

DEEP ECOLOGIZATION AS TOPICAL BASIS OF ECOLOGICAL CONSTRUCTION



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Summary

The sustainable city environment may be improved with the help of ecologization: 1. Integration of social, economic and ecological factors of creation of the sustainable city environment. 2. Maintenance of a high-quality ecological infrastructure in city and around of it for support of quality of the environment in sustainable city. 3. The ecologization of the architectural-building environment to provide satisfaction of needs of inhabitants and at the same time achievement of a condition of ecological equilibrium. 4. The ecologization of all activity in city - industry, power engineering, transport, water consumption, waste processing, etc. 5. Ecologization of needs of inhabitants and inculcation of ecological ethics. The ecologization should be long and continuous, multilevel, various, dependent on the geographical position, presence and variety of resources, economy, landscapes, a degree of mastering of territories, ethnic traditions and preferences and so forth. In a basis of the concept of the ecologization should lie vitally factors for inhabitants of regions and the planet: creation and indefinitely long preservation of the environment of life by high and ecologically well-founded quality and at support of a necessary parity between built and natural territories; achievement of ecological equilibrium between the urbanized and natural environment, at observance of the basic ecological postulates.

Keywords: Ecologization, ecological infrastructure, ecological restoration, ecologization of activity, ecologization of needs, ecological education

1 Introduction – Levels and directions of all-embracing ecologization

Author proposes the new program of ecologization, which may be used for any city or town. It includes three basic parts of all-embracing ecologization (it is similar to three whales supporting the Earth in ancient legends): 1. Ecologization of all landscape components (ecological restoration of air quality, of water, of soil, of relief, of flora and fauna, etc.). 2. Ecologization of all activity in the city (of industry, transport, energy, building, etc.). 3. Ecologization of all townspeople needs (of biological, economic, working, social, ethnic needs, etc.) and ecological education. This program allows

fulfilling the sustainable construction, to achieve a high level of life quality in city and to achieve an aim of restoration of ecological balance. It is possible to believe, that the ecologization is the hierarchical system (from global up to local) of knowledge, actions and decisions on preservation of the environment of life, support of ecological equilibrium, reduction of negative influences of human activity to the natural environment and gradual transition to the "soft" interaction with nature directed on preservation and restoration of the nature and of environment of life, with use of environmentally safe and restoring methods of managing, with ecologization of all built environment. There are many levels and directions of ecologization, beginning at ecologization of all landscape components and ending with ecologization of needs of people.

2 Features and complexities of ecologization

The ecologization of all described above directions is in progress with the difficulties caused by many reasons. The following features of world development influence now on possibility of wide and deep all-embracing ecologization:

1. Plurality of social-political and social-economic systems – from democracies up to the authoritarian states, that, certainly, influences achievement of the equality, that is very important at ecocity creation. 2. Plurality of geographical conditions in which is possible the all-embracing ecologization which are very important for harmonious interaction with the landscape, for achievement of a condition of ecological equilibrium, for use of ecological urban, architectural, building, technological decisions in future ecocity. 3. Plurality of ethnic groups, ethnic traditions and preferences. 4. The extreme variety of existing big and small cities. 5. The big distinctions in a level of technological development of the countries, in access to the most important resources, to available territories, and so forth. All these features are extremely important on way of all-embracing ecologization. Additional features of development of mankind depend on objective laws of development of the world. It is necessary to have in view during analysis of concept of ecologization: 1. Binary plurality of the world of nature. 2. Features of simplified human thinking. 3. Objective instability of development of world. The conception of ecologization should be plural, it should take into account objective plurality of the world, features of simplified thinking, and it should have adaptive character. Uniform conception of ecologization for all countries and peoples, for all geographical and national features cannot be used. There are scientists in this field Deelstra T. 1998, Downton P. 2004, Girarde H. 1992, Meyer R. 1993, Register R. 2002, Rogers R. 1997, Steemens K. 2004, Wang Rusong, 2002, Tetior A. 1992, 2003, etc.

3 Basis of ecologization of all activity

The system and deep ecologization of thinking should be in the basis of this activity. The ecologization of thinking should be based on knowledge of laws of development of nature, of its reaction to influences of the person. All ecological postulates have cautionary character. They are directed on increase of stability, elasticity (adaptive ability), self-control of ecosystems, preservations of their potential for reaction on negative influences without essential decrease of their initial functions and without destruction. They testify to necessity of the soft, mediated, nature restoring attitudes to the nature at building. All components of nature, landscapes, flora and fauna, all environments of life, are in organic

unity, integrity, stability and self-control (homeostasis). Among themselves not only the nearest neighbors in ecological niche, but also the most remote parts of nature constantly interact. Their interaction proceeds, first, with transfer and transformation of substances and energy. Second, it is carried out at satisfaction of needs - food, sexual, territorial etc. Thirdly, there is a remote interaction of various physical fields. All wildlife is in homeostatic balance with the environment, all animate organisms and ecosystems as highly organized systems have significant negative entropy. Self-organizing and self-control of natural systems are directed on achievement of equality to zero of their entropy for what there were mechanisms of self-control, including hierarchy of natural systems. Ecologization should be long and continuous, multilevel, various, dependent on the geographical position, presence and variety of resources, economy, landscapes, a degree of anthropogenic interference in natural territories, ethnic traditions and preferences and so forth. Ecologization must be directed on creation and indefinitely long preservation of the environment of life with high, ecologically well-founded, qualities, on maintenance of the necessary parity between the built and natural territories and on achievement of ecological equilibrium between the urbanized and natural environment, at observance of the basic ecological postulates.

