

## **SUSTAINABLE ARCHITECTURE OF URBANISM IN THE GREEN TOURIZM AREA**

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### **Abstract:**

The big problem current in cities building and architecture, urban epidemic of lawlessness in the construction of urban decline and impair the quality of a city's identity. The unchecked spread in today, lack of proper planning in this area has led to crowded spaces horse urban turmoil that caused congestion in urban open spaces and lack of social interaction provides a total reduction of quality of life in urban areas.

The restoration of the town's identity will attract tourists. Smart, sustainable architecture in the town of tourism and providing a mechanism for grading using new technologies, the division provides a group. We have our own culture, the use of regional climate focus. With the development of the global architecture and new achievements in urban development to optimize the use of existing facilities.

In architecture renewable, following the use of advanced technology and modern materials is to build faster and higher quality; Construction method, native methods, heating and natural ventilation, recycled reuse of materials, utilization of renewable energy and the use of human waste. Therefore, the continued reduction of non-renewable energy consumption , reduced damage to the environment , are sustainable energy sources ( sun , wind, water, etc.) to meet the future needs of the tourist spot of the physical structure of the buildings and architectural elements urban environment without threat and needs to express its climatic features .manifestation of culture and tradition, will be provided. Wind appropriate and sustainable solar lighting and the use of geometric shapes and urban form and of



building a mechanism is variable. Appropriate and sustainable utilization of solar lighting and the use of geometric shapes and appropriate urban form , buildings and of building a good strategy and has been accepted. This article attempts to achieve sustainable objectives in the creation of tourist complexes in small town North West Iran show use of the scientific method.

**Keywords:** Technology, urban sustainability in architecture& urban effects, Energy, Technology, Tourism, Modern Town - Intelligent

## 1. Introduction:

Today, architecture and urban development play an important role in social and economic development , create jobs and wealth and increase the Darnd.hr Tvlydmlly in cities , many urban areas are inefficient and indiscriminate use of the product so that only a major role in the creation of poverty and place to what they produce . Today, it is in the management is supposed: { \ } urban design future( (Jorg Bagullilo)

In all the studies , surveys and research within the field of tourism and social economy is a common associated with specific climatic zones . By determining the desirable and undesirable effects of the geographical, ecological and limit study on how to design and adopt policies and doing tourism optimized in accordance with the postmodern patterns, can reduce urban and industrial pollution and restoring the environment, and protection of natural resources human and as a way of better urban design of them. **Under the extensive research of permanent development can be achieved in a number of ways Standards extensively in this area of research, fieldwork, and standards and existing information and articles, library resources, the Internet has been sent to the following:**

- 1 - Sustainability , ecotourism and planning how positive or negative effects of it .
2. Resources information
- 3 .The feasibility of ecotourism in Iran.

The results show that , local features , natural resources , environmental protection issues, the proper use local energy resources to the climate of the place is the use of different methods in tourist function effectively.



In order to conserve energy, environmental construction, the perfect solution to identify and analyze the details of the information they will access. The main position in the environmental study, healthy city, by providing facilities such as in new projects and zoning district in an independent building blocks, can be used with renewable energy from wind and solar energy in a variety of spaces neighborhood is required. With savings and storage in clean energy, with a safe and comfortable conditions for the attraction of tourists and a good life, by creating sustainable prosperity for the people of Tourism relatively dense axes is effective..

## 2 - Question issue?

How well the development of tourism in the North West of Iran, using the energy potential of the region and ecosystem, sustainable development in the field of tourism? And what proportion can be of innovative technologies and achievements in contemporary Iranian architecture used, is the question?

With the aim of finding appropriate solutions to develop methods and models that can be used in tourism to sustainable tourism development in ecosystems, climatic, economic and social achieved.

Cultural tourism market limitations and lack of social, recreational tourism potential in this respect is much more than other tourism sectors, is ecotourism..

