

Greenwashing in Turkey: Sustainability as an Advertising Strategy in Architecture¹



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Abstract: *As a result of the depletion of natural resources, destruction of green areas, loss of ecosystem and consequent shrinkage of habitable areas, the concept of “sustainability” has become an important parameter at all stages in architectural discipline as in all fields. However, in some cases this notion has started to transform into an advertising tool developed to feed consumption due to its structure being open to interpretation, its current value and its lack of adequate supervision. Sustainability has three aspects that are economic, social and physical. Apart from the successful architectural designs that take all the values of sustainability into account, the concept has also been used as a popular culture item that enables the projects to come forward and be preferred by people. In this study, the phenomenon of “greenwashing” was examined and five architectural projects from Turkey with the claim of sustainability were evaluated within the criteria of three sustainability scopes.*

Keywords: *Greenwashing, Sustainability, Architectural Design*

Türkiye’de Yeşil Aklama: Mimarlıkta Bir Reklam Stratejisi Olarak Sürdürülebilirlik

Öz: *Doğal kaynakların tükenmesi, yeşil alanların tahribatı, ekosisteme verilen zarar ve buna bağlı olarak yaşanılabilir alanların giderek daralması sonucunda “sürdürülebilirlik” kavramı, tüm alanlarda olduğu gibi mimarlık disiplininde de tasarım kararlarından uygulamaya kadar her aşamada önemli bir parametre haline gelmiştir. Ne var ki bu kavram; yoruma açık yapısı, sahip olduğu güncel değer, konuyla ilgili yeterli denetimin bulunmaması sebebiyle kimi durumlarda tüketimi beslemek için geliştirilen bir reklam aracına dönüşmeye başlamıştır. Ekonomik, sosyal ve fiziksel olmak üzere üç kolu bulunan sürdürülebilirlik, onu oluşturan tüm değerlerin göz önüne alındığı başarılı mimari tasarımların haricinde, projelerin öne çıkıp tercih edilmesini sağlayan bir popüler kültür ögesi şeklinde de kullanılabilir olmuştur. Bu çalışmada, yeşil aklama olgusu incelenerek sürdürülebilirlik iddiası taşıyan beş mimari proje, sürdürülebilirliğin üç kolu göz önüne alınarak hazırlanan ölçütler dâhilinde değerlendirilmiştir.*

Anahtar Kelimeler: *Yeşil Aklama, Sürdürülebilirlik, Mimari Tasarım*

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1. INTRODUCTION

From the moment of birth, human is in direct relationship with natural and the built environment. As a result of industrialization, globalization and rapidly growing world population, pollution, climate change and energy deficit have begun to take over the planet. The idea of sustainability is a very broad and comprehensive guide to the idea of “ability to sustain itself” and inherits sub-themes such as integration with natural environment, justice, competence, efficiency, full cost calculation, participation, communication, prudence and flexibility [1]. Having three branches, namely physical, economic and socio-cultural, the concept of sustainability adopts the objective of eliminating the human-nature conflict as its main objective.

The physical principle of sustainability involves the conservation of natural resources and the minimization of human damage to nature. The economic principle ensures a balanced economic distribution using resources efficiently. The sociocultural principle implies the creation of a high life-quality by protecting social and cultural values [2]. In view of the responsibilities for these three key principles, sustainability is not only concerned with the environmental issues but also with the transfer of socio-cultural and economic values to future generations.

However, the idea of sustainability, which serves such an important purpose, also has a great potential of turning into a tool that serves consumption. Sustainability is susceptible to fraud due to the fact that the measurable values are limited and some of the contents are interpretable. This concept does not have standard norms other than green building certification systems and therefore can become a marketing tool of architectural projects for users who do not have sufficient knowledge of the subject. In this context, the aim of this study is to select some projects in Turkey with sustainability discourse or implication and to test them through physical, economic and sociocultural principles. Within the scope of the study, five projects with the highest investment budget, construction area and public recognition were selected among the projects that do not have any green building certificate but include marketing concepts such as “green”, “environmental” and “natural”. These projects were evaluated by using “hybrid sustainability criterias”, which were developed by the authors examining the LEED, BREEAM, Green Star, DGNB, SBtool and ÇEDBİK-Housing Certification Systems and taking the three main branches of sustainability into account.

2. THE CONCEPT OF SUSTAINABILITY IN ARCHITECTURE

Sustainability, rooted in a long-standing history, has become a concept that has gained real importance as a result of the environmental pollution, the depletion of natural resources and the economic, socio-cultural and health problems associated with them [3]. Sustainability, which has existed in various disciplines, has also influenced architecture under the title of “green design” since the 1980s. From the 1990s on, the theory of “green building” has begun to grow beyond being a design idea and began to find the body also in architectural practice.

