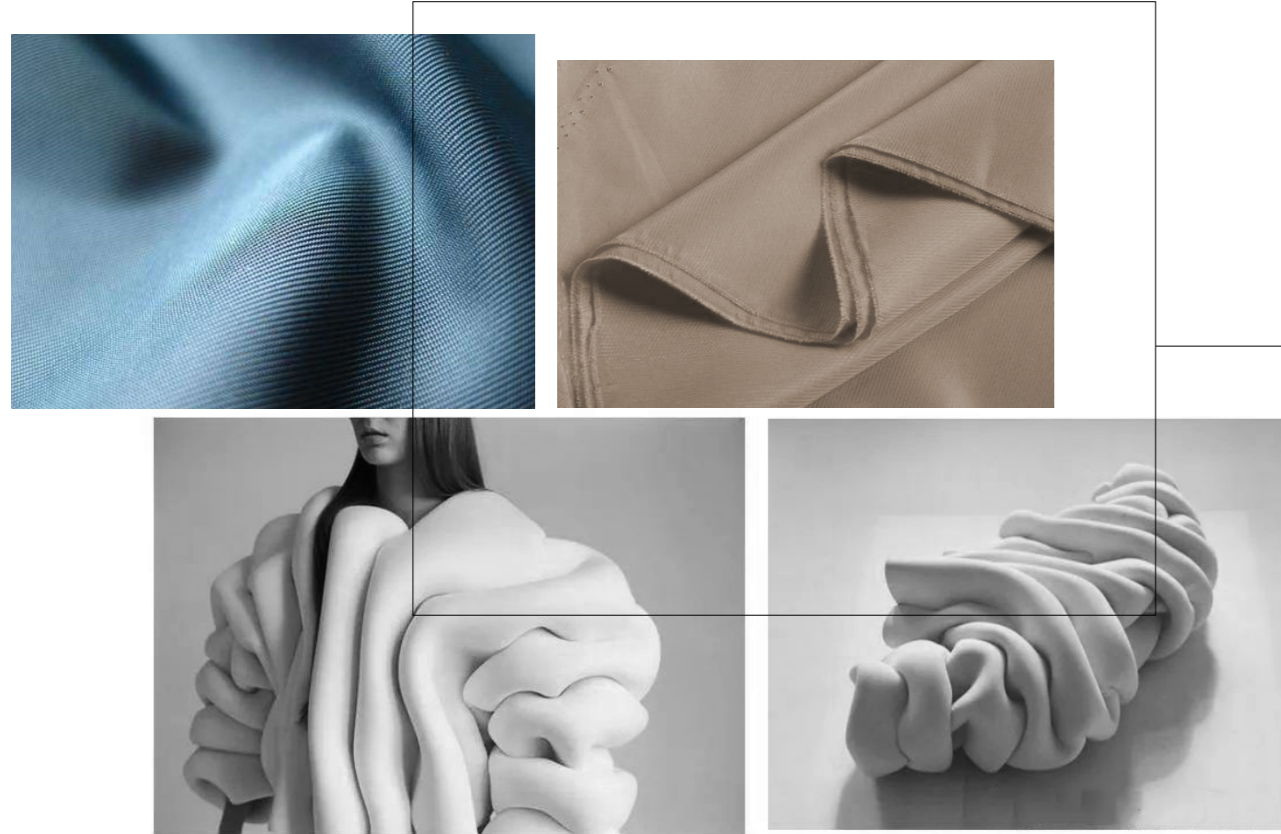
### MODELING STRUCTURE EXPLORATION



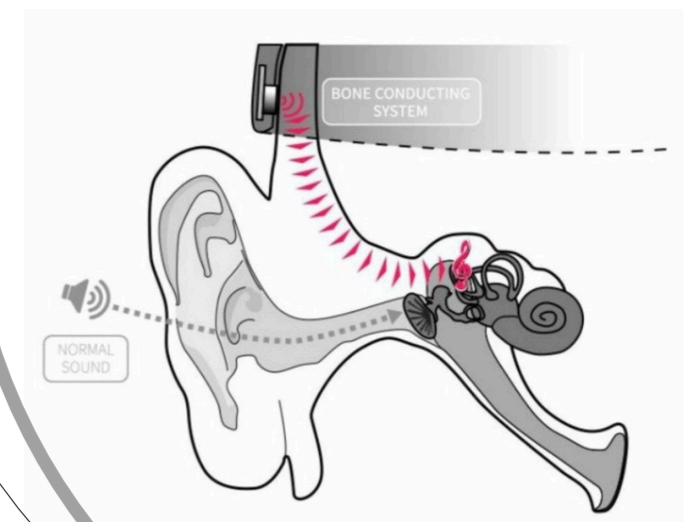
“ Soft as **if** Marshmallow ”



## 7.6 Design Materials



The memory fabric increases the friction on the fiber surface, the processed shape will be retained, and the fiber seems to have a memory function. In terms of images, this new fabric will have wrinkles after being grasped by hand, but will disappear as it is smoothed. This is very similar to human memory function. Specifically, after the fabric is fixed in its original state, if it deforms, it can be restored to its original state after some external stimuli. Once this fabric is shaped, it can be deformed at will.



Bone conduction is a way of transmission of sound. Sound waves are transmitted at frequency that can be conducted through the bones of the skull. This technology doesn't block the outside sound, so it can be used in normal environment conditions.

People can play music that can make them feel soothing anytime and anywhere, because the hat can cover the head, which feels more private.

