Conservation and Rehabilitation of Darband River-Valley Landscape Based on the Behavioral Pattern of Uses

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Introduction

Intra-city natural structures have always had a key role in creating sustainable urban green spaces; natural structures such as river-valleys, hillsides, lakes and forests, guarantee the endurance, Sustainability and longevity of the natural quality of city. On the other hand, they are considered as tourism targets, which also make them vulnerable for tourism damages. In Tehran, the river-valleys have been the target of recreational activities for ages, according to their desirable climate and abundance of running water. Darband river- valley is one of the natural treasures of Tehran, which has been damaged according to the city growth and the ignorance of its environmental, historical and functional values.

Therefore, the present paper aims to identify the typical behavioral characters of tourists in Darband river-valley and to study design solutions to decrease the damages caused by their incompatible behaviors to the nature. Darband River originates from Tochal Mountain, where Osun River meets Abshar Dogholu and makes Darband River. It is 4723 meters long and the valley has a desirable climate all over the year.

Every-day life sociology or Ethnographical methodology is studying human behaviors and their relationship with surrounding environment. Behaviors refer to all physical observable moves, or an activity which connects human beings with the environment. In other words, behavior is a response to a motivation from the environment in a given situation.

This methodology concentrates on simple activities which occur during the day, in different places such as walking individually or in group of friends or family, looking around, talking, shopping, etc.

Observation is one of the common methods of behavioral studies. In this research, users' behaviors have been observed by taking pictures of people all along the river-valley path (Figure 1).

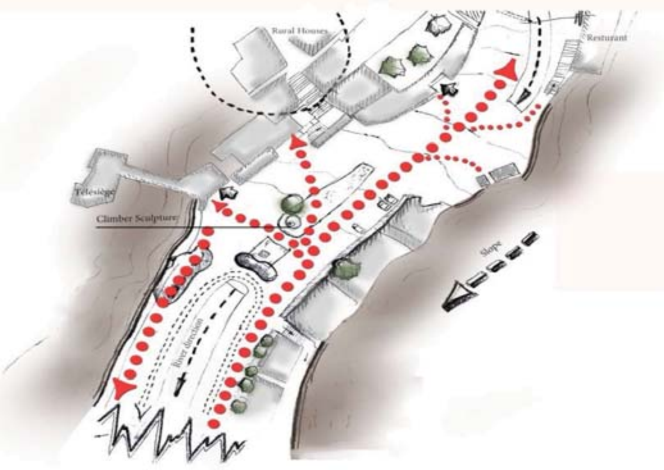

Fig.4: User's behavioral patterns and paths

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These photos have been categorized in three groups: behaviors occurred in the morning, at noon and also at night, which resulted in behavioral patterns' maps, demonstrated that there have been diverse problems including the interference of tourists' pathway and the private cars and taxis; the aggregation of peddlers, inappropriate station for chairlift (télésiège), etc. Thus, the behaviors that are compatible with the nature such as walking, climbing the mountain and on the other hand incompatible behaviors including dumping waste and the disposal of restaurants sewages into the river, failure to observe the river limit, have been clarified. The behavioral patterns' maps indicate the walking paths, stopping points and sitting areas near the river. The evaluation of visual landscape has been considered according to sequential method based on aesthetic criteria such as diversity and legibility. This part indicated that there are lots of visual landscape values which are rarely noticed by tourists, according to the turbulence (Figure 2).

