

# Discussion on Application of Space Materials and Technological Innovation in Dynamic Fashion Show

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**Abstract.** In modern dynamic fashion show, designers often use the latest ideas and technology, and spend their energy in stage effect and overall environment to make audience's watching a fashion show like an audio-visual feast. With rapid development of China's science and technology, it has become a design trend to strengthen the relationship between new ideas, new trends and technology in modern art. With emergence of new technology, new methods and new materials, designers for dynamic fashion show stage art can choose the materials with an increasingly large scope. Generation of new technology has also made designers constantly innovate the stage space design means, and made the stage space design innovated constantly on the original basis of experiences. The dynamic clothing display space is on design of clothing display space, layout, platform decoration style, platform models, performing colors, light arrangement, platform background, etc.

## 1. Introduction

Since beginning of the 21st century, with improvement of people's living and improvement of aesthetic, the general audience concern about the artistic innovation of dynamic fashion show space while appreciating dynamic fashion show. The suggestion is to strengthen combination of science and technology with new ideas and new trends in the modern art and to pay attention to the appearance of new technologies, new methods and new materials, so as to more widely use new technology and new materials for better innovation and constant innovation of fashion show space design on the original basis of experiences.

## 2. Meaning of dynamic fashion show space design

From the perspective of environmental art, space is the place where people behave. Dynamic fashion show space refers to the space and layout, stage decoration style, platform model, performance colors, light arrangement, stage background and other factors for fashion show. In modern dynamic fashion show, designers often use the latest ideas and technology, and spend energy in stage effect and overall environment. Due to development of science and technology in China, concept breakthrough occurs in fashion show, and the stage artists create wonderful "dots" on each part to guide viewers feel the artistic space visual effect. This is combination of art and technology design. In general, the dynamic display space of clothing refers to the space that can be designed in the area of stage art design and the surrounding area of the stage besides the audience [1].

The stage art design of dynamic fashion show originates from theatrical performance, which is different from other arts. The display makes stage art arrangement according to the theme and style. In 1914, the Chicago Garment Manufacturing Association held a large public fashion show at the New Medina Temple in Chicago, which used a runway for the first time. In 1917, the United States began



to use films as the backdrop for fashion shows. The mode to use full stage lighting and advanced acoustics in fashion show was firstly adopted by the Unde Creger Fashion Store in the 1970s. He changed the sort of quiet and contemplative atmosphere. The vagaries of lights with strong beat music were integrated with the graceful poise of clothing models, which fully expressed the art effect and functional characteristics of fashion.

### **3. Application form of stage space materials for dynamic fashion show**

#### *3.1. Scientific and technological static space materials*

In the context of environmental art, static space refers to the space in which people observe the surrounding environment with the same perspective in a static state. In dynamic fashion show, static space refers to all the static space excepting models' dynamic display while the audience stays in the stationary state in the same perspective. In addition to this, the space also includes static stages and the surrounding environment composed of stage type, stage surface, background and property. In stage art design of dynamic fashion show, stage type, stage surface, background and property are the important elements, and also basic conditions of static state space. Appropriate technology innovation of the basic conditions is good for space showing in dynamic fashion show [2].

The stage for dynamic fashion show is generally called "T" platform. The "T" platform has a simple shape with a wide vision. Its advantage is to fully show the audience clothing and to make it easy to see the color, fabrics and style of clothes. Good viewing effect can be obtained. The width of the conventional extension part to the T platform is from 0.5 to 1.5 m with a height around 1 m and a length from 3 to 15 m [3]. Due to design of the length and width, the fashion show stage makes a smaller distance between the subject and object, makes each viewer sit at the best position as possible as it can, and makes its audience appreciate clothing as appreciating art works. In order to improve the overall effect of performance, many types of stages such as converse T type, square shape stage, U shape stage, S shape stage and Z shape stage appears [4]. Due to change of materials, the materials change from traditional wood to glass, metal, textile, paper, chemical materials PVC and so on. In some performances, designers design the original plane stage into slope surface or use various steps to create sense of layers for better appreciation.

The common form of stage background is board type. There are also some different modeling backgrounds. According to difference of materials, stage background can be divided into hard background, soft background and comprehensive background. Hard background is the background made of hard materials. The common is of the straight plate style. There are also some hard backgrounds that use large pieces of field to make models. Hard backgrounds are usually used in T Stages with runways. At present, on application of science and technology in clothing stage art design, the form mostly used is the use of large LED screens. High flow with large projection is mostly used on the background. Using this background would make the scene appear large and spectacular. Soft background refers to the background made of soft materials (transparent, semi-translucent and opaque). It is usually composed of an awning and a backdrop. Soft background is suitable for casting light and projection screens, most of which are used in performing at grand theatres. The comprehensive background is made with combination of hard background and soft background. To increase the artistic atmosphere of the performance, the comprehensive background can be set if space allows. This construction of the background is complicated and expensive. Usually, it is used in large performances. The tone of the background should be coordinated with the stage. In order to highlight clothing in a better way, pure plain color is for best expression of fashion show.



**Figure 1.** Stage background is the use of LED large screen.

The stage design of fashion show also includes design of props. Although it does not play a major role, it can reach good environmental effect in a better way. The right choice and use of props can enhance the artistic and ornamental feature of the costumes performance, and also increase the performance space of models [5]. In the 2014 Autumn/Winter Paris Fashion Week, the stage space design by CHANEL has a unique style. Its main feature lies in design of props. It made the scene into a supermarket, and the whole place was full of shopping fun with red, blue and yellow bars longitudinal on the bright white walls, perfectly fitting the beautiful red and green shopping carts. There are more than 500 kinds of products on the shelves (totally thousands of items). Models were shuttling between the neat shelves, which made the audience staring. The whole performance was creative and innovative, and this special performance venue and special environmental props kept the viewers' aftertaste.



