

Local architecture of Mazandaran

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ABSTRACT: Mazandaran native architecture in harmony with the natural environment in addition to other values such as culture, identity, traditions and social values as well as a series of shows ... Several decades of being introduced in the field of sustainable architecture, solutions architecture and the international community is going to complete its development are presented. Certainly the principles of sustainable architecture that retains the natural energy, reduce the use of fossil fuels and coexistence with the environment and climate must be taken into consideration architectural designers and activists. Designed to provide the best living conditions for their members. Mazandaran is one of Vernacular Architecture of the architectural examples such as detail is delicately intertwined with the nature of the substrate and the natural environment. This integration with the platform and the capabilities and limitations of Mazandaran native architecture and sustainable architecture is to coordinate. As they are very difficult to clean. Vernacular architecture and introduce the principles of sustainable architecture hidden in one of the ways to introduce sustainable architecture is useful, because it will focus attention once again to the local architecture, and through the International Day of issues of Topics Architecture will. Vernacular architecture is certainly a time and place for his stable and imitation of it, is absurd. In this paper, the extraction of hidden features sustainable architecture, vernacular architecture is considered Mazandaran. Method in this research is descriptive approach is based on library studies. Results of this study was to clarify the principles of sustainable architecture lies in the Caspian.

Keywords: Sustainable Architecture, Sustainable Design, Architecture Mazandaran, Vernacular Architecture.

INTRODUCTION

Theory followed sustainable development and sustainable architecture, contemporary architecture is the most controversial. That each building must be able to interact with the natural environment where the place is located. What type and how this relationship is challenging. Today, the idea of sustainable architecture has to answer this question (Asadpoor, 2006, p 1). The formation of such an approach to address sustainable architecture and furniture design, architecture, vernacular architecture, and the approach we take toward sustainability compared and other measures will be derived from its teachings for today's architectural design (Armaghan, 2009, p 20).

In dealing with complex and unique local architecture, it seems that these sets are good evidence for stability in time and place. Mazandaran native architecture to create a stable environment. As appropriate, the mixed nature of the path to finding ways that not only does not harm their environment, but also the excellence of the up Vkmal.

In this article an overview of the concept of sustainability and sustainable architecture will consequently and the description of the features of climate and architectural features of the Caspian region will be looking notions of sustainable architecture.

Research Method

Obviously any scientific research requires a methodology that fits your theme. A study of the principles of strategy, choosing appropriate research methods and process consistency and continuity in all the projects. Method of dealing with the problem of bilateral relations and the structure and nature of the research.

In the present study, an effort is made on the basis of documents, construction methods, tools Mazandaran indigenous architectural structures are examined to clarify the process of architectural values .Meanwhile, research in this research study? Analysis based on library research and documentation are available,Exploring the research conducted in this area and to consider the specific circumstances of climate, sustainable indicators identified and offered.

To obtain optimal results in this paper, the research library, including books, essays and articles have beenFinally, the resulting content analysis has been completed and final.

Statement of Problem

Ayzard Walter and his colleagues at Harvard University in 1960 in an attempt to connect between the output and input models, including general economic and other issues such as food chains studied by biologists.The result is a book published in 1972 that will lead to a new debate about the environmental impact analysis presented.

In 1992 the United Nations Conference on Environment and Development in Rio de Janeiro, held that spread the concept (Azizi, 2001, p 20). The experts in this case that "global problems lies in policies and programs that lead to sustainable development" agree, however, on the definition of "sustainable development" there is no such agreement between theory and hence for there are different definitions of the concept of sustainable development and therefore feel that the concept of risk and ambiguity can be exploited.

The generally accepted definition of sustainable development, defined as mentioned in the report that it Brvntlnd "sustainable development" as development needs of the present generation without compromising the ability of future generations to meet their needs regardless of supply. "Aimed sustainable development, meet basic needs, improve living standards for all, better maintained and managed ecosystems and a safer and happier future are listed (Mellatparast, 2009, p 121).

Sustainable development based on social, economic, environmental and social development is defined as an important part of the education and skills that make up the design should be in relation to the social and environmental resources (Hosseini et al, 2008, p 214).Finally, we can say that the concept of sustainable development isAnd is related to all aspects of human life. And implementation of sustainable development models require fundamental changes in national and international policy The overall environmental sustainability of the environment focuses on the following:

- Reduce waste and energy distribution in the environment
- Reduce production influences on human health
- Removing toxic substances (Mellatparast, 2009, p 122).

Application of sustainability concepts in architecture, a new issue called "sustainable architecture" or "ecological architecture" or "green architecture" or "ecological architecture" has opened, and they all have the same concept of sustainable architecture have environmental implications (Ghiasvand, 2007, p 4).