[4]:vista research and information technology center [10-p-3]

## 3- Ideal tourist attraction in North West Iran

Iran desert temperature more than 50 degrees. In 2006 publication of solar energy mineral waters proper use of force as it shows sunrise. The figure desert North West to 45 degrees. The use of new technologies in solar energy parks and solar energy equipment at the time of the earthquake of systems is such as photovoltaic social. [2]

In fact, the main factor shaping the architecture of thermal comfort in the North West. In a human habitat due to climate cooling mechanisms, heat increases the feeling of relaxation, and improve the lives and ultimately lead to stability { 6 }. { National Conference modern theories of architecture and urbanism } Zahra Begum taghavi

## 4- Strategies for tourism development in order to exit the recession include::



- The use of green energies
- To promote communication between cultures, people
- Upgrades Experiences of civil society
- Introduce Islamic culture to other countries.
- Protection and maintenance of natural heritage, environmental and historical different areas.
- Increased public areas and the development of sustainable cities reduce damages and losses is possible. {15}

#### **5-Permanent development of architecture and urbanism theoretical -basic stability:**

- 1-way and knowledge of the country than in other regions
- 2-Improve living standards relative welfare of the community
- 3-Promotion of intellectual people
- 4- The increase in total personal social experiences and social
- 5-Feasibility and develop a global understanding of local values and social
- 6- Socio-cultural heritage protection in the region
- 7-Preserve national customs of society and increasing levels of green space in cities
- 8-Possible levels to cultural and recreation social facilities.
- 9-Rise development in the areas of environmental rebuild of used materials
- 10-Create the glory and respect to different cultures in society (Zahedi 2006-49)

#### **6 - The needs of tourism**

The main purpose of studies and research in the field of tourism Bashd.kh ideal situation to situation can be classified as follows steps : 1. with the aim of getting education 2. The aim of economic and social 3. Cultural purpose ( 15)

#### **7- The most important issues facing architecture smart tourist zones :**

Smart City , a city that can protect yourself from the dangers of cholera harmony with nature and supply their needs from renewable sources and utilizes advanced sensors and data transmission system , provide all their needs in the quickest time possible . The sensors through advanced telemetry equipment intelligent management of energy resources are responsible for human resources professionals need to use the resources listed and efficient. { 2 } Intelligent smart city means passing a new urban concept of urban



development to urban situation by taking advantage of the most advanced intelligent management tools and electronic equipment is in all areas . { 3 }

### **Graphic tables of intelligent building in the tourism combination of heat exchange :**

Among the graph below, the energy required to reach thermal equilibrium based on kWh in view of the whole building. Fig.4 as we know the total energy absorbed solar heat equation , (QS), the exchange of energy between outer space (Qv or Ventilation), the power conditioner or evaporative (Qv- Evaporation) the amount of energy absorbed by the mass Qf (Fabric Gain ) level of internal thermal energy should be zero.

$$0=Q_c+Q_s+Q_i+Q_e+Q_v+ Q_f=\sum Q$$

Uptake of solar thermal energy equation (QS), the energy exchange between the exterior and interior (QV air , evaporation ) , the energy systems (quality control ) the amount of energy absorbed by the energy lost as heat energy internal should be zero . { 15}

The impact of smart materials, especially nano materials (heat retaining materials, phase change materials) sustainable architecture of important trends in contemporary architecture and sustainable architecture in the areas of energy efficiency and limiting the use of non-renewable energy sources.

By taking advantage of new technologies and building smart materials to reduce energy consumption and thermal comfort conditions for residents is this research a dynamic smart materials and energy flows in the call to action.

Through the development of materials, products and innovative manufacturing techniques ,movement towards better buildings more efficient, economical and environmentally friendly are necessary. { 6 } ( National Conference modern theories of architecture and urbanism ) 19-07 -2014

### **8-Tourist resorts with the following condition of permanent stability are optimization:**

1. Geometric form human settlements, as a man-made phenomenon in regards to their heating and cooling climate Mechanisms. [fiq 1]
- 2.Zoning and orientation of the building plan and the integrated use of technology in the creation of architectural quality tourism.[fiq 2]





