

Using Multimedia Technology on Natural-Historical Collection for Tourism Development (Case Study: Atashgah Mountain of Isfahan)

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Abstract – Existence of natural symbol like mountains, rivers has valuable for each city. Besides these symbols that are considered to be a factor in attracting tourists can acted likes as valuable symbol urban and There by increase the quality of urban environment. So the use of different methods for better and more illustrative presenting these symbols can help us reach the goal. In this study, the technique of projection mapping is investigated as an effective approach to the development of tourism in one the unique symbols of Esfahan (Atashgah mountain). The purpose of this study is "practical" and the method is "descriptive- analytic". Which was done by investigating the document and the library resources and also the websites. The results indicate that besides the attractiveness of projection functions on Atashgah mountains; it can be used for introducing, the city, history, literature, myth and not ables and also creating an entertainment event for people. The countries which are using this technique in introducing tourism potential provided a privileged position for themselves in terms of sustainable tourism.

Keywords – Multimedia Technology, Development, Atashgah Isfahan, Tourism-Symbols.

I. INTRODUCTION

Urban signs are the turning points in a city and are identifying factors of different parts of a city that are not determined by viewers. The most important features of signs are there and having clear forms. According to Lynch, signs have 4 main roles in cities: they are distinguished from their surrounding mass, stabilizing the urban system. They are symbolic and help memories in mind. They also provide a type of continuity to their existing distances between each other and increase the readability of the cities to provide proper identity for the cities [1]. In every period, Esfahan has had strong physical elements for identification. Bridges, cemeteries, prominent buildings, mosques, minarets, etc. are indicating this powerful aspect. One of the clear symbols in this regard is Atashgah Mountain that provides the capability and possibilities of creating an environment within the specific frame for identity of the city of Esfahan. Existence of this ancient complex indicates the stimulating factors for the physical environment and the urban views that using the technique of digital imaging on this historical construction could facilitate the sentimental relation of people with the spatial structure of the city. Identify of place makes a close relationship with personal identity and stimulates the feelings for belonging to a district or region, where the person lives in. this provides more social cooperation of

the person in maintaining quality of the environment. It also helps a lot in introducing the city and prevalence of the country's culture. Although in today's world the functional role of different technologies such as new media and digital media as been noticed in different countries in increasing the attractions of tourism spaces and exciting and motivating advertisements, but it has not yet been considered in Iran. This research will focus on understanding how multimedia technology like projection can develop the tourism industry in Atashgah mountain in Isfahan city. The points considered in this research are as follows:

- Lack of proper help signs and symbols for a communication system in this complex.
- Lack of proper propagation programs in attracting tourists.
- Lack of proper and attractive programs for increasing the duration of the stay of the tourists.
- It will also tackle the different variables that can help or refrain this technique to be used in an effective way this research will try to answer to the following questions:
- Does technology and digital media represent a good mean to develop tourism on Natural-Historical Collection (Atashgah mountain)?
- Can projection to be effective the satisfaction 's tourist of this complex?
- Can projection to be effective in prevailing the country's culture and its regeneration?

II. LITERATURE REVIEW

A. 3D space

In my experience, one of the most difficult challenges new users face is becoming comfortable working in a 3D environment. Let's be honest. When you look out at the world, you don't see things simultaneously from four different viewpoints. The whole notion of a top, side, back, and over-the shoulder perspective view is completely unnatural. But in order to become proficient with 3D software, seeing things from these vantage points must become second nature to you. Therefore, we'll begin with a discussion of 3D space [2]. In 3D viewing, we specify a view volume in the world ,a projection on to a projection plane and a view port for display.

The contents of the projection of the view volume on to the projection of the view volume on to the projection plane, called the window, are then transformed (mapped) into the view port for display [3].

The process of creating a finished 3D animation is fairly straightforward. There are five distinct stages that every project goes through. They are:

1. Modelling
2. Lighting
3. Surfacing
4. Animating
5. Rendering

B. Projection

The process of placing an image onto the surface of your object is called texture mapping. An image (texture) is applied (mapped) to specific polygons by “projecting” it onto their surfaces. It is very similar to the process of projecting a movie onto the screen at the theatre. The available projection types are:

- Planar
- Cylindrical
- Spherical
- Cubic
- Front
- UV

The first five projections use similar techniques, but the last one, UV, works a bit differently. Therefore, you can break the six projections down into two categories: “Standard” and “UV.”[2]

Both Standard projections and UV projections work by pointing a virtual projector at the surface of your object. The difference between them lies in where the projector is placed. Standard projections place the image projector in the 3D space surrounding your object. (This is typically called “world” space.) UV projections place the projector above a hidden 2D space called “UV,” which is only visible by changing one of your viewports in Modeller to UV Texture [4].

