

## The Only Way Out: Introducing A Gender Perspective For Sustainability

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**Abstract:** *Sustainability thinking constitutes one of the most important areas of interest within the discipline of architecture. Even though numerous studies have been pursued around this topic, concerns remain about the future of the Earth. A detailed examination of environmental discourses and design approaches taking part within the sustainability paradigm will reveal why these concerns remain. Accordingly, based on the impacts they aim and establish, such approaches could be evaluated in three stages: supporters of the status quo; reformists; and transformationalists. Based on this distinction, opinions which have the potential to trigger this paradigm shift, and thus the necessary transformation of living environments and the Earth's future, are examined within the framework of this article. Another issue the article brings to the front for debate is the gender perspective's contribution to the sustainability discourse. Therefore, the article attempts to offer a gendered perspective to complement the sustainability perspective of architecture, and will make an effort to provide future recommendations on how to achieve a paradigm shift in the practice of architecture. Thus, design practices that ensure the desired sustainable society structure intended to materialize the sustainability paradigm, will be evaluated.*

**Keywords,** *Sustainable architecture, gender perspective, eco-social approach, eco-feminism.*

### 1. Introduction

Ever increasing environmental problems impacting our daily lives have reached a magnitude impossible to ignore. Negative impacts of environmental factors such as global warming, the extinction of species, the depletion of natural resources essential for human life, and population growth on our health and quality of life have reached significant levels. Upon examining relevant studies, it is observed that egalitarian (pluralist) policies have been implemented in the cultural, ecological, economic, health and education sectors. However, problems related to educational and health services, unemployment and housing still persist in urban environments.

Sustainability is a major concern for the architectural community today. Therefore, it is not surprising to see that it now becomes a priority on the agenda of all nations. However, the appearance of sustainability issues in both architectural practice and architectural education has problematic underpinnings. The most important problem is that the concept of sustainability is primarily defined in relation to sustainable development. In our point of view, this diminished the importance and application of sustainable thinking and strategies in both architectural practice and architectural education.



The study begins with a critique and evaluation about the current situation of the field of sustainable architecture. This is followed by an evaluation of approaches effective within the sustainability paradigm in terms of their eco-centric, techno-centric, human welfare, and equality aspects. Within this framework, an effort will be made to classify trends which support the current situation about which we are critical about, as reformist trends and transformational trends. Based on this literature review, we will also discuss what we will gain from the eco-feminist approach throughout the discourse and design process, and what this approach's impacts will be.

## **2. A Critique Of Sustainable Architecture**

The environmental ethics perspective has a broad spectrum that proliferates into political and scientific ideological areas [1]. Environmental approaches are deeply ingrained within the social and political structure of our existence. This presence has also crept into our faith about our daily life system, decision-making mechanisms, and values. Despite the fact that it has been a primarily sociological approach, the environmental perspective so far has been neither able to be accommodating nor able to produce peaceful solutions [2].

Tim O'Riordan [3] discusses how the environmental movement, which started to gain momentum in the late 1960's to early 1970's, triggered political, social and design movements. Later, the author introduced the 'sustainable development' concept, a concept that became popular with the 1987 Brundtland Report. Concepts in the Brundtland Report such as 'equality', 'participation' and 'future' established the foundation of the sustainability concept, and initiated a debate on the technological and social formations' limits with respect to nature's resources [2]. With a new way of thinking brought into the debate, the concept of sustainability became a much discussed issue throughout the 1980s and 1990s as part of the environmental movement.

