



## Research Article

### Architectural Harmony with Nature

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#### ABSTRACT

Architectural harmony with nature is a reform that addresses problems such as inadequate green spaces for different age groups and between buildings. With increasing population, these issues must be addressed during design. Istanbul's green spaces positively impacted residents, especially children and youth. Sustainable design, however, faces challenges such as sick buildings. By incorporating green spaces into urban design, we can improve our lives and contribute to a more harmonious environment.

## 1. INTRODUCTION

The concept of (architectural harmony with nature) is not a new concept and it is a general reformer, there are many countless problems within it, but we as architects, seek to develop solutions to some problems and improve the level of harmony between architecture and nature, among those problems are some green spaces Which are not employed well serves different age groups in society and another problem we always face is the green spaces between the buildings . What do public places provide for their users? Does architectural harmony with nature and green areas affect our lives significantly? How do we make our lives better by using nature between urbanization? With the continuous increase in the population in recent times, these problems must be urgently resolved and considered during design, as they are no less important than other problems in cities. For example, the city of Istanbul, after the green spaces were taken into account in the civil design and the creation of green spaces for the public, this had a very positive impact on the city's residents, especially the children and youth category, in architecture harmony with nature there are some problem in sustainable design such sick buildings.

##### Main Arguments:

- Does architectural harmony with nature and green areas affect our lives significantly?
- How do we make our lives better by using nature between urbanization?
- What are the benefits from greening and public areas?
- What do public places provide for their users?
- How to fix sick buildings to fit with nature and the surrounding environment?

Green spaces affect the space or place in general and the person in particular, where their importance lies in several points, and one of the most important of these points is the psychological and health aspect of humans, and the second point is the aesthetic architectural aspect that adds spirit and eye comfort when we look at Green spaces decorate the area around us.

##### 1- the psychological and health aspect of humans:

Several studies have proven that the abundance of green spaces in cities increases the mood of those living in those areas and also helps in improving acceptance and life satisfaction. This led many European countries such as England, Australia, Germany, including Turkey to adopt this approach in greening and created public green spaces for the public.

##### 2- the aesthetic architectural aspect of green Areas:

The green color emanating from nature adds comfort to the eye and inner serenity to the user, also studies have proven that the high percentage of vegetables in cities leads to improving the weather and filtering the air of some toxic gases

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resulting from factories, homes and cars. Also, some projects established green spaces inside the buildings with good insulation, these spaces played their role in activating harmony and social interaction.

### How do we make our lives better by using nature between urbanization?

The presence of green spaces addresses many problems in the long run, and it is an aesthetic aspect plus it is very important in defining the activity space or the boundaries of the house ETC. Therefore, to make our lives better by using green spaces, governments and responsible institutions must obligate to allocate abundant green spaces in the city and within buildings that have large areas. There are always positives and negatives, but in greening the positive side prevails, which assures us that we are the beneficiaries of that deal. Also, the number of users must be considered and the provision of space for them. These green spaces also draw boundaries for a building, a region, or an entire city, so green spaces must be employed and fully utilized because of their many benefits. An example of this is the state of Turkey. The neighbourhood is not devoid of a park and green space, or even private complexes also have their own green spaces, which reflects this positively on the living and social level.

For example :

Sirinivlar Mahala Park: as it is shown in the figure people come together celebrating or having an activity which this park gives them the chance to have social activity, having some fun and release their negative energy out.

### What Is The Benefits From Greening And Puplic Areas ?

The creation of a fresh, beautiful, pleasant, and elegant atmosphere via deliberate design of rich and colorful trees, shrubs, and flowers amid various shades of green vegetation may improve urban living circumstances and enhance the quality of our lives.

The creation of a green landscape is a critical component in improving our urban environment. The planting of trees and flowers creates a full greenery system that may assist in filtering the air, moderate the temperature, prevent soil erosion, improve water and soil quality, and boost our city's visual appeal and biodiversity.