One of the interesting things about UV mapping is that technically it isn't as accurate as the standard projection methods. Whereas the standard methods simply project the image straight onto the model without any regard to the actual polygon structure, and more importantly, the actual positions of vertices within the model, UV mapping uses the vertices in the model to place the map.

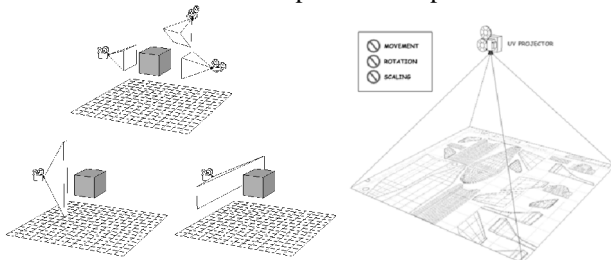


Fig.1. Standard projectors can be positioned and rotated anywhere in the space around your model and they can cast an image with any aspect ratio.

Reference: Essential lightwave v9 / by Steve Warner, Kevin Phillips, and Timothy Albee/page:443

In this context can mention to Canada's Wonderland Theme Park, has developed a huge 3D projection mapping event to celebrate it's 30th birthday, in fact, they are projecting it onto their signature attraction “Wonder

Mountain”. Wonder Mountain is transformed by 2D motion designs and 3D animations that are mapped and projected onto the mountain, using the mountain scape to their visual advantage. At first glance this 3D projection mapping show for Canada's Wonderland uses most of the visual tricks you've already seen made famous through projection mapping events the world over, but the use of a mountain makes this just a little different.[5]

III. RESEARCH METHOD

This research is based on library method. Data is collected from analyzing documentations and library references, as well as internet websites. The library method is fulfilled by studying books, articles, theses and reports from responsible administration offices and organizations.

A. Introducing the studying region

To better understand the chosen location for this study, it is useful to have some information about the following topics.

B. Atashgah mountain

Atashgahmountain is located in the west of Isfahan. Altitude of 1680 meters above sea level and has an area of 36000 meters.

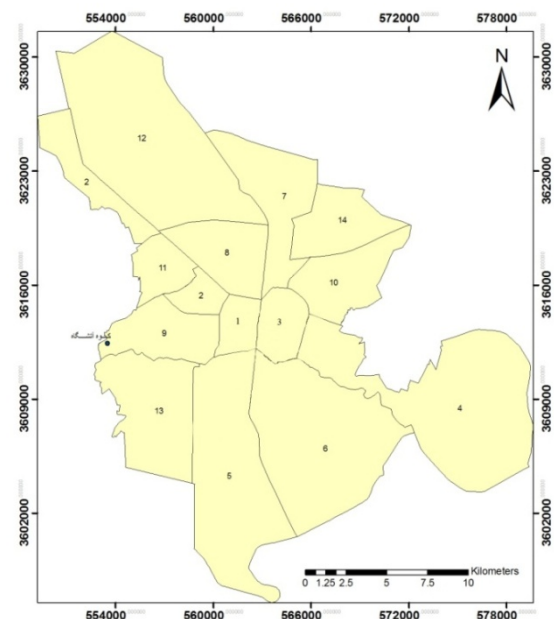


Fig.1. Atashgah mountain location in Isfahan city

C. Using Multimedia technique in Atashgah mountain

This mountain is located in the west of Esfahan, about 8 Km away from Esfahan, Esfahan-Najafabad road and the road is exactly adjacent to the south of the mountain. This road was ending to Bain-al Nahrain. On the top of the mountain, there are the ruins a clay-brick construction, known as “Atashgah”, having the age going back to the first kingdom in Iran. As the developing trend of Esfahan and the functional transformations of Atashgah mountain

