The residential complex designed with sustainable design approach in the region Elgoli

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Abstract

According to the climatic conditions and on the basis of its design and also comply with the conditions of any existing building greater regional role in saving energy consumption is. The present study was designed to investigate and determine the optimal climate conditions based on Tabriz and offer architectural design strategies for more coordination of climate climatic; according with the environment around her and use the maximum of the potential natural and environmental and energy saving in energy consumption and raising the quality of life in the city of Tabriz, comfort. Overall this research, trying to show the theoretical framework of sustainable architecture with the approach of the various funds and the architecture. Including the reduction of resource consumption cannot renew, develop the natural environment and remove or reduce consumption of harmful toxic substances on nature and how to apply it in the building industry can be effective and efficient funds and properties of the architecture. So according to the presented topics can be found in the concept of the development of green architecture present in clean and healthy environment a managed deployment, based on the effective exploitation of renewable natural resources and the anerge cleaner in compliance with the principles of ecological. Therefore, the ultimate goal of sustainable building design, environmental injuries, minimizing the consumption of energy resources and more coordination with the nature. Climatic design in Tabriz, Iran must be based on the criteria in the cold and dry climate, climatic design. On the other hand with respect to temperature, humidity, rainfall and ranges need to shade and Sun in the city of Tabriz that characterized the city in most months of the year needs to solar energy for heating spaces. The aim of this study was to design a residential complex with the approach of sustainable design in the area of IL Goli Tabriz.

Keywords: Climate, Energy, Climatic design, Sustainable design.
Introduction
Sustainability in urban life in the three branches of social sustainability, economic sustainability and environmental sustainability was introduced and architects in the past two decades to achieve environmental sustainability principles and methods were developed to follow in the form of different names, such as sustainable design, green architecture and sustainability is introduced. Today, global warming and the ozone layer is in danger, it is accepted as fact. Much of the pollution in the atmosphere, which in some cases is due to global warming by burning fossil fuels in energy production process for urban life, is created. Much of the pollution that causes environmental damage, they can be directly attributed to the construction process. For example, 50 percent of the world's consumption of fossil fuels is directly related to the service and use of buildings and the two alone to produce 50% of carbon dioxide in the world, which is over a quarter of greenhouse gases, are (Maughtin and Shirley, 2005,8). O Earth's six billion populations live in cities and increasing the number of cities every year. While in developed countries, people and businesses from large cities to smaller towns are in transition, the process of urbanization in developing countries is still the peak and in many parts of these areas, the urban population will double between other forms 2000 and 2025 was (Hall and Pfeiffer, 2000, 5). Urbanization in these countries in turn leads to the production of large amount of pollution, resource consumption, etc., and have followed the rapid increase in urban poverty. In developing countries, despite the production of cheap consumer goods, many poor people from the comfort of air conditioners has been inconclusive and even the possibility of closing the window on the gases from leaded fuels were not given. All of them are subject to all natural disasters, from floods and earthquakes to devastating pollution of air and water in artificial environments, respectively. The concept of sustainability is a solution for dealing with many of these problems has been defined. Architects, owners and users of buildings can be environmentally proper selection of appropriate materials, the use of a design process considering ecological and responsible use of the buildings, the environmental consequences of urban growth to minimize (Alinaghi born and Afshar, 1392 65).

Define housing
Rappaport defines home as an institution and not a structure. It has emerged that purpose complex. Even then, when the house was raised as a shelter for basic human concept of performance was not the only advantage to spending or purely functional space. But the concept of home means creating a favorable environment for life as a social unit (Bonnie M., 1380, 10).

The desirable qualitative characteristics of housing
- According to the man
- Security and safety
- Confidentiality
- Relax
- Privacy
- Ability to communicate with nature
- Respect for the family
- Fundamentals of proper housing design
Stability
In the dictionary Dehkhoda, durable and lasting stability does come. In certain cultures the word means sustainability and strength of the source (monitoring) means the show is stabilizing and endurance (Zandieh and linear Race, 1392, 20).

