

The sustainable development of the Black Sea environment is a very important topic for the architecture and urban planning. It is especially true for the coastal spaces which are occupied by industrial ports that have been left in the centers of contemporary cities. Industrial processes in these ports begin to lag behind in technology because the territorial development of these specific areas is impossible. The cities suffocate their ports and make their operation inefficient and increasingly dangerous on the one hand to the people in the city, and on the other hand to the marine environment which is in a direct contact. This is a process which is observed in our two largest sea ports of Varna and Burgas. The rapid pace of development of the two maritime cities as major summer tourist and recreational destinations does not meet the industrial progress in their ports. Ports themselves from industrial hubs become one island zone doomed to urban isolation. This phenomenon continues to grow and the lack of measures for the conversion of these problematic port areas leads to their continued exploitation as dangerous to the marine environment. Creation of a new marine environment of recreation and tourist functions at the place of the old industrial port areas will contribute to the sustainable development of our major seaside towns. Opportunities for redevelopment of areas and port buildings will create more places for human contact with the sea. Such urban method aims to improve the environment and microclimate for living in the city, especially the city center as it minimizes the danger to sustainable development areas. In our urban practice there are available renovation projects in parts of the port areas of Varna and Burgas, which will be analyzed in this poster. Thereby it is taken into account as far as they are affected by current environmental, urban and architectural trends of sustainable development.

INTRODUCTION

The port facilities of Varna (port 'Varna-East') and Burgas (port terminal 'Burgas-East') (Fig. 1), which were built in the early twentieth century, are already within the scope of the downtown area and create architectural and urban planning problems. They affect the normal operation of the urban areas and make industrial development of port areas very difficult. The concepts which are discussed to solve the problems are manifold, but they all essentially aim at.

Relocation of port territories on which the industrial processing of goods outside the city center are made. Reconstruction of port areas, which are situated in the city centers and changing parts of them for different activities directly linked, and service centers of coastal cities, thereby the ports become an essential part of them.



Fig. 1 Satellite images which reflect the current status of the port 'Varna-East' in 2013



Fig. 2 Satellite images which reflect the current status of the 'Ports of Burgas' in 2013

CITY AND PORT OF VARNA



Fig. 3 Satellite images which reflect the current status of the port 'Varna-East' in 2013

'FOURTH INTERNATIONAL WORKSHOP IN ARCHITECTURE' 2011 organized by Chernorizets Hrabar Free University of Varna

The project strives to reconstruct port 'Varna-East', which now is busy with industrial and storage activities, and its reconstruction into a modern administrative, business, commercial, cultural and entertainment substantial ingredient of the city center. In pursuance of these objectives, the team proposes valuable existing buildings to be preserved and to be adapted to new functions. The important structural links with the city are reported, which treat the transportation and communication, environment, aesthetic and functional planning of the 'new' territory. The main goal of the authors is to provide a memorable silhouette of the port area, which takes into account the specifics of the site in which dominates the ensemble of the proposed new municipality of the city with a distinctive square and highest building of luxury five-star business hotel.

