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Use Of Irısh Forest Ivy To Improve Quality Of Lıfe

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ABSTRACT

The technological elements we have developed to make our lives easier in our modern life make us feel like they are hostile to the environment, tend to become concrete, and keep us away from the natural environment. As humanity, we are all aware of this. Another fact that we are aware of is the unintentional harm that occurs with the use of technology. As human beings, we always try to minimize these damages. Some of these studies are successful, some are unsuccessful. In this regard, the environmental phenomenon that disturbs us the most is visual and impact damage.

At the TMMOB Geographic Information Systems congress in 2023, when spatial analysis of air pollution parameters was made with GIS, it was revealed that they showed accumulation in certain areas. Therefore, our activities, which occur as a requirement of modern life, lead us to the conclusion that pollutants accumulate in certain areas in cities and this creates pollution islands and related heat islands.

We offer an ecological solution to the problem of this age, where air pollutants accumulate and heat islands and concretion appear, in line with the understanding of responsibility and to increase the visual and air quality of modern life. With our project, we aim to make our environment look beautiful and to eliminate or at least reduce some of the harms of technological elements that make our lives easier.

When you look at the cities built by people, the houses they build to live in and the roads they build for transportation, construction, concrete and asphalt appear as civilization. What we lack is expressed as our aesthetic understanding . Then, we can make the highway sections, which we describe as sunken or bridged, more aesthetic. While doing this, we will increase our quality of life and evaluate the environment in accordance with the concept of sustainability.

Yaşam Kalitesini İyileştirmek İçin İrlanda Orman Sarmaşığı Kullanımı

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ÖZ

Modern hayatımızda hayatımızı kolaylaştırmak için geliştirdiğimiz teknolojik unsurlar çevreye düşmanmış gibi hissettiriyor, betonlaşmaya meyilli hale getiriyor ve bizi doğal ortamdan uzaklaştırıyor. İnsanlık olarak bunun hepimiz farkındayız. Farkında olduğumuz bir diğer gerçek ise teknolojinin kullanımıyla oluşan istemsiz zararlardır. İnsanlar olarak bu zararları her zaman en aza indirmeye çalışırız. Bu çalışmalardan bazıları başarılı, bazıları başarısızdır. Bu bağlamda bizi en çok rahatsız eden çevresel olgu görsel ve darbe hasarlarıdır.

2023 yılında yapılan TMMOB Coğrafi Bilgi Sistemleri kongresinde hava kirliliği parametrelerinin CBS ile mekânsal analizi yapıldığında belirli alanlarda birikim gösterdiği ortaya çıkmıştır. Dolayısıyla modern hayatın bir gereği olarak ortaya çıkan faaliyetlerimiz bizi kirleticilerin şehirlerde belirli alanlarda biriktiği ve bunun da kirlilik adaları ve buna bağlı ısı adaları oluşturduğu sonucuna götürmektedir. Hava kirleticilerinin biriktiği, ısı adalarının ve betonlaşmanın ortaya çıktığı bu çağın sorununa, sorumluluk anlayışıyla ve modern yaşamın görsel ve hava kalitesini artırmak için ekolojik bir çözüm sunuyoruz. Projemizle çevremizi güzelleştirmeyi

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Hava Kirliliği 4
Dikey Bahçe 5.

ve hayatımızı kolaylaştıran teknolojik unsurların zararlarını ortadan kaldırmayı veya en azından azaltmayı hedefliyoruz.

İnsanların inşa ettiği şehirlere baktığınızda, içinde yaşamak için inşa ettikleri evler ve ulaşım, inşaat, beton ve asfalt için inşa ettikleri yollar medeniyet olarak karşımıza çıkıyor. Bizim eksiğimiz ise estetik anlayışımız olarak ifade ediliyor . Daha sonra, batık veya köprülü olarak nitelendirdiğimiz otoyol kesimlerini daha estetik hale getirebiliriz. Bunu yaparken yaşam kalitemizi artıracağız ve çevreyi sürdürülebilirlik kavramına göre değerlendireceğiz.