Definition of sustainable architecture
Sustainable architecture dates back to the 19th century. John Ruskin, William Morris and Richard Latab are pioneers in sustainable architecture movement. Raskin's book "The Seven Lamps of Architecture" argues that in order to achieve growth and development can be harmonic pattern found in nature.
Morris returned to green space and the revival of local industry had advised the suburbs and self-sufficiency. The aim of harm reduction is sustainable buildings on the environment in terms of energy and the exploitation of natural resources, including the following rules:
1. Reduce consumption of non-renewable resources
2. The development of the natural environment
3. Remove or reduce the use of toxic or harmful Brtbyt in the construction industry
But in general, the following definition of sustainable architecture can be suggested:
1. Building the least inconsistency and contradiction with its surrounding natural environment and broader across the region and the world.
2. The creation of man-made environment and committed management based on the principles of environmental friendly and resource efficiency.
3. To minimize the consumption of non-renewable resources, upgrade and improve the natural environment and ecological damage to the environment is minimal.
4. Balanced and symbiotic relationship that passive architectural work environment conscious architectural work has been laid in relation to environmental conditions (Zandieh and linear Race, 1392, 20).

The need to implement sustainable building in Iran
In general, a sustainable building energy saving, water and electricity, reduce greenhouse gas emissions, improve air quality, health, and welfare of the residents, protection of national resources and dramatically reducing total cost will be. The goal of creating sustainable buildings, improve air and water quality and prevent negative effects on the environment is construction. Optimization and conservation of energy and the use of sustainable energy currently have no role to play in building a culture of Iran. Iran compared with the rest of the world does not have the appropriate standard in the construction industry and the arrival of a new method for the class engineer in the construction industry and it is difficult to accept, but in developed countries coincided with the arrival of a new technology, culture is also taught. It is essential to note that the country is faced with the problem of standard building materials and lack of technology, but the problem is the culture of proper use of this technology. Construction is done in the traditional way and still this method is acceptable so that in the country people, not for building new industry. Non-specialized implementation and standardization of materials can be used in other buildings constructed buildings as the reason for the reduction and quality of life, So that the average life of about 30 years and is building in Iran, while the average age of the buildings in some countries to 100 years. Using the fewest and simplest possible equipment can be achieved most of the renewable energy, to
reduce the energy consumption of buildings and helped to clean up the environment (Joy, et al., 1392, 43).

**Benefits from the application of the principles of local architecture Iran in line with sustainable architecture approach**

If we accept that figure, whether natural or social phenomena, belonging to the outside world and is a particular feature or have a specific energy (energy that can turn everything into something else) And if we accept that human beings are made using the form in the space provided (with resources and environmental constraints) in the form of applications to their needs, both physical and non-physical, and the need was being answer. In that case, it could be argued that vernacular architecture is applied at any point in history with a comprehensive concept of corporeal and incorporeal.

- **Socio-cultural aspects**
  1. People enclosing: vernacular architecture to culture, community members, sensitive, treats, including inwardness that consider the needs of the user, according to his need for privacy and security
  2. Compatibility: Compatible with residents of the building because flexibility
  3. The significance of nature in architecture which leads to a culture of consumption is correct and contentment.
  4. Retrospection (change bad habits): avoid avoiding unnecessary things that efficiency down. Ability and our willingness to change our minds might be able to solve the problems, even more than finding a definitive solution to a problem.

- **Environmental aspects**
  1. Due to the nature of the semantic properties that lead to a sense of respect for nature and the built environment is satisfactory and meaningful.
  2. Due to the nature of the material characteristics and climatic design and compatibility with the surrounding environment.
  3. Self-sufficiency using local materials: the use of safe materials, healthy and local, available technology, accountability and possible outcomes of performance that are arranged in construction activity today. Focused energy and consequences such as the concepts of sustainability, maintainability, and ease of serviceability, are taken into consideration.

- **Economic aspects**
  1. Avoidance of vanity (contentment), which leads to saving resources and reduce costs.
  2. Flexibility is based: that prolong its life and Giving is a need to create new spaces and demolition waste incinerator reduces spaces.
  3. Create strong structures, which reduce maintenance costs.

Features mentioned in the previous section, can be as reproducible values in the process of sustainable architecture to construction today, be considered (give and Mahlabani, 1387, 33).
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