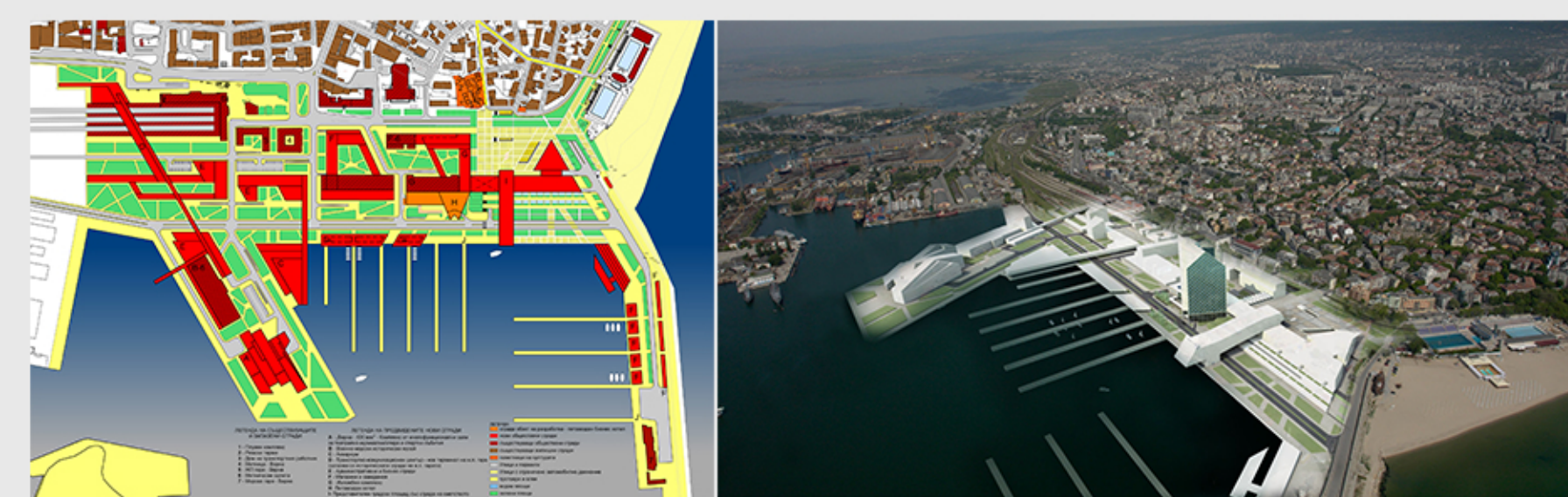


Fig. 4 Scheme (left) and visualization (right) of the project for architectural and urban planning reconstruction of the port 'Varna-East' by team of Chernorizets Hrabar Free University of Varna with the participation of the author of this poster and tutor Prof. arch. Ivan Nikiforov, D. Sc., First Prize, 2011

URBAN PLANNING LEGISLATION

Existing urban plans that treat opportunities to change the status of the port 'Varna-East' are Master Plan of 1982 (Fig. 4) and its successor - Master Plan of 2012 (Fig. 5). In MP of 1982 only a small part of the northern side of the port, immediately bordering on the central urban area, is intended for public activities. After 30 years MP gives urban development concept of public service activities across the entire area of the port 'Varna-East'. Another important document, which directly gives the functional composition of port areas, is Master Plan of Port Varna (Fig. 6) which also takes into account the necessity of a direct link with the city. Two stages to release the port area of industrial activities are identified. In the first phase the 1st and 2nd berths are provided and in the second phase of the 3rd to 5th berths to be used, as an area of public urban infrastructure. The chronology in the urban planning of port 'Varna-East' indicates that the concept for change in zone status of the port has its traditions and sense.