3.Details monuments in buildings

4..Using of materials according to their educational needs

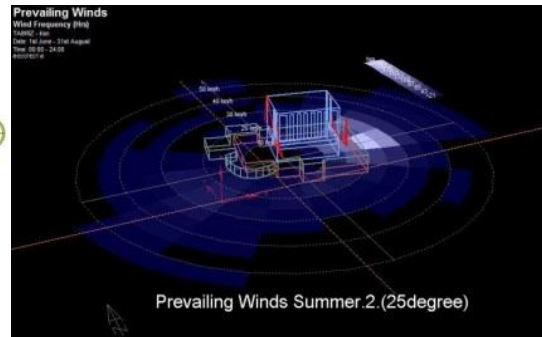
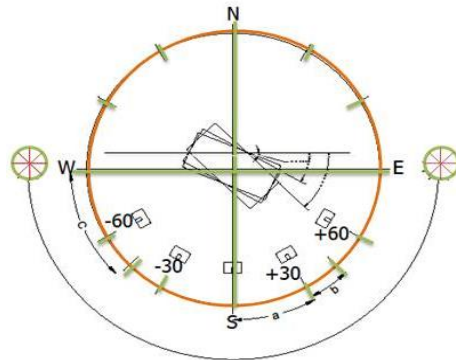


Fig.1 Fig.2{15}

**9-Optimization old tourist resorts with green status of a permanent stability**

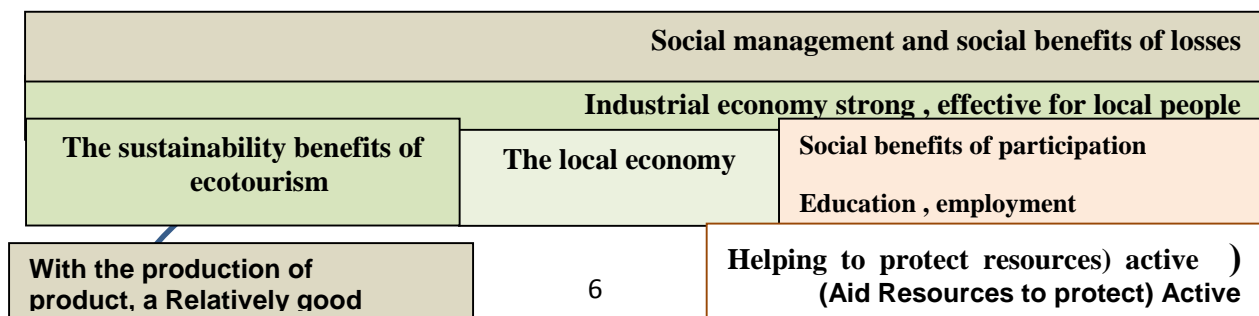
Given the importance of old buildings, in terms of conservation and reduced consumption of materials and demolition and construction debris will decline, result in wasted energy spent on the construction of the buildings have and most importantly, preserve the identity of the city's architecture the historical, social and cultural preservation of the houses, to providing a platform for old buildings as green and energy efficient explored and compared the efficiency of energy consumption before and after implementation of the guidelines on the importance of subject and to help preserve energy resources in tourism areas.(15)

**10- Environmental resources ( with tourism objectives appropriate):**

To maintain the natural state must prevent the destruction of human- natural preservation and management can have serious is named in the following graph called the cycles of nature[fiq 3] .

**Examples of Ecotourism Effective polar responsibility ( flowchart nature Fig.3)**

**- Nature Investment diagram[7]**



**Impossible  
Ecotourism**

**Bind Economic and  
Environment**

**Leave Responsibility for weak polar**

(Gallopín)

**Tourism in Ecotourism**

**FIG 4-TEMPERATURES, HEAT GAINS&**

**ENERGY CONSUMPTION-UNTITLED, BUILDING**

In the developing world - a lot of people in cities in the next 15 to 20 years, it is expected that the population will be doubled. In fact, the reorganization and new system, considerably more than the world is measured. (8)

. Basic renewable town halls destroying\year6\number 73\page19

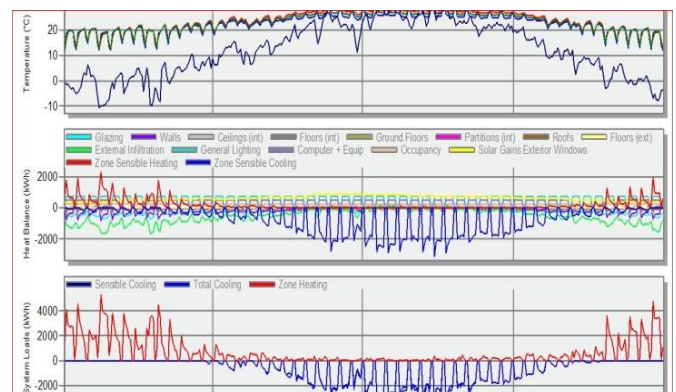
**The secret of success:** What is the correct decision? The right decision from experience, experience comes from what? Decision wrong approach to projects implemented in sites around the cities and towns and in parts of the region where the field is separated into small pieces and sharing can be a problem Back from his hand and flow fields around regional restrictions designed to cause. { 15}

