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Designing A Residential Tourist Complex with A Green Architectural Approach: (A Case Study In Sari)

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Article	Abstract
<p>Article history: Received: 17th June 2022 Received in revised form: 19th June 2022 Accepted: 19th June 2022</p> <p>Keywords: Green Architecture, Sustainable Development, Residential Complex Design, Recreation, Space, Tourism Industry</p>	<p>In today's world, which has entered a new millennium, the tourism industry is undoubtedly one of the foundations of the world system will be stable. Today, tourism is not limited to affluent and wealthy families. Instead, millions of people visit new places; while a new era of tourism has begun as it evolves, many exogenous factors will affect it. Progress and development of technology and the specialization of various sciences such as architecture and environmental issues are among the factors that affect the strengthening of the tourism industry. One of the criteria and strategies in architecture and green design attention to the coverage of the architectural site so that the most use of God-given resources is renewable be and withstand the minor energy consumption. An essential strategy in our traditional residential architecture was the gardens of Iranian houses, considered gardens with many valuable uses. The research aims to create a residential and tourist complex, protect the natural identity and ecological function, and establish a relationship between the building and nature, not in the surrounding nature. This specific composition creates another phenomenon to achieve a key feature of sustainable development. In this article, we consider Sari; we have studied the characteristics of semi-warm and arid climates with valuable old textures. The results of the study showed that in most of the principles introduced in modern sustainable architecture in the twentieth century, the ancient architecture of this city is well observed. To conduct this research, descriptive method- analysis has been used.</p>

1. Introduction

Perhaps it is rare to find art as intertwined with people's lives as architecture. Factors and phenomena different factors play a role in shaping architectural spaces. Culture is one of the critical factors in the formation. Architectural spaces play the role of some cultures even more essential than the first-factor climate. Culture, in one a very general definition, can be a set of beliefs, traditions and behavioral patterns, as well as knowledge of

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information and literature [1]. Considered the written and oral of a society and it is different from civilization which in this definition is a set of constituents of a community; every organization has its own culture, which is the foundation of the architecture of that society, and the architecture of that society. Its objective image is cultural. Architecture has been the actual means of measuring the culture of a nation and is the culture of every community responsible for how spaces are formed [2]. What is certain is that today, population growth, increasing public income, increasing science and education, increasing free time and leisure, separating work and leisure, etc. All have led to the growth of travel and tourism, and the countries of the world have realized that attention to industry Tourism and the development of this industry will generate huge revenues. The tourism industry as one of them is mentioned as the most prosperous economic activity in the world. After the oil industry and car manufacturing, the third source is the world's revenue generator [3].

Tourism is considered one of the most influential phenomena and products of modernity. In modern life, tourism has become a basic human need; the market refers to a series of theories Maslow's needs for current and postmodern human beings far higher than material needs such as eating and drinking [4]. Besides, security is in line with intangible requirements such as affection, friendship, respect and other sublime conditions that cause Them to become self-fulfilling human beings; it is remembered. Tourism is a multifaceted and cross-sectoral phenomenon that has been important from the beginning. Finding a profitable economic activity has played an essential role in the growth and development of tourism regions and destinations. Tourism as a modern phenomenon - and in essence - is an economic activity with individual and social motivations that have led to different positive and negative environmental, economic and socio-cultural effects [5].

Tourism in itself involves a system of extensions of relationships and interactions. It is social and benefits from mechanisms that strive to meet the needs by providing products and services. Responds to travellers in places other than their place of residence, so in terms of the tourism system, a set of interconnected elements and parts act as a whole toward achieving specific goals. In the present age, in addition to organizing and directing programs, attention to occasions and sensitivities, Sustainable development and control of the effects of tourism have become one of the most critical functions of tourism. Therefore, it can be said that managing the tourism industry should be between different activities of this industry coordinate, guide, control and make decisions at various levels [6].

