

STUDY ON THE DESIGN PROCESS FOR ESTABLISHING A MUSEUM BRIDGING THE GAP BETWEEN THE PUBLIC AND THE REALM OF DESIGN.

- AROUND THE DAEGU COLOR MUSEUM EXHIBITION PRODUCTION METHOD

ABSTRACT

In the past the role of the museum was limited to just collecting and preserving the materials. Recently, however, the role of the museum is diversified to serve many functions such as exhibition, education and so forth. Thus I strongly believe that this is the right time to research on the effective process of establishing a design museum, the purpose of which is to provide high-quality design information for the general public with familiar communication tools in the familiar way

I will conduct this study on the basis of direct experience, which extended from February 2007 to July 2007, in the construction process of Dagu Color Museum located in Korea. In addition, by identifying the commonalities of successful design museums and comparing them with my own experience, I will draw a conclusion on the effective process

KEYWORD

Color, Museum, Design process

1. THE PURPOSE OF RESEARCH AND THE BACKGROUND

1.1. The purpose of research and meaning.

The museum has continuously changed according to the historical context. Recently the concepts about modern museums have been significantly changing and their function is diversifying. According to David B. Greenbaum¹, vice-president at the US exhibition design company Smith Group, these days museums have to compete with professional sport matches and leisure activities under the same conditions. Furthermore there is a necessity to attract the young audience enthusiastic about video games and the internet. He implies that a certain way has to be found so that today's museum can survive in the competition with all kinds of amusing attractions. For him it is evident that in any place or program people would not like the museum unless amusing elements are implemented. In countries like Japan or England museums using attractions have already been running for ten years. In Korea the opening of the Daegu Color Museum, built like a theme park, shows that these are efforts to attract more people. A museum is a life-long education institution. However, by sticking to this framework the museum becomes more rigid. Visitors do not want to study, but enjoy it. For this reason it is natural to offer fun and entertainment in an exhibition to meet the visitor's expectation

This research deals with a color museum project process. This is in progress in 2007 and people can participate in it in the future. Today color museums are perceived as a place for cultural life and studies that satisfy the immeasurable curiosity about colors.

¹. 1) <http://www.museumdesign.com>. Vol 7

Furthermore they are places where the public can experience culture. The museum of the future needs to be transformed into amusing places for education and to find ways through these design processes to provide attractions during exhibitions. This research aims to prepare a basic guide for future exhibition productions that make the experience-oriented color museum a place where visitors can experience culture in an easy and enjoyable way. This can be realized through an analysis of "hands-on" experiences in exhibition productions.

1.2. The method with the range of research

The museum that is subject to analysis is the experience pavilion of the color museum in Daegu (Korea), which is currently (in 2007) preparing an exhibition that uses new media and three-dimensional diorama. The scope of the research is limited to the structure of the experience-oriented exhibition, which involved developing the processes of the exhibition contents of the pavilion.

The details of the research method are as follows:

Firstly, defining the attraction elements within the space and finding a direction for the museum of the future after analysing a museum that has the above-mentioned elements.

Secondly, based on an analysis of the characteristics above, examining the future attraction museum that organize attractive elements according to a pattern.

Thirdly, finding a way or a direction to position the color museum through a case research that is based on the pattern. The case research is conducted through photos and other materials on museum web sites. Selection is based on the criterion of whether a theme museum is clearly distinguishable, objectively like a foreign theme-park, and recognizable as a museum that has exhibitions as its principal functions

Fourthly, evaluating to what extent the characteristics of already existing theme park-oriented museums have an influence by means of distribution charts for each pattern and comparisons of the characteristics. Through this the role of the new museum can be found and a direction proposed.

2. THE THEORETICAL CONSIDERATION.

2.1. color

2.1.1. Relationship between color and space



For a long time, colors have been a source of symbolism and sentiment for people. Visual environments and tactile environments, which are the main constituents of an environment, appears to be important factors in maintaining and sustaining people's relations in work spaces.