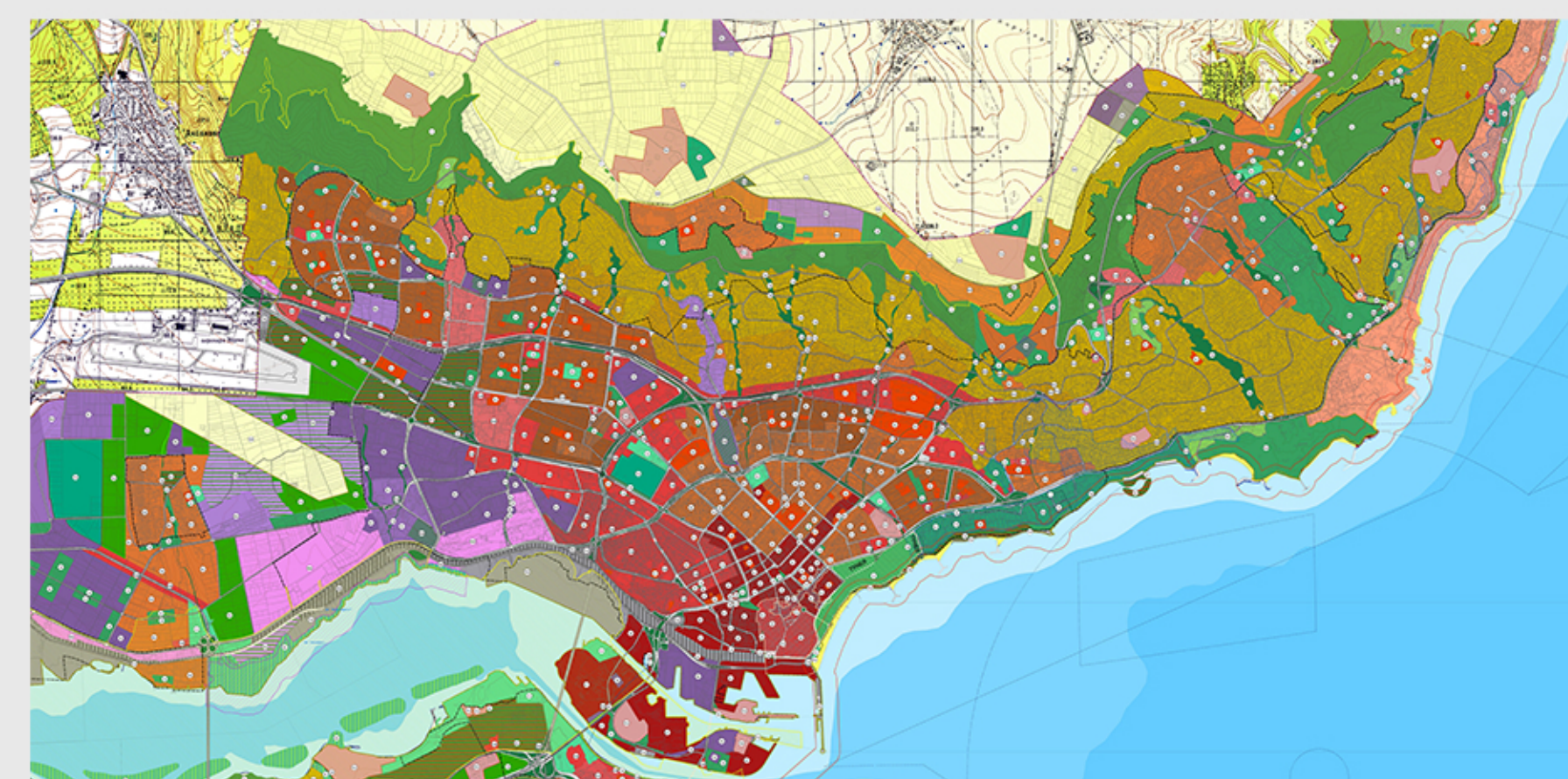


Fig. 5 Master Plan of Varna, a team led by Prof. Arch. Ivan Nikiforov, D.Sc., 2012

