INVESTIGATING THE PROCESS OF CREATING FOUNDATIONS OF ENVIRONMENTAL SUSTAINABILITY IN CONSTRUCTING GREEN BUILDINGS

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Abstract. Today, advances in science and technology in the world cannot be overlooked. The progress in all fields, especially architecture, is a new manifestation. In the past, a significant proportion of fossil energy has spent on cooling and heating of buildings. Sustainable outlook has been proposed in scientific circles. By the application of sustainability concepts in architecture, a new subject called sustainable architecture, green architecture, in the field of design, paying attention to the environment is sustainable. This research is based on documents and library works, trying to identify solutions that make a building sustainable. Because the understanding of the causes and foundations makes designers more involved with environmental issues, including them in the planning, design and people can help the environment.

Keywords: The foundations of sustainability, environment, green building, energy

INTRODUCTION

The issue of environmental sustainability during the last three decades of the twentieth century, should consist of the most important challenges facing humanity in the twentieth-first century, in particular the attention of many people, especially researchers and governments and since the city is now the most important environmental factors affecting sustainability are the demand for sustainable urban development and sustainable cities and buildings. In other words, opportunities and challenges of the world today are increasingly been manifested in cities and the rapid growth of urbanization in recent decades and the expansion of industrial activities and urban infrastructure is decreasing, in contrast to the sharply increased environmental waste. This study examined how climate and building design can reduce energy consumption due to proper management of environmental problems. Finally, to achieve the creation of sustainable architecture. Ten thousand years after mankind was that at a place outside the territory of the nature of the place. Many people still believe that the human being apart from nature can conquer the world with the attitude that they can do whatever is desired. Over time, gradually the number of people who thought they saw their activity criteria, has decreased and by educating and informing the people, the important effort of saving the environment has increased. Undoubtedly, finding a cure is not difficult, but given the complexity of the depth of degradation, rapid prevention is difficult and requires much time and cost. However, these days, many politicians and environmental activists are seeking to achieve sustainable development, but it feels that notes are escape the rules, people are preferring their personal desires instead of the future of the world’s.
METHODOLOGY

In this regard, to achieve the stability that human health and ecological systems can be improved in the long term and ultimately lead to the creation of green architecture, we consider three following steps as follows:

- The domination of nature to man (humans before the Neolithic era)
- The mastery of man over nature
- The period of integration and interaction between man and nature
- The study of human interaction with nature is regarded as the third and most important, or in other words it is the only option to achieve stability.

Background and history of the idea of environmental sustainability can be addressed from two aspects:

A- Reaction characters to environmental issues
B- The official response to these issues (Glomar, 2000).

Early attempts taken by a number of specialists proved that humans are historically destroying the environment in which they lived and biologically depended on it (Mahshavari, 2010). This is the first change in attitudes that occurred in the early 1970s and feature discussions about the quality of the environment against economic growth and the change vision and attitude about the traditional patterns of economic growth (Tashakori, 1998).

The first sparks of the environmental movement after World War II was among environmentalists when the publication of books in the field such as the path of survival, Silent Spring influenced the people's attitudes. It is worth mentioning that earth is said to have been the beginning of the modern environmental movement.

Also, another important source of the book entitled "The Limits of Growth" by the "Meadows" and his colleagues published in 1972, also cited the book which was the first reference to the term sustainability; so it was that in 1974, the conference of the World Council of Churches, called for the realization of "sustainable community".

The first book to be discussed in particular the issue of sustainability, was "The society - stable ethics and economic growth" in 1976 by "Robert L. Estive" a sociologist Christian religion. But, in a more official circles that play a fundamental role in defining and focusing on the development sustainable, the Commission mentioned the following conferences holding in this regard: A Stockholm Environment Conference (1972) in the conference highlighted the fact that two-thirds of the world's population have problems such as malnutrition and hunger, lack of health and environmental damage and progress in the development and improvement in the situation of the human environment can be made when this issue is resolved,; For this reason, we should integrate environmental considerations into development strategies and try to use natural resources efficiently to improve the quality of life of people and the mistakes of the developed countries, (Mahshavari, 2010). World Commission on Environment and Development (1987): The Commission is chaired by the Prime Minister of Norway which was established in 1987 and in the same year as the "Commission Bruntland 2" of the United Nations to establish a system of different countries to cooperate and work common access to appropriate behavior at all levels and invited the public interests. The main purpose of the meeting was international cooperation and bilateral cooperation and interaction between different countries on development issues. Despite the massive destruction of the environment in the reported event, participants optimistically believed that the condition Pledge of global harmony is the future possibility for all (Azad Armak, 2000). Rio Conference (1992): The most important result of the summit conclusions that became known as Agenda 21 which States obliged Weberwas a strategic framework to choose the combination of developmental and environmental possible objectives (Taravati and Vayaft, 1998). One of the recommendations of Agenda 21, United Nations Commission on Sustainable Development was formed in currently serves the objectives of sustainable development. It was agreed at the Rio Summit to be
"sustainable development indicators" as a solid foundation for decision making at all levels and to contribute to the stability of self-control and environmental systems (Bahraini, 2003).