The eyes' perception and interpretation of and response to colors are very unique. Colors recognized through visual stimulations can be felt differently depending on the impression of the time when the stimulations are experienced, and it can differ depending on the types of conditions and stimulations. Commonly, people respond emotionally to color stimulations. For example, people perceive red, orange and yellow to be warm, while purple, blue and green are seen to be cool, clean and comfortable. Taking advantage of these perceptual properties of color, color designs are frequently used to provide emotional stimulations at office and residential areas. Therefore, colors have great effects on people psychologically and physiologically, and by combining colors, the psychological and physiological effects can be increased to arouse richer emotions.

2.1.2 Functions of Colors in a Space

The functions of space and colors are related in a formative role. The roles of colors are mostly related to the sense of color and their perceptual features. Thus, colors are closely related to our lives and they can be broadly categorized as serving internal and external functions.

A. Internal functions of color - psychological and physiological functions, aesthetic harmony functions, curing functions

B. External functions of color - identity functions, communication functions, safety functions, concealing functions.

2.2 A museum communication theory.

2.2.1 Change of Perception on the Functions of Museums

Because museums were first established for the sentiments of the few, their material collection and preservation functions were at first strengthened. As they gradually transformed into modern museums and come to be open to the public, their display and exhibit functions developed through research. Subsequently, the role of museums expanded to include that of social education institutions. Today's museums have evolved into something that fits the preferences of people in their display and educational roles.

The present and future is a time when things organically change. People need spaces to be changed for the mass public and in order to do this, museums have no choice but to create innovative emotional spaces using the properties of light, color and materials. Therefore, future work spaces must have emotional design elements, or in other words, the properties of light, color and materials must be applied in order to create an emotional space. Light and color play an important role in emphasizing the mental and psychological characteristics of humans. They are not only functional, but they also bring the opportunity to change a space by filling it with dynamism and energy.

The way for a museum to be recognized by visitors and the method for the museum to attract visitors is 'display'. In other words, the basic role of museums is to create a valuable display and respond to visitors, and therefore, continuous research is required. With the change of time, the typical functions established for museums include collection, education, display, preservation, investigative research, and etc.. Aside from display features, other functions are frequently talked about in museology, and therefore, in this study, only 'display features', which have a great effect on the role and functions of museums, will be studied. The cases of two researchers, differentiated by their production methods of museum display features, will be analyzed.

2.2.2 Features of Museum Functions and Displays

A. Display Features

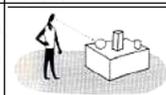
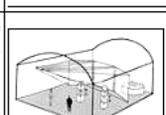
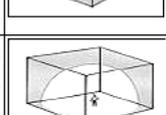
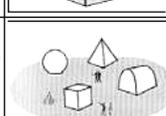
In his book, David Dernie specifies display designs as 'access' and 'technique'. Access defines display production and is sub-grouped into narrative space, performative space and simulated experience. David Dernie claims that techniques such as diorama of the 19th century were not new methods and he states that today's museums must learn the multimedia techniques of popular movies or game centers. 8) The display spaces categorized by David Dernie were categorized once again by a Japanese museum display planner, Takahashi, who grouped display production methods into systematic, space, theater and theme displays. In his book published 15 years ago, Takahashi² explained theater and space displays, which are theme set production techniques for the inside of museums, and these have become the basic production methods in Japan. Takahashi's display production features are only expressed differently in language, and are very similar to the display features David Dernie specifies.³ When summarizing the features of the two scholars, though there is a difference of 15 years between them, one thing that does not change is the spatial production of non-ordinariness. They both seek to operate on the visitor's senses and sentiments. Space display was named narrative display, and theater display was named simulated experience. Notwithstanding the changes in the linguistics and techniques, the basic intentions are identical.