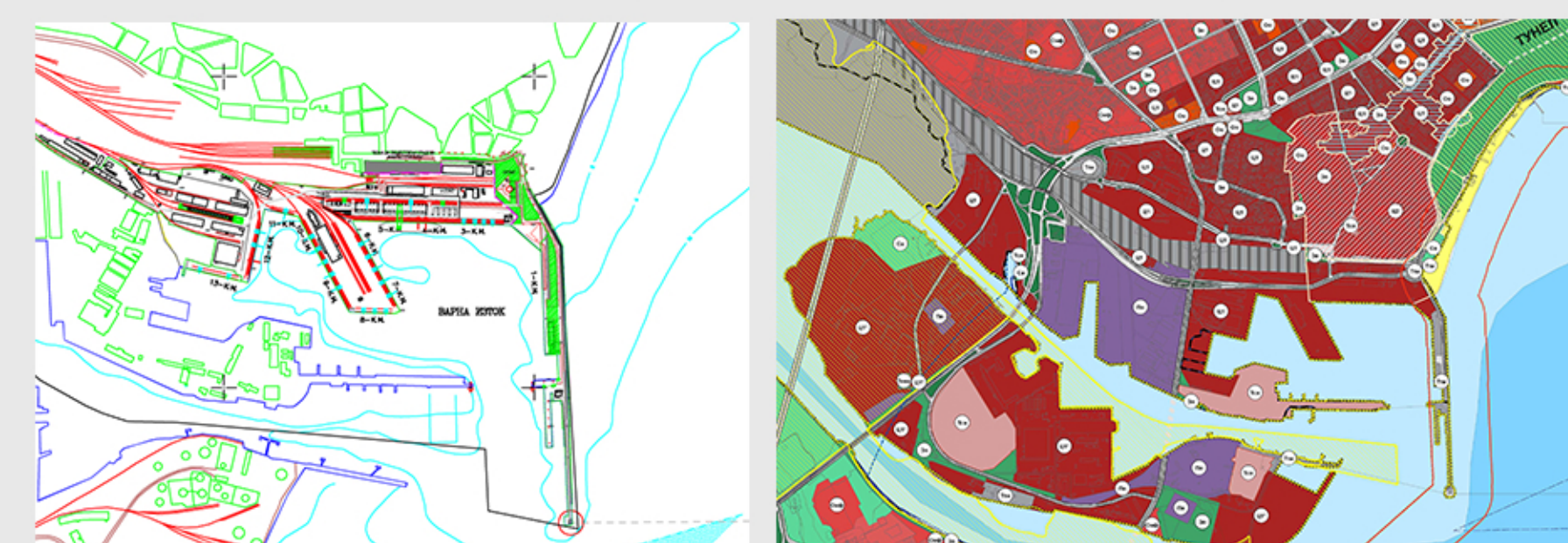


Fig. 6 Excerpt from the partial update of the Master Plan of the Port of Varna with the zone of port 'Varna-East', 2007. Fig. 7 Excerpt from Master Plan with the zone of port 'Varna-East', a team led by Prof. Arch. Ivan Nikiforov, D.Sc., 2012

CITY AND PORT OF BURGAS



Fig. 8 Satellite images which reflect the current status of 'Port Burgas', 2013

TERMINAL 'BURGAS-EAST' - FEASIBILITY STUDIES FOR THE PROJECT 'SUPER BURGAS' - 2011

The project 'Public Access Area of Burgas', or better known in the country as 'Super Burgas', constitutes restructuring of part of the port complex in the part of the terminal 'Burgas-East'. The main points are building intermodal connections among rail, water and bus transport. An important feature of the project is the structural change of the spatial nature of the area that will lead to the development of many different activities such as tourism, passenger transport, recreation, building and public services.