Sustainable architecture (green architecture) is considered one of the most crucial development strategies. In this strategy, the requirements to attract tourists and increase income and the need to recognize and make practical use of tourist and ecotourism attractions has impacted tourism. Sustainable tourism development should optimise residents' quality of life, help build economic benefits, protect communities' natural environment, and provide high-quality experiences for visitors and tourists [7]. According to the definition of the World Tourism Organization, Sustainable tourism development is a process that is related to the quality of life of the hosts, meeting the demand of visitors and equally related to the protection of natural and human resources. The approach to sustainable tourism development, in line with the world's acceptance, has been included in the paradigm of sustainable development in public associations and decision-making since the 1990s and the tourism literature. Sustainable tourism development, the shifting of neoclassical economics stents in the field of tourism development, on the one hand, indicates a system that, in it, not only the needs of the market are considered, but also the needs of society and the natural environment are emphasized and emphasized [8].

Theoretical Foundations

Tourism is a set of trips between the origin and destination with the motives of leisure, recreation, sports, sightseeing, business, culture or leisure, in which the tourist is in the goal of occupation. And does not have permanent residence. Generally, a trip done with the above motives and follows a stay of at least one night in the destination is called a tourist trip. This definition is a contract definition, and so far, several competitions for a comprehensive definition of tourism have failed. In March 2001, the United Nations Statistics Commission presented the definition the World Tourism Organization accepted. Based on this definition, globalization is the expression of collection activities of people who travel to places outside their residence and work to have fun, rest and do other things [9].

From this perspective, tourism includes three main areas, local, national and international, which are inseparable. It is in the connection and cooperation of these three sectors that the great and ultimate goals of tourism are achieved, and even prosperity and economic results. Tourism also depends on this cooperation. Although tourism is usually considered a profitable and occupying industry, it is no longer a purely monetary phenomenon. Tourism in its very nature is a complex social phenomenon; it has various economic, political, environmental, cultural and managerial dimensions. Economic value and profitability stem from its quality and social and leisure discounts. Hence, from a financial point of view, tourism activity will be helpful and profitable to be socially and culturally valuable [10].

Sustainable architecture (green architecture) is one of the new trends and approaches of architecture that has been considered in recent years. There are many contemporary designers and architects in the world. This architecture, which arises from the concepts of sustainable development adaptation and harmony with the environment, is one of the basic human needs in today's world [11]. The goal is to create green buildings that improve the climate, prevent the loss of energy consumed for cooling and heating, and prevent the harmful effects of construction and the instrument on the environment. Before anything else, a green building needs a creator like anything else. This means creating a green building that will help and support the health of the person who lives in and around it and will lead to satisfaction and usefulness.

Geographical Location of Sari

The historical city of Sari, with a rich historical background and a significant burden of civilization, has long been considered the city of Sari as one of the most important tourist attractions and destinations. Due to the position of this city and its most critical importance. Its historical buildings can be called a valuable jewel of Iranian civilization. Undoubtedly, Sari is one of the most important historical cities in the world, which has a reputation across the globe. Sari - a museum that displays the valuable achievements of different historical periods objectively and tangibly; hence, the city is called the cultural capital [12].

Research Methods

Descriptive-analytical research on sustainable architecture (green architecture) in residential tourist complexes advanced. Based on the studies and experiences gained in this field, strategies and arrangements have

been formulated in this research. Besides, the data collection method is a library of available resources in the library, books, articles and scientific sites.

Green Architecture

Green design is a practical way to solve problems in which natural resources are minimally damaged before and during production. In addition, in the process, materials must be helpful, have a long useful life and be able to return to the natural cycle. Long-lasting things are functional and the most significant barrier against extravagance and waste. This is better than reusing or recycling them—principles of green architecture are the principle of energy protection. Every building must be designed and constructed to minimise the need for fossil fuels [13]. Perhaps only due to the great variety of materials and new technologies in the contemporary era, such originals in buildings have been forgotten and this time using different materials, or with varying combinations of them, facilities, the environment according to user needs change. It is also worth mentioning the theory of the biological complex, which originates from providing shelter to survive the cold or creating a perfect space for people to live, for this reason, as well as the presence of other people in their buildings [14]. Structures built in response to the local climate and to reduce dependence on fossil fuels, compared to today's ordinary apartments, carry unique experiences and, as a result, become semi-architectural efforts for architectural creation. Many of these experiences are primarily the result of individual work and action. So it's clear it is not considered a sustainable principle in the designs and constructions of today's society [15].