However, sustainable architecture is a much more comprehensive movement than green design and green building concepts [4]. This is because the concept of sustainability is not only limited to the physical environment, but also related to the economic and social cycle. Sustainable architecture, in the real sense, should include the concepts of efficiency, rationality, and functionality as well as the nature friendly

design. In addition, it should exhibit a user-friendly structure that interacts with the existing built environment. The building must be compatible with the social texture and supportive of the publicity by creating the space for socio-cultural activities. In view of these, it is obvious that the principles of sustainability in architecture should include the design, construction, utilization and (if necessary) the deconstruction processes. Thus, the principles of sustainability in architecture can be grouped under three main headings: *resource management, life cycle design, providing livable environments* [5] [6].

One of the most important points in resource management is the correct determination of the resources to be used throughout the life cycle by considering the function, user profile, design and the site of the building [6]. Another important point is to avoid the use of fossil fuels and turn to alternative renewable energy sources. To take advantage of daylight, to use passive heating and cooling systems, to benefit from solar panels, to generate electricity from wind and to use geothermal energy are some of the many applications that reduce the energy load and resource consumption of the building. The efficient use of water can be achieved through recycling initiatives such as the selection of energy saving luminaires, the use of gray water in cleaning works and landscaping, and the accumulation of rain water throughout the building. The efficient use of the building materials starts with the selection of natural and economical materials during the design process. However, this alone is not enough. Transportation and application processes should also be considered. Thus, the choice of domestic and recyclable materials is important [6] [7].

The efficient use of the building site is also within the scope of resource management. The main purpose is to use only the areas that are reserved for construction and to protect the land in other functions (forest land, agricultural land, site area, stream bed, etc.). Moreover, the relation between the site and the design is another important point. A structure compatible with the topography reduces the workload of the construction process and therefore saves energy and resources [6] [8].

The lifecycle design of an architectural structure is the implementation of the principles of sustainability to all the phases of the process, from design to deconstruction of the structure, and thus gaining the highest benefit [6] [7]. This process consists of three periods; pre-construction period, construction period and post-construction period. The pre-production period includes the design of the building and the land selection as well as the energy policy of the building and the strategies to be followed during construction. During the construction period, the implementation of determined strategies is important. In the post-construction period, the continuity and re-use of the building is targeted. In addition to this, it is possible to identify new strategies that provide sustainability by examining the interaction of the building with the environment [6]. In addition to protecting nature and the environment, it is necessary for a sustainable structure to take care of the interests of the users, the employees and even those who will interact with this structure. When creating a new environment with architectural interventions, it is important to plan the settlement correctly preserving the existing natural and cultural values [6] [9].

Founded in 2002, the “World Green Building Council” leads the sustainability movement in architecture and construction. Today, sustainable architecture is compared and evaluated with several certification systems prepared by the national green buildings councils. The certification systems measure and promote the compliance of architectural structures with the environment, waste and resource management

within the criteria set by the World Council of Green Buildings and national councils. Furthermore, they draw attention to the possible environmental, economic and socio-cultural problems and guide architects to seek for solutions. Therefore, certification systems are the biggest encouragement of the sustainability movement in the field of architecture and construction [10] [11].

3. AN ADVERTISING STRATEGY IN ARCHITECTURE: GREENWASHING

As a result of the better understanding of the importance of sustainability, the green movement has turned into a current in a short time. However, at the same time, increasing popularity has made this phenomenon vulnerable to abuse [12]. Many companies who want to benefit from this popularity of green movement use concepts like “environmentalist”, “green”, “ecological”, “natural”, “sustainable” etc to be recognized. Some of these initiatives are truly environmental actions while others have been transformed into purely advertising and unrealistic actions. This situation caused the green movement to lose the notion of environmentalism and to decrease the trust in these concepts. As a conclusion, the concept of “greenwashing” has emerged [13].


The definition of the most descriptive green laundering was done by Bowen and Correa [14]. According to them, green washing is the use of selected positive information without mentioning any negative aspects with the aim of creating a positive image that is environmentally exaggerated. The purpose of this action is to observe the image of the actor in the market rather than the environmental interest.

In recent years, the widespread concepts in popular culture such as “escaping from city and returning to nature” have promoted the marketing of architectural buildings, especially offices and residences, as liveable and green projects. Considering the market volume of the construction sector; the concepts of nature, environmentalism and sustainability can easily turn into a greenwashing tool. In this way, without looking at any other design criteria, the wrong choice of construction site or the size of the construction area, the architectural structures which cannot be friendly to nature can be shown more sympathetic and attractive.

