

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

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

**Date: 17.10.2019**

**Title: City and port interaction, port identity. Caspian sea cost strip.**

**Speakers and panel members: Mrs. R. Ranjbari, Mrs. N. Alaqmandan and Mr. S. Gholampour.**

Thanking Herampey research for the opportunity to present the results of their group, Mrs. Alaqmandan explained that the researches on the matter last about two years. She said that they would talk about urban identity, case studies of interaction of city-port dedicated to the cities of Anzali and Fereydunkenar and at the end, about the interaction of city-port role on environmental matters.

Talking about the assumption that we have about the ports, we believe that it's an access from ocean, sea or river to the city or land. In reality the ports are an important ring in the activities of trade, commerce and transfer of passengers and goods. Despite the traditional role that the ports have played in a historical course, today the ports' role is experiencing new directions and activities, like the production of goods included in an integrated system with other social and economic institutions in various societies. This concept means that the ports doesn't present anymore an apart and independent entities, but they are supported in an immediate level by the adjacent cities and urban areas and in a larger scale by greater systems and institutions. Mrs. Alaqmandan explained that their study-research includes the three periods of preindustrial revolution, industrial and contemporary eras.

During the preindustrial revolution era the activities of ports were limited to the support of agricultural and trade activities, based on human force and natural energy sources like wind and water energy sources. In this era most of the production was consumed directly by the local societies and only a minimum part of this production was transferred in other localities via sea, using also the ports' capabilities. Because of the difficulties and risks that had to be faced on land for the transfer of goods, safer and cheaper routes via sea were looked for, justifying the creation of small ports near cities located on the costs.

In the middle of the 17<sup>th</sup> century during the industrial and consequently naval industry growth, the ports also experienced radical transformations. The products were produce in a cheap way using low labor force, creating the conditions for an industrial growth so consequently also the rapid growth and transformation of the ports. The mentioned growth forced the communal management to locate the ports out of the urban areas, in order to have to capacity of adaptation to new conditions and demands. This happened during and after the '50s of the last century. In this situation the ports became huge industrial poles, living the former port facilities as abandoned and disused areas in places that often occupied central and important areas in the

heart of the cities. The presence of abandoned areas obliged responsible authorities to look for new solutions for an interaction between cities and ports, using the existing potentials for the creation of new opportunities in base of existing conditions.

Another aspect of the port activities is that ports are already part of global communication and transportation chain, so to assure the successful operation of the ports, they must be competitive in various levels and sectors.

Continuing her speech Mrs. Alaqmandan presented the study cases of two Asian and European ports. In the first group the port of Jebel Ali in Dubai and the port of Tokyo were presented and analyzed and in the case of the European one the ports of Hamburg and Rotterdam were presented. In his speech Mrs. Alaqmandan made a historical and practical presentation of the mentioned ports and the actual situation and characteristics of their activities.

The second speaker was Mr. Gholampour that talked about the project that focused on 12 Iranian cities located in northern and southern parts in Iran and 15 ports located in these cities. The purpose of this study was to identify the problems and potentials that had each city and the port located in. The final goal of this study was to find and create the necessity conditions and solutions for a harmonic activity in the cities and ports, reaching the optimal result and excluding problems that most city-ports imposed for decades to the inhabitants of the cities and users-operators of the ports.

Mr. Gholampour continued his speech asserted that structural and sustainable interaction of city and port are related to the improvement of the levels of tolerance and passive defense, transport network, ease of access and traffic, urban solutions for exploitation and development for port areas in the cities or adjacent to urban areas.

Talking about the achievements of the project that their groups succeeded on, Mr. Gholampour believes is the functional-structural combination in city and port for the promotion and propagation of marine culture. The proposal for the improvement of visual, life and environmental quality in a port city and the identification of touristic, rest and transport opportunities from one hand and the decrease of traffic and heavy transport cause problems, are solutions that must be found.

