UDK 725.4

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MODEL OF SUSTAINABLE DEVELOPMENT STRATEGY IN A CONTEXT OF INDUSTRIAL ARCHITECTURE CONVERSION INTO NEW SUSTAINABLE SOCIAL FUNCTIONS

The article deals with the important problem of industrial cities in Europe – conversion into new sustainable social functions. The main problems in the frame of Social and Ecological Approaches have been defined and studied. The model of sustainable development strategy in a context of industrial architecture conversion into new sustainable social functions has been developed.

industrial architecture, social and ecological aspects, conversion

PROBLEM STATEMENT

According to present conditions of industrial cities' industrial architecture it is possible to assert that architectural industrial infrastructure demands a new experimental level that means the level of conversion into new sustainable social functions: cultural, administrative, entertaining, residential, recreational etc. Today it is important to make scientific research in a context of conversion into new sustainable social functions.

Relevancy of the present research is defined by aggravating environmental situation in industrial cities because of industrial component that has negative influence on health improvement, psychic and emotional state of people and demographic indices [1, 2].

OVERVIEW OF THE LAST RESEARCHES AND PUBLICATIONS

The problem of protection and use of industrial buildings as well as industrial heritage is so relevant nowadays. There are many organizations and institutions are connected with this problem: scientific and research centers in the leading educational and scientific institutions, specialized organizations with competent professionals, a number of social groups etc. For example, The International Committee for the Conservation of the Industrial Heritage (Great Britain), Research Centre for Industrial Heritage (CTU in Prague) etc. Research in the field of problems of the city environment, including the research of actual problems of industrial architecture and industrial heritage, carried out today by prof. Ing. arch. Tomáš Šenberger, PhDr. Benjamin Fragner, prof. Ing. arch. Petr Urlich, CSc. and Mgr. Lukáš Beran (CTU in Prague) Prof. Hafizula Benai, Igor Lobov (DonNACEA), Prof. Mykola Bevz (Lvivska politechnika), Prof. Mykola Dyomin (KNUCEA) etc.

The **purpose** of present work: to define actual problems of industrial architecture and develop the model of sustainable development strategy in a context of industrial architecture conversion into new sustainable social functions.

The **object** of the work: operating and nonoperating industrial buildings.

The concept of present research work assumes the following **methodology**:

– analytical method (work with special literature and actual scientific and research works);
– analysis and systematization of the studied material;
– modeling (including the grapho-analytical method).

BASIC MATERIAL

It is defined, that sustainable development is a process of global changes with use of natural resources, in investments direction oriented on scientific and technical development, in development of person and institutional changes which are coordinated with each other for strengthen of present and future potential for human needs satisfaction [1–3].

It is necessary to note, that the problem of conversion of industrial architecture into new sustainable social functions is closely connected with general sustainable development strategy. Moreover, the sustainable development is wider than environmental protection.

The XX century was the period of intensive development of industrial technologies in urbanized cities that served as precondition for formation of principles of sustainable development in the field of industrial buildings as well as urban development: urban development activities concerning safety of favorable conditions for human vital activity and other activities for environment protection and rational use of industrial infrastructure for present and future generations [1, 4].

In a context of present research work it is important to emphasize following main strategies: development of social area and rehabilitation with protection of the environment [1, 2, 5]. Consequently, it is important to emphasize Social and Ecological Approaches as the main in sustainable development strategy in a context of present research work.

The Social Approach in the frame of sustainable development strategy is focused on a person and directed on preservation and developing of stability of social and cultural systems. According the Social Approach, industrial architecture is the object of development. Sustainable development conception means that today is important to participate in processes which are connected with the development of modern social systems in industrial cities because of following actual problems:

– deficiency of residential areas (residential buildings, dorms, hotels etc.);
– deficiency of medical institutions (for example, hospitals, hospitals of medical rehabilitation, emergency hospital, geriatric homes etc.);
– criminogenic situation in industrial regions;
– deficiency of cultural institutions (museums, theaters, schools of art, music, exhibition halls, workshops, galleries etc.);
– sport institutions' demands (swimming pools, sport clubs etc.);
– problem of developing of new educational and scientific institutions (preschool institution, schools, universities, laboratories, scientific centers etc.);
– deficiency of recreation areas in modern industrial cities;
– negative visual environment in industrial and surrounded areas;
– deficiency of special objects with social component etc.

Concerning the ecological point of view, the Ecological Approach of sustainable development strategy in a context of conversion of industrial architecture into new sustainable social functions should provide the social functions, including special methods of rehabilitation and protection of the environment. The Ecological Approach in a context of present research work is very important for modern industrial cities because of following actual problems:

– negative influence from operating and nonoperating industrial objects on environment;
– negative influence on psychic and emotional state of people;
– negative influence on demographic indices.