² 9)Nobuhiro Takahashi, *Museums and Amusement Park*, Rikuyosha, 1992, pp.6-11

³ 8)David Dernie, *Exhibition Design*, Laurence King, 2006, p.74

The production method.	The content.	Image
A narration space.	We exclude the exhibition of the display and organize the space around the structure of the story. The emotional conversation of the spectator is important. The form of the story telling makes moving experience	
An experience space.	In the relation of a body, space and one's time, The space for an activity experience which is the interaction. An experience exhibition says a relation characteristic between the machine structure and user which the function.	
A simulated space	To make the unusual experience feel, We do to the space to experience the simulated reality for the emotional event.	

<The table.1> David Derrnie's A Exhibition characteristic

The production method.	The content.	Image
A System exhibition	The thing to say the Exhibition to become image to one phenomenon in a simplicity thing. We are saying the importance of a Story structure to deliver the information to the spectator.	
A Space exhibiton	It is the technique to make the exhibition as the sense so that we can feel though we go. The method to be the reappearance is introduced for this. We can offer an experience different from the everyday to explore the world of the past with reality	
A public performance exhibition	it means a production space which introduces the concept like a movie set. An advanced medias of the robot or back of VR to move must be used for this.	
A theme environment exhibition	The museum to be composed of specific subject is enhanced to sour inside outside to the theme.	

<The table.2> Takahashi's A Exhibition characteristic

3. MUSEUMS OF THE FUTURE –ATTRACTION

A major element that future museums must possess is attraction. Attraction is defined as 'pulling', 'drawing forth' and 'attracting the hearts of people', 'personal charm'. In the case of theme parks, attraction characterizes the facilities or expressions that provide unusual experiences with the help of set productions, peripheral devices and various rides centered on its main theme. The elements of attraction in a space can be categorized broadly as ride facilities, characters, set production and products (food), etc. All attractions are composed based on these typical properties and it is crucial to maintain their interrelations. Museums are a space composed of software that creates stories and hardware that produces the stories in a technical manner. As for the characteristics of

attractive spaces, Gottdienner named theme, unusualness, exclusiveness and unity, while Lee Mi-gyeong (2004) stated that they are racial traits and interactiveness. Besides these six features, there are also sociality and education. Because this study intends to avoid past museum practice of using rigid and boring display styles for the sake of educational functions and aims at creating a fun museum, this study will focus on the concept of amusement. The elements of attractions in a space can be categorized broadly as ride facilities, characters, set production and

products (food), etc. All attractions are composed based on these typical properties and it is crucial to maintain their interrelations.

A theme disposition,	An exclusion disposition	A correspondence disposition,	The unusual disposition,	A race disposition,	The interaction.
It have a various central theme or link subject and come to consist of. Disney land is doing Disney manufacture cartoon to the theme for example.	We can offer usual world and effectiveness to be severed to a spectator plain. The isolation of reality is the falling as the production to be the exclusion strong.	The various item must have the unity of the theme so that we can feel the different world.	An imagination world, future world , past world. An experience relief to the by of the altitude which enters so that we suck and escapes the reality world.	An environment technique which rescues the racial characteristics	We give the delight of fixed interest except because we experience we offer we are surprising or interesting play.
					

<The table.3> The grouping of the attraction

3.1 Categorization of Museums

Museums can be categorized into general museums, specialized museums and special museums. Special museums are also called theme museums. Theme museums are specialized museums with that displays on a specific subject. Theme park type-museums are museums that incorporate the features of theme parks, using the set production techniques of theme parks to perform the display functions of museums. Theme park type-museums produce the unusualness, exclusiveness and unity of theme parks, while also performing their roles as museums. According to the museum categorization system, theme park type-museums may fall under the special museums category, but it would be more correct to deem them museums with a new concept that adds attractions.

Theme park type-museums discussed in this study are about a combination of the software features of museums and theme parks with attractions, which are technical aspects of the creation of amusement. The categories of attraction as defined in (2) of 2.1 are applied to theme park type-museums, and can be used as the basis for the ride type, the food type, the character type and the set type discussed below.

