Case studies of Color Planning for Urban Renewal

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ABSTRACT

Environmental color design in Japan, especially façade color, has long been considered a matter of individual choice. The Landscape Act was passed in 2004 by the Ministry of Land, Infrastructure and Transport, the purpose of which was to promote a more aesthetic approach to landscape and streetscapes, and also encourage the development of regional identity. We investigated each of these Landscape Plans, especially regarding the regulation of color, and determined that most towns use the Munsell Color System to manage façade color. 80 % of them use this system. As already mentioned, color regulation is mostly determined through restrictions regarding Chroma, however, this does not necessarily help in developing local features. We researched some unique cases in which color regulation was used in the development of streetscapes. The first case study is Girona in Spain. 30 years ago, old buildings were renovated, and street façades were renewed and colored. The second case study is the University of Tsukuba's color planning for its student accommodation facilities. The third case study is the public sign system in Tsukuba. The fourth case study is our bus color design for the town of Hitachi. Again, it is not façade color planning, but it helped to create a unique local feature for the city through the graphic design for buses and bus stops. With these case studies, I hope to have shown that color is not a minor issue and can be a useful tool in urban renewal and in creating a positive and life-affirming environment.

1. Background- the current status of local ordinance

Generally speaking, environmental color design in Japan, especially façade color, has long been considered a matter of individual choice. Consequently there has been little thought of coordinating façade color at a civic level. Because of this, the Landscape Act was passed in 2004 by the Ministry of Land, Infrastructure and Transport, the purpose of which was to promote a more aesthetic approach to landscape and streetscapes, and also encourage the development of regional identity. This legislation has only been partially successful.

As of January 2013 there were 568 landscape administrative organizations in Japan. "Landscape administrative organization" meaning a town or city council body tasked with managing the local landscape. Within these 568 organizations, only 384 towns have developed a "Landscape Plan" in accordance with national legislation.

We investigated each of these Landscape Plans, especially regarding the regulation of color, and determined that most towns use the Munsell Color System to manage façade color. 80 % of them use this system, with, for example, a directive like,

"within Chroma 6 in case of Hue R". In other cases recommendations are based on color palette.

Restrictions regarding color only seem to be in effect for historical towns and cities, but not for unique landscape. It may be very useful for council administrators who are not confident making aesthetic decisions. However, the current legislation can be misinterpreted to allow any color to be used within the limitations, and to organize these limitations on the basis of Chroma may be detrimental to developing design sense, and spoil the overall color harmony of a particular area.

A survey was conducted using questionnaires in each of the 384 towns in 2013/2014. We asked whether local features were thought to be enhanced by the Landscape Plan. Less than 40% answered "Yes" and 60% answered "No" or "Undecided". People were also asked to rank which points they thought were effective in developing features of the local area in the Landscape Plan. Among these points were building color, height, shape and location. The responses are shown in Table 1. Color ranked highest, indicating that local government consider color to play a crucial role in making the most of their local features.

Table 1: Average Rank
(Which point is effective in developing features of the local area ?)

Point	Average Rank
Building Color	1.8
Building Height	3.3
Building Shape	3.6
Building Material	4.2
Outdoor advertisement	4.6
Building layout	4.8
Building greening	4.9
Others	7.8

As already mentioned, color regulation is mostly determined through restrictions regarding Chroma, however, this does not necessarily help in developing local features. We researched some unique cases in which color regulation was used in the development of streetscapes.

2. Case study 1

The first case study is Girona in Spain. 30 years ago, old buildings were renovated, and street façades were renewed and colored. The architect, Josep Fuses Comalada, planned the color scheme, which originated from the façade colors of the old city. In general, it was usual for local governments to use white, or off-white, when repainting or coloring buildings because it is cheap. However in this case they did not do so, and used a variety of colors which would have been found in the old city, such as 'almagro', traditionally considered the color of cow's blood, 'ochre' and 'sienna-red ochre'. Figure 2 is a diagram of the color design, showing the sophistication of the color production; although not so many colors are used, there is nevertheless an impression of great

variety. Nowadays, there are many visitors to see the colorful streetscape of Girona. Thanks to this success, similar color planning is being applied to areas of redevelopment on the other side of the river. In Comalada's project, chemical paints were used due to cost restrictions, however, the new development uses natural paints. This is a very successful instance of urban renovation integrating streetscape color design.