shows, this mountain at present as a tourism complex is a suitable recreation place, compatible with requirements and the aims of sustainable development of Esfahan. Regarding the important role of Esfahan in tourism, in national and international scales and also regarding the current transformations, it can be predicted that the demanding rate of using Atashgah mountain will be increased. With a rather suitable altitude and appropriate location and viewing the river or the green alluvium of Zayandehrood and the whole body of Esfahan, Atashgah bridge has exceptional and exclusive conditions that have provided numerous facilities for Esfahan with regards to urban panorama, environmental designs and tourism development, and primarily acts as an urban symbol that could be observed from inside the city and also provides the best possibility for watching the beautiful and colorful panorama of the city of Esfahan. This public attraction provides closeness to the natural spaces, viewing the sky, sightseeing and tranquility together with activities for the citizens [6]. Thus by using projection mapping on some surfaces, the secret beauties of this space could be increased, providing it not only for recreational/cultural purposes, but also for making an area for spending the nights by the visitors. Together with projection, this historical place could have the possibilities to create a physical environment and a new space in the frame of specific identity of the west of Esfahan. The events like holding ancient Persia's ceremonies, e.g. for Zoroastrians, could be held as religious and cultural attractions, in the fire temple on the top of this mountain. Such attractions could provide a suitable market for absorbing Zoroastrians from outside Iran as well as non-Zoroastrians visitors. Some of most important aims of using these technique in Atashgah mountain are:

- Consolidation this mountain as the Natural and cultural symbol of Isfahan.
- Protection cultural identity and traditional heritage of Isfahan city with performance the traditions and rituals of the ancient Persians
- Introducing specific events for Zoroastrians and creating suitable memories for visitors, and hence increasing the duration of stay in the city of Isfahan.
- Use of projection could act as a tourism attraction and making spaces for spending the nights by the tourists
- Contribute to the spatial organization of this complex and new development in Isfahan city.
- Preparing for the possibility of tourism services

D. Patterns of design of projection in this complex

Various aspects of the value of this complex will case to use combination of different methods in design in projection in this complex:

- *Model of design based natural environment*

Harmony with the environment, mutual respect between man and nature is the main qualities are following in this model. In this design can use of multimedia technique for creating more attractions in this tourism resource or Using this technique as a tourism attraction and providing a space for the tourists to spend their nights.

- *Model of design based historical environment*

With attention to old framework and historical experience of Atashgah mountain and existence of fire temple on the top of this mountain can began to holding event for strengthen cultural of Iran and development market for absorbing Zoroastrians from outside Iran as well as non-Zoroastrians visitors.

Performance of Zoroastrian 's – As owner of the ancient culture of ancient Iran– religious ceremonies in a multi-day festival is an events that can help to Increase number of tourist such as one of the unique tourist attraction .

IV. CONCLUSION

Existence of this historical complex are the strength factor of a physical environment and urban landscape of the west of Isfahan. This public attraction provides closeness to the natural spaces. Thus by using multimedia technique on some surfaces, the secret beauties of this space could be increased, providing it not only for recreational/cultural purposes, but also for making an area for spending the nights by the visitors. Together with projection, this historical place could have the possibilities to create a physical environment and a new space in the frame of specific identity of the west of Esfahan. the detailed parts of this complex has a high potential for using the technique of projection and providing more attractive and beautiful aspects on the mountain. In the time of holding ceremonies and festivals and in addition to providing continuous visits by visitors and appropriate memories for than, the time of the visitors' stay could also be maintained, and it has an advantageous role for developing urban tourism. The findings indicates that projection has attraction applications as well as potentials in introducing the history and literature, myths and well-known people, creating proper space for the tourists to spend their nights, and thus providing employments and could have an important role in introducing the country and the Iranian people.

V. STRATEGIES AND APPROACHES

Due to this complex has a high sensitivity in terms of the natural, historical and social's value, Any use of this technique and designs should be done with holistic and accurate assessment. The following proposals are hence given in that regard:

- Introducing projection mapping to the authorities, and hold a trial project on this complex in order to analyze the reactions.
- The cylindrical structure is the most attractive component of this complex so it should be more consideration and can project on it as an indicator of this complex.
- Propose a projection festival with appropriate content that can help attracting tourists but also promote technology, new artists or other subjects.

- Inviting professional specialized in projection mapping to talk about the subject, introduce its advantages and share their experience
- Introducing a special event like Zoroastrian's ceremony and providing suitable memories for the visitor and hence increasing the duration of stay of the tourists in the city of Esfahan.

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