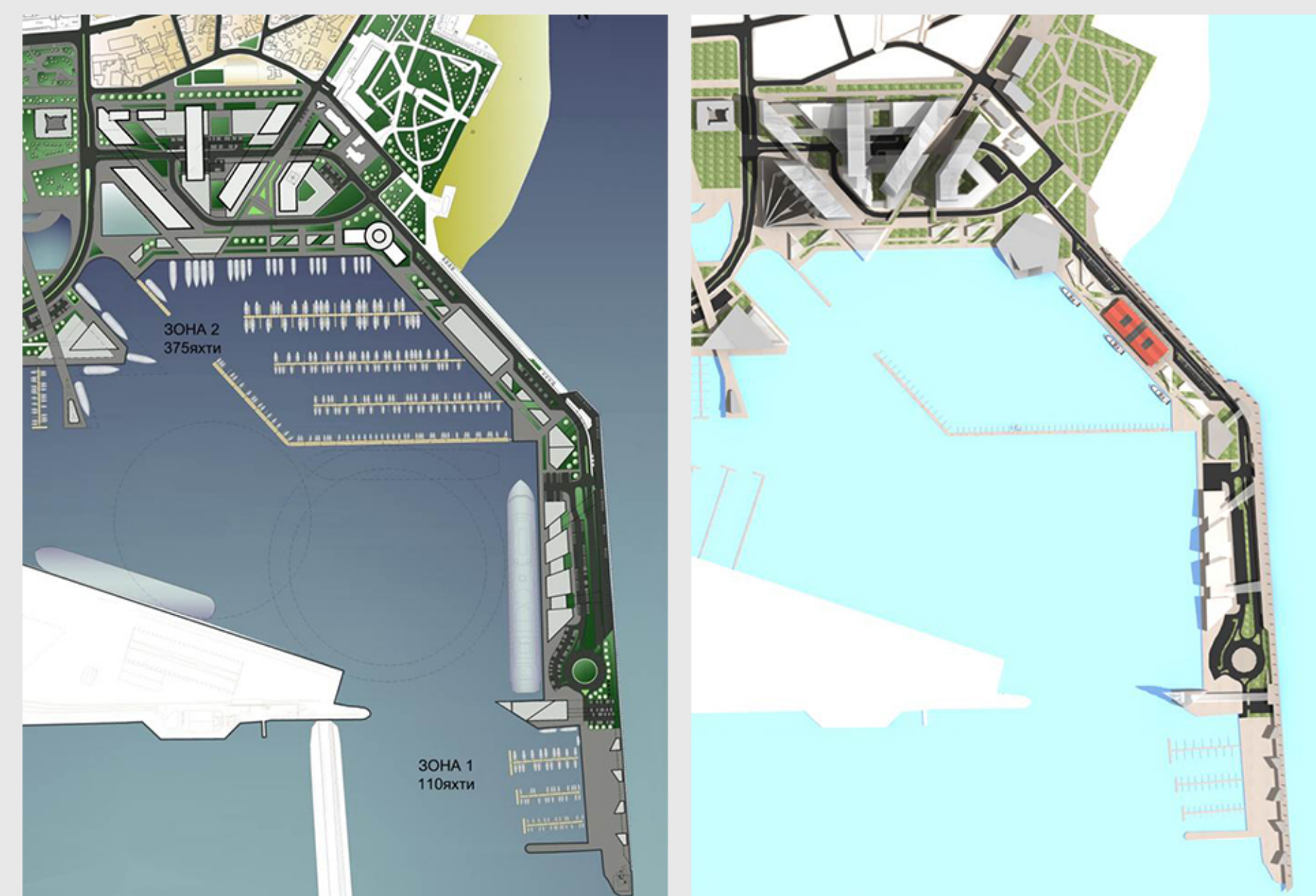


Fig. 9 Plan (left) and visualization (right) of the propose for volumetric and spatial decision within the terminal 'Burgas-East' by team 'PRO AR5', 2011

URBAN PLANNING LEGISLATION

In the urban planning projects which was created for the city of Burgas in 1992 (Fig. 10) and in 2011 (Fig. 11) the territory of the 'Port of Burgas' has always been partly envisaged to create a direct link between the city center and sea. The port acquired application of the concept of reconstruction in 1996 with the making of Master Plan for the Development of the Port of Burgas in 2015 (Fig. 12). In this plan it is provided, without deadlines, the terminal 'Burgas-East' to be open to the public. Outcome of experiments in changing the territory of the terminal 'Burgas-East' for recreation and tourism activities is placed with the approval of the Detailed Urban Plan - a plan for amending the Plan for Regulation and Building of the territory forming part of the port 'East' - from the yacht port to the warehouse of 'Bulgartabac' (Fig. 14).