Figure 1: Girona in Spain

Figure 2: Diagram of the color design

3. Case study 2

The second case study is the University of Tsukuba's color planning for its student accommodation facilities. The planning for this took several years. As with Girona, buildings were renovated, and at the same time, their façades were given a different color. Approximately 30 years have passed since the dormitories were built and the plumbing systems were out of date; renovation was needed. At first, it was planned that only the plumbing should be overhauled, however the university decided to recolor the façades at the same time to highlight to students the renovation of their accommodation. We have renovated approximately 5 buildings per year since 2009; there are a lot of student dormitories on our campus and it is impossible to renovate all the buildings at the same time.

Before renovation, the façades were beige or off-white. Although different colors were used to complement the concavo-convex shape of buildings or other façade features, the overall color harmony of each area was also considered. High Chroma colors were used, however these were carefully coordinated; for example, similar high Chroma colors are used for accents on adjacent buildings to give a sense of rhythm. In some cases these accent colors are designed to appear as gradation from certain angles. Mainly warm colors were used, to foster a positive and pleasant atmosphere.

The response from students is that the colored façades are cheerful and make the dormitories more appealing as habitats. This case study is a good indication of the importance of color and is informative for other renovation projects, as there are many buildings of this kind, that date back to 30 or 40 years ago.

Figure 3: Color design for Students Accomodation in the University of Tsukuba

4. Case study 3

The third case study is the public sign system in Tsukuba. This is not façade color planning as such, but sign design, which I think can also play an important role in creating unique character in an urban environment. We planned and designed a sign system for Tsukuba from 2005 to 2009, including the creation of sign guidelines, and 30 of these signs can be seen around the exits of the train station in the town center. We thought very deeply about the background color of the sign and decided on dark gray, after creating mock-ups for a field survey, so that the sign and its environment are harmonized. On the other hand, signs need to stand out, and we therefore included "art-posts" with the signs. These were made with natural materials such as stone and wood. These "art-posts" on the side of the signs, and monochrome photos on the reverse side of the signs have contributed positively to the town's environment and also give each sign a unique character. This sign system has been influential for other towns in Japan, and received an award from the Japanese Society for the Science of Design in 2009.

Figure 4: Sign Design for Tsukuba City

5. Case study 4

The fourth case study is our bus color design for the town of Hitachi. Again, it is not façade color planning, but it helped to create a unique local feature for the city through the graphic design for buses and bus stops.

Because of a decline in passenger numbers, many railway branch lines have fallen into disuse, and the routes have come to be served by bus lines. However, buses are often less punctual than trains and therefore have trouble retaining their customer base. For this reason, the government is promoting the BRT, or Bus Rapid Transit scheme, which repurposes unused railway lines as bus routes that cannot be used by other road vehicles.

In Hitachi, the railway branch line closed in 2005. Following this, the city council, in conjunction with residents who live near the old line, developed a BRT and solicited bids for the branding and graphic design. We revised the winning designs for practical application to the BRT, including the bus stops and other graphics. The concepts behind our design were:
1. To spread awareness of the BRT among Hitachi residents
2. To create a clear color scheme based on the winning design
3.To unify the graphics through the use of repeated design elements, such as color and shape
4. To respect local motifs in order to make citizens to have their attachments to our design and BRT.

The results were as follows:
1. A large BRT logo on the side and rear of the buses.
2. The use of a high chroma blue and simplified graphic design.
3. The creation of a Hitachi BRT logo, repeated on buses, bus stop signs and other PR merchandise.
4. The creation of different bus stop designs using elements that reference local culture in the immediate area.

The design has been well received by local residents, and the number of passengers has increased, making the business more profitable. This case shows that high quality design and color planning can strengthen a local population's relationship with their town and their environment, and can be a sound financial investment.

Figure 5: Color Design for Hitachi City Bus

6. Conclusion

The government has yet to devote serious attention to how color can be used in urban design, and there is a misapprehension that using more color is good, when in fact it leads to a lack of harmony. With these case studies, I hope to have shown that color is not a minor issue and can be a useful tool in urban renewal and in creating a positive and life-affirming environment. We hope that the power of the color will be used more in the process of making cities unique and beautiful.

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