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POWER RECONSTRUCTION HISTORICAL BUILDINGS OF ODESSA – AS THE POSSIBILITY DEVELOPMENT INNOVATIVE TOWN-PLANNING ENVIRONMENT

Production development – complex process which includes scientific researches, designing engineering, experimentation and introduction new teachings in production. Control development is process influence on science officers, designers, experimenters, production workers for security of reaching the purposes of development. Difficulties of control development consist that participants of this process are quite often organizational divorced, work in the different organizations and structures.

The building organisation, as well as any other enterprise, passes certain life cycle (the law ontogenesis), that is included by a number of stages: creation, formation, work in a constant condition, development, liquidation. At each stage of function the enterprise essentially vary. In creation the enterprise does not work. The system which creates the given enterprise works.

Tendencies of economy a modern information society are that, which the science [1, c.29] becomes motive power innovative development of a society. For hi-tech, high technology, technically difficult goods and services the competitive potential is very important, as the enterprise, not capable to create the competitive goods in the future and services, it can appear in general the bankrupt. In the present it in the market can have competitive goods, but it a fruit of last works [2, s.21-22]. The concept covers «a town-planning heritage» both separate buildings, and large quarters, zones of the historical centers and a city as a whole. «The city is the integral of human activity materialized in architecture...». Such capacious definition to a difficult city organism was given by architect A.K. Byrov [3, c.103]. A new city – the instant phenomenon. Time having arisen, it becomes a historical category in the course of the development and is object of modern consideration. Value of a historical architecturally-town-planning heritage is defined by following positions [3, c.105]: architectural and town-planning achievements of last epoch are one of the major components of a historical and cultural heritage; history and culture monuments, the historical architecturally-spatial environment enriches shape of modern cities; presence of the developed ensembles causes aspiration to harmony with surrounding context.

According to varying social and economic conditions of a life in a city organism naturally die off old fabrics and are born new, therefore updating of cities occurs consistently, by replacement of an out-of-date supply available and gradual transformation by this basis planned structures in whole or its separate elements. The purpose of reconstruction and restoration of an architecturally-town-planning heritage is preservation of composite and aesthetic features of the historical city environment. Town-planning reconstruction is a purposeful activity on change before the generated town-planning structure, caused by requirements of development and perfection. The concept reconstruction of cities has double sense. On the first, it reflects development of the occupied places, improvement of their spatial organisation, proceeding long time. On the second, it is material result, a building condition at present. Only having understood these parties of reconstruction in their interrelation, it is possible to approach correctly to an estimation of problems

and to establish methods of a reorganization of cities. Reconstruction – the continuous process which is passing in each city differently depending on the previous growth and modern requirements. It predetermines value of a city as historical phenomenon in which various epoch intertwine. And in a modern city organism its components [3...7] continuously change.

Before builders and architects there is an uneasy problem as reconstruction and the adaptation such objects under new functions should be spent taking into account all requirements and specifications on protection an architectural heritage and to have complex character taking into account prospects development all city, separate quarter and object. Carrying out reconstruction, it is extremely important to keep aesthetic and architectural qualities historical buildings, especially their facades. Therefore, the big attention it is necessary give reconstruction protecting designs.

For all protecting designs a building as a whole, first of all, it is necessary to develop the concept a thermal protection and to make the comprehensive list actions. It will help to make the decision concerning calculation parameters a thermal protection, a choice the sizes and carrying out separate actions for a thermal protection. For each constructive element there are various variants a thermal protection, and our problem – to choose most practical of them. At decision-making the estimation is made by following criteria: power efficiency and the importance within the limits of all complex actions for reconstruction; practical practicability with reference to an available building and risks of by-effects; improvement thermal characteristics, increase comfort and improvement appearance a building; cost and an estimation as a group received improvement quality.

Before the beginning planning power reconstruction it is necessary to be defined with quantity power consumption to which it is necessary to aspire. In an original form it is recommended to stop on an intermediate variant somewhere in between the improved building and "the passive house". Exact values will be defined within the limits of the further planning. Basically it is possible to choose both the maximum thickness of isolation, and minimum. The matter is that in parallel with thermal protection measures on decrease in consumption energy, including on hot water supply, other measures are planned for economic-household installations and the equipment and other needs also. The principle question demanding the answer, is put so: what expenses are demanded by realization this or that measure, and what economy energy it will allow to achieve?