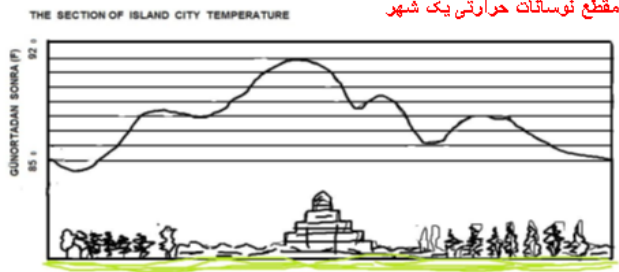
**11- In the case of complex engineering challenges are:**

**The first challenge,** Changes in temperature, wind, flood , earthquake and risk exposure to the risk of civil war , and the question is how to reduce operational difficulties deciding on the design of it is good?

**The second challenge** is to minimize the environmental impacts such as water games kinetic effect.

**A third challenge** is developing technology to address problems such as energy conversion systems on a scale destruction of homes , help transfer and recycling facilities and the option to put it another way , the format of large-scale urban centers provides.





[fig 5]

The Temperature section detail  
of city

**The fourth challenge**, another challenge today in cities is light absorbing of solar temperature caused by the materials used in the roof. That use of the spaces, rooftop gardens, is another positive step job will fix the heat problem. { 15}

### 12- In the tourist complex sustainable architecture ; how we go into the future ?

Modern theories of architecture and urbanism, recreation and entertainment of the indicators of quality of life in cities will introduce. City life can lead us to a more favorable environment. The central importance of architecture as an important constituent element of urban spaces that should be investigated in order to reduce or increase construction, reconstruction changes, factors such as any one of these conditions is a reasonable chance that the city provided for the new organization [15]

The rapid construction to minimize the gap and new technologies to the production and continuous improvement of human and less inefficient tool, can new technologies available to the new technologies, is said to continue. { 9 }

How can cities be green and sustainable?

### 13- Tourist complex building today for tomorrow is identified with sustainable architecture include:

The process of change or development in a long-term development achieved by three key words:

- A- Receipt or a long-term process to change the measurement.
- B- Changes in a short period.
- C - Progress or dynamic process and move the process forward and change over time.

### 14- The use of new energy in small tourist cities.

Ignoring the context of wind energy for heating and cooling efficiency.





At the same time, we pay more attention to energy efficiency will benefit even natural air conditioning system. Counter the global warming that is changing is not it better to replace a bad plan land constraints, small town, with appropriate consultation with the combination of climate zone be designed today?

Good design can jump to the next track and optimize the environmental needs and face with positive results. In reviewing the use of the Swat or contradictory graphical with better results will be achieved. {15}

### **15-Factors in the location of new settlements, intelligent tourist in the city and between cities**

According to a variety of incentives to create new cities, tourist each of them, should be thought a good place. Residential townships, with the least time to travel to different locations, with good natural conditions, housing needs, establish minimum education and health and to help residents and their families is essential.

Due to the nature of its action and its convenient location offers convenient facilities and services in sustainable urban development policy renewable everybody should be possible [10] **It is important and new settlements should be with regard to the following location:**

**A- New accommodation:** The construction of new settlements and compact towns and cities, small towns more successful than the new location and new rural construction, and devoid of the population, are concluded.

**B-The physical development of the city with new residential construction:** The use of physical development of the city with the construction of new housing, and employment in the city with a program considered in the overall system. Therefore, the issue of employment in building new cities led, as the site of cities to absorb their collective life .

