

Professional scientific sessions for art, architecture and urban planning Thursday evenings

Held in: Conference hall of Herampey Consulting Engineers

Date: 24.05.2018

Title: Tehran river-valley ecosystem's revitalization paradigm.

Speakers and panel members: Mr. S. O. Torabi and Mrs. A. Esmailzadeh.

Mr. Torabi was the first speaker of the session. Talking about the argument, he explained that he would present the paradigm, the role of urban rivers in the spatial organization of the city, the steps made for the revitalization of the urban river system, ordinary design in the ecosystem of Suteh Delan area.

Mr. Torabi explained that the present would see that many DCPN have been studied in an arch of time of 10 years. The team has been equipped with 14 different DCPN, including parallel university and technical projects (seven technical and nine university researches projects). The projects included urban programming, urban design, hydric sources management, hydraulics and hydrology, ecology, geologic engineering, air pollution, environment legislation, environment economy, sociology, water and wastewater recycling, geotechnics and transport. He continued his speech saying that they have tried to organize a coordinated work between the groups and choose the best way for their cooperation. In the traditional believe the best solution is considered to select a DCPN as the leading one, but the team has decided to base its works on the combined solution, the DPSIP, where the DCPN are automatically combined, the in order to avoid human fails. The above mentioned DPSIP has been developed by the European agency for environment.

Mr. Torabi continued his speech explaining that the DPSIP to respond to the fixed goals has the characteristic that it forms circles that arrive to the engineering force finding the problems. The characteristic and advantage system is that it can work in a combined way. In the traditional manner the Earth is divided in four components that are the hydrosphere, the biosphere, the atmosphere and the lithosphere, excluding the human factor as a disturbing component, meanwhile in the new approach the human factor is considered too. In 2000 the consideration has been corrected having as the fifth component the techno-globe component. In this version the team is looking for a sustainable balance between the different components and for urban design and programming we need to have a deepened knowledge of geography and its role in the area that will permit to edit urban development program through the identification of characteristics and problems.

Talking about the river-valleys of Tehran Mr. Torabi said that they must understand the role that they had in the past and in the present, because it is necessary for a successful urban design and programming. Continuing his speech he explained how is the hydric situation and distribution in Tehran province and how they affect the entire life cycle. In order to better understand the

conditions and the consequent problems that Tehran as a big city has, Mr. Torabi presented the geography, the hydrological conditions and the distribution of the river-valleys in the city from the time, when the first plans of the city were drawn.

The explanations that Mr. Torabi presented gave a clear idea to the presents about the climatic and hydrologic conditions of Tehran, which were the problems and which was the role of each component in the life of the city. Of course the huge concentration of urban population created lots of problems for the city and for the urban management in a large scale.

Mr. Torabi about the role of the river-valleys saying that they a principal role in the ecosystem of Tehran and how the human intervention that hindered the natural function of these elements, becoming unusable or completely out of order. In order to revitalize their function it's necessary to know the history, the occurred changes, identification of the problems and the definition of rode map in the urban design process. He said that considering and studying some cases in Tehran that revitalized parks and green spaces in parts of the river-valleys, it has been possible to take lesson from the past successful experiences.

Concluding his speech Mr. Torabi presented a list of problems that must be considered in the process of revitalization of river-valleys that are as follows:

- Cleanup of illegally occupied areas and ecological binderies
- Cleanup of building waste materials
- Cleanup of urban and rural garbage
- Collection and recycle of wastewater
- Cleanup of the soil
- Restoration of the natural slopes
- Enrichment of the soil for the vegetation
- Provision of environmental needs of the ecosystem
- Creation of irrigation system
- Recreation of the vegetable coverage.
- Creation of the conditions for the wildlife return

The second speaker was Mrs. A. Esmaelzadeh, who talked about ecofriendly urban design and eco management of Suteh Delan area. She explained that the river-valley is a urban and natural capital, but unfortunately in Tehran this natural precious capital is somehow ignored. She said that the river-valley of Farhzad doesn't have a role in the urban sphere. At the moment the legal

proposals are presented to the municipal authorities, in order to create the conditions necessary for the revitalization of the area. The problems that the area has are:

- It doesn't have its proper position in the urban sphere

- Legally it doesn't have the necessary protection

Talking about the urban design, Mrs. Esmielzadeh said the environmental, geographical, social, economic and legal aspects must be taken in consideration.

Mrs. Esmailzadeh said that in the urban design process problems must be identified and through a combination of DSPN they can be faced. Identifying the environmental, natural, ecological problems we can define the scale and order of solution, trying to inform the citizens that can have their cooperation and participation. The principal question is that how we can return an isolated area to the active and integrated life of the whole city. The activities must be commercial, but very limited, spaces for the cars parking.

Presenting the different phases of the project, Mrs. Esmailzadeh talked about the proposals for the organization of the interested area, that are as follows:

- How the services center must be designed in the southern site of the area

- How the to shores of the rivers must be connected

- How the area can be transformed in order to attract the presence of the people in the area

The design group tried to possibly maintain the natural form of the area, facilitate the circulation of the visitors, create the conditions to offer spaces that somehow can wake up the memory of the visitors and live the past memories.

The pilot plan is formed by seven principal points that are as follows:

- Recreation of vegetative coverage

- the stone bridge

- Rest area

- Wooden and stone stairs

- Creation of water channels

- Creation of lateral walls

- Creation of bicycle and pedestrian routs

Mrs. Esmailzadeh concluded her speech saying that in the project that her group had realized, two aspects were principal. The first was the technical and scientific cooperation, where a group of experts have created the conditions for the revitalization of the area. The second is the social aspect, where the urban designers recognized that until the social problems are not solved, any kind and project of revitalization will not have a successful result.