In Turkey, there are architectural projects that claim to be integrated into nature but have not received any green building certificates or even attempted to obtain them. Among these designs, the five major projects, namely, Vadi İstanbul, Tema İstanbul, Şehrizar Mansions, Zorlu Center and Bosphorus City, stand out with their construction volume, budget and public recognition. During the design and construction phases, the advertisements of these projects, which are frequently featured in the media, include slogans or visuals (Table 1) that enable the user to relate the project to sustainability. This way, by forming a nature-friendly image as a subliminal or directly given message, companies aim at creating a positive impression in the public opinion.

Table 1: Slogans Used in Promoting Projects

Project Name	Hit Key-words	Promotional Image of the Project
Vadi İstanbul	“make you experience a completely different Istanbul with ... and a wide green area located next to the Belgrad Forest” [15]	
Tema İstanbul	“...a second phase with focus on nature and green ” “... the largest living space has been allocated to nature with abundant greenery ” “... joy will fill up the garden , and the greenery will become one with the city” “363 apartments, 365 days of garden ” [16]	
Şehrizar Mansions	“Şehrizar Mansions, which contribute to the natural and cultural heritage of Boğaziçi with its unique architecture...” “...glows by hiding in a special world overlooking the large inner garden on the slope leading to the Bosphorus.” “As if you're in a huge kaleidoscope between the gardens , you're going to look around you and say "I'm glad I'm here".” [17]	
Bosphorus City	“Bosphorus City, one of Turkey's first and World's rare housing projects, carries the Bosphorus of İstanbul and the life of the Bosphorus to Küçükçekmece. In this magical project, you can get on a boat from Ortaköy Square, have a tea break in Emirgan, eat yogurt in Kanlıca and enjoy eating fish in Kandilli...” [18]	

Zorlu Centre	<p>“An Exclusive Lifestyle at the Center of Life and the City, Surrounded by Green and Facing the Bosphorus...”</p> <p>“...On the garden levels, each home features its own individually designed garden, proving it is possible to make that green and natural world of your dreams a reality...” [19]</p>	
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3.1. Evaluation of the Projects

In order to analyze the projects mentioned above, international and national certification systems (LEED, BREAM, DGNB, GREEN STAR, SBTtool, ÇEDBİK-KONUT) which document the sustainability of the architecture were used. A hybrid evaluation criteria have been created by taking the three main principles of sustainability and the basic substances obtained from this study into consideration. These criteria are grouped under three main headings:

Relation between the environment and the construction area:

- Correct selection of the construction area,
- Utilizing the potentials in the site during the design and construction process,
- Minimizing the impact of the project on the site and its environment during and after the construction,
- Public transport and pedestrian access,
- Providing users access to where they can meet their daily needs.

Energy and Resource Management:

- The establishment of the energy management and natural resource policy of the structure, especially the use of renewable resources,
- Efficient use of water (relationship with water resources around the building, rainwater management and usage of treated wastewater etc.),
- Use of daylight (attempts to reduce energy consumption by using daylight).
- Correct material selection (Usage of ecological, recyclable, renewable, domestic material)

Socio-Cultural Contribution:

- Opportunities provided by the project to improve the life quality of the users (indoor air quality, optimum indoor temperature etc.)
- Innovative initiatives to meet the social and cultural needs of users (cultural and recreational spaces)
- Accessibility for all
- Ensuring social justice

In the review process, no scoring was performed. The positive and negative aspects of the projects were determined within the scope of the evaluation criteria and the scopes described above. (Table 2)