### **16-Paradigm of sustainable development of new towns, of tourist:**

Sustainable development, including discussions of various geographical locations to be included. The paradigm of sustainable development, protection of the natural environment or wild life is not limited, but concepts such as urban, rural, energy, social justice, equitable distribution of wealth , including planning, decision-making , in fact , all aspects



of human life, today and in the future. Sustainable development, to the extent that a global and local scale. [11]

Global experience has shown that in different cities and countries, pose special problems that determines the goals of Healthy Cities projects will be different for every city in the country. In order to better urban life through indicators and metrics researcher of healthy cities to achieve sustainable urban development is over. { 12 }. { 19-07-2014 } National Conference modern theory.

#### **17. The factors in the environment:**

- Reduce consumption of non-renewable resources and environmental development.
- In the mental health..
- This technique in an effort to obtain good quality state to economic, social, environmental , natural resource management is to reduce the consumption of energy resources , and environmental quality of development has been adequate . Quality design, intelligent Stability conditions of Comfort get better quality for the health of the most important secrets in the latest technology to gain sustainable architecture and management of the comfort supplement it.

#### **18. Eliminate or reduce the use of toxic or harmful nature of the construction**

**industry:** A modern architectural techniques based on the latest achievements in the best possible equipment that will help the economy health care, welfare, comfort Using usable shelf space buildings in reducing the amount of waste in residential buildings, is possible and frequently it is not easy work.

So overall, although the initial cost may be high costs but energy costs Significant ly reduced. [11]

-Creating sustainable buildings using nanotechnology and application of nanostructure [6].  
(National Conference of new theories 19 Oct / 2014

With the use of nanomaterials in different fields, the application of this knowledge in the construction industry also increased. Nano technology has replaced many old sciences and nano-building industry plays an important role in this regard, most of the steel, glass and concrete plays a key technology and interdisciplinary, many opportunities to strengthening competition in the construction industry faster , more flexible , more favorable , stable and



provides more affordable . In almost all parts of the building including structures, facade design, system construction and interior design are included.

### **19. The importance of building blocks on a small tourist town**

- Using wind and puff it around the building
- Using solar heating in different slope
- Benefits slope solar heating of buildings
- Use building to the south, between the western and eastern slopes
- User residence in the building to the south, between the western and eastern slopes

Creating profit shadows on the wall in order to prevent overheating

Using natural aeration

- Use different thermal air between the shade and the sun { 15 }

### **20- The Relationship between tourism and the environment:**

Naturally in the environment can be placed to provide the appropriate conditions of some environmental areas Remove exposed to intense sun radiation, and the protection of buildings, such as garages, and with plant barriers to reduce body temperature materials was effective in saving [13]

### **21 - Block buildings in the new city on smart { 3 }**

- The urban fabric of the sun, wind and Rivers
- Creating profit micro-climate in winter and summer
- Reducing the temperature of the eastern and western passages limited due to shade in summer
- Comply with appropriate building density requirement outdoor.

### **22. Sustainable architecture in the design of the regional climate is cold and dry with their own rules and generally takes three steps:**

- 1) Energy saving
- 2) Design for the return of the life cycle
- 3) Design for man that each of them has its own strategy, one of the symbols of sustainable architecture, traditional architecture is that the ecological and energy efficiency, both in terms of the low initial price and the current price is low and did so, has been responsive. While preserving cultural identity in the construction, reduce the consumption of natural



resources, promotion of the principles of public life has always been significant, introversion, use of local materials, etc. [15]

### **23. Creativity and innovation in urban management and tourism-related organizations:**

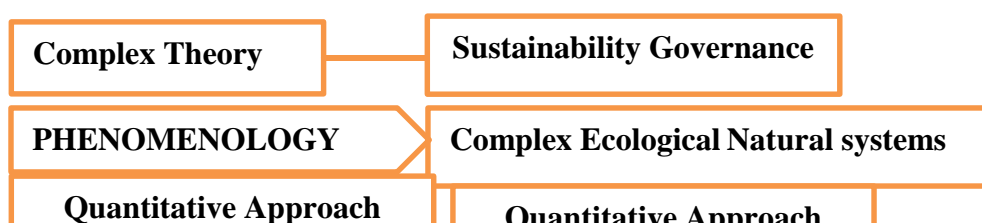
Organize and improve the quality of tourist places in the city, taking advantage of the system is innovative urban management. Further investigate methods to gather information documents and also distributed questionnaires and interviews with experts in the Delphi method (a structured process for collecting and classifying knowledge in a group of experts and a experts), the role of municipalities as institutions associated with urban management and critical analysis and recommendations at the end of the bed and the formation of innovative environmental organizations are concerned.[16]

