

THE ROLE of LIGHTING in MAKING ENVIRONMENTAL QUALITY and URBAN IDENTITY

ÇEVRESEL NİTELİK ve KENT KİMLİĞİ OLUSTURMADA AYDINLATMANIN ROLÜ

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ABSTRACT

Lighting technique, after the second half of the present century, is progressed with the possibilities of science and technology, especially with the progression and variation of light sources, has taken its important place in interior lighting on one hand and in exterior lighting (urban lighting) on the other. This importance is being increased and getting wider day by day. Because, nowadays, urban lighting is not only made for Creating night sight conditions, Providing safety-security to pedestrians and vehicles, Preventing events like theft, pickpocketing, molesting, but also for Making artistic, historical and urban values visible, Making the life at night as busy as in the daytime, Providing dynamism in the city, Bringing lighting systems that make the city attractive and remaining in memories to life.

All these lightings take importance in building the identity of the city and/or emphasising the existing identity of the city or making it visible, and also giving a good environmental quality to the city vision and its usage.

1. INTRODUCTION

The lighting technique that has improved by the developments of science and technology since the second half of the 20th century and the lighting industry which is giving new products each day, as like in all the subjects of the lighting, provides certain possibilities in urban lighting, too. Therefore urban lighting nowadays, does not only contain the lighting of the pedestrian and the vehicle traffic roads by the means of the subjects safety and security like in the past, but also the lighting which provides, usage and aesthetically charming effect – city beautification of the cities.

Exhibiting the beauties of the cities which are lit by the direct sunlight and diffused sky light during the day, by artificial lighting during the nights, is important in;

providing night life in the cities,

giving possibilities to the social-cultural relationships and influences,

emphasising the functional, historical, social and aesthetic importance and the meanings of the interesting, important buildings and the places.

2. THE LIGHTING and CITY BEAUTIFICATION

The lighting of the cities must be made by thinking of different aims to make the cities functional and attractive as well as beautiful. These aims can be mentioned as; to provide safety and security, to find way – direction – place, to make public recreations and spectacle (sports, entertainments etc.) available during the night, to give the city an identity, to create an ambiance, to raise the value of the city or to give the city a good quality. A well lit environment is reassuring place in which to say and to meet people, and it attracts visitors.

2.1. Providing Safety and Security

People usually get frightened and feared of dark. Therefore to protect people from the dangers, to give them a clear perception on the environment, to make it easy for them to see the faces of the others clearly from a certain distance has a great importance. The lid places provide people to act in a security, to feel in safety and comfort. This situation also brings protection to the thefts, attacking, accidents and events like that and also the safety and security to the outsiders as well as to the public living in that city.

The lighting of the roads, junctions, public squares, tunnels, bridges in relationship with the pedestrian and the vehicle transportation and the lighting of the portsides, stations, parking places, airports related to the others, has an importance in terms of safety and security. These lighting which are mostly technical, contain the subjects of preventing the light to bother the drivers in their eyes, avoiding highly lit surfaces in sight and also avoiding huge contrasts of lighting and luminance on the surfaces of roads. Technical subjects like, the light source, the design or the choice of the lighting armatures, the heights of the columns, the distances between the columns, the luminance values inside the viewsight, the ascertaining of the lighting levels by the terms of the road qualities, has an importance in the lighting design.

2.2. Finding way – direction – place (Orientation)

A lighting has to be made for the people to let them find their houses or other buildings and the roads in their environments or outer places easily at nights. Because of that reason, the lighting of the roads, public squares, junctions must be made suitable to the settling technique besides safety and security. The names and numbers of the streets, houses and the blocks would provide convenience as well as creating a pretty sight with lighting. These kinds of lightings are useful and also needed, for the strangers to find addresses and to perceive the city plans easily.

2.3. Creating an Ambience

The perceiving of the environment at nights depends on “how it is illuminated”. Because it is possible to create different kinds of effects with each lighting system. These effects depend on the criteria of quantity (lighting level) and the quality (the colour of light, the character of its shadow, its variation) of the illumination in the lighting system. Therefore, different views can be created by making different compositions in relationship with the lighting technique.

Lighting causes warmth, feeling of an invitation, intimacy and excitement. The forming, the aesthetic sides of the luminaires and their harmony with the environment strengthen these feelings and effect the ambience.

2.4. Recreations – Spectacle

Lighting must be made to make some recreations as sports, entertainment, fairs possible at nights as well as in the daytime. If the broadcasting of these recreations is a matter of subject, then lighting gets more important. Especially the lighting of the sports areas' should be made amongst the rules of the international standards in terms of the colour of light, the lighting levels, the glare and all the other subjects.

The lighting demonstrations in the cities contain mostly the entertainment and recreation subjects. The effect of dynamic lighting pleases the public and raises the attractivity of the city. The variations of the colour, direction and the level of light can create interesting views.