INTRODUCTION

The technological elements we have developed to make our lives easier in our modern life make us feel like they are hostile to the environment, tend to become concrete, and keep us away from the natural environment. As humanity, we are all aware of this. Another fact that we are aware of is the unintentional harm that occurs with the use of technology. As human beings, we always try to minimize these damages. Some of these studies are successful, some are unsuccessful. In this regard, the environmental phenomenon that disturbs us the most is visual and impact damage.

The increase in demand for natural resources and the increase in pressure on these resources along with population growth and industrialization have revealed the need to question the continuity of global wealth and production-consumption activities (2). At this point, instead of evaluating the continuity of the development of societies only in economic terms, a more comprehensive evaluation that includes economic, social and environmental elements has begun to be made. Thus, the multidimensional concept of "sustainability" was introduced (3).

At the TMMOB Geographic Information Systems congress in 2013, when spatial analysis of air pollution parameters was made with GIS, it was revealed that they showed accumulation in certain areas. Therefore, our activities, which occur as a requirement of modern life, lead us to the conclusion that pollutants accumulate in certain areas in cities and this creates pollution islands and related heat islands.

We offer an ecological solution to the problem of this age, where air pollutants accumulate and heat islands and concretion appear, in line with the understanding of responsibility and to increase the visual and air quality of modern life. The study aims to both make our environment look beautiful and to eliminate or at least reduce some of the harms of technological elements that make our lives easier.

AIM

To propose an ecological solution to the health, visual and technical problems caused by air pollution islands in our cities where we live our modern lives. The main purpose of our project is to create a living space with increased quality of life and aesthetically enhanced environmental appearance around the concept of sustainability.

METHOD AND TECHNIQUE

The factors that cause air pollution, its negative consequences and solution suggestions are discussed around the principles of geography science, the causes and effects of air pollution caused by motor vehicles, which is one of the polluting factors, are investigated, a literature

review is made to eliminate air pollution, and within the scope of the information obtained, the pollutants in the area where air pollution is concentrated are investigated. It consists of methods, techniques and applications in which ideas are developed and visuality is changed to reduce the savings in quantity.

FİNDİNGS-DİSCUSSİON

In his article in 2003, Elkoca (2003) divided the sources of air pollution into three: industrial establishments, urban residences and vehicles. In his work, Müezzinoğlu (1987) expressed the sources of air pollution in cities as anthropogenic sources.

Various projects are being developed to reduce these factors that endanger our lives. One of these is the article published in the İnönü University Art and Design magazine in 2016, emphasizing the increase of ecological approaches in architecture along with sustainability and revealing the contributions of roof gardens to urban life. It has been shown that the urban heat island effect can be reduced by 10 degrees Fahrenheit with roof gardens. Then we can apply this understanding to bridges and sunken outputs.

According to the air pollution 2023 report, the number of air pollution hours exceeding the World Health Organization limit value in Konya is 740 hours, and the number of air pollution hours exceeding the air quality assessment and management regulation limit value is 439 hours. In these pollution values, the share of motor vehicles from anthropogenic sources and the number of trees for their removal are evaluated as in table 1, table 2 and table 3**.**

Vehicle Type	Number of Vehicles in Türkiye	Konya Province Number of vehicles	Proportional Amount (%)
Truck	838.718	35.291	%4,2
Van	3.642.625	111.152	%3
Minibus	478.618	10.557	%4,3
Motorcycle	3.102.800	102.704	%3.3
Tractor	1.838.222	83.754	%4,5
special purpose	60.099	1.799	%3
Car	12.035.978	330.672	%2,7
Bus	221.885	5.834	%2,6
Grand total	22.218.945	681.763	%3

Table 1: Comparative number of vehicles in Turkey and Konya with CO2 consumption (2023).

The average CO2 pollutant rate of the vehicles whose numbers are given in Table 1 is evaluated in Table 2.

