New Lighting Technologies and Enhancement in Sense of Belonging (Case Study: Tehran Buildings)

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Extended Abstract

Introduction
Lighting has a lot to do with identity and public image of our cities. People interface with their surroundings in nights while they enjoy direct or indirect lighting technologies and supplements. Literature review of this study indicates that new lighting technologies can change our night life and may cause deep consciences in public perception about their environment. Human geography perspective about the issue emphasizes on the role of these lighting of Tehran buildings facades and public spaces on sense of belonging and quality of urban life. The most important aim of this research is to explain the role new lighting technologies can play in changing sense of belonging and quality of urban life in our contemporary cities from human geography points of view. Literature review of the paper also revealed that there are lots of issues that had yet to be addressed in case of making more humanistic city which describes playful city, vivid city, convivial city, prosperous city, and etc. It is very important to explain that all of these criteria can be theorized as sense of belonging which is tangible in citizens' everyday life.

Methodology
To answer research questions in qualitative research strategy, descriptive analytical research method has been adopted as inference mechanism which surveyed by expert designed questionnaires. Logical argumentation strategy is adopted to discuss the results of the case studies selected by cluster sampling from Tehran public spaces, namely region one and eleven in Tehran municipality divisions. SPSS application and analytical statistics were employed to address the results and find suitable solutions. To evaluate the research hypothesis, fourteen questionnaires were completed by experts. Then, the validity and reliability of the questionnaire were evaluated. The cases containing urban bodies are about 10 meters in length that have different usage. Since the different usage of urban bodies have been caused to activity in the day

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and night, it is possible to measure the physical-social factors for sense of place concept in theme. There is a significant relationship between sense of belonging and lighting techniques in order to show the beauty of the physical body, the lighting surface to be harmonic, the body to be indicated, and control of the light pollution. Indeed, the lighting surface of an urban body with different usages can be effective to increase physical-social factors of sense of belonging; while this shows pros, not to be distributed and follows order and harmony. Again, the urban body should be indicated more than surrounding walls and its lighting should be differed from background. Sense of belonging and a lighting to be field-oriented, have an inverse relationship; Sense of belonging can increase, if the buildings have more presented lighting. It seems reasonable that an active body can be more shown than inactive walls. This factor can represent supplying individual needs, such as security and it can also provide necessary vitality for social activities. Another technical factor that is effective to increase sense of belonging is control of the light pollution. Places have more sense of belonging that can provide user needs to be responsive. A scene should provide quality of visual individuals in urban landscapes. Among technical factors, showing characteristics of materials is just related to the sense of belonging. The light and materials interact with each other and influence each other. Light becomes a part of materials and the mass and façade of building configure a unit to complete each other. This factor is associated with physical concepts of the sense of belonging. Consequently, the use of proper techniques and factors in lighting of urban bodies can affect one of the most important concepts in quality of urban spaces, i.e., the sense of belonging.

Results and discussion

Studies indicate that the bodies with perfect lighting have equal quality space in night and day. By comparing the type of lighting in these bodies and matching them with technical factors, it can be concluded that the combination method of lighting makes the purpose of the quality of the space in the city of Tehran. The results of the paper show a significant relationship between sense of belonging and new lighting technologies in order to show the beauty of the physical body, the lighting surface to be harmonic, the body to be shown, and control of the light pollution. Indeed, the lighting surface of an urban body with different usages can be effective to increase physical-social factors of the sense of belonging; while it shows pros, not to be distributed; and follows order and harmony. The urban body should be indicated more than surrounding walls and its lighting should be different from background. The sense of belonging and a lighting to be field-oriented have an inverse relationship. Therefore, the sense of belonging increases, as buildings have more indicated lighting. The results of the paper by correlation is significant at 0.05 level and show that there are meaningful relationship between technical lighting issues and its environmental consequences in our everyday life which can be interpreted as sense of attachment.

Conclusion

It seems reasonable that an active body can be seen more than inactive walls. This factor can represent supplying individual needs, such as security. Moreover, this factor can also provide necessary vitality for social activities. Another technical effective on the increase in sense of belonging is control of light pollution. As stated, those places have more sense of belonging that can provide user needs. A scene should provide quality of visual individuals in urban landscapes. Among technical factors, the displayed characteristics of materials are related to the sense of belonging. The light and materials interact with each other and influence each other. Light is considered as a part of materials and whit mass and façade of building can also configure a unit and complete with each other. This factor is associated with physical concepts

of sense of belonging. Consequently, use of proper techniques and factors in urban bodies lighting can affect the sense of belonging as one of the most important concepts of quality of urban spaces.

Keywords: contemporary cities, human geography, new lighting technologies, sense of belonging, Tehran buildings facades.