At legislative level in Odessa operate: the Program of support of investment activity in territory of a city Odessa on 2016... 2018 [8] which acceptance is caused by necessity creation conditions for activization of the investment activity directed on improvement environment for conducting business and economic activities, improvement of the general macroeconomic indicators, as consequence maintenance of constant social and economic development of a city Odessa; and the Complex Program of development building in the city Odessa on 2013... 2018 [9] which is directed on the decision such basic problem questions town-planning sphere of a city Odessa as housing construction development, and also updating a technical condition of objects social appointment and an engineering-transport infrastructure.

Successfully to develop CSTC T-PPR it is necessary to consider changes in a control system of municipal economy, and the happened cardinal changes in economy. Especially it concerns problems with acceleration of technical updating of sphere of manufacture of building materials.

Reconstruction of historical building has the big social and economic value. Its primary goals consist not only in prolongation of service life buildings, but also in liquidation physical and an obsolescence, improvement conditions residing, equipment of residential buildings by the modern engineering equipment, increase operational characteristics and architectural expressiveness. In Odessa in a context of the international integration to standards power efficiency buildings city target programs operate: the City target program of inclusion of the central historical part of

building Odessa to the basic list of the World inheritance of UNESCO on 2013...2018 [10] and the City Program power efficiency of Odessa on 2013...2018 [11].

As a result of an unsatisfactory condition of an available housing, an street-road system, engineering communications, deterioration of comfort of residing, and as a whole losses of integrity perception the historical environment in the central historical area the city, and also deterioration of tourist and investment appeal the city complex target program «Preservation of authentic building and development of the historical centre of Odessa» [12] is developed.

In town-planning is shown the tendency to integration, both in sphere of production of goods, and in management sphere; the expanded reproduction demands the further increase of level a division of labor, concentration and specialization of building manufacture, an intensification of an exchange of results is industrial-economic activities. As one of perspective forms of integration various complexes act in town-planning structure; in the course of formation of plans of social and economic development of large cities even more often there is a situation when for increase of efficiency used financial, material and a manpower concentration of efforts, but also new progressive forms of the organisation of building manufacture – corporate, scientific and technical is necessary not simply, power efficiency. We offer to create corporate complexes which have various scales, the purposes, structure (in town-planning reconstruction – Corporate scientific and technical complexes town-planning power reconstruction "CSTC T-PPR") [13...16].

Securities management personnel by the scientific and technical information (bibliographic, archival, is architectural-building) on reconstruction (restoration) of historical buildings are one of the most important functions control by development a complex town-planning power reconstruction. The availability of such information will allow at each stage (conceptual, financing organizations, design, organizations and realization construction and restoration works) more all full and qualitatively to define directions development and to realize objects in view.

The productions of function control selected on subsystems by development include control of technical, organizational, economic and social development. Necessary complex realization of these functions (the proportionality law). Experience shows, that single-sided development does not give notable effect if not it is accompanied by corresponding development of other subsystems connected with it. Development of forms the organisation industrial subsections directed on expansion and expedient junction specialization, a combination and concentration.

Control of development the organisation production on plants historical buildings of Odessa has for an object to ensure the co-ordinate, uninterrupted, rhythmic work all participants building process, and as outcome reduction terms reconstruction.

References:

1. Buj, D., Biloshhich'kij, A, & Goguns'kij, V. (2014). *Scopus ta inshi nauko metrichni bazi: prosti pitannja ta nechitki vidpovidi* [Scopus and other scientometric base: simple questions and unclear answers]. *Vishha shkola*, 4, 27–40 (in Ukrainian).

2. Chernov, S. K., & Koshkin, K. V. (2010). *Konceptual'nye osnovy razvitija naukoemkih predpriyatij v konkurentnoj srede* [Conceptual bases of development of high-tech enterprises in the competitive environment]. *Vostochno-Evropejskij zhurnal peredovyh tehnologij*, 1/2(43), 20–22 (in Russian).

3. Prucyn, O., Rymashevskij, B. (1990). *Arhitekturno-istoricheskaja sreda* [Architectural and historical environment]. Moscow: Strojizdat (in Russian).