(1) .Ride Type Museum

Ride type museums are museums that implement ride facilities, which are the main attractions of theme parks. Successful ride type museums include the Jorvik Viking Center and the Robin Hood Legend Museum in England. While most museums are viewed on foot, visitors here can comfortably hop on a ride as soon as they enter and listen to narrations to experience the past. There are one-person simulators and multi-passenger rides installed in parts of some museums in Korea, but there are no museums that are operated as a theme park on one subject.

(2) Food Type Museum

Going beyond the past desires to eat in a nice and clean restaurant, there has been an increasing demand for food entertainment (11) that realizes the concept of fun+food. People today go out not only to eat, but to eat while having fun. Combining food as the main attraction by implementing the features of theme parks and the display functions of museums has now become absolutely necessary. Japan's ramen museum and curry museum are successful cases of food type theme park museums.

(3) Character Type Museum

Disney Land is a theme park built on the motif of the characters that appear on Disney movies. There are also cases of operating parks by using food such as peanuts, Hershey's chocolate, M&M, and etc as characters. Characters have now developed into an industry that creates high value-added. Characters possess personality features are very good items of symbolism. The reason for the recent full-fledged development of characters in all industries is to enhance the PR effect of the companies that the characters represent.

(4) Set Type Museum

Set production is the most effective method to present the theme, unusualness and exclusiveness of theme parks. Stage settings give visitors the anticipation to explore new worlds, such as the past and other nations. Even with a great sets, if the main attraction is poor, the charm will diminish. However, it is the best method to support the main attraction.⁴.

4. DESIGN PROCESS & THE STRATEGY.

4.1. Color museum

4.1.1 definition

The definition of the color museum is as follows :

1. Color theme- experience center specializing in colors.
2. Complex system- general research center composed of experience center, exhibit hall, information library functions.
3. wide user- culture and information center that maximizes both the nation's cultural nostalgia and want for knowledge starting from information that requires a high degree of expertise such as academic and technical data to popular cultural experiences targeted at children and unspecified groups of people

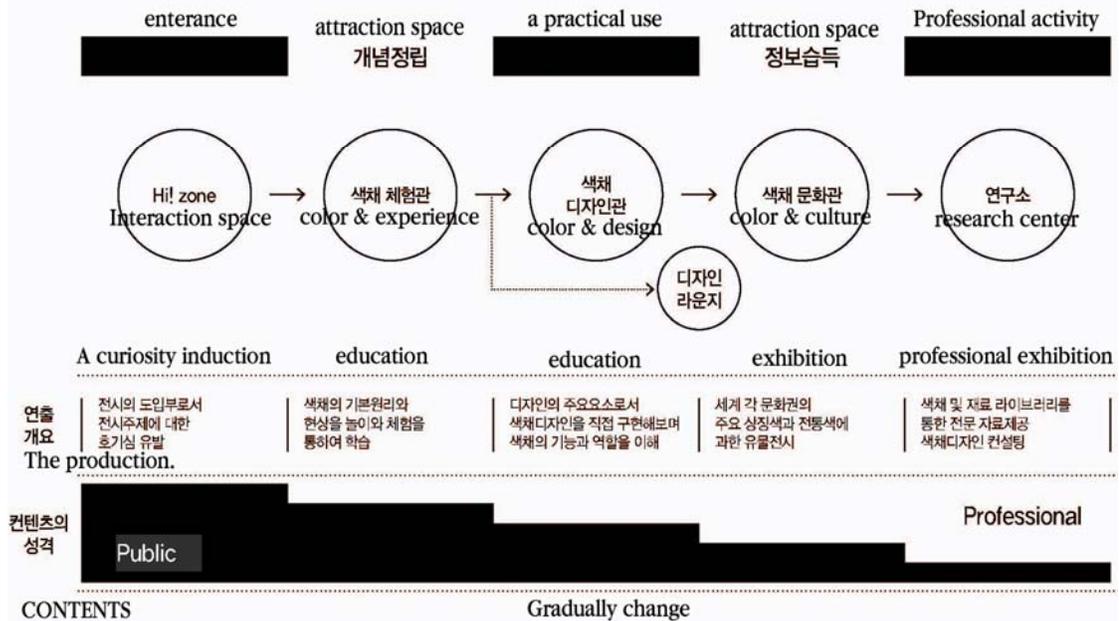
4.1.2 moving

◆ Organization process: NATURE->LIBERAL ART->ART->DESIGN:



⁴. Namco Team Namja, Food Theme Park Planning & Designing, Unicom, 2003, p.71

2. 전시분야 세부계획 exhibition detail plan Process



4.1.3 A structure of space

The areas covered are ① An Exhibition area ② A spectator convenience area. ③ A rest / sale area. ④A meeting area. ⑤ An education area. ⑥ A child museum. ⑦ A ribbon area. ⑧A relic fetch entrance and exit area. ⑨ A relic task area. ⑩The research area. ⑪ A business area. ⑫ A staff convenience area. ⑬ A management area for the security. ⑭ A management area for the equipment. ⑮ An inside of house residence area

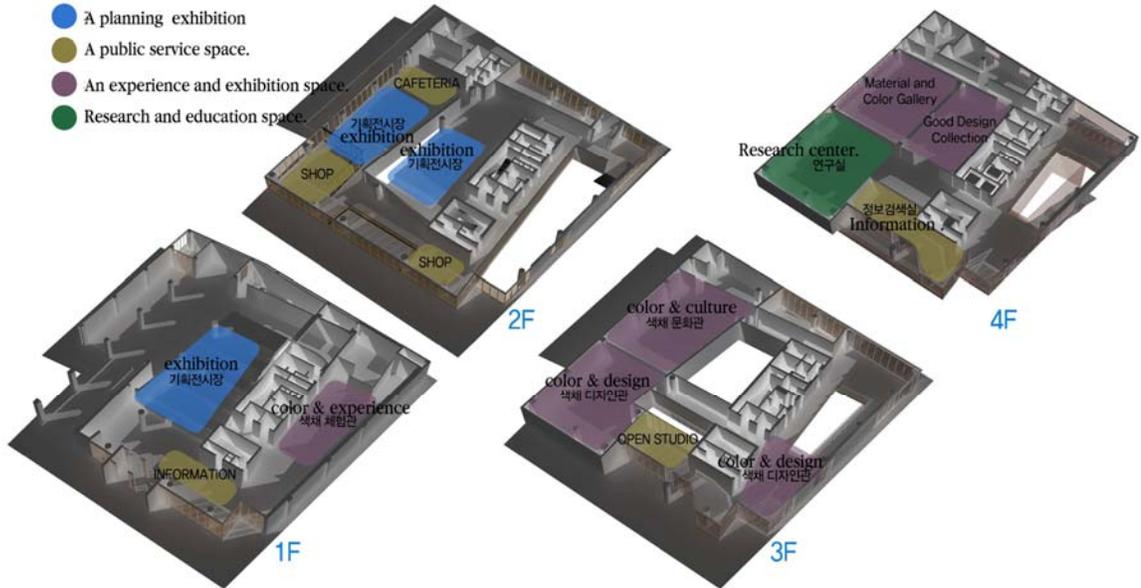


Figures should appear within the text. Figures and tables should be enumerated and referenced: (Fig. 1) or (Table 1). Footnotes, figure captions and table captions are 10pt in size. Captions are aligned left as are the tables and figures themselves. All figures and tables are aligned to the left of a page and appear either on the same page as the first reference to the figure or table or on the first page after the first reference.

4.1.4 A composition of space

The space structure

- A planning exhibition
- A public service space.
- An experience and exhibition space.
- Research and education space.