Also, I divided the benefit into:

1. health benefit: Studies have proven that green places help to get rid of depression and create a state of psychological positivity.
2. commercial benefit: The greener spaces around the house, the higher the value and price of the house, so the green spaces enhance the financial value of real estate.
3. weather benefit: The effect of green spaces on the weather is noticeably and strong, which led scientists to study the extent of the impact of green spaces on the weather, as it was found that green spaces increase the proportion of oxygen in the atmosphere and reduce temperatures.
4. social benefit: Green spaces play a major role in social life and make people communicate and get acquainted with each other. The social role is important, and it is an essential element in our daily life.
5. government income benefit: Tourism and the importance of the country increase by increasing the green spaces, parks and recreational places, which leads to a rise in the country's income and its importance.

public places provide inhabitants with recreational opportunities and contribute to community beautification and environmental quality. Additionally, in certain parks, children can participate in sports and play games in public settings. They also provide locations for locals to have festivals or picnics, enhancing social interaction. On a more creative level, there are several public venues that include theaters and exhibition spaces that are available to the public at any time.

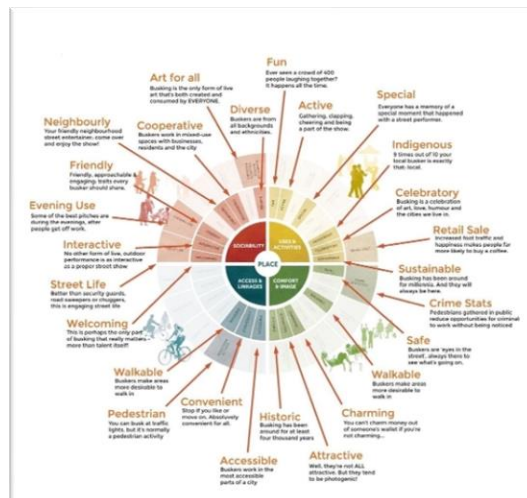


Fig. (1) shows what public and green areas provide for us, [https://issuu.com/vbranch/docs/27-06-2022\\_vishnu/s/16369930](https://issuu.com/vbranch/docs/27-06-2022_vishnu/s/16369930)

### Important Example Of A Puplic And Green Area :

the city's most famous parks, such as the Gulhane Park in Sirkeci, Sultanahmet Square in Sultanahmet, Yildiz Park in Besiktas, Emirgan Park in Emirgan in the European side, and Fethi Pasa Grove and Camlica Hill in Uskudar, Cubuklu Hidiv Grove in Cubuklu and Beykoz Park in Beykoz in the Asian side.