4. Rossohin, S. O. (2009). *Onovlennja mist i modernizacija zhitlovogo fondu Ukraïni: problemi i perspektivi* [Urban renewal and housing modernization Ukraine: Problems and Prospects]. *Stroitel'stvo, materialovedenie, mashinostroenie*, 50, 455–461 (in Ukrainian).

5. Kravchunovs'ka, T. S. (2009). *Do pitannja kompleksnoi rekonstrukcii kvartaliv [On the issue of complex reconstruction quarters]. Stroitel'stvo, materialovedenie, mashinostroenie, 50, 271–276 (in Ukrainian).*

6. Gabriel, I., & Ladener, H. (2010). *Vom Altbau zum Niedrigenergie und Passivhaus. Dresden: Staufen bei Freiburg.*

7. Verhogljadova, N. I., & Levchinskij, D. L. (2009). *Kompleksnoe razvitie i planirovanie rekonstrukcii zhiloi zastrojki [Integrated development planning and reconstruction of residential buildings]. Stroitel'stvo, materialovedenie, mashinostroenie, 50, 90–94 (in Russian).*

8. *Prohrama pidtrymky investytsiinoi diialnosti na terytorii mista Odesy na 2016-2018 [Programme support investment in the city of Odessa in 2016-2018] (Ukraine) 16 March 2016, No 438-VII. Retrieved from <http://omr.gov.ua/ru/acts/council/81386/> (in Ukrainian)*

9. *Kompleksna Prohrama rozvytku budivnytstva u misti Odesi na 2013-2018 [Integrated Development Programme building in Odessa in 2013-2018] (Ukraine) 17 December 2013, No 4196-VI. Retrieved from <http://omr.gov.ua/acts/council/56540/> (in Ukrainian)*

10. *Miska tsilova prohrama vkluchennia tsentralnoi istorychnoi chastyny zabudovy Odesy do osnovnogo spysku Vsesvitnoi spadshchyny YuNESKO na 2013-2018 roky [City target program include central historical part of Odessa area to the main UNESCO World Heritage Site in 2013-2018 years] (Ukraine) 16 April 2013, No 3313-VI. Retrieved from <http://omr.gov.ua/acts/council/49938/> (in Ukrainian).*

11. *Miska tsilova prohrama enerhoefektyvnosti m. Odesy na 2013-2018 roky [City target program of energy efficiency. Odessa in 2013-2018 years] (Ukraine) 21 December 2012, No 2454-VI. Retrieved from <http://omr.gov.ua/acts/council/47098/> (in Ukrainian).*

12. *Official Site of Odessa. (2016, November 1). Razrabotka koncepcii razvitija Central'nogo istoricheskogo areala Odessy [Development of the concept of the central historical area of Odessa]. Retrieved from <http://omr.gov.ua/ru/essential/89744/> (in Russian).*

13. *Posternak I. M., Posternak S. A. (2016). Corporate scientific and technical complex town-planning power reconstruction "CSTC T-PPR" Odessa. The development of international competitiveness: state, region, enterprise: materials of the International scientific conference. Lisbon, Portugal: Baltija publishing. Part II. Volume 1. Business economics and corporate management: innovation problem. pp. 6–8.*

14. *Posternak, I. M., & Posternak, S. O. (2016). Korporativnij naukovo-tehnicnij kompleks mistobudivnoi energorekonstrukcii KNTK MERek: vitoki [Corporate scientific and technical complex town-planning power reconstruction CSTC T-PPR: sources]. In Scientific horizons – 2016 (Vol. 1, pp. 26–29). Sheffield: Science and education LTD (in Ukrainian).*

15. *Posternak, I. M., & Posternak, S. A. (2016). Sohranenie ob'ektov kulturnogo naslediya Odessyi s uchetom energomenedzhmenta [Preservation objects of a cultural heritage of Odessa with the account power management]. Preservation of historic buildings in the central part of Odessa via inscribing in the UNESCO world heritage list (pp. 220–223). Odessa: Astroprint (in Russian).*

16. *Posternak I. M., Posternak S. A. Die kalenderplanung bei der organisation des baues des komplexes städtebaulich energetisch-rekonstruktion. Economy and society: a modern foundation for human development: materials of the II International scientific conference, Germany, Leipzig, June 23th, 2017; Leipzig university: Faculty of economics and management science. Baltija publishing, 2017. Part II. P. 44–47.*