Table 2: Review of Selected Projects through Hybrid Criteria

Terrain History	Vadi İstanbul	Old Evyap Soap Factory Land
	Tema İstanbul	It is located on the former Halkalı landfill.
	Şehrizar Mansions	Chronologically: it was a private land belonging to seven different persons, then it was expropriated, transferred to TOKİ and sold as a private land by TOKİ. It is the first and a third degree natural protected area in the land history.
	Bosphorus City	It is located on the former Halkalı landfill.
	Zorlu Center	17th Regional Directorate Land of the General Directorate of Highways (office block, administration, accommodation, technical unit, social facility, warehouse)
Gentrification	Vadi İstanbul	No. The terrain doesnt have residential history.
	Tema İstanbul	No. The terrain doesnt have residential history.
	Şehrizar Mansions	No. The terrain doesnt have residential history.
	Bosphorus City	No. The terrain doesnt have residential history.
	Zorlu Center	No. The terrain doesnt have residential history.
Usage of Terrain Characteristics	Vadi İstanbul	There is no natural land cover since it is a former factory land.
	Tema İstanbul	The waste land was evaluated and reused.
	Şehrizar Mansions	Natural Land Cover has changed.
	Bosphorus City	The waste dump land has been evaluated and re-used.
	Zorlu Center	Natural topography features not used.
Suitability of the Project to the Terrain	Vadi İstanbul	As it is located on a creek bed (Saadabat Creek), there is a risk of soil liquefaction in a possible earthquake.
	Tema İstanbul	A landfill is a risk for the settlement
	Şehrizar Mansions	The project is not suitable for land because it is built on the natural protected area.
	Bosphorus City	A landfill is a risk for the settlement
	Zorlu Center	The project interferes with the Bosphorus skyline and it is against the zoning plan.
Relationship Between Project and Terrain	Vadi İstanbul	The fact that it is close to the Belgrad Forest, makes this region a new center of attraction which poses a risk for Belgrad Forest
	Tema İstanbul	There are slums in the vicinity of the project and the project encourages urban transformation initiatives that may take place in the future.
	Şehrizar Mansions	Natural Land Cover has changed and the project interferes with the Bosphorus skyline
	Bosphorus City	There are slums in the vicinity of the project and the project encourages urban transformation initiatives that may take place in the future.
	Zorlu Center	The project intervenes with the Bosphorus skyline and appears as a huge mass in its surroundings

Transportation Ability	Public transportation		Main Arteries	
	Vadi İstanbul	With 4 different İETT bus lines from Evyap Cami Bus Station, 1 İETT bus line from Vadi İstanbul Bus Station and 4 different İETT bus lines from TT Arena Stadium Bus Station. In addition, free transportation from Seyrantepe Metro station can be provided and the project has its own Havaray line.		Project is located parallel to the E 80 highway and there are twin side outs on both routes
Tema İstanbul	K.S.S. 15 İETT bus lines from the K.S.S. Research Hospital Bus Station, 9 İETT bus lines from Orta Mahallesi Bus Station, and 7 İETT bus lines from Güney Yanyol Bus Station are available. The nearest Metro stop is Atatürk Olympic Stadium Metro Station, 2 km away.		The project is 200 m to TEM highway, 7 km to E-5 highway, 9 km to the coastal road, 8 km to Atatürk Airport and 20 km to 3rd Airport.	
Şehrizar Mansions	1 İETT bus line From F.S. Mehmet Bus Station Bus Station, 5 İETT bus lines from Altunizade Bus Station, 3 Metrobus lines from Altunizade Metrobus Station and 3 Metrobus lines from Burhaniye Metrobus Station.		It is 1 km from Şile Motorway, 1km from Bosphorus Bridge and 3 km from Beylerbeyi..	
Bosphorus City	9 İETT bus lines from Hastane Yolu Bus Station, 9 İETT bus lines from Katı Atık Tesisleri Bus Stop, and 3 lines from Fatih Caddesi Bus Station.		The project is 200 m to TEM, 7 km to E-5, 9 km to the coastal road, 8 km to Atatürk Airport and 20 km to 3rd Airport.	
Zorlu Center	43 different İETT bus lines from Zincirlikuyu Bus Station, 4 metrobüs line from Zincirlikuyu Metrobus Station, 1 metro line from Gayrettepe Metro Station, 2 subway line from Levent Metro Station, 1 metro lines from Nispetiye Metro Station		2 km from Bosphorus Bridge, 200m from D-100 Highway and 2 km from Besiktas.	
Access to Services	Number of Hospitals Nearby	Number of Educational Facilities Nearby	Number of Shopping Centers in the immediate vicinity of the project.	
	Vadi İstanbul	8	29	4
	Tema İstanbul	9	24	7
	Şehrizar Mansions	8	15	2
	Bosphorus City	9	27	7
	Zorlu Center	11	13	9

Energy Efficiency	Renewable energy	Water use	Water resources	Rain Water Storage	Recycling of Waste Water	Solar Energy Storage
Vadi İstanbul	×	×	Tap water	×	Connected to the city sewer system.	×
Tema İstanbul	×	×	Tap water	×	Connected to the city sewer system.	×
Şehrizar Mansions	×	×	Tap water	×	Connected to the city sewer system.	×
Bosphorus City	×	×	Tap water	×	Connected to the city sewer system.	×
Zorlu Center	Renewable energy is not used but green roof application affects energy and water consumption positively.	Saving armature usage - rainwater and gray water use.	Tap water	✓	Gray water is used for irrigation of green area by treatment.	×
Material Usage	Renewable material	Domestic Material Usage		Material - Health Relation	Material - Waste Relation	
Vadi İstanbul	No information.	✓		×	×	
Tema İstanbul	No information.	×		×	×	
Şehrizar Mansions	No information.	×		×	×	
Bosphorus City	No information.	×		×	×	
Zorlu Center	No information.	Although the registered amount cannot be reached, material usage is mixed. Laminex RF product was developed by Kalebodur for the project		×	×	