The way of achieving environmentally sustainable architecture in buildings

The lack of proper methods is wasting too much energy for buildings and designers. Therefore, to find different ways of achieving sustainable development and the construction of buildings on the basis of these principles, it is inevitable to give the high levels of energy consumption in the country, and costly exploit the energy resources required by the design of targeted buildings in urban spaces and part of building energy supply through clean energy sources. In the meantime, given the weather in the building design to reduce energy consumption and achieving the correct pattern to achieve sustainable architecture and urbanism should be considered. One of the principles of Iranian architecture is that the Iranian architects always tried to understand the conscious and rational response to climate issues in their work. Thus, there should be a close interaction between the building and the external environment. Each building surrounding climate will change. Geometry and sections of the city, shape, height, size of the buildings, the streets and buildings and the open spaces are all factors that determine the climate in order to create special artificial climate urban man-made such as buildings, streets, parking spaces for cars, airports, and factories.

It is always in interaction (Hosseini, 2013). So, the correct relationship between the building and the city's natural environment is one way of achieving sustainable architecture and urbanism. Climate is protected against adverse conditions.

This approach to architectural design of the building gives the amount of energy needed to provide thermal comfort requirements to minimize and in most cases through the use of passive systems provided. In addition to thermal insulation, some effective measures in the use of natural energy in the building include: building orientation, size and form building, layout of interior spaces, walls, ventilation and thermal inertia walls and natural ventilation, Heating, air conditioning, insulation and air circulation and lighting, including energy efficiency in buildings is not necessarily the attention of architects and designers. Therefore, other factors that can help maximize the use of natural resources should be considered in the design as follows:

- Using energy-saving light bulbs
- Designing the system to prevent waste of energy
- Insulating walls and ceilings
- The thickness of the walls and ceilings
- The use of appropriate materials
- The exact design of the doors and windows to prevent energy wasting
- Building body type
- The advantage of natural ventilation
- The height and density of buildings and an emphasis on this important designers
- Location of the building's energy needs which are determined according to the relevant account.

This classification is based on the following three factors:

• Continuation of the building during the day
• The severity of the possible temperature difference between the interior and exterior
• Stabilization of indoor temperatures spaces (Sobhani Nezhad, 2010).

For example, (A) user types including residential buildings, hospitals, nursing homes, etc. (B) any building, including the main center or branch bank, office building or large business, library, etc. Construction of (C) consists of mosque, leaning, monument, clubs, etc. Building types include warehouses, bunkers, silos, etc. Compliance with such points can be found in green architecture, green design is possible because the problems in which natural resources before, after and during the process of production and can experience the least damage. In
addition, in the course of this long procedure, materials should be useful and should not return to the cycle of nature. Things that are stay in long time can be useful and are the biggest obstacle against extravagance and waste and better reuse or recycle (Soflaei, 2010). All green principles need to be engaged in a process for the production of the built environment of holistic. Find, all the principles of green architecture in their buildings are not easy. Green architecture is not as yet fully understood. Green architecture is more than a single building that your piece will be included and should be a stable form of the urban environment. Thus, we can face the future in our drawing (Qobadian, 2003)

CONCLUSION

Some scholars have used the term sustainability rather than expansion. Having accurate information and educating the public and their participation will play an important role in promoting and protecting the environment. According to the Control of waste and its accumulation, sustainability can be effective in building energy and building self-sufficient in its energy requirements. Using the optimized design results in maximum use of natural resources in the local climate and gradually building a relationship with the natural environment and the city will be corrected and with all the principles of green architecture may ultimately be beneficial in the following suggestions:

- The use of natural energy in everyday use
- The stability of the internal environment
- Using waste and effluent water for irrigation of green areas
- Using appropriate methods to reduce energy waste and waste management and energy efficiency
- Noticing the climatic characteristics of the region
- The use of non-recyclable materials, chemicals and materials that does not danger human health
- Designing with materials close to nature
- The use of plants as design inspiration alive
- The avoidance of harm to the land in order to benefit more
- Achieving the highest quality of life in the shadow of the building on the environment
- The use of land
- Paying attention to the character of the region's ecology

REFERENCES