Mr. Gholampour talked about particular aspects of their study, where they focused and pointed on some principal factors for the definition of a successful interaction between city and port. Some of these elements are the geographical position, marine accessibility and the communicability of the supporting lands, infrastructures, equipment and available services. Other factors are occupational-professional opportunities and the social environment, IT, economic factors, technical and managerial capabilities. The mentioned elements, combined with development policies on regard of social-cultural factors, touristic and industrial heritage services, structural-spatial factors, communication and media, transport and traffic, safety and

security, economical and marketing components, are all the necessary base for a comprehensive research and study, that can ensure the desired results.

After a general course of study the research group has focused on the Iranian case. Iran with its geographical position is located between two important water sources that are the Caspian sea and the Persian Gulf, creating the excellent conditions for the development of transit routes, from the Indian ocean to the northern areas of Russia. Pointing on the study of Anazali port and city the group has studied the lacks and the opportunities on touristic and trade sectors and how these factors could improve and increase the social-economic wellness of the society. In the study influenced and influencing groups on important factors have been identified, trying to minimize the negative aspects and maximize the potential positive capabilities.

Another study case that Mr. Gholampour presented was the case of city-port of Fereydunkenar. He presented the historical course of development of Fereydunkenar and the actual situation and the potential that the port has and can have a positive role in the route of development of the city and in a larger scale in the region.

The third speaker was Mrs. Ranjbari. Talking about the projects their group has worked on, she pointed on the principal activities that affect ports and environment. The most important activities are the traffic of vessels, the discharge of balance water, the charge and discharge of goods, discharge and change of exhausted oil, goods storage, traffic of vehicles and camions, discharge of rubbish and waste water, collection and transfer of rubbish in the port area, heating systems, fuel and lighting sources in the port, marine incidents and accidents, accidents in the land, dredging of the channels and the industrial activities based in the port.

Mrs. Ranjbari believes that considering the effects on water sources, land, air, landscape and noise, the principal source of pollution for the cities and more generally for the environment, is the traffic of vessels in the water routs.

She explained that %90 of the global trade volume is moved through shipping, so it means that most of the operators prefer this type of transport. Considering the particular position of our region, Mrs. Ranjbari explained that Persian Gulf is one of the most trafficked water routes in the world and consequently and unfortunately is one of the most polluted areas in the world, because of intense traffic of vessels and ships of different type and dimension.

In order to reduce and limit the pollution that this global traffic causes, an international agreement called MARPOL that includes %88.9 of global shipping capacities, with 53 member countries. The I.R. Iran has joined this agreement since 2009.

Mrs. Ranjbari reported six attachments of this agreement that are as follows: 1.regulations to avoid oil pollution, that occurs during the fueling or transport by tankers. 2.regulation for the control of pollution caused by the transport in bulk of toxic liquids by ships. 3.regulation for the control of pollution of harmful packed materials transported by ships. 4.regulation for the

prevention of pollution caused by the waste water systems of the ships. 5.regulation for the control of rubbish produced by the ships that cause marine and environmental pollution in sea and coastal cities 6.regulation for preventing air pollution caused by ships' movement.

One of the most important factors that causes serious pollution and damages to the marine and land environment is the balance water used and when needed discharged by the ship. This attitude is the principal act that creates unbalance in different ecosystems, because it transfer from an area endemic creators, to other part of the world endangering the wild marine life of another ecosystem. The most resistant animal species that arrive alive to the "destination", are the species that cause the major harms and damages to the new environment and this the main concern and reason to fight this type of pollution.

Continuing to talk about the factors that cause pollution in the port cities are the charge and discharge of packed or in bulk goods. These goods can include aliments, chemical, mineral solid, liquid or gas goods. Because some of them can be also dangerous for the public health, a special agreement has been formulate for the transport regulation of such goods.

Mrs. Ranjabari and her colleagues concluded their speech, answering to the questions of the presents regarding the interaction of coastal cities and ports.