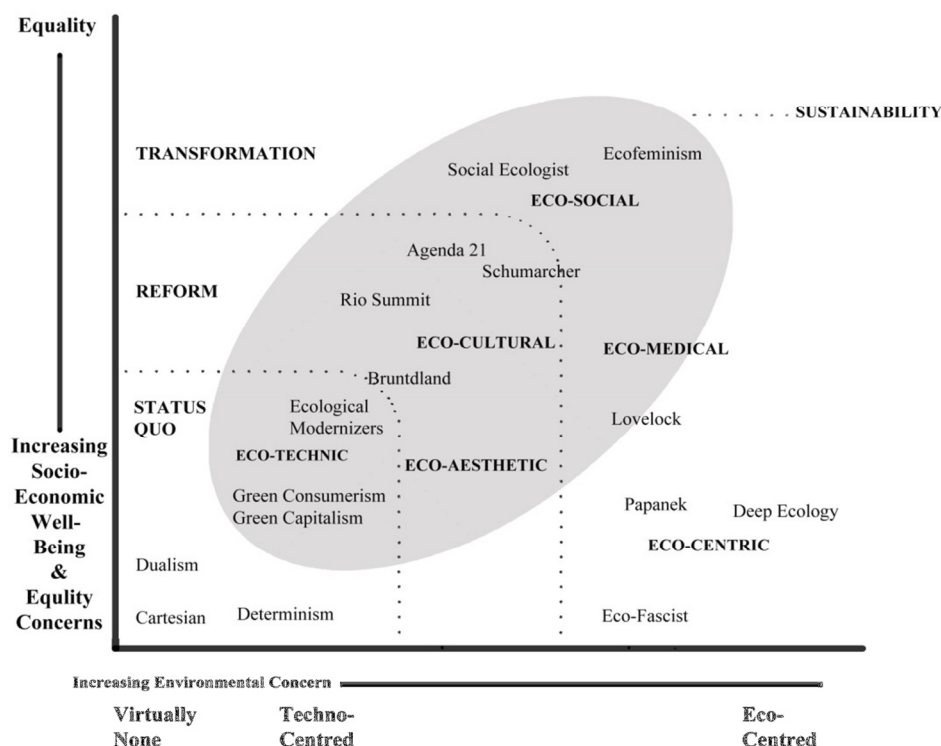
However, the word 'sustainability' is a word that can be used in many different contexts. Its meaning can be also 'shaped' to attribute various meanings. People might have different understandings of the concept 'sustainability'. Ecologists, architects, politicians or sociologists may prioritize sustainability goals differently. For example, within this context, an architect may think about high-performance buildings. However, upon examining the concept more closely with respect to architecture, sustainability is much more than just about bricks and mortar. Social sustainability is at least as important as building technologies [4]. Moreover, no matter how technically advanced and conforming to the natural environment a building may be, when considering its environmental impacts, it may not be wrong to state that a building is still an anti-ecological action [5]. This distinction can be observed in O'Riordan's [6] works: environment-centered or technology-centered designs. Approaches that have an environmental focus actually define themselves between these two extremes. Based on this distinction, environment-centered approaches are more focused on nature protection. They also support social equality. The technology-centered approach, however, has the tendency to support more and more existing policies and the economy.

This situation demands a need to discuss sustainable architecture's position with respect to its relationship with current environmental approaches, and experiment with its repositioning within this context.

### 3. An Attempt To Reposition Sustainable Architecture

Attempting to develop an approach to environment and design is not possible without an in-depth review of the ecological literature. This section will show how the sustainable architecture movement has been in coincidence with various different environmental approaches. This discussion also provides the opportunity to question the sustainability paradigm discussed above, which in reality is not sustainable, as well as to criticize the design approach.

The literature on sustainability can be evaluated in three stages. Rees [7] defines these three stages as status quo (change can be achieved through current formations), reform (a fundamental reform is necessary, however this is not possible with the present social structure), transformation (the root of the problem lies in economic and social power structures in a way a radical transformation is required). The author maps out two axes, the social-economic and environmental arguments of sustainability. The social-economic axis covers the priority of the environment from low environmental concern through techno-centred to eco-centred [8]. Hopwood et al. [8] evaluated O'Riordan's map based on the debate on weak and strong sustainability. In their discussion on the sustainable development concept, Hopwood et al. focus more on environmental issues rather than on its social-economic implications.