4 Interconnected factors determine the ecologization

There are interconnected factors of all-embracing ecologization. Economic factors: Level of economic development of the country and city; Level of perfection of technologies of all branches of facilities (economy); Negative load of the last decisions of cities and environments in them; Dependence on resources of other countries (big ecological footprint extending on remote territories); Presence of economic resources for development, applications of cleaner technologies, elimination of former pollution; Degree of conformity of level of development and satisfaction of needs to natural-resource potential of territory. Socially-political factors: Level of social stability of the country, city; Equality, equal access to resources, to the social material comforts; Struggle against criminality, poverty, homelessness. These factors are governing conditions in achievement of all-embracing ecologization.

5 Plurality of socio-political and socio-economic systems

This plurality influences opportunity of all-embracing ecologization. Differences in social-political and social-economic systems are connected with level of technological development of the countries, with access to the most important resources and to available territories, etc. Authoritarian states will not support the international cooperation in achievement of economy of resources, in use of renewable resources, in equality, in decrease of ecological footprint, etc. It is impossible to imagine all-embracing ecologization in conditions of dictatorship, or fascism. These countries will not support the common to all mankind values, ecological ethics and culture, without which all-embracing ecologization is impossible.

6 Plurality of geographical conditions

The all-embracing ecologization may be realized in plurality of geographical conditions in which exert influence on possibility of harmonious interaction with the landscape, on achievement of a condition of ecological equilibrium, on use of ecological urban, architectural, building, technological decisions with all-embracing ecologization. Maybe in different geographical conditions the ideal all-embracing ecologization cannot be created (very cold climate, unproductive landscapes, etc.). All-embracing ecologization in such conditions will have the limited opportunities of creation of the high-quality environment, economy of the energy, ecologically well-founded restriction of an ecological footprint.

7 Plurality of ethnic groups, traditions and preferences

This plurality will influence choice of ecological decisions and installations, which are corresponding to ethnic traditions and preferences. It concerns architectural physics (indoor climate, light and sound environment), sizes of rooms and buildings, their appearance, used materials, requirements to satisfaction of needs for dwelling, etc. The ethnic variety is the positive property of ecocity influencing its beauty. However, ethnic features and preferences should not contradict ecological laws and ecological ethics.

8 Objective instability of development and binary plurality of unstable world

It is necessary to have in view binary plurality of the world of nature and objective instability of development during analysis and creation of concept of ecologization. Multiplicity (plurality) and duality as one of characteristics of multiplicity are dialectical features of subjects and phenomena of the world. Binary, dual multiplicity, variety is not only one of the most important qualities of the world animate and inanimate nature, as well as strategic direction of their evolution. The world develops from simple and monotonous to binary multiplicity, dual variety. Possibility of all-embracing ecologization is connected with resilience of environment of life as its ability to return in initial condition after changes under influence of negative factors, ability to sustain external and internal influences without destruction and changes of basic functions. It has fundamental value as the major condition of evolution of nature and person. Therefore, the concept of ecologization should be plural, it should take into account objective plurality of the world, features of simplified thinking, and it should have adaptive character. Uniform ecologization for all countries and peoples, for all geographical and national features, has no future.

9 Objective development of world with bifurcations

Evolution of settlements always developed with branching. Now there are simultaneously opposite settlements on key parameters: technically perfect mega cities of advanced countries, dirty cities of poor countries, and even the poor settlements with houses as ancient tents and huts. Social – ecological aspects of history of development of cities are dual: quality of life in cities of developed countries raises, area of natural territories is reduced, and pollution acting in nature grows. Evolution of nature, society, and person

proceeds with bifurcations, sooner or later balancing "positive" and "negative" (from the point of view of the person) branches. Only such evolution supports existence of holistic binary plural world, which can exist due to binary plurality of subjects and phenomena. Thus, holism (integrity) of the plural world is expressed in dynamical combination of mutually counterbalancing subjects and phenomena making the general mosaic picture of integrity.

10 Features of thinking of person

The basic driving force of development of the most part of humankind is the aspiration to satisfaction of needs and, hence, to achievement of appropriate positive emotions. The short-term memory, in which the person "lives", is limited on volume. The sources of it lie in necessity of fast reaction and survival. This thought does not allow foreseeing the remote consequences of man's activity. The contradiction between aspiration to simplified dual and even to one-polar perception of the reality and real binary plural world of nature leads to complexities of mutual relation of the man with nature and to crises. The man is compelled to manage the complex world of nature with the help of simple methods. Many major steps of humankind are consequences of casual, superficial choice, without a rating of distant consequences.

11 Use of architectural-building bionics for ecologization

Architectural-building bionics helps the decision of any problems of ecologization. Collation of natural principles of creation and functioning of living organisms and their communities, their designing and other particularities with principles, used in the construction, shows highly efficient directions in the improvement of construction – from using the natural material and up to relations of building with nature.

12 Conclusion

All-embracing ecologization of all directions of people activity may be the basis of sustainable construction. Many features of world development influence on practicability of the all-embracing ecologization: binary plurality of the world of nature, features of simplified human thinking, objective instability of development of world, plurality of socio-political and socio-economic systems, plurality of geographical conditions, plurality of ethnic groups, ethnic traditions and preferences, extreme variety of existing big and small cities, big distinctions in a level of technological development of the countries and all of the World.

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