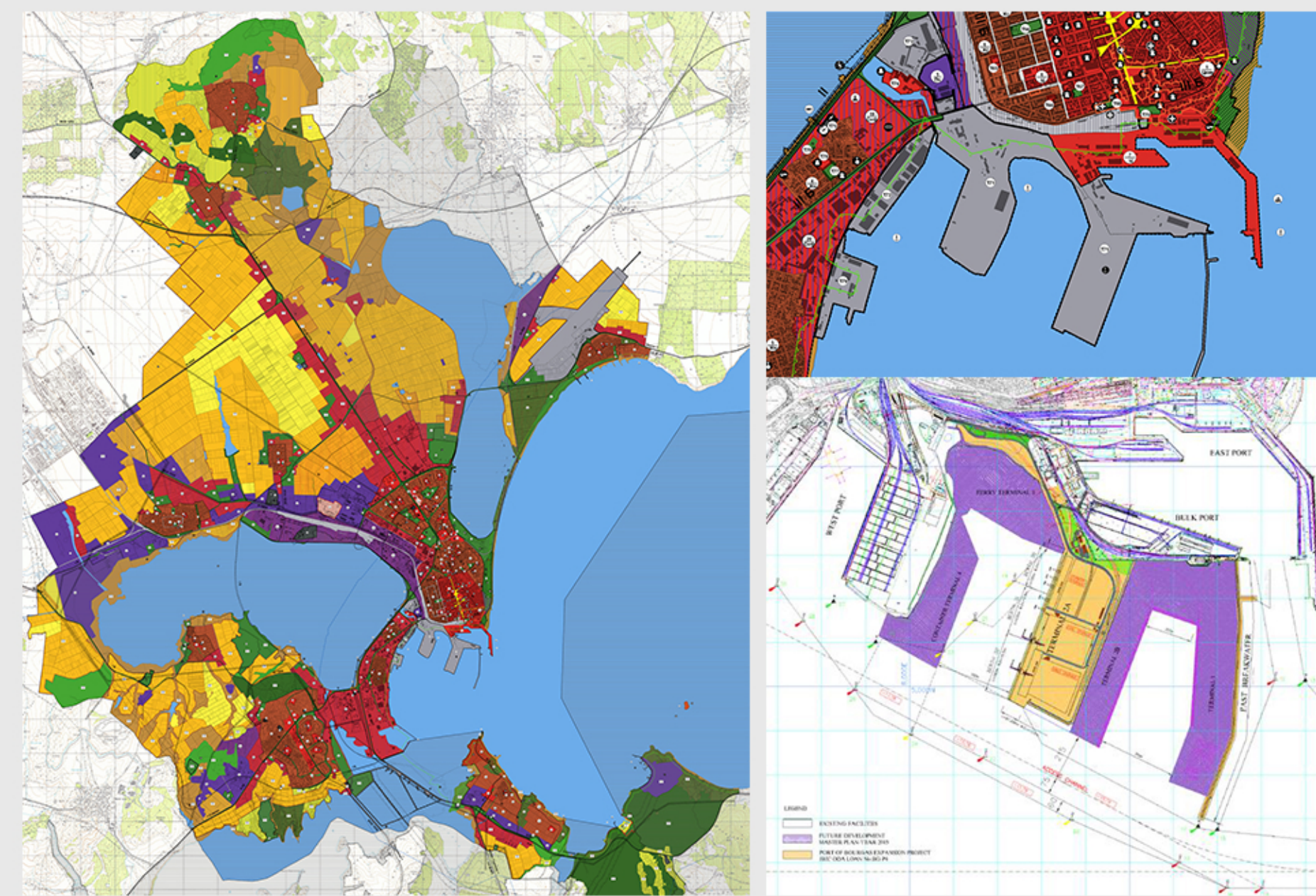


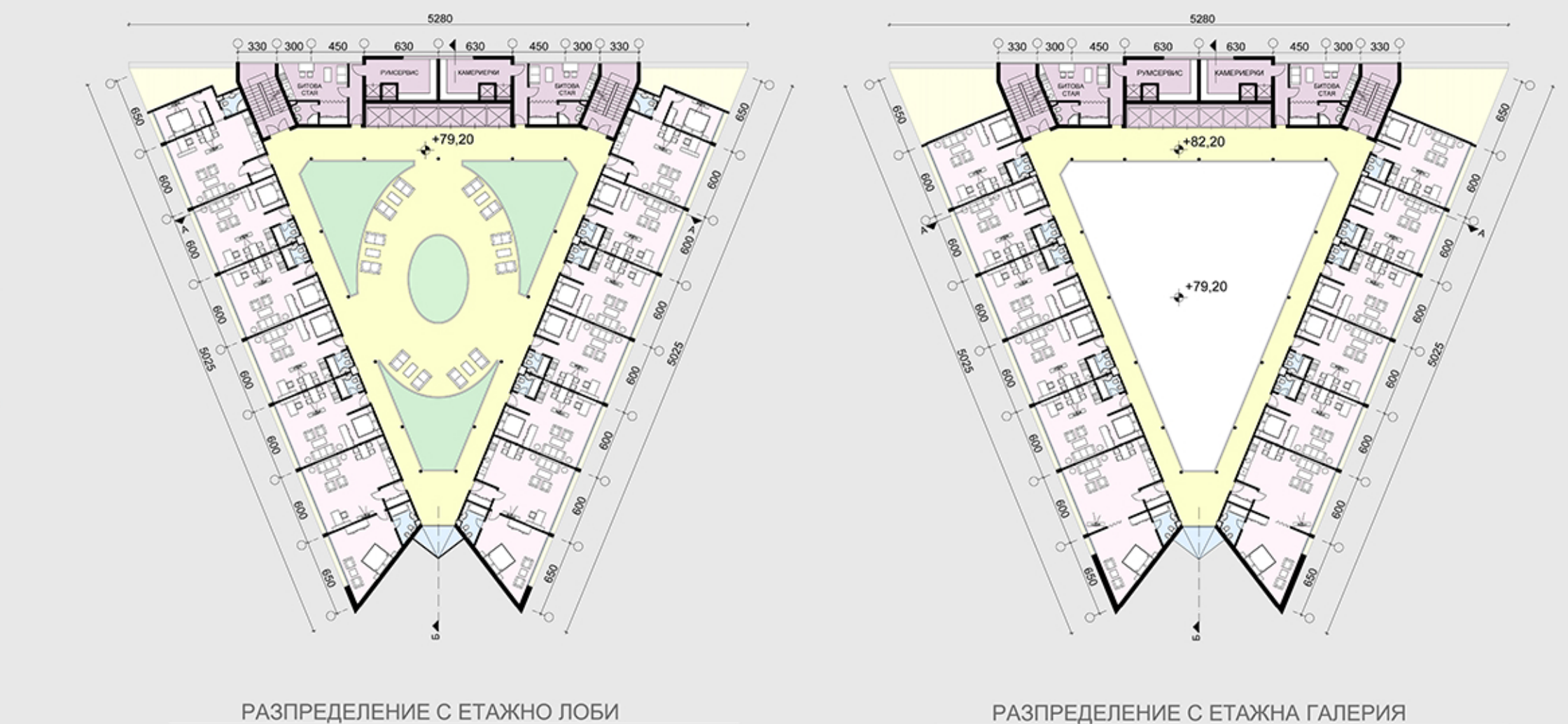