Sustainability is no way that the architecture must mediate access to it in the near future. This type of architecture is the nature of humans to be closely associated with sentiment. How to choose the materials and the design of our house, the most important issues that will affect the future of our building (Soflaili, 2003, p 63).

All designs are done in connection with a stable system, you should be able to make some predictions for the future. For example, a building must be designed to reuse it or its components are Nzrqrar fashion. The future for the next generation needs to be done (Soleymani, 2008, p 2).

Principles of Sustainable Architecture

Some buildings have features and characteristics that make them among the most stable structures in place. The principles that must be met to be classified as sustainable architecture, including:

The first principle , conserve energy the building needs to be constructed so as to minimize fossil fuels .

The second principle , consistent with the climate : Climate and buildings should be designed withenergy resources and coordinating the construction site work.

The third principle, reduced use of new resources, materials, buildings should be designed in such a wayIt possible to reduce the amount of resources at the end of its useful life to build a new building, used as a new source.

Fourth, to meet the needs of residents in sustainable architecture to meet the needs of a particular population has a mental or physical.

The fifth coordination sites: the site should be placed gently on the ground and be compatible with the surrounding environment.

Six, holism: all the principles of sustainable architecture in the whole process which led to the building of a healthy environment is embodied (Ghiasvand, 2007, p 4).

Further reflection on the subject suggests that the concept of sustainable architecture in the old tradition and culture of ancient human origins and the traditional way of life, honor and dignity in this is the nature and the sources seem. Hence, the activity of the last decades of the twentieth century as an effort to revive this ancient concept, he said (Moosavi, 2003, p 19).

Sustainable development and sustainable architecture in the sense that every building should be to interact with the substrate and the environment has become obvious. Controversial part of the interaction and how it is intended to measure.

This is just something that years ago the inhabitants of this land have made use of the skills of and the implementation of specific rules and techniques in the field of efficient use of energy and natural resources, particularly solar and wind, and it has been coordinating with the climate (Zandie, 2010, p 2).

The corners of this vast canvas Mrzv climate variability Tmdnsh area is rich in native architecture based on its compatibility with a variety of weather and environmental conditions are. The miracle of traditional architecture in using regional materials and techniques specifically created to build on the best way to respond to the physical and spiritual needs of the building and the cultural aspects of Iran's lovers are not covered (Khakpoor, 2006, p 46).

Environmental characteristics, geographic and climatic Mazandaran

Province with an area of over 44,552 square kilometers between 35 degrees and 38 degrees, 5 minutes, 47 minutes north latitude and 50 degrees 34 minutes 56 degrees and 14 minutes east of the prime meridian is located (Faghih, 2003, p 30). Caspian Sea and the northern limit of the former Soviet Union (Turkmenistan), the southern limit of Tehran and Semnan province and the western limit is the limit of its eastern province.

Mild climate and abundant rainfall on the coast of the Caspian Sea, including areas will be moderate. This area, which is surrounded by a band of the Alborz mountains and the Caspian Sea, which is composed of both the East Plains mailing is completed, the air humidity and moderate decreases (Kasmaii, 2003, p 83).

In all parts of the region, in all months of the year and the total rainfall was 500 millimeters of rain over most of the stations. In the winter months sunshine duration between 25 percent to 55 percent, and in summer it is about 45 percent to 60 percent. Climatic characteristics of the region are as follows: high precipitation in all seasons, in all seasons, relatively high humidity, low temperature difference between night and day, and vegetative coverage (Ibid, p 85).

Architectural features of Mazandaran

The architectural features of the Caspian is provided in two parts. Architectural features of the Caspian region and the direction of harmony with the environment or to overcome difficult situations, to be brought. The physical mechanism and tricks that have been expressed to the favorable climatic conditions.

1. Urban Tissue

In areas that are near the beach or high rainfall , humidity , there is a major problem . Humid air is heavier than dry air at the bottom is dry . So if you are confined to urban areas and blind in the air and the wind are not all the spaces in the city and breathe the moist air will accumulate and activities will be very demanding . Why it should be used to maximize airflow humidity from getting too settled in urban areas could be averted. The buildings are built in separate areas , with wide open spaces and a fenced yard and around these spaces is often shorter than the length (Ghobadian, 2006, p 38).

The reason is that the air flow to the building through the humid and stagnant living spaces and take her outside. Enjoy beautiful nature green residential area also other reasons for integrating the environment with nature. Urban and rural characteristics of the area is as follows:

- a) Urban and rural open and wide
- b) Relatively large urban areas
- c) Enclosure with walls
- d) Relatively wide streets
- e) Separate buildings, joined together in urban centers (Ibid, p 52).