*Figure 1: An attempt to reposition sustainable architecture. Based on the work by Hopwood et al. [8] and Guy et al. [9].*

An evaluation of Hopwood et al. [8], O’Riordan [6] and Rees’ [7] studies in terms of their impacts on the discipline of architecture, resulted in the development of a map as shown in Figure 1. Here, environmental approaches and sustainable architecture discourses proposed by Madge [2], Guy et al. [9] and Fieldson [1] are examined within an attempt to classify environmental arguments of Hopwood et al. [8], O’Riordan [6] and Rees [7]. The purpose of the figure is to reposition current sustainability approaches. It makes it possible to observe in what kind of an area sustainable architectural approaches have manifested themselves. It also shows more clearly the intellectual shifts needed to succeed in the transformation proposed in this article.

Different arguments laid out in this figure, and their consequences within the context of architecture are briefly discussed in the sections below.

### **3.1. What Do Supporters Of The Status Quo Bring To The Discussion?**

The status quo perspective supports a diminished role of government, but supporters are reluctant to use laws and regulations in order to change the system. Elkington and Burke [10] believe that sustainability can succeed with knowledge and life-style choices. They associate their approach to the concepts of green design, green capitalism and green consumption [2]. Their suggestions include profit-aimed approaches they developed for industrial and environmental fields [11].

Even though many ecological modernizers propose the need for reform, they support the current status quo [12]. Therefore, even though status quo supporters advocate for change, they don’t recognize neither environmental nor social problems. Supporters of this argument think that necessary regulations can be implemented without fundamental changes in society. In fact, this is the dominant view of public and private sectors, whereby supporters of the status quo work in close cooperation with these sectors.

Upon evaluating the status quo approach with respect to architecture, we encountered a large number of sustainable architecture examples that fall into this category. The architectural approach that dominates this area is eco-technic. Because this approach was developed through technological logic and policy-oriented discourse, it is not surprising that it led to the construction of a large number of products. Like ecological modernizers, architects with an eco-technic approach believe that environmental problems can be solved by relying on science and technology. They strive for energy efficiency, smart buildings and high-tech designs.

### **3.2. What Do Reformists Bring To The Discussion?**

Those who adopt the reformist approach are aware about problems. They also criticize influential politicians, the private sector, and policies developed in line of such trends. However, they do not believe in a possible collapse of the social and environmental system, and any fundamental change. Supporters of this approach do not explore the core of problems



within today's society. They believe that a change in policies and life-style can happen with today's social and economic structures [8].

Towards the end of 1980s, developed countries realized that without supporting their neighbors, they will be unable to tackle environmental problems. In the Brundtland Report, prepared by the World Commission on Environment and Development in 1987, 'sustainable development' is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The Brundtland Report is regarded as reformist. However, although it is regarded as reformist, it takes the current situation as a basis [8].

With the Rio Summit, women became the primary focus of sustainable development policies. In Rio, the wellbeing and education of women was directly linked to the achievement of sustainable development. This shows that women are considered as fundamental for achieving sustainable development. In other, especially in Agenda 21 discussions, the objective was to change constitutional, administrative, cultural, behavioral, social and economic barriers through the participation of women, and thus defining sustainability as a way of achieving success in public purposes [13]. Although the importance of women's roles in society was highlighted within the context of sustainability both during the Rio Summit and Agenda 21, these meetings did not predict a change with regards to a transformation of social relations.

Reformists like Schumacher place themselves along the line of transformationalists. He argues that the economy is matter of people, and that local and small-scale practices are more sustainable than global and large-scale ones [14].

Evaluating the issue in terms of sustainable architecture, we are confronted with two approaches: the eco-cultural and eco-aesthetic approach.

The eco-cultural approach emphasizes values that are a result of a merging of environmental and cultural relations. Arne Naess [15] stresses that we have the obligation to protect the diversity and wealth of life on Earth, including the diversity of human cultures. Debates around this approach focus on the concept of bioregion. This concept is about the development of design strategies that are in line with the location's natural, biological and ecological characteristics, as well as its cultural context [9].