4.1.5 A function of space

4.1.5 A function of space

space	concept	contents
exhibition space	COLOR AND ART zone	korea color zone
		nature color zone
		korea art color zone
		contemporary art and color
		Digital gallery
	COLOR AND DESIGN zone	color and symbol
	color and function	
	color and emotion	
experience space	child experience zone	the principle of color
		the attribute of color
		The phenomenon of color
	color & design zone	material and color
		space and color
	material and color	

4.1.6 A attraction contents of space

<p>2. 색채 체험관 2.1 Feel Color</p> <p>aurora valley</p> <p>2.1.1 오로라 벨리 대형 영상 작품을 통하여 오로라의 공간 효과와 오로라에 대한 이야기를 체험할 수 있는 공간이다.</p> <p>2.1.2 Color stream 가상의 미디어를 연출한 공간에 색채를 입혀서 미디어를 통해 미디어를 통해 색채의 효과를 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 	<p>4. 색채디자인관 4.2 Make up Color</p> <p>City & color</p> <p>4.2.1 Showroom 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>4.2.2 도시, 색채도시 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 
<p>design shop 3. 디자인라운지 3.2 디자인 샵</p> <p>3.2.1 Color collection shop 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>3.2.2 Color Book Store 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 	<p>4. 색채디자인관 4.3 Breathing Color</p> <p>4.3.1 Color Juice box 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>4.3.2 Workshop Room 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 
<p>color experience zone 2. 색채 체험관 2.2 Enjoy Color</p> <p>2.2.1 Rainbow beach 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>2.2.2 Color Mountain 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>2.2.3 Media farm 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 	<p>Color garden 3. 디자인라운지 3.1 디자인 거점</p> <p>3.1.1 기획 전시회 Exhibition zone 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>3.1.2 Cafeteria 도시의 다양한 색채를 공간에 디자인하여 전시하고, 관람객이 직접 체험할 수 있는 공간이다.</p> <p>참고 이미지</p> 

5. Conclusion

Coming into the digital era, the desire to satisfy material wealth is changing to the desire to satisfy mental wealth. This pursuance of mental wealth is linked to the pursuance of the satisfaction of individuality and emotions. Museums apply emotional designs in order to enhance the interest of the public in display spaces, especially with the advent of the 21st century. Thus, in this study, the hands-on display space were generally categorized into four groups for museums that applies emotional design as a major element for future display spaces, and after examinations, the results are as seen below.

The following is a general summary and proposals for utilization plans based on the analyses. First, museums in the future will be an entertaining educational space as well as a commercial display space. People have long perceived museums as a boring place. Museums must now actively implement theme park-like features in order to grow out of being a stifling educational space towards being a more entertaining and commercial one.

Second, museums in the future are display spaces with the features of theme parks. The different types are the ride types, the food types, the character type and the set type, each with a specific type of main attraction. Each type operates to create success not by using just one type of attraction, but by a combined application of the different types.

Third, in museums of the future, set production or set display techniques will give visitors a feeling of unusualness and exclusiveness, similar to that at theme parks. Set productions are being applied as a common production method for most theme park type museums.

Fourth, museums of the future combine story-type narrative spaces and main attractions. Robin Hood and Jorvik Viking Centers are museums with a great deal of story-telling. With the addition of ride attractions, their popularity among visitors are extraordinary. The combination of stories and attractions is the most basic structure for futuristic museums.

What is the new paradigm of 21st century museums? To this question, Professor Geoff Matthews of Lincoln University in England answered, Today, the dominant perceptions of displays are compound environment of reality and fiction. Display spaces must be understood as a multi-dimensional space of various and repeating spaces such as

simulated areas, schools, homes, work places and shops, and the feeling of the display space must be transmitted to the visitors. This exceeds the sense of time and space like that of 'simulated display', which is a feature of display functions, and it is necessary to create a new space by combining the museum display space with either set production or computer images. Thus, by continuously implementing new concepts to theme park type museums, which is the 21st century museum paradigm, the museum will evolve to fit the era.

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