Fuel Type	Average CO2 Value	Total Vehicle Brand	Overall Average
Gasoline	7578	36	210,5
Diesel	5837,5	33	176,9

Table 2: Average CO2 emission amounts of vehicles on a total brand basis.

Considering the data in Table 2, the number of trees required to clean these pollutants is as shown in Table 3.

Fuel Type	Average CO2 Consumption (kg/15,000km)	Number of Trees to be Planted	Total Vehicle Brand Type	Average Number of Trees
Gasoline	2904,1	22	9	2,4
Diesel	1901,071	21	9	2,3

Table 3: Amount of trees to be planted depending on CO2 emission value.

A single vehicle turns the 15 m3 of clean air that a person needs daily into dangerous air in just 10 minutes.

Pollutants in exhaust gases are;

- Carbon monoxide (CO)
- Particulate matter (soot, dust, grains, etc.)
- Hydrocarbons

Tables 1, 2 and 3 show us that the emission pollutants from motor vehicles in Konya cause pollution in our cities, and the roads, bridges and sinkholes built for motor vehicles make the city soulless in the form of empty concrete structures, so a solution is needed for this. The solution lies in an ecological solution that will both improve aesthetics and eliminate pollutants. This is also in Irish Ivy.

According to Şahin (2014), taking into account the extreme habitat conditions and natural risks of plants, the approach of our country's plant species with the same templates should be abandoned and decisions should be made according to the variability in the components of local conditions and habitats. According to Çolak (2001), it is necessary to protect biodiversity, to secure important ecological processes and life-protecting systems, to constantly take into account the principle of continuity in benefiting from the ecosystem, and to fulfill the purpose of the "world strategy" in nature conservation. We too; In the light of this information, we can prevent the damage of polluting elements by preserving the aesthetic texture caused by transportation, which is a necessity of our lives, with Irish ivy, which consumes carbon and can survive with drip water, which we think will be sustainable and

increase the quality of life, and whose damage to concrete elements is prevented by stopping its root development with irrigation (Photo 1-2).

Foto 1. An example applied to a highway overpass.

Foto 2. A developing example applied to a highway overpass.

The architect of vertical gardens is Frenchman Patrick Blanc. Tüfekcioğlu (2010) states that the vertical garden architecture consists of 3 parts, and the PVC sheet construction provides stabilization and the roots are kept fixed in the area, which is made waterproof, and watered with a drip irrigation system. He stated that the plants do not suffer from water shortage with the drip irrigation system and do not damage the wall. He stated that vertical gardening can be easily implemented and can remain evergreen even as long as artificial lighting is applied.

CONCLUSION

No matter how ordinary the appearance, looking at cities gives a special pleasure. The image of the city in each individual's mind is different from himself. The appearance of cities and the image elements in people's minds are important. It should be important that the place be permanent in the mind, and the spaces and buildings should be in integrity. In other words, the identity and structuring integrity of the city is an important phenomenon for visual city elements (4).

When you look at the cities built by people, the houses they build to live in and the roads they build for transportation, construction, concrete and asphalt appear as civilization. What we lack is expressed as our aesthetic understanding (1). Then, we can make the highway sections, which we describe as sunken or bridged, more aesthetic. While doing this, we will increase our quality of life and evaluate the environment in accordance with the concept of sustainability.

We can list the results we will obtain by applying Irish Ivy as follows:

1. Pollutant gases caused by traffic density increase temperatures. The green areas and vegetation created have a temperature-lowering effect. Plants first absorb heat throughout the day and then remove heat through evaporation (5).

2. By combining urbanization with our aesthetic understanding, we can bring soul to cities.

3. Awareness will be raised to carry out studies and evaluations at the regional level in order to reduce the emission amounts of gases that cause greenhouse effect (global warming), which is the main source of climate change.

4. It will create aesthetic difference and beauty as it will reduce the monotony due to the density of buildings in the city center.

5. We will prevent the formation of heat island caused by emission pollutants.

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