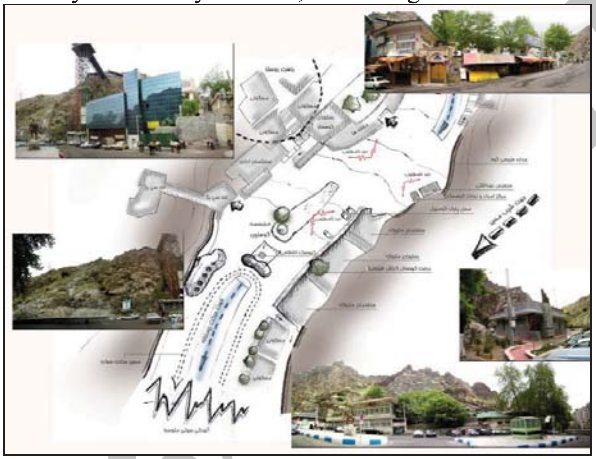


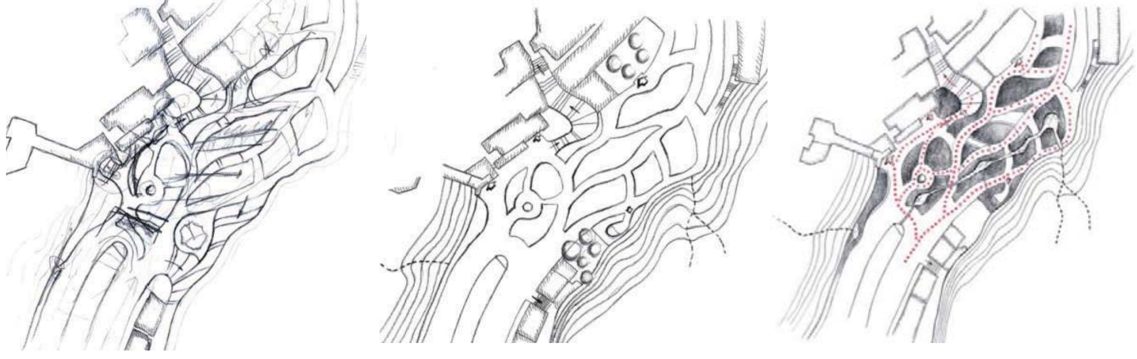
Fig.2: Site analysis

Environmental analysis

Topography, water flow, existing green spaces, different views and pollutions are the major environmental parameters considered in this analysis. There are several abandoned buildings which can be eliminated, and on the other hand, there are some old trees that require to be preserved. There are also appropriate views to the mountain which must be considered in the recommended landscape.

Design practice

According to environmental analysis, visual landscape evaluation and behavioral maps, the main idea was to make people walk slowly in different directions, so that they can see different views to the landscape and connect with the nature as much as possible. This connection seems to be a motivation for conserving the nature (Figure 3) and (Figure 4).



Step I **Step II** **Step III**

Fig.3: Design sketches

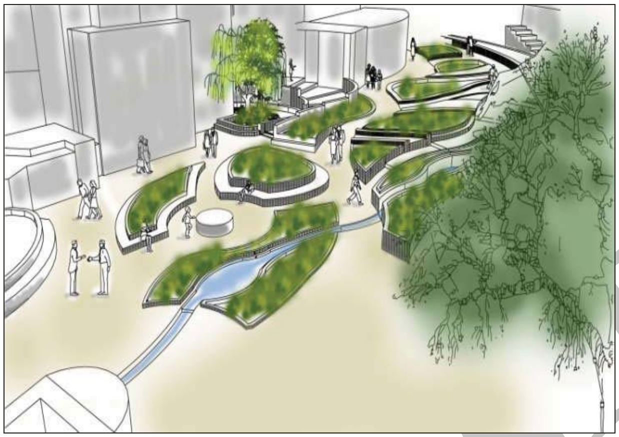


Fig.1: Darband Square in Future

Conclusion

Regarding the research results, most of the behaviors are considered as a response to the natural environment, which emphasizes on the influence of nature on human and his behaviors. But the important issue is that there should be a great respect for nature, so that the tourist would not damage the natural environment and the visual landscape with incompatible behaviors. It seems that connecting well with nature would cause this respect. Walking slowly through the river-valley makes the tourist watch the surrounding landscape and enjoy the nature.

Key words
Conservation, Environmental Quality Development and Rehabilitation, Behavioral Patterns, Darband River-Valley