**Figure 2.** Fall and winter 2014 Paris Fashion Week Chanel stage space design.

### 3.2. Digitization of dynamic space material

The same space between dynamic space and the static space is that the viewing angle doesn't change and only the surrounding environment changes in the way from one space to another with dynamic visual images. The stage type, stage surface, background and props mentioned on the static space above can also change to be dynamic. With the support of digital technology, the formation of dynamic space is possible [6].



**Figure 3.** Dynamic space of digital technology.

Generally, the dynamic stage is called as a movement stage. The movement platform is a performance stage for dynamic fashion show. Only part is of movement. The movement is divided into translation, lifting and rotating. This movement is of the stage surface. Another movement stage is used in the shopping mall. This makes the escalator in the mall as an innovative dynamic and layer stage and makes the mall for customers to buy things as a show place for models. In 2015, Dior held a men's fashion release meeting in Guangzhou. It used a rotating movable stage and a T stage around the circular stage. Models can do dynamic display on the static T stage, and can also make static display on the dynamic revolving stage, which not only improved the level of performance, but also enhanced performance effect.

The movable background refers to that the background board can move according to design requirements during performance. According to the form of the background board movement, this can be divided into open type, reciprocating type, tilting type, rotary type and so on. Inspiration of dynamic design is from opening and closing doors and windows. With different open and closing styles, different effects can be seen. In general, this kind of background gives people sense of mystery and novelty. It is often associated with what is the situation when the background board is opened. The open-type and reciprocating-type background boards are commonly used. It is simple to operate them compared with the reverse and rotary types. Though the inverse and rotary backgrounds are complex, good effect and high levels can be reached. For warm and wonderful scenes, projector or LED can be use to show landscape sights, outfit effect videos, subtitles and some images relevant to the topic on the background, to combine the movable background with advanced science and technology for good the scene atmosphere and better effect.





**Figure 4.** The movable background combines advanced science and technology.

Today it is worth mentioning that the digitalized light era has arrived. With intervention of multimedia, light and stage art design are gradually integrated. Stage light illuminates the costumes and facial expressions of models. The more important is that lighting engineers use lighting technology to strengthen the artistic effect on the stage and to attract the audience to the model performance area. Light is a kind of art language. It has the directivity and adornment feature in fashion show. The most important is that it has transformability and stage lighting is the soul of "stage". Lighting engineers can make full use of light to display the connotation of the works by costume designers. Therefore, many kinds of light effect would happen if the lighting design is listed in the dynamic performance space and if with many factors such as using computer-aided color changing lights, laser and blinking in a fashion show. According to its motive force, complicated visual effects can be manufactured to strengthen fashion show stage art designing.



**Figure 5.** Digital stage lighting.

### 3.3. Diversification of suspended space materials

The aesthetic neuroses of modern people have become dull and numb under the bombardment of commercial advertisements. The aesthetic feeling of audience reaches worse effect. Deep impression can hardly be reached. The suspended space design for dynamic fashion show makes dynamic fashion show innovative with a new product display and brand information transmission. The suspended space refers to a space where suspended things are in the air, the base is not equipped with supporting

structure and there is a sense of suspension. Use of suspension happened in recent years of promotion performance, modeling contesting and literary performance. It strengthens feeling of atmosphere, and also breaks through the traditional design of stage surface and background up to the extensional environment to the stage. Suspension space design is only for indoor. It firstly considers the height of the indoor, not too high or too short, because a large height would cause long suspension with the feeling of top-heavy and a small height would cause the feeling of depression [7]. The smallest height should be over the height of models. The second is that the range of suspension can be selected on the upper part of the stage and the runway, but it can't affect the model's presentation and costume appearance. Attention should also be paid to the weight of the hanging object. This determines quality of the hanging material. It is not too heavy and is drape. The hanging things can be cloth curtain, yarn, rope, etc. The layout of suspension space can decorate the stage with a good effect. It will give the audience different artistic conception and enrich the models' exhibition methods.

#### 4. Conclusion

Today, dynamic fashion show is not pure operation. Instead, it is an artistic creation process with the real sense. Dynamic fashion show space design show people many kinds of expression. It brings people not only visual enjoyment, but also the elaboration of stage art designers' new ideas and different cultural backgrounds, resulting in shocking reaction. The space design for dynamic fashion show in the future will be integrated with various elements of modern science and technology to show the stage effect. It will be the artistic presentation with science, technology, digitization, humanization and diversity.

#### Reference

- [1] Duan P, Zhang Y 2014 *Art Tech.* **02**
- [2] Lv J M 2001 *Mod. Electr. Tech.* **11**.
- [3] Zhu H L, Huo M L 2009 *Film Literat.* **14**.
- [4] Zhu H L 2009 *Fashion Show Planning and Choreography*. Beijing: China Textile Publishing House.
- [5] (British) Trevor·R·Griffith 2000 *Stage Art*. Beijing: China Textile Publishing House.
- [6] Li L 2016 *Design and Realization of Digital Demonstration in Representation of Artistic Stage Effects* Beijing University of Technology.
- [7] Li T S 2007 *Space Design on Environmental Art Title* Guangxi: Guangxi Art Publishing House.