The eco-aesthetic approach moves the architectural discourse away from a dimension that is primarily concerned about energy efficiency, targeting ecological footprint reduction. Within the approach there has to be an iconic emphasis on the metaphorical and social values of sustainable architecture. It proposes the need of the art of architecture to develop a new language, and focuses on social transformation. This approach idealizes a new global society and civilization that has ecological awareness and sensitivity, and rejects Western rationalism, modernism and materialism [9]. Even though eco-aesthetics argues that -as a starting point- social transformation is necessary, it does not offer any principles on social transformation, participating in the discussion of more symbolic concerns.





### 3.3. What Do Transformationalists Bring To The Discussion?

Transformationalists regard human-nature relationships and basic features of contemporary society as the source of the problem. They argue that reform is not enough. Unlike the other approaches, they therefore concentrate on different arguments: Local groups, poverty, the working class and women. Transformationalists focus on the socioeconomic structure as well as the environment aiming to create a social and environmental synthesis [8].

The last transformationalist approach to be mentioned is ecofeminism. Ecofeminism constitutes a combination of different approaches. However, by referring to Platonian and Cartesian descriptions of nature, Plumwood [16] moves the subject to another dimension by discussing how nature and women have been marginalized. Plumwood [16] argues that, because nature is a very broad and varied category, and has also been exposed to different colonizing forms, any appropriate assessment on the domination on nature has to be based to a large extent on the resolution of other forms of oppression and should play a unifying role.

Deep ecologists are primarily concerned about the environment. They strongly emphasize the environment, nature's needs and its intrinsic values. Human needs come second [8]. Some authors argue that such a strong focus on nature, ignoring inequalities among humans, in a way benefits imperialism. Bramwell [17], therefore, draws attention to the connection between fascism and supporters of the Green Party. Besides, not all deep ecologists have a strong focus on the environmental as described above. For example, the owner of the Gaia Hypothesis James Lovelock [18] stresses that the Earth should be regarded as a whole system with a value greater than the collection of its individual parts, and that the environment cannot be divided into parts. These approaches also reject the concept of development.

Within the field of sustainable architecture, an approach that represents deep ecologists is the eco-centric approach. The eco-centric approach benefits from the scientific paradigm of systems ecology. It emphasizes the epistemological integrity implied within ecology, and ecological metaphysical reality. Nature is fragile and can get easily out of balance. Therefore, it brings a radical approach to sustainable architecture whereby building design and construction is questioned. Its approach towards buildings raises concepts of consumerism, parasitic development and pollution. Design objectives of this approach are autonomous, decentralized buildings in harmony with nature, which have limited ecological footprints [9].

Another transformational approach in architecture is the eco-medical approach. Compared to the eco-centric approach, the eco-medical approach has a framework closer to humans. Deeper than cultural frameworks, this approach advocates for social and humanist relationships that foster the continuity of individual health. The approach points to how mechanization accompanied by a risk society threatens the environment. It argues that the sick building syndrome is caused by the weak design of the urban built environment and its mismanagement. The fact that large modern structures remove people from nature, and lessen



our ability to control our environment is seen as a major cause of the problem. The goal is natural and tangible spaces so that individuals lead healthy, prosperous and comfortable lives [9].

Another transformational approach is the eco-social approach. This approach claims that there is a dialectical connection between nature and humans. Supporters of this approach argue that approaches to environmental issues are only possible through social criticism and social restructuring. The eco-social approach in architecture builds on Murray Bookchin's [19] definition of social ecology: The ecological principle of unity in diversity grades into a richly mediated social principle. Social ecologists relate the destruction of nature and its suppression to hierarchical structures and dominances within society, and associate such dynamics with the hegemony that one group of people exert on another group. This approach advocates for a decentralized industrial society that constitutes small commune units that have their own productivity. Its building design aspects are reflected by a transparent, flexible and participatory design process that is in compliance with local ecological data [9].

The transformational environmentalist philosophy associates its understanding of sustainability with energy efficiency and the recycling of resource use, along with a fundamental transformation of society and individuals. The sustainability paradigm can only be realized through social sustainability, that is in a social organization that lacks hierarchy, is non-competitive, and respects culture and biodiversity [20].

