

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

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

**Date: 25.02.2018**

**Title: The reasons of passive defense rules for engineers and analyze of urban infrastructures.**

**Speakers and panel members: Mr. M. Zandieh and Mr. B. Hosseini.**

Mr. Zandieh was the first speaker. He began his speech explaining that one of the urban important elements are the infrastructures. Nowadays, thanks to the specific scientific progresses and achievements, the urban infrastructures can be considered and used not only for their principal use but also for secondary purposes. One of these purposes is the safety of the inhabitant and the protection level of the buildings and infrastructures. This is the reason that the urban planners and experts always try to offer solutions that permit the precise use of the spaces also in emergency cases.

Key words: infrastructures, inhabitants' safety and the defense of the city.

Talking about the bases of passive defense Mr. Zandieh explained that they are a complex of unarmed acts that their application increase the deterrence, reduce the vulnerability, promote the national stability, create the conditions for the continuation of necessary activities and facilitate the disaster management in case of enemy's threats and military actions. He said that passive defense has been analyzed and presented with its different aspects, but the principal and final goal of it is to avoid the disasters, finding the best solutions in order to assure the collective interests of the society. To achieve this goal the experts and strategy planners through a team work define the strategies and paths that bring to the realization of the programs.

General considerations and duties in architectural and town planning regarding the passive defense are: the right selection of the location, hiding it from enemies' view, diffuseness, reduction of the density, use of natural potentials to hidden the related elements of the important installations, flexibility in case of explosions for the constructions, and the possibility of reconstruction and reuse like in the case of the bridges, tunnels, installations etc.

Continuing his speech Mr. Zandieh explained that in the modern era the huge transformations and achievements in technology has touched unimaginable levels. The technological and scientific progress influenced the military production field increasing exponentially the attacking capabilities, oblige the authorities to consider and focus seriously on passive defense matter, as the best tool to neutralize and minimize the consequences of the offensive attacks.

Talking about active and passive defense acts, Mr. Zandieh explained their principles and differences.

Regarding the accessibility and importance of passive defense, he explained that considering the increase and transformation of threats' characteristics, how important was to focus and railway transportation and its safety, because of its key role in case of any emergencies.

The role of urban infrastructures in relation with the passive defense is evident. In case of war and foreign attack the density of the population and the existence of various urban infrastructures, they can be considered as deterrents, because of the problems that can create for the enemy and facilitate the defense operations.

Reassessing the passive defense actions in urban planning to contrast modern wars, Mr. Zandieh said that the urban planners must take in consideration the positioning of the urban services, define the civil structures, in order to list them for the duties that can be assigned for passive defense. The third requirement is the definition of the role of the physical communication and telecommunication networks.

Presenting some case of the last wars occurred in the region, Mr. Zandieh presented the strategy and the damages that the attacking armies, like the US caused to the structures and population of attacked countries. In his opinion, studying the details of the military aggression, Mr. Zandieh believes that there are many lessons to be learned by the wars occurred in other countries, in order to search and find the proper ways and actions to minimize the possible aggressions consequences.

Concluding his speech, Mr. Zandieh expressed the idea the passive defense is not a limited study action to have a final solution for the possible threats. As the threats change their nature, passive defense actions must also follow the flow of the changes in order to be always up dated and be able to face the threats.

The second speaker was Mr. B. Hosseini. He told that during the eight years Iran-Iraq war he served in the Basij Corp (popular mobilization), where he designed field hospital, in different parts of the front. He also said that he, with his friend Mr. Golabchi, designed different tools that were very useful in the war time and also nowadays, where natural disasters occur. Mr. Hosseini explained that in order to present and share his experiences, he published many articles and photo albums.

Regarding the reasons of passive defense Mr. Hosseini said that he had travelled round the world, where were going wars of different nature. He said that in Afghanistan he realized that the mosques were not targeted, so the people could find a safe shelter in these religious structures.

Talking about the nature and the characteristics of the war, Mr. Hosseini said that now we experience the sixth generation of wars, when they are completely different from precedent wars. This is the reason that we need to think about and act for the organization of passive defense and disaster management. Talking about the Plasco building collapsed in Tehran about two years

ago, he said that the firefighters couldn't realize the necessary rescue operations, because the physical conditions of the building didn't permit it, causing so many victims.

Regarding the earthquake occurred in Kermanshah few months ago, he said that in this case the structures of the buildings resisted to the earthquake, but "secondary" collapses caused damages and victims. He said that before the official rescue operations, popular activities realized the first aids to the population.

Mr. Hosseini talked also about Iraq, where the terroristic group of Daesh forced the people to live the villages and as result many villages have been evacuated and consequently abandoned pushing the refugees to concentrate in the cities, creating problems for the cities and also for the territory in a large scale, a problem that the Iranians experienced in the Iran-Iraq war.

Presenting successful experiences of the western countries, Mr. Hosseini said that because our country is located in an area at risk of periodical earthquakes, we should learn about their positive experiences and achievements, trying to avoid or possibly reduce the catastrophic consequences and damages caused by natural disasters.

Concluding his speech Mr. Hosseini said that because our country is in the center of regional wars, like the wars in Iraq, Afghanistan, Turkey, Syria etc. and the natural resources that Iran possesses, focusing on the matter of passive defense is a must for the authorities of the country.