The Principle of Working With Climate

Buildings must be designed to use the local climate and energy sources. The shape and location of the building and its interior spaces can be such that it improves the level of comfort inside the building will be reduced and at the same time, through proper insulation of the structure, will reduce the consumption of fossil fuels. These two the mentioned process inevitably has many overlaps and standard points. Before the widespread use of fossil fuels, wood was the primary energy source, which still provides about 15% of today's energy. When wood became scarce and natural, many people reduced the need for wood to produce heat from the heat of the sun to help Greek cities such as the Pyrenees change their location of the town so that the flood waters prevent the city they built rectangular grids with east-west streets that allowed the buildings to face south and use the desired sunlight [16]. The Romans also followed solar design principles by learning from the Greek experience. Still, they also used the transparent windows, invented in the first century AD, to increase the heat generated. The design tradition was not limited to heating laws due to the climate to create comfort inside the building. Still, in many environments, architects were required to design an excellent space to make the desired conditions inside the building. The usual solution today, using air conditioning systems, is the only inefficient process in the face of climate change. At the same time, it is a way to consume a lot of energy, which, even when power is cheap and abundant due to the resulting pollution, is a mistake [17].

The Principle of Reducing the Use of New Resources

Every building should be designed to minimize the use of visual resources and provide a source for other structures at the end of its useful life. Although this principle, like the other principles mentioned, is oriented towards new buildings, it should be noted that most of the resources in the world have been used in the current artificial environment, and repairing and upgrading existing buildings to reduce environmental impact is a must. It is of equal importance to the creator to have new features. It should also be noted that there are not enough resources for creating artificial environments in the world that can be used to reconstruct each generation of buildings [18]. This reuse can be formed using recycled materials or spaces; recycling structures and elements inside them is part of architectural history. The monastery of Santa Bass, rebuilt in 1077 and 1115, used the rubble bricks of a nearby Roman building. The wooden frames used in the Middle Ages were woodcut and joined together in a carpentry workshop and coded, then disassembled and transported to facilities [19].

North, East and South London to set up a local museum in a new location. Using this method meant you could have sections, if necessary, moved from a medieval building; even today, they can be transferred to another site. Sometimes the whole building structure was forced to build a new building. For example, when the Victoria and Albert Museum was built in London, the previous building on the other side was not needed, and in 1865 the metal building was proposed to the authorities. Asian officials of London accepted the offer, and the construction of this local museum was completed in 1872, which today has been turned into a children's museum [20].

In most cases where access to new resources is minimized, methods are discovered by which buildings built for one purpose can be used for other purposes. However, some changes are necessary. They can change the original shape of the structure or building. This topic is for those interested in the permanent protection and maintenance of facilities are a disaster, and the question arises as to whether a building should always remain unchanged because it once had a practical use or should change be made to maintain efficiency [21]. A green process in this issue may consider judgment possible only based on available resources. If the resources needed to change a building are less than those required to demolish and rebuild it, these changes should be welcomed. However, this issue does not cause disrespect and appreciation of the structure's historical significance. In addition, these structures may have other values that need to be considered. These problems in changing buildings existing to prepare them to adapt to new needs, especially in terms of improving the condition of the building in terms of the function and performance that may lead to a change in its appearance, are revealed by more contradictions and contradictions [22]. Changes in some old buildings for new applications can have specific costs and problems. However, the benefits of reusing these large buildings side by side and within an urban environment can overcome these problems and expenses. Renovation of buildings in large and small cities can also protect the resources used to demolish and rebuild buildings and thus prevent the destruction of society [23].

