A Study on the Local Characteristics Through Colors Expressed Outside the Multi-Family Housings at New Cities in Gyeonggi Province

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ABSTRACT

Houses allow consumers to demand unlike apartment housings as they can express their personal taste or style. This study intends to analyze exterior color of small collective housing area of new cities in Gyeonggi Province to analyze the regional image. This study selected small houses of 200 ㎡ land area in new cities as Pangyo, Suji, Gwanggyo, and Dongtan. In conclusion, this study analyzed regional images by analyzing colors of facade from side to side in alleys.

KEYWORDS: Local Characteristic, Image Analysis, Exterior Color, color coordinated band

INTRODUCTION

In modern society, housing does not simply represent physical space and is not space for deducing results throughout social lives either. Housing cannot be interpreted as a space that simply allows people to rest comfortably, recharge their energy, and go to work. Residential space is a space that changes complicatedly according to human needs and value of the whole society, and can be considered as a space of non-physical properties that changes by the system of moral values. To express these value systems on residential space, people select various design elements and combine the results and form one image.

This study is of deducing regional images by colors used on the outside the building around multi-family houses at new cities in Gyeonggi Province. After analyzing colors used on the outside the buildings, this study analyzed images that people feel by deducing regional images after converting the image language through questionnaire survey.

THEORY

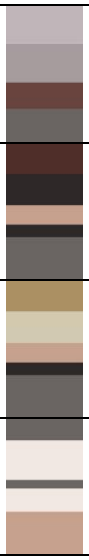
Theoretical grounds of Park Hyo-Chul(2015) for analyzing color were used as a way of securing objectivity for unity of color scale. It is suggesting problem solving methods by using a system that displays color properties as color, brightness, and chroma for quantitative and objective data. Also, it is because adjacent background color needs to be considered even if the exterior color is in monochrome but the color of an object is perceived differently according to adjacent colors. The researcher has a common awareness of this method and simplified images of each multiple dwelling house by mosaic processing through a computer program. This was substituted into Munsell conversion program and extracted Munsell signal and L*a*b* value. Color distribution and distribution of tone are analyzed using Korea standard color analysis program. The tone of colors used was analyzed through ISSC-NBS standard color tone using Munsell signal. Also, this study created a color arrangement palette and conducted a survey by classifying into a design professional group and nonprofessional group. The image language used on a questionnaire deduces results of local characteristic using IRI Adjective Image Scale.

EXPERIMENTAL

This study limited analysis object to the area of dense multi-family housings in new cities in Gyeonggi Province. The following methods were used as a way to deduce colors. Photo shoot was conducted from 2 p.m. to 4 p.m. for a month in May to analyze color as the color that gets accepted by human eyes and to analyze

color under the same conditions as much as possible. This study took photos by matching similar conditions as much as possible by taking photos with buildings using COLOR CHEKER before taking a picture, but this study marked by using the following map to increase understanding of the table.

Table 1. Multi-family housing complex in Gwanggyo new city

Image	color coordinated band	Image	color coordinated band	Image	color coordinated band
					
					
					
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Gyeonggi Province tried to establish a new office building in late 1990s for Gwanggyo new city and Suwon-si tried to establish a new city to build a convention center, and Yongin-si was a city which was developed when there were worries about sprawling development in Bundang and Suji. It is a new city with rows of higher than 30-story superhighrise apartments and 45% of surroundings is green space where nature and city are coexisting. There are a number of multi-family housing complex in that region and became established with full-scale new town development in 2004.

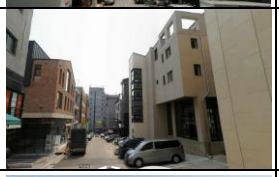
Table 2. Multi-family housing complex in Pangyo new city

Image	color coordinated band	Image	color coordinated band	Image	color coordinated band
					
					
					

Pangyo new city is a planned city which was developed and constructed from 2003 until recently at the central government level to resolve problems of a big city. It is one of the second new towns of capital region and can be considered as a city for addressing housing demand of Gangnam, Seoul. City planning took place

by temporarily removing a greenbelt zone around Seoul and is the urban development that aggravated social problems as increased housing prices and gap between rich and poor by real estate speculation.

Table 3. Multi-family housing complex in Dongtan new city

Image	color coordinated band	Image	color coordinated band	Image	color coordinated band
					
					
					

Development of Dongtan new city was implemented to induce balance development of metropolitan area in 2001 earlier than Gwangyo new city or Pangyo new city and promoted development of Dongtan new city to prevent disorderly development activity in advance of regions with high development pressure. It was intended to balance city population and city development by helping residents who had a job in Seoul by facilitating the entry of the Gyeongbu line.

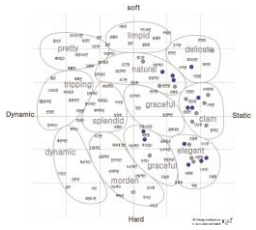
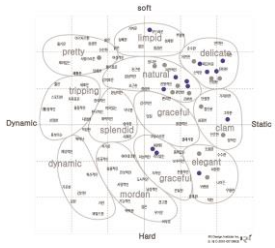
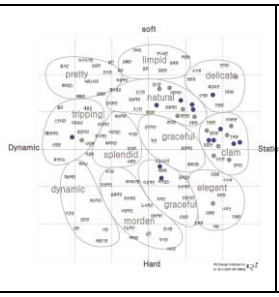
RESULTS AND DISCUSSION

New city was planned for people to feel the quality of life similar to the life in cities as when they move from the city as residential facility, cultural facility, public facility, and industrial facility. Through this process, cities lose unique urban characteristics and city images become similar. It is because cities were established mechanically by plan before people moved in as described in supports of N.J Habraken(2009). However, a city acquires its own characteristic and color after a certain period of time when a variety of needs of residents get reflected. Multi-family housing can be established faster than apartment housing because it has a structure that reflects residents′ expression quickly. It became possible for new cities listed above to express their regional image by expression of residents when planning for multi-family housing was completed after a certain period of time. This process is more time consuming by social change, change of building materials, and changes in awareness of colors, but newly built multi-family housings use colors that match surroundings and express one′s own idea and serve as a measure of representing regional image differently. Pangyo, Dongtan, and Gwanggyo new cities were organized with similar buildings as other regions at first, but other different characteristics started to appear over time.

CONCLUSION

The results are as follows. Image adjectives as ‘elegant’, ‘delicate’, and ‘natural’ are used for arrangement of colors in Gwanggyo new city and selected ‘modern’ and ‘delicate’ the most for adjectives in questionnaire survey. For Pangyo new city, color scheme as ‘natural,’ ‘warm’ and ‘soft’ were used and selected ‘delicate’ and ‘natural’ the most for adjectives in questionnaire survey. For Dongtan new city, ‘delicate’ color scheme was used the most for image adjective, and according to the questionnaire survey, adjectives as ‘natural’ and ‘delicate’ were selected the most. Image of color scheme that expressed into colors and image that consumers perceive may be slightly different, and it was identified that regional image is slightly differently by region.

Table 3. IRI Image adjective

Gwanggyo Image adjective table		**Pangyo Image adjective table**		**Dongtan Image adjective table**	
	‘elegant’ ‘delicate’ ‘natural’		‘modern’ ‘delicate’		‘natural’ ‘delicate’

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