First of all, in a context of present research work, sustainable development assumes ability to self-development and progress of people in the frame of the system of social functions in industrial cities by the conversion of industrial architecture into new sustainable social functions. Secondly, rational use of architectural resources of industrial architecture, including environmentally friendly aspects. And finally, to provide the stable quality improvement of townsmen live.

Based on carried out research work the model of sustainable development strategy in industrial architecture conversion context has been developed (fig.).

SUMMARY

In the frame of sustainable development strategy in industrial architecture conversion context two main strategies have been emphasized: Social and Ecological Approaches. The actual problems of industrial architecture in a context of present research work have been defined. The model of sustainable development strategy in a context of industrial architecture conversion into new sustainable social functions has been developed.

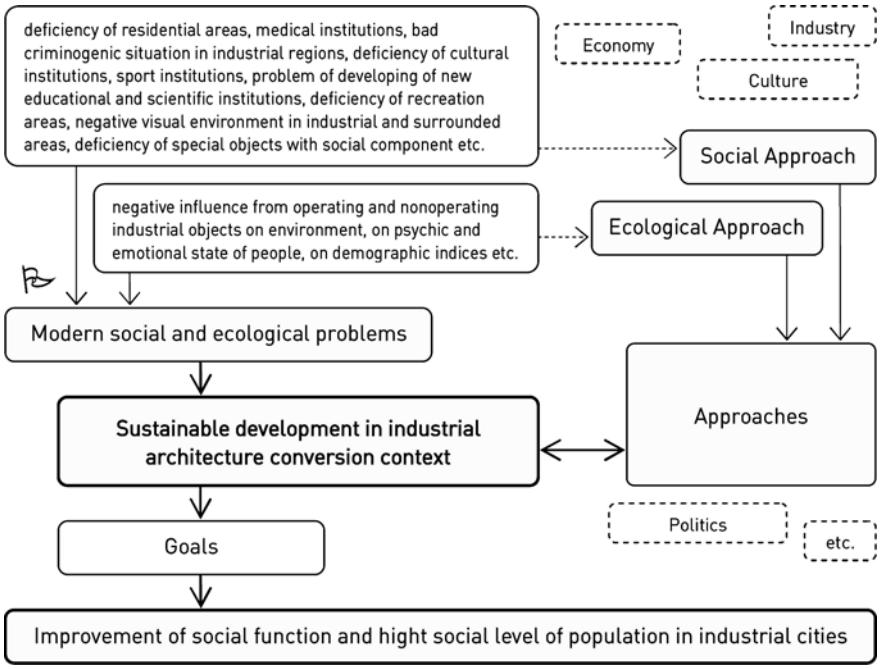

Figure – Model of sustainable development strategy in a context of industrial architecture conversion into new sustainable social functions.

The present research work has been carried out under the leadership of prof. Ing. arch. Tomas Senberger (Faculty of Civil Engineering, Czech Technical University in Prague).

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Received 29.03.2013

О. І. ФЕТІСОВ

МОДЕЛЬ СТРАТЕГІЇ СТАЛОГО РОЗВИТКУ В КОНТЕКСТІ РЕНОВАЦІЇ ПРОМИСЛОВОЇ АРХІТЕКТУРИ ДО НОВИХ СОЦІАЛЬНИХ ФУНКЦІЙ

Чеський технічний університет в Празі

Стаття присвячена важливій проблемі промислових міст європейських країн – реновації промислової архітектури до нових сталих соціальних функцій. Визначені та вивчені найбільш актуальні проблеми в рамках соціального та екологічного підходів. Розроблена модель стратегії сталого розвитку в контексті реновації промислової архітектури до нових соціальних функцій.
промислова архітектура, соціальні та екологічні аспекти, реновація

О. И. ФЕТИСОВ

МОДЕЛЬ СТРАТЕГИИ УСТОЙЧИВОГО РАЗВИТИЯ В КОНТЕКСТЕ РЕНОВАЦИИ ПРОМЫШЛЕННОЙ АРХИТЕКТУРЫ ПОД НОВЫЕ СОЦИАЛЬНЫЕ ФУНКЦИИ

Чешский технический университет в Праге

Статья посвящена важной проблеме промышленных городов европейских стран – реновации промышленной архитектуры под новые устойчивые социальные функции. Определены и изучены наиболее актуальные проблемы в рамках социального и экологического подходов. Разработана модель стратегии устойчивого развития в контексте реновации промышленной архитектуры под новые социальные функции.

промышленная архитектура, социальные и экологические аспекты, реновация