7.7 Design Style



Inclusive

Comfort

Functionality

Relax anytime & anywhere

# Chapter 8 Conclusions

## Summary

As an exploratory study, this work contributed to the scarce literature related to smart fashion experience. Studies have shown that a garment with a "healing" function may cause a positive change in a person's psychological development, and significantly affect the individual's self-awareness, self-confidence and tolerance. Others believe that fashion is an all-encompassing lifestyle, not a simple accessory, and each participant has shown an extraordinary commitment to his role. Considering these changes, it is suggested that mental health can be used as a catalyst to enter the fashion industry and enter the circle of healthy development. Although we are careful not to generalize, our discussion identified areas that may deserve further attention from the psychology department, such as health psychology (happiness), occupational psychology (work status), and developmental psychology (transition to adulthood). We urge these people in the same field to do so in order to further develop and expand the basis of psychological literature in the field of fashion research.

## Study Limitations

Although the size of the sample resonated with the commitment to specific research, it would be dangerous to make any universal claims from the narratives of about 100 people. The small sample helps to explain in detail each participant's views on fashion wear under the epidemic, areas of convergence and divergence as individuals. This is in contrast to previous studies, as discussed in the introduction, these studies seem to either beautify modeling or pathological modeling. Although some excerpts may resonate with the experience of others and better reflect the current generation Z thinking, it is suggested that this is basically regarded as an exploratory study.

In this case, when an under-researched area is being explored, it is important to identify potential topics that need further exploration. Obviously, this article is from the perspective of two people who are devoted to the phenomenological method of psychology and its related ontology. Therefore, this type of subject knowledge is likely to constitute the interpretation, the meaning of the suggestion, and the framework for further research. We recognize that researchers from different disciplines (such as sociological perspectives) may ask different questions and look at data from different perspectives.

# Rerferences

- [1] Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, 385(9968), 640-648. **p.8**
- [2] Silvera, D. H. , Lavack, A. M. , & F Kropp. (2008). Impulse buying: the role of affect, social influence, and subjective wellbeing. *Journal of Consumer Marketing*, 25(1), 23-33. **p.10**
- [3] TAYLOR, & DAVID. (2011). Wellbeing and welfare: a psychosocial analysis of being well and doing well enough. *Journal of Social Policy*, 40(04), 777-794. **p.11**
- [4] Horner, E. M. . (2012). Living well: empirical evaluations of economic welfare and subjective well-being. electronic thesis & dissertations. **p.12**
- [5] Thomson, K. C. , Schonert-Reichl, K. A. , & Oberle, E. . (2015). Optimism in early adolescence: relations to individual characteristics and ecological assets in families, schools, and neighborhoods. *Journal of Happiness Studies*, 16(4), 889-913. **p.13**
- [6] Stead, L. J. . (2005). 'the emotional wardrobe' : a fashion perspective on the integration of technology and clothing. university of the arts London **p.16**
- [7] Liu, C., & Sun, J.. (2010). Research on the Fashion Design Strategy and Approach in the Emotional Consumption Era. International Wool Research Conference; IWRC 2010. Tianjin Polytechnic University. **p.17**
- [8] Zhao, YY, & Wang, L.. (2015). Emotional fashion design at the reflective level. *Art and design*. **p.21**
- [9] Sun, J. . (2005). Emotional expression in clothing beauty. *Journal of Tianjin Institute of Textile ence & Technology*. **p.22**
- [10] Qin, Z. . (2018). Clothing accessory design based on sensory experience. *NeuroQuantology*, 16(6), 460-465. **p.22**
- [11] Sampaio, J. P. , Zonatti, W. F. , Mendizabal-Alvarez, F. J. S. , Rossi, G. B. , & Baruque-Ramos, J. . (2017). New technologies applied to the fashion visual merchandising. *Modern Economy*, 08(3), 412-429. **p.24**
- [12] Martin, M. S. . Future Fashion: Innovative Materials and Technology. **p.25**
- [13] Park, H. , & Yang, J. . (2013). A study on the categories and contents of fashion and technology trend: focused on design field. *Fashion Business*, 17. **p.26**
- [14]DuPuis, & Leigh, J. . (2018). Fashion, Forward! A Practice-Led Exploration into the Confluence of Traditional Techniques and Contemporary Technologies in Fashion and Making. **p.28**
- [15] Islam, M. M. , & Khan, A. M. . Branding of Clothing Fashion products: Fashion Brand Image Development by Marketing Communication Approach. **p.28**
- [16] Research on the Application of Multi-sensory Concepts in Fashion Design, Chen Jie, Shanghai Arts and Crafts, 15.06.2018 **p.32**
- [17] Research on the Application of Multi-sensory Concepts in Fashion Design, Chen Jie, Shanghai Arts and Crafts, 15.06.2018 **p.33**
- [18] Tillotson, J. . (2003). Scientient beings and freebee: scientient bees. **p.37**
- [19] Veluchamy, R. , Agrawal, V. , & Krishnan, A. R. . (2016). Perception on managing mental health of generation z students in creating student superstars: students' talent management. *International Journal of Pharmaceutical Sciences Review & Research*, 45-52. **p.40**
- [20] Tillotson, J. . (2003). Scientient beings and freebee: scientient bees. **p.53**
- [21] VV Kovács, & G Zsóka. (2020). Brand avoidance behaviour of Gen Z towards fast fashion brands. **p.69**