- yildiz park:  
it is a historical urban park in the Eminönü district of Istanbul, Turkey. The park provides a piece of nature amid Istanbul's historic heart, with classic flowerbeds and ponds interspersed amongst meandering tree-lined walkways. In the 18th century, the Yıldız Palace (Yıldız Sarayı) was built on behalf of Sultan Selim III for his mother Sultan Mihrişah. Today, the palace is open to the public as a museum. The park served as a hunting ground and was part of the imperial garden of the palace.
- Gülhane park:  
Gulhane Park is a major tourist and local attraction. The park is rather large. There are several lovely gardens, trees, pools, and outdoor cafés with spectacular views of the Bosphorus. It is believed that it was built under Constantine the Great. The garden houses several attractions, such as the historic Column of the Goths, which lies north of the park. The column was erected to commemorate the victory of the Eastern Roman Empire over the Goths. Also The Museum of the History of Science and Technology in Islam is there.
- Emirgan Park:  
The enchanting Emirgan Park (Emirgan Korusu), located on a hillside on the European Bosphorus shore in the Emirgan district, is best known for its tulips and its three small pavilions.  
How to fix sick buildings to fit with nature and the surrounding environment ?  
First, what is the sick buildings and what is the problems could it face ? The phrase "sick building syndrome" (SBS) refers to circumstances in which building occupants have acute health and comfort impacts that appear to be related to time spent in the building, but no ailment or cause can be determined. The issues might be isolated to a single room or zone, or they could be prevalent across the structure. When signs of diagnosable sickness are detected and can be directly ascribed to airborne building pollutants, the term "building-related illness" (BRI) is used. And According to a 1984 World Health Organization committee study, up to 30% of new and remodeled buildings throughout the world may be the topic of excessive complaints about indoor air quality (IAQ). There are many solutions for sick buildings, but I will focus on one solution among the solutions, which is home greening or the cultivation of plants that improve the air quality inside the house.
- Causes and Risks:  
In Sick houses Ventilation problems increase due to some factors such as fungi that often grow with high humidity in the air or with the use of heating systems in the winter seasons with not exposing the house to air and constantly renovating where these fungi appear in the form of foam or green fungi, or pollutants may be Fungi entered the house through items entered with our hands, such as vegetable or food purchases, or even some furniture that has dust on it. And the problems increase with if the person is a smoker, as the increased level of carbon dioxide, which rises due to all the reasons mentioned, poses a threat to human health and causes diseases in the long run.  
What Are the Best solutions ?  
In the beginning, the project's climate must be studied before starting it, and taking into account the weather and surrounding atmosphere, where problems can be solved from the beginning before engaging in them. Architects must take into account the ventilation holes in the implementation, as good and studied ventilation is a treatment in itself. The ventilation holes allow the house to be exposed to sunlight and leak harmful gases. However, a specific level of the openings must be specified so as not to lose the internal balance of the house temperature, as in the winter seasons, certain temperatures must be maintained. He likes to control the increase and decrease in the level of the openings according to the annual seasons, and this is the main solution.  
But what if we were already living in a house without our own design and we are actually facing that problem? There are some solutions offered by sustainability and environmental experts, and they are effective solutions that have proven their effectiveness, as placing some plants that allow me to renew the air inside the house and reduce the proportion of toxic gases in The weather, but plants may increase the level of humidity in the house, which does not make it the best solution, as the plants must be moved outside the house at night or placed next to an air outlet as it showin in the fuiger. Among the solutions, it is also necessary to renovate the house as much as possible, such as adding insulators to the floors and walls as it show in the figur . Also, keep gutters clean and fix any leaking pipes, actively and regularly ventilate the house, using non-grilling charcoal briquettes, and cooking in damp places may help remove moisture and this is a very effective solution.

## 2. CONCLUSION :

Green spaces cannot be dispensed with because of their importance in our daily lives and benefits to human health, especially young people and children, because of their positive impact on them and their physical and psychological health. Countries that maintain their green space and have many of them are considered rich countries, which have an impact on the national economy and increase tourism in the country. Green spaces are also important in several areas such as health, economy and environmental design, as they enter functionality and sustainability greatly, as previously mentioned. Green spaces are considered a treatment for some sick buildings, as they allow an increase in air rates in the air, but homes must be constantly ventilated, as they can only be relied upon as a solution by only 40 to 45 percent. Greening and green spaces are a treasure that must be preserved and taken care of, and development in this field is very important because it is simply a world in which we live. It must be preserved clean and beautiful, considering the good use of those green spaces.

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### **Conflicts of Interest:**

The authors declare that they have no conflicts of interest in relation to this work.

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## **References**

- [1] M. Al-Masri, "Sick building syndrome: Are we doing enough?," ResearchGate, 2018.
- [2] J. G. Allen and P. MacNaughton, "Your building might be making you sick," Harvard Gazette, 2020.
- [3] A. Al-Shakarchi and M. Al-Debei, "Sick building syndrome in apartment buildings in Jordan," ResearchGate, 2017.
- [4] "Gülhane Park: A green oasis in Istanbul," Istanbul Beautiful, n.d.
- [5] A. Sutherland, "How to transform a polluted indoor environment into a healthy home," ArchDaily, 2019.
- [6] M. Young, \*The Technical Writer's Handbook\*, Mill Valley, CA: University Science, 1989.
- [7] "Architecture in harmony with nature: Today's environmentally integrative projects design theory," Conasur, n.d.
- [8] "Urban regeneration and greenspace partnership: Benefits of greenspace," Forest Research, n.d.
- [9] "Parks in Istanbul: Gülhane Park," Istanbul Tourist Information, n.d.
- [10] M. Cruz, "Organic architecture: Mankind and nature in harmony," Rimontgo, n.d.
- [11] "California Academy of Sciences: Architecture in harmony with nature," n.d.
- [12] "Article on architecture," \*J. Art Arch. Stud.\*, 2019.
- [13] "Greenspace in practice," Forest Research, n.d.