As can be seen, the sustainability debate expands on a variety of views reflected in a variety of spatial contexts. The goal here was to reflect all approaches used in architectural design as shown in Figure 1, but to adopt the approach in the Figure 1's upper right corner. But here it is necessary to reemphasize the social gender perspective. For this reason, the perspective ecofeminism brings to social change also needs to be examined within the spatial context.

#### **4. A Framework In Order To Find Out "The Way Out"**

Schools of environmental philosophy discuss the continued control and pressure on man and nature using different concepts. In this respect, ecofeminism can be said to have an integrating aspect. It is said that by creating dualisms, the Western patriarchal structure shapes social structuring, the philosophy of science, and Western culture. By placing one element lower within a hierarchical system, thus marginalizing it, dualisms such as culture/nature, male/female, mind/body facilitate the exploitation of the lower element. According to the author, the elite white man's culture is above and beyond everything, and everything is shaped in accordance with his needs and objectives. Ecofeminism criticizes this approach. Underlining also the social aspects, ecofeminism argues that unless this dualist system which forms the basis of all Western science changes, an environmental transformation in the truest sense will not happen. The development concept used in the system described as the master model is itself regarded as exploitation. Exploitation happens through a relationships system that objectifies the other, places the other somewhere within the hierarchical system, homogenizes, reduces, and ignores the other [16].

Explaining the dominant design approach derived from the master model, Birkeland [20] states that in the process of design, nature is converted into an object for the sake of man's needs and aspirations. He argues that by adopting a reductionist approach the perception that man and technology are dominant to nature is being created. Thus, removing the built environment from nature, a synthetical built environment is created with the help of mechanical tools. Man is in the center, and mankind is logical, authoritative and independent. This obsession of human-centeredness, logic and authority reveals itself with an essentialist approach in the design process in the *star architect* phenomenon. Like fashion, buildings become an indicator of prestige and status.

For transformation to happen, focus should be on the development and improvement of environmental and social relations. As shown in Figure 2, within the paradigm of sustainability, design approaches that are flexible, participatory, appropriate, and locally managed can be regarded as the closest parameters to achieving the targeted goal. The approach these parameters are closest to theoretically is that of social ecologists. However, as widely stated in the literature, while Bookchin opposes hierarchy and centralization trends in society, he remains inadequate in providing a solution. The reason is that by accepting the superiority of the human mind, he normalizes mankind's domination over nature [16]. Even if design approaches developed within this context propose social equality, because at a fundamental level they are conceptualized based on male-dominated thinking, unless a solution is generated at the core of the problem, generating change will be difficult. Therefore, in order to break the structure of the master model, these design parameters should be read adopting a sexist perspective. That way, social ties can be reestablished without a hierarchical