### **24. Implementation of a green wall on the exterior of buildings:**

The stable view of the use of special technologies to create sustainable architecture, green building as a process to increase the quality of buildings and their placement in the way of energy, water and materials they use the negative effects on human health and the environment. In the meantime, the building is one of the components due to their large surfaces can have a significant role in reducing the energy consumption of building green walls are a living cladding system To prevent the spread of dust and ultraviolet rays of the building , protected from rain and wind pressure criteria such as furniture mutable, flexible forms, semi- open space, the sound use of water and birds , variability of natural light and color , use of natural materials and green space and water on cognitive factors such as imagination , initiative, curiosity and motivation. { 15 }

**25 - Creation capacity of cities to resilience:** By taking mass components, processes, and effective interaction in the context of physical, logical, legal and virtual the city and beyond. Planning for resilience against the impact of stressors in the city, requires the evaluation and review of vulnerable components in understanding processes to achieve the goal is resilience.

**26- Sustainable management of natural ecological systems in international water resources [14] [fiq 6]**





## Fig.6

### Conclusion

- 1- Climate stability, economic and social issues , there are common dialogue , as a result of extensive research , there are a number of methods and measures used in the strategy of sustainable development is possible .
- 2-Sustainability develop tourist towns using the potential of the region, local amenities and natural industry to attract attention , use of local resources, and protect it with regard to environmental issues, the design of low-cost energy buildings is very important.
- 3-In the new tourist complex architectural design, as well as its influence on the development of sustainable ecotourism is considered as a subject of debate.
- 4-Sustainable development of ecotourism and tourism use of natural energy useful at the current time (the present) has become real issues in tourism development in the future will continue to present the same.
- 5- To obtain good results in the field of eco- tourism cities, the, economic and social development gathering possible.
- 6- Due to the geographical location of the north of Iran can be said that the sun wind energy development in new tourist areas in public places can be used as resources.
- 7-Required city and between cities by creating water stations, and using hybrid systems and photovoltaic systems, intelligent tourist sites, considered necessary buildings in environmental compliance measures.
- 8- Tourist complexes and tourist resorts, to reduce energy consumption it is possible by using solar and wind energy to plan an effective architecture.
- 9-Use low-cost energy projects, in contemporary high quality
- 10- Green tourism development and ecotourism green, permanent architectural development policy





11-As a result of research and analysis conducted, the planning needs of today and the future of our sites with maximum use of energy in cities and between cities

12-In order to reduce climate gases in the Earth's atmosphere, the use of clean energy sources in the alley, large and small area, urban and urban, to create and obtain maximum comfort, aid will be effective.

13-Innovation in products and using sustainable methods appropriate to the environment.

14-The Silk Road, in the cities and countryside for tourist development using experiences, modeling for municipal and setting regulations to reduce , the basic need of energy consumption.

15-Energy use in buildings and residences tourist-policy according to which the display materials and use of renewable energy, intelligent.

16- Taking into account the climatic conditions, water overflow, waterfalls and green location set tourist sites is necessary.

17- Use green spaces in summer and winter in the park using a heating and cooling system can be said that fossil fuel consumption will be reduced to 70 % .

18-Examination of hotels, motels and tourist sites, the city and between cities and the use of green energy which is necessary with regard to the interest of tourists, in the North West of the country needs clean energy, for tourists, the air pollution is significantly reduced

19 - Planned tourist complexes influential architectural planning , the use of natural systems, solar (passive system) wind energy systems and air and the sun will be useful .

20- With the gradual green buildings in cities to create urban landscape, green, be possible to attract more tourists

21- According to the needs of tourists and the public justify the use of public vehicles, in order to use public useful ideas for new products is essential.

22-The method of applying renewable recycled products , and primary Weights environmental goods " industry " that does not harm the environment in general , positive impact on sustainable development.

23-Eco - architecture in the whole world is taking shape, and in the manufacture of building blocks with the help of new technology in the four-way cursor in determining the building process will work.

24-The positive factors for this activity, use of energy, intelligent planning, a permanent service technology, by increasing the volume of the natural environment and will be effective in reducing environmental pollution. [15]



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