Life Quality	Indoor Air Quality	Intelligent Building	Disability Policy	Cultural and Social Facilities for the Public	Innovation
Vadi İstanbul	User controlled air conditioning system.	✓	Disabled parking, chair ramp, relief road.	Social Facility For Shopping Centre	Intelligent Building - Havaray
Tema İstanbul	User controlled air conditioning system.	✗	✗	Social Facility For Residents	✗
Şehrizar Mansions	User controlled air conditioning system.	✗	✗	✗	✗
Bosphorus City	User controlled air conditioning system.	✗	✗	In-site Social Facility	✗
Zorlu Center	User controlled air conditioning system.	✓	Disabled parking, chair ramp, relief road.	The Performance Arts Center within the complex providing a positive contribution to the city but addressing only a certain number of people	Smart building - Europe's largest green roof .

4. CONCLUSIONS

As mentioned before, the concept of sustainability should take three key elements into account. These are:

- Protection of nature by minimizing the damage caused to the environment,
- Ensuring economic balance by efficient resource utilization and reduction of consumption,
- Protecting social and cultural values and contributing to these values in the interventions.

When we look at the projects that use keywords referring to the green movement in their publicity, it was determined that no project other than Zorlu Center had an initiative related to sustainability or any green building certificates. Projects are not as eco-friendly as are implied in their advertising campaigns. It has been observed that an environmental friendly impression is created by highlighting the landscape.

Looking at the construction area history of the five projects examined, none of them were found to be suitable for construction. The natural site has been destroyed due to the Şehrizar Mansions project. One of the registered cultural assets of İstanbul, the Office Building of 17th Regional Directorate of Highways was demolished due to the Zorlu Center Project. The other three projects were settled on risky lands. Bosphorus City and Tema are located on the landfill area and Valley İstanbul is constructed on the stream bed. In addition, Şehrizar Mansions and Zorlu Center projects were built to interfere with the Bosphorus silhouette. Bosphorus City and Tema İstanbul projects were found to be positive in evaluating the old dump sites in the city. However, the fact that these projects opened the landfill areas to the settlement made this positive situation controversial. The roof of the Zorlu Center is Europe's largest green roof.

Renewable energy sources are not included in any of the projects reviewed. Projects other than the Zorlu Center project also no have specific initiatives on water use policy and energy efficiency. Zorlu Center saves energy and water consumption thanks to its green roof. In addition, a serious water use policy is implemented throughout the project. Energy saving armatures are used, rain water and gray water are treated and used in green field irrigation. In general, it was seen that the energy policy of the other four projects did not go beyond using the new generation standard saving armature and led lighting. When construction material selection and usage were examined, no sustainability-aware initiative was found in any of the selected projects.

When examined in terms of socio-cultural contributions, it was determined that no concrete attempt was made other than the Zorlu Performance Arts Center and the Open-Air Event Area located in the Vadi-İstanbul. The fact that Zorlu Center and Vadi İstanbul projects are smart buildings can be characterized as innovation. In addition to these, the initiatives of five projects in order to improve the quality of life do not go beyond the user controlled air conditioning system and the standard disability policies.

In general terms, the five projects have almost no attempts for sustainability, but they are trying to draw a nature friendly image with their landscape designs. In the same way, despite the innovative green roof and noteworthy water policy, the Zorlu Center project casts a shadow on the sincerity of its sustainability initiatives with its intervention to the Bosphorus silhouette and demolishing of the historic office building of General Directorate for Highways. This brings the idea that all positive things are made for green washing purposes to mind.

In this context, the uncontrolled use of the positive image created by environmentalism in the public opinion is a serious danger for sustainability. In order to prevent the transformation of environmentalist slogans into greenwashing tools, advertisements for architectural designs that are not physically, socially and economically sustainable should be subject to inspection. Furthermore, the public should be informed that the concept of sustainability is not only composed of large green areas but also includes protection of economic and socio-cultural values. The protection of all these values by state or non-governmental organizations and, if necessary, the application of certain sanctions are crucial for the correct interpretation of sustainability.

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