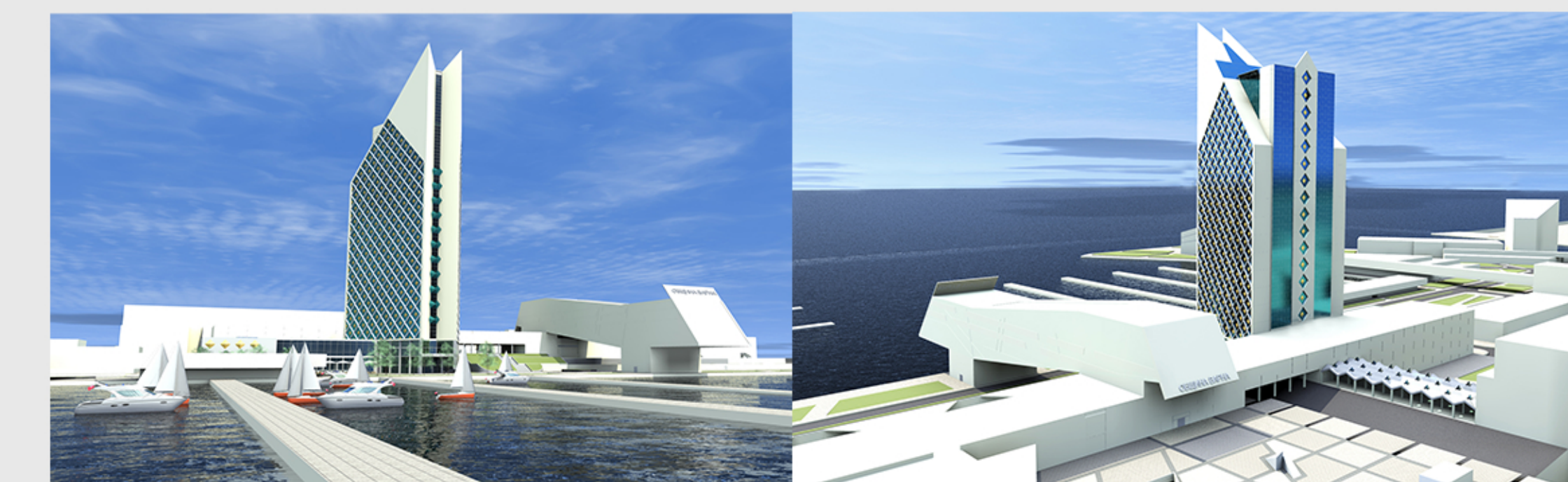
Fig. 10 Master Plan of Burgas, 'Geo stroke' team, 2011