2. Extraversion

Architecture in the context of an alternative nature and it is growing roots, From the exhortation takes into an architect with the natural world is facingThe spatial arrangement of its impact and offer defined rules.The architecture of the environment grows, and it is a natural extension of being an integral part of nature, the figure comes to take back to nature (Abdollahzade, 2011, p 49). Mazandaran native architecture that combines nature and the climate is the voice of architecture in which the "nature-oriented" called. Architecture to adapt to climate conditions and extrovert architecture is known. Formation of eccentric buildings in this area is primarily utilizes air CurranThrough the rest of the building to prevent moisture retention Another reason its proper perspective and make maximum use of water and yard area scout said (Gorji, 2010, p 142).

3. The predominant form and orientation

In these areas can be released , and even cross-shaped form used. However , the form of the building should be oriented along the east ? Western elongation have to be blind and necessary . Most of the front room and porch on the south side of the main skylight . The main courtyard of the building located on the south side . In general , plans wide open and they were more physical form geometric shapes , elongated and slender . In order to make maximum use of the wind in the air inside the room , making the buildings is determined by the direction of the sea breeze . Where strong winds blowing , the wind, the building is completely closed (Kasmaii, 2003, p 101).

4. Construction of Four Seasons

Similar homes warm and dry season in the region, according to the different seasons are shifting house from north to south, this area also houses the seasonal shifts are. Thus, in the cold season, the main activities take place in the first floor rooms. These activities, especially in the hot season, but the porch and second floor balcony (Tlar) and a second floor room (Tlar room) done (Ghobadian, 2006, p 64).

5. Connection with land

Architecture blending with the earth and nature in the Caspian , which is associated with compliance with its efficiency . Due to the humidity and shallow groundwater , ground floor of the building above the natural terrain as possible try to run away from the ground floor of the building and humidity , and so the wind speed at a height above greater is the benefit (Ghobadian, 2006, p 65). In connection with the architectural framework of the Caspian note is necessary. First constructed in a humid basement is not correct .building ground floor of the building to prevent any moisture is allowed to spread. The distance from the floor to the ground level of the buildings near the sea, about two meters in buildings located in the foothills about 50 cm or less. This space due to the blind, shade and exposed to air , a place for poultry keeping (crop) , wood drying and storage devices and is sometimes used as a barn . The use of this space depends on the amount of humidity in different areas.

6. Materials

Iranian architects were trying to build something from the nearest building , and so they need places to obtain funds elsewhere to make and may a 'self- contained, is . " Thus, the work done by the momentum building around nature , " Sazvartr " can come in and renovate it always Sakhtmayh when it is available . Iranian architect believed to be the source of " a boom " or " Aydry " (here) is. Mazandaran architecture also follow this rule and its construction boom, which can be well observed.

As was stated that " the province 's natural features into three general areas with cold climate,mountainous , forested mountain areas (mountainous) areas can be divided into the plains . Mountains of stone and wood, the area of timberland and coastal plains of mud and wood as the main constructionmaterials are ." According to the above areas and materials in a manner that will be made as follows :

- a)mountainous region with a cold climate, mountainous
- b)plains with a temperate climate region Caspian
- c) Forest Heights area with cold weather Caspian

7. Recycling

Mazandaran architecture that exploits the most natural elements , there is no element of waste . This means that most operations are carried out each element . As mentioned earlier, rice stalks (Kvlsh or chagrin) are used for the roof , the stems are used for making ropes of the junctions instead of nails and steel wire used to be.Bark called " Lrk " for making rope called " Lrk Cole ' use. Even the skin of a rice grain to produce a coating called " meta goals" of mixing clay and water, pulverized rice hull is used. Such use of natural elements that will lead to the construction waste during the construction or demolition of buildings, while making the least damage to

your bed , the heart of nature filings Sakhnman a part of the bed and .This approach is due to the natural process of conception . Since in nature there is no waste , a by-product of an organism is converted to another feed . In other words, natural systems are composed of a closed loop . Cycle is clearly visible and the natural environment, designed to revive . This principle is an important principle in sustainable design can be considered to be clearly seen in the architecture of Mazandaran .

Spatial strategies and tricks

This might be the objective of "passive solar system," he said. Practices employed by minimum energyconsumption and maximum comfort of the inhabitants of natural factors such as wind and air to give them blind. Follow the same basic principles that will form the basis for sustainable architecture.