The Principle of Respect for Users

Green architecture respects all the people who use the building. This principle seems to have little to do with pollution caused by global climate change and ozone depletion. But the green process is the architecture that includes respect for all common resources in building a complete building does not exclude a person from this complex. Humans make all facilities, but in some structures, the truth of human presence is respected, while in others, there is an attempt to reject the human dimension in the construction process. But on a different scale, a person as an architect can still rely on his ability to do many unrelated things [24]. More respect for human needs

and the workforce can be experienced in two ways. A professional builder must note that the safety and health of building materials and shaping processes are as crucial to human society as to workers or their users. Many buildings have benefited from this energy, resulting in the creation of large buildings. Architects have gradually become aware of various toxins on construction sites. Recently, the use of CFC-type insulation materials or other hazardous materials in buildings has been banned. Another form of human participation that requires attention is positive participation. Involvement users are in the process of designing and building, which, if not used effectively, is a waste of efficiency and usefulness [25].

The Principle of Respect For The Site

Every building should touch the ground gently and lightly. Australian architect Glenn Murcott makes the bizarre statement: the building must touch the ground calmly and lightly. This statement has a feature of the interaction between the building and its site, which is essential for the green process and has more extensive features. A structure that greedily consumes energy produces pollution and alienates its consumers and users. The result never touches the ground gently and lightly. A more detailed interpretation of this statement is that it is impossible to remove every building from within site built on it and restore the conditions before the construction of the building to the site again [26]. This connection with the site can be seen in the traditional settlements of the Bedouin Arabs; lightness and calmness among them in touch land was not just about moving their house. It was about the materials they used and the assets they carried with them. The black tent of the Bedouin Arabs was made of the wool of goats, sheep, and camels. Tents with long ropes were kept in place, and very few wooden beams were used because the wood was a very scarce resource in the desert. While indigenous and traditional life has been abandoned in urban communities for coexistence and architects have entered the design arena, there is still a constant need for temporary structures to create diverse exhibitions and other cultural activities [27].

Such facilities often take the form of Bedouin tents. Dutch architects for the 86th festival in Sonsebeek designed the structure to protect fragile sculptures outside the building, and the wind was intended to be invisible. In this structure the, four types of materials, namely prefabricated concrete for foundations, clear glass for walls and steel roofs for trusses and joints and silicone resin, was used to connect the glass plates [28]. Glass wings and glass walls were glued to create more rigidity and a place to attach lightweight metal roof trusses provide glass. The floor of the building was standard and was covered only with wood to prevent it from flowering. After the end of the festival, these buildings were separated from each other again. After that, it was removed from the outside, and the soil was taken in its place was returned; Thus, the site returned to its pre-festival status without any changes. This building can be used for any other exhibition or festival, or its members can be used in any different structure [29].

The Principle of Totalitarianism

All green principles require participation in a holistic process to build an artificial environment. Finding buildings with all the principles of green architecture is not easy. Because green architecture is not yet fully understood. Green architecture should include more than one building and a sustainable form of the urban environment. The city is a creature beyond the complex of temples; In fact, it can be seen as a collection of existing systems of visual interaction - strategies for living and recreation - embodied in shapes. By looking closely at these systems, we can draw the face of the future city [14].

Results

Green buildings are buildings that have a little negative impact on their surroundings. It's the architect's taste in designing green buildings, just as architects are different Europeans, English, and Americans place great emphasis on the study of indigenous and green architecture. Architects must strive today contrary to custom; those who pursue popular and market tastes should try to use the preferences and tastes of the general public so that architects can accept green architecture as it is today.

- Use of natural energy in daily consumption
- Stability of indoor environment
- Use of waste and effluent in the production of water required for irrigation of green space
- Applying appropriate methods to reduce or control wasted energy and optimize energy consumption
- Pay attention to the climatic properties of the region
- Use of non-chemical recyclable materials and materials that do not endanger human health.
- Design with materials close to nature
- Use natural plants as live design inspiration
- Avoid damaging the condition of the land for more profit
- Achieving the highest quality of life in the shadow of relying on the environment
- How to use the land
- Paying attention to the ecological character of the region

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