Fig. 11 Master Plan for Development of the Port Burgas, 2007. Fig. 12 Excerpt from plan of Burgas with the zone of terminal 'Burgas-East', team 'Geo stroke', 2011

GRADUATION PROJECT OF ARCH. YORDAN LYUBENOV

The graduation project is on the theme of a five-star business hotel. The work is part of the urban planning project, which won first prize in the 'Fourth International Student Workshop of Architecture' on the theme: 'Reconstruction of the territory of the port 'Varna-East' as a new administrative, cultural and commercial center' in May 2011.

The graduation project adds the workshop project with some new notions and elaborates in the conceptual stage tallest building - a five-star business hotel. The architectural design is influenced by the location of the building, which is close to the sea. A symbolic seaside character of the building is sought, which consists of expressive volume of pure geometric shapes which reinforce the facade with two powerful triangles resembling two sails. The east and west facades are designed with powerful plastic diagonal grids which contribute to the special architectural character of the building. The fragment of the squares from the other facades is repeated on the north facade and together with texture of the curtain wall away from them, they also create distinctive and memorable image from the side of the city. The architecture of the hotel building follows the main line embodied in the idea of reconstruction of the territory of the port 'Varna - East', namely its turning into a facade - the face of Varna.



CONCLUSIONS AND PROPOSALS

Initiatives to architectural and urban renewal of parts of the ports of Varna and Bourgas through development of recreation and tourism functions on them are natural urban processes. They appeared more than fifty years ago, and until today continue to give decisions on the necessary restructuring of the port areas left in the city centers. The review of available examined examples shows the importance of activities in port reconstruction which delay exacerbating the contact of the urban fabric and industrial port areas. After examination of the legislation in urban planning - The Master Plans - it was established that there is an existing legal basis for changing the functional nature of similar problematic coastal areas. The examination, selection and design of all available concepts which are made can be used as the basis for contemporary solutions for reconstruction, whose implementation has not been closer than at present.