1. Porch
2. G. Round
3. Sloping roofs
4. Chinese seat
5. Kvtam

RESULTS

Since the Caspian region in particular , in line with its urban climate and ecosystem that is formed .'s . Design and construction of buildings with a view to saving energy, climate , use of natural materials (such as wood, plant fibers , rock , soil , etc.) , providing energy efficient design for comfort with openness and extraversion building and orientation of the buildings , the use of indigenous technologies and methods of making and creating a favorable environment with natural energy and minimize fossil energy , sustainable patterns of architecture in Mazandaran.

Mazandaran native structure not only harm and injury do not put on your bed, but as part of their role to improve its quality . Building as part of a natural cycle and is involved in the development cycle works. An example is the use of rice hull coating on the needs of the residents of the building makes it rather as a matter release the nature of discard it transcendence . This reflects its vernacular architecture principles of sustainable architecture in Mazandaran .

Mazandaran native architecture of each component part of a coherent and consistent whole that interact together to play . The materials , methods of construction , types of buildings and their relationship with the media plan reflects the balance of all the dynamics of this architecture. Like the details like wood , it is part of a wall or roof , which makes your home part of the overall context of the project , which is its natural evolution . It reflects the ideas of holism is stable in Mazandaran native architecture .

Solutions and innovations made in the body of vernacular architecture in its simplest form to conserve energy , to meet the needs of residents , creating the best conditions of comfort with minimal energy use and minimize environmental pollution and to play a role .

Mazandaran native architecture in harmony with the natural environment in addition to other values such as culture, identity , traditions and hierarchy of social values that are important to the social and cultural sustainability assists.

And finally, Vernacular architecture with all its laws to meet their users' needs is Some economic relations, social and cultural symbols subtly reflects the natural environment.This architecture has been consistent in his time and place and purpose, not mere physical imitation of what should happen is that today understand the value it can this will work.

REFERENCES

- Asadpour A.2006." Stable patterns in the Iranian desert architecture ", Journal of Iranian architecture, No 25.
- Armaghan M, GorgiMahlabani Y.2009." Iranian vernacular architecture with sustainable value approach", Journal of Housing and Rural, No 126.
- Mellatparast M.2009. "Sustainable Architecture in the Iranian desert cities", Journal of Armanshahr, No 3.
- Azizi MM.2001. "Sustainable urban development", Journal of Safe, No 33.
- Hosseini SB, MofidiShemirani SMd, Madi H.2008. "Education in sustainable architecture, obstacles and trends", Journal of Technology and Education, second year, Cover 2, No 30.
- Ghiasvand J.2007. "Architecture Environmental,Sustainability", Journal of Civil, No 45.
- Sofalaie F.2004. "Consultative ideas and experiences on sustainable architecture", Journal village, No 42.
- Soleymani M.2008. "Land and Sustainable Architecture", Journal of Architecture and Culture, No 33.
- ShahroozTehrani I.2007. "Architectural framework for sustainable", Journal of the National Trust, No 26.

- Nasr T.2010. "Sustainable architecture and the need for sustainable solutions in architecture", Journal of Civil, No 74.
- Ghiasvand J.2006. "Interaction of Architecture and Renewable Energy (stable)", Journal of Civil, No 38.
- Moosavi MS.2004. "Ecological Architecture Norman Foster", Architect Magazine, No 26.
- Zandieh M, Parvardinejad S.2010."Sustainable development concepts in residential architecture in Iran", Journal of Rural Housing and Environment.
- Khakpour M.2006. "Beautiful houses in Gilan", Fine Art Magazine, No 45.
- Shahroodi A, Rezaee B.2006. "Vernacular architecture interaction Mazandaran and Tourism", Journal of Civil, No 24.
- Faghih T.2003. "Tabarestan to the Mazandaran", Journal of Ferdoozi, No 5.
- Kasmaee M.2003. "Climate and Architecture", Publication of the soil.
- Kasmaee M.2008. "Zoning and Design Guidelines humid temperate climate region Gilan Province Vmazndran", Journal of Construction Engineering and Housing, No 12.
- Ghobadian V.2006. "Climate of Iranian Traditional Buildings", Tehran University Publication.
- Abdolahzadeh SM.2011. "Iranian traditional architecture in harmony with nature", Journal village, No 70.
- GorjiMahlabani Y, Daneshvar K.2010. "Climate effects on formation of traditional architectural elements Gillan", Journal of Armanshahr, No 4.
- Kolbadi Nejad M.2007. "The architecture of Mazandaran", Journal of Architecture and Culture, N 33.
- Yosoufnia pasha M.2006. "Today, the wood used in the construction of rural housing in Mazandaran", Journal of Housing and Revolution, No 113.
- Sadat ashkoori K.2000. "Look up the housing Eshkevari", Journal of Social Sciences, No 15.