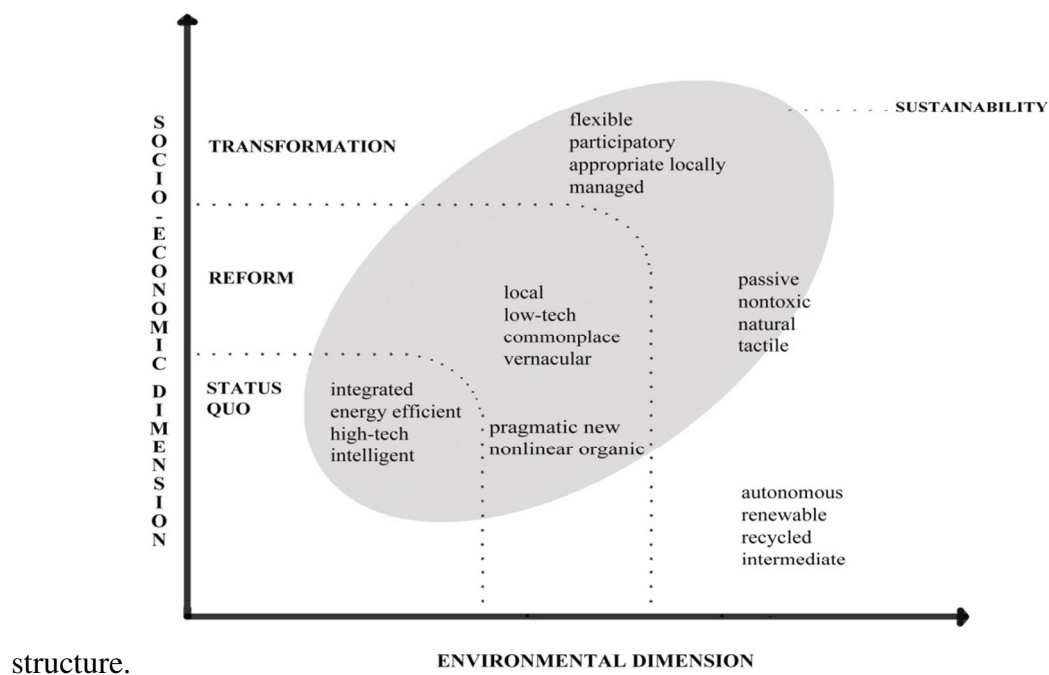


Figure 2. Positioning design approaches within the context of the proposed framework. Based on the work by Hopwood et al. [8] and Guy et al. [9].





Undoubtedly, there is a need to pursue social and ecological qualifications simultaneously while developing approaches for sustainable architecture design in response to the problems identified here. Here, adopting a holistic approach in the truest sense, and establishing a balance between the above-mentioned design parameters is important. In addition, by departing from the subject and object dualism, multiple-sensory design parameters could be considered that allow the body to sense nature and the built environment. This will allow the development of a more flexible design approach that does not make a sharp distinction between the built and natural environment relationship. At the design stage, in order to eliminate gender and class discrimination, a more organic and non-hierarchical user and social structure could be achieved through a participatory and manageable design process. In addition, with a decentralized design approach groups that have their own productivity can be created.

## 5. Conclusion

Impacts of design decisions may have various dimensions such as social, economic and environmental. Design choices can be the solution of a problem or part of the problem. Sustainable architecture can only be achieved with a design perspective that considers the user, society, future generations, other species, ecosystems, the bioregion and the Earth.

In this regard, the sustainability paradigm to be aspired to can be summarized as follows:

- One that is egalitarian, and advocates for a social structure with a sense of responsibility for different user groups as well as towards nature;
- evaluates local human and natural data;
- adopts a holistic perspective developed by the coming together of various professional groups;
- advocates for the efficient use of human potential, and the production of technology or materials that can be recycled in harmony with nature, do not harm human health, give back to nature what it takes from nature;
- advocates for spaces connected to nature that protect people's physical and psychological health; and
- has a concern for energy efficiency in the regional economy.

This study discussed how transformation can be achieved with the help of the sustainable design approach and environmental philosophy. The environmentalist discourse has an ideological influence on architectural approaches, as well as shaping these. However, when examining applications, the need for a paradigm shift in design becomes obvious. It has been observed that developed approaches have produced solutions predominantly for individual issues, and have been inadequate in developing a holistic approach. For transformation to



occur, first of all, social transformation needs to happen. Women and nature are being marginalized through same processes and exploited. Therefore, the gender perspective's contribution to the discourse gains significance. This article is an elaboration on how this problem is reflected in design. Parameters are provided as a solution to the problem.

As the paper puts forth, in order to achieve 'real' sustainability, a paradigm shift is needed. If our current interpretation of sustainability continues, it will not be possible to overcome the defects of a crisis in the world. Thus, we have to urgently change our conceptions about nature, such as human-centrism and the control-over-nature approach. We have to talk about new ways of collaborating with nature. As known, eco-centrism represents the belief that the ecosystem has an intrinsic value and this alone is a reason to protect it, whereas anthropocentrism represents the belief that environmental protection is important because of nature's contribution to human welfare. However, based on where we are today, we argue that the eco-centric perspective alone is not sufficient. We believe that in order to achieve a paradigm shift what needs to be done first is to introduce a gender perspective to sustainability. This paper makes an effort to search for ways to discuss gender issues within the sustainability discourse of architecture.

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