These demonstrations can be supported with moving objects (like water) and/or with sounds in certain dates of the year according to the climate and environmental conditions. The demonstrations of light and sounds are the most common typical examples in this field.

3. LIT or ILLUMINATED ADVERTISEMENTS and SHOPWINDOWS

Externally floodlit or self-illuminated, the lit or illuminated advertisements or signs and shopwindows effect the city lighting and its view as same as the light sources do. In case these elements are held and planned in a certain design complex and lit or illuminated according to the lighting technique, their supplements to the city are positive and attractive. However, in the opposite condition, they change the city view in a bad way and they make the visual perception hard such as the glare caused by the highly lit advertisements in a dark environment.

The shopwindow lighting that is a kind of advertisement indirectly makes a supplement to the city. Especially, the shopwindows in the shopping centres and near the pedestrian areas, should be correctly illuminated not only for tourism and but also for commerce and industry. The indirect effect of the lighting of the pastry shops, the restaurants, the tea houses in the first floors of the buildings in the pedestrian areas also have an important place in city lighting.

4. THE LIGHTING FITTINGS

At nights, under a dark sky, the lit and illuminated surfaces, light sources (lamps) and the luminaires used with them are perceived. The technical and aesthetic approaches related to the particularities of the subjects in the urban lighting show difference from each other. One of the basic principles of the lighting technique is that the light and the light source should not directly get into the eye. For this reason, it is highly preferred not to show the light sources or even the luminaires. For example, same as in the lighting of a building, monument or a tree. Their harmony with each other and their environments is important. But, in some cases, the luminaires take more important place in lighting. For example, the lighting of a road or pedestrian area. In these kinds of lighting, the luminaires are “an urban furniture” with their form, dimension, colour, reflector characteristic, lamp type and etc. In these kinds of urban lighting, the luminaires that are indispensable elements of the environment also in the daylight, emphasise the importance of the subject. The effects of the successful lighting can't be denied in forming the urban identity, urban image and urban quality.

5. URBAN IDENTITY and ENVIRONMENTAL QUALITY

Usually cities have identities generated from their own qualities. In ancient and protected cities, this identity reflection is noticed more. The regional supplies, climate factor, architectural forms make the most common examples. As in new cities or city regions, generally, contemporary technologies and supplies take importance, it's possible to see the same buildings and settlements in different countries.

The lighting subjects in terms of the city qualities can be classified as;
the buildings that have historical and artistic value (monuments, palaces, bridges, pavillons, castles etc.)

social and cultural buildings and their surroundings,

the buildings that have international importance,

the buildings that have contemporary architectural properties,

the buildings owned by the important corporations,

recreational areas,

pedestrian areas, parks and gardens,

pools, lakes, statues, historical and precious trees in the green areas,

natural beauties which are important in terms of landscape

Lighting is an important way of emphasising the present identity of a city. For instance, lighting the historical and cultural belongings in a historical city or making a lighting that emphasises the natural beauties in a water city or lighting a region with modern buildings or settlements, in terms of architectural, detailed, formal criteria with modern luminaires and light sources. Also, giving an identity to the cities which have artistic-cultural , recreational-entertainment places by taking advantage of all the lighting subjects, is possible.

The lighting of the pedestrian areas, parks and gardens, natural or builded art works and their environments is also important in giving the city an identity by emphasising the views which makes that city beautiful and attractive, as well as being important in the city life and its usage.

The city's getting an aesthetically attractive look is important in carrying aesthetic and historical values is also important.

6. CONCLUSION

A city lighting which is embracely planned and made with the modern techniques of lighting, has an importance in; making nightlife of the city available, preventing all kinds of illegal and amoral attitudes and events, removing the fearing effect of the dark,

demonstrating the natural, historical, artistic, cultural beauties of the city, making the city more attractive with light demonstrations made by using all novelties and possibilities of science and technology, to create a positive and interesting thought in mind about the city.

Naturally, a successful city lighting depends on a good planning and city design. Also, to keep all the elements of the city qualified and well, is an important subject that should not be ignored.

Nowadays, as the globalisation is a matter of fact, the necessary importance should be given to all the subjects of lighting providing the visual comfort, instead of making random, separate lighting applications; planned, scoped and harmonic lighting should be made. Because the lighting, besides all the advantages it brings, is an indispensable urban design element which forms urban identity and environmental quality.

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THE REHABILITATION OF INTERIOR LIGHTING SYSTEMS

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ПРЕУСТРОЙСТВО НА ВЪТРЕШНИ ОСВЕТИТЕЛНИ УРЕДБИ

К. Бианчи, А. Джеоржеску

The paper treats the up-to-date problem in Romania concerning the rehabilitation of the interior lighting systemsq specially for offices.

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