

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

**Held in: Conference hall of Herampey Consulting Engineers**

**Date: 25.06.2015**

**Title: The challenges of city and nature in Tehran**

**Speakers and panel members: Mrs. G. Keramati and Mrs. S. Mansouri**

The first speaker of the session was Mrs. G. Keramati, who spoke about the borders of the capital and protection of the surrounding natural areas of the megalopolis.

From the preparation of Tehran's first comprehensive plan (1969) to our days, the relations and dimensions of the urban areas with the surrounding areas have been treated in different ways and occasions. The measures like the definition of the borders (or the protection limits) of Tehran or independent projects that aimed to define green edges to control and limit the extension of the city, or national and regional development projects that tried to find proper definitions and the relation of Tehran with new established towns, shows that the problems were deeper to be solved with these solutions. A general study shows how the plain of Tehran in a period of 30 years changed lost its characteristics, having a first and second degree classification of the soil, that for centuries were used as agricultural lands, with many small villages with a large number of inhabitants that were related to the agricultural activities, were replaced with large number of continuous built areas, without a technical and engineered design, called cities or became part of Tehran.

The study of foreign cases related to megalopolises and the surrounding areas, shows that similar cases that caused the destruction of the ecosystems and the environment, happened at the beginning of the 20<sup>th</sup> century. Cities like London with the creation of protective green belt area, faced the problems. The urban administration controlled the transformations, giving a new interpretation to the rural life and industrialized and mechanized agriculture that with the birth of the industrial revolution were being destroyed. This is the first case of global experience that most of the modern first class megalopolises created the green belts around their areas, using this solution for the problems that made impossible the life in the cities.

Even though the regulations and approved laws are numerous for Tehran, the existence of deep problems continued until 2005, when the consultant for the project of Tehran master plan, defined an area of 5919 s/km containing 20 cities and 415 villages included in 6 provinces, calling this are the bounds of Tehran and in 2008 the supreme council of architecture and town planning of Iran approved this plan. In 2011 considering the goals and developments of Tehran master plan approved in 2008, a strategic plan for the capital's bounds called the strategic program plan for the management and programming of the capital's bounds was prepared and completed in 2010 by another consultant. This plan was presented for the first time in December 31<sup>st</sup> 2012 and for the second time two months later, during the supreme council of architecture and town planning of Iran sessions. During these sessions was decided and defined the management and supervision structures for the bounds of the capital and was also decided the protection and organization of the interested areas.

The second speaker of the session was Mrs. S. Mansouri, who spoke about the river-valleys of Tehran. The river-valleys of Tehran are to be considered a vital network in the urban area that has many effects on the biological processes and urban ecosystem order. These vital veins act as urban lungs and have an important role in the air's filtration process and development of the natural areas in the heart of the urban texture of Tehran; in other words the river-valleys provide the connection between the urban texture with the natural areas, giving extraordinary occasions to create social interactions with urban dynamic areas. Another characteristic of this network is its extension in a north-south direction combined with the network of highways like Resalat or Hemmat in east-west direction, has a checkered structure, so there is the possibility for the urban districts and areas to interact in an urban context. This network shows the existence of the river-valleys in a route of urban texture, that brings the natural values in the heart of the urban areas. This situation permits to create pleasant recreational-social areas. The problems that have been identified in relation of the river-valleys of Tehran are the constructions, civil projects, the canalizing of the river in the river-valleys bounds, caused the natural form transformation, changing and creating disorder in the precious role of the river-valleys. The principle goal of this study is to identify the right path of policies to be adopted for the river-valleys edges, identifying the problems and the threats from one side and the potentials and capacities from the other side. In this context we present the seven principle river-valleys of Tehran (Vardavard, Can, Farahzad, Darake, Darband, Darabad and Sorkhehessar) studying the water flow and storage routes, sources, areas and their structural characteristics in relation with the natural and adjacent urban texture conditions. This study permit to identify the occasions, limitations regarding the design process of the river-valleys edges.

In order to better comprehend the similar cases, we have presented projects realized in other parts of the world like projects realized in Oslo, the urban block near the river Paramato, studying the cases for their qualitative level and the design of the areas adjacent the rivers. As mentioned most of the projects aimed to establish principles to upgrade the green spaces' and urban ecological system conditions and in other cases to improve the urban spaces dynamicity and the social interactions; the mentioned principles are the most important key routes for policy making regarding the edges of the river-valleys.

As shown in the reported examples the design of the edges of the river-valleys act as green urban fingers (mixture of the natural and urban areas), considering the morphological conditions of Tehran trying to adopt the best design manners in an ecological design process.