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# Knowledge-based Civilizations: the Search of Development (Socio-Philosophical Trends)

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**Abstract** — Knowledge-based civilizations are considered as new socio-philosophical phenomena, the complexity of conceptualizing their initial attitudes is shown. The article substantiates the need to develop a theory of civilizational coding as a mechanism for the formation of new knowledge that affects the socio-economic and spiritual and moral development of civilizations, the acceleration of economic growth of states, the increase in the level of spirituality of a person and society in the conditions of challenges, risks and bifurcations. An attempt has been made to create a civilizational paradigm of concrete actions based on the acquisition and use of new knowledge, allowing to determine the meanings and guidelines for the development of various events, to identify the causes that determine certain negative phenomena

**Keywords** — civilizations; sociology; civilizational code; new knowledge; philosophy; cascade of bifurcations.

## I. INTRODUCTION (HEADING 1)

“The Long Twentieth Century”, the components of which were the destruction of “old” regimes and the simultaneous creation of “new hopes and illusions”, in Arrigo Giovanni’s figurative expression; a famous Italian scientist and professor of sociology at Johns Hopkins University, was a time of fear and suffering, world wars and weapons of mass defeat, terrorism and climate shocks, new deadly diseases and concentration camps, genocides and the GULAG [1].

In none of the past historical eras has there been so much violence, killed and wounded, deprived of freedom and dignity of people. After the Second World War, due to the wildest world conflict, an interesting international project arose - the United Nations Organization, which also did not meet the hopes of millions of people. Humanity waited for the XXI century as a time capable of solving many problems, such as ending wars and poverty, disease and hunger, illiteracy and inequality,

violence and ugliness. After the turbulent end of the last century, it seemed that the time of storms had passed, and now the ship called the Earth is waiting for a happy voyage [2].

According to many modern researchers, the current century will be even more ambivalent and unpredictable, unusual and to some extent surprising, which is characterized by cultural and spiritual uncertainty, disruption of the unity of civilizational streams and a conflict of symbiosis and synthesis of cultural foundations. In a state of bifurcation, in a situation of choosing the future, it is rapidly moving towards a model called “chaos”. On the one hand, it is at the forefront of an intellectual revolution that will fundamentally change the way people live, work and communicate with each other. In recent years, the society has made huge strides forward in the development of science and technology: from laboratory experiments with fruit flies to “reproductive” cloning of living things and the creation of genetically modified organisms; from heat lamp computers the size of a house to a much more efficient miniature device that fits in the palm of your hand; from Yuri Gagarin’s flights to the landing of spacecraft on the Moon and Mars and from an electric engine to a nuclear reactor and a hydrogen bomb. Artificial intelligence and neural networks, robotics and genetics, management and control over large amounts of data, massive introduction of new digital technologies that form the basis of “Industry 4.0” and wireless communication enhance the efficiency of intellectual resources in people’s lives, contribute to their transformation into the most important subjects of modern civilization. Today, the level of knowledge has already reached such a level that almost any information can be found on social networks in ten seconds. The development of technologies, primarily computer and telecommunications, has led to the fact that the number of high-tech research turns into quality [2, 3].

On the other hand, the world is terrible for its unpredictability. The habitual models of life are destroyed, the boundaries of the permissible change can

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collapse in a few minutes, like the 110-storey twin towers. Man is gradually becoming one of the most dangerous and unpredictable creatures on the Earth. Everything that surrounds him is fraught with obscurity and uncertainty, risk and turbulence, entropy and unpredictability, chaos and death. The cascade of bifurcations (the Feigenbaum sequence, or the period doubling scenario) is one of the typical scenarios for the humanity's transition from order to chaos, from a simple periodic regime to a complex one. The analysis of the mechanisms of this transition in real systems and various models of order showed the universality of these scenarios. The model of the development of a complex system through a sequence of bifurcations and the idea of chaos as an extremely complex and developed structure is applicable to phenomena of a very different nature: physical, biological, social, economic, i.e. to any civilizational systems where there is a sequence of period doubling bifurcations. A cascade of bifurcations leads sequentially to a choice between two solutions, then four, and so on; the system begins to oscillate in a chaotic, turbulent mode of successive doubling of possible values, which can lead civilization to death [2, 3, 4].

"We no longer dream of the future," says Ivan Krastev, the chairman of the Center for Liberal Strategies (Sofia), a leading researcher at the Institute of Human Sciences (Vienna), and Svetlana Babaeva, a member of the Russian Council on Foreign and Defense Policy, who said that: "We are afraid of the future. Even in the Soviet Union, there was not such a situation. They were afraid of the present, but hoped that in the future there would be a different life, the legitimacy of the Soviet system was built on the fact that children would live better. And now a person is afraid that his children will not live better, even if they live longer. Moreover, we can no longer imagine how they, in principle, will live ..." [5].

Thus, scientific and technological progress turned out to be not only triumphant victories for mankind, but also numerous social, political, economic and spiritual problems. Paradoxical as it may seem, the more technically equipped a society is, the less adapted its members are to life. Environmental pollution with production and consumption waste, predatory attitude to natural resources, irrational use of natural resources gave rise to an ecological situation that has become one of the most acute global problems of civilization. The number of man-made disasters is growing in the world, which lead to numerous human casualties, serious damage to human health, destruction of various kinds of objects and material values, large-scale degradation of the environment and other tragic accidents.

After such events, information appears in many publications around the world that modern civilization is dying. For example, Australian experts from Melbourne conducted a study and found that human civilization in its modern form is doomed to extinction in thirty years [6].

But it is not so. Civilization is alive, but it is in a systemic crisis that exists in all spheres of social life, both material and spiritual. The current state of world politics and economics, culture and ecology, spirituality and morality is a crisis of the modern model of the

development of civilization. This is a crisis of "the flesh and spirit of the society", a lack of intelligence and knowledge.

As numerous studies show, the crisis of civilization is, first of all, the terrible use of modern knowledge, its institutional foundations, which give local civilizations a fundamentally new quality in the conditions of the formation of a new social reality. The lack of knowledge for solving modern problems is accompanied by entropy and instability, social, economic and political chaos, spiritual trauma of people, a sharp polarization of society, loss of moral priorities, destruction of social institutions, loss of trust in power, loss of identity and spiritual traditions.

This means that the modern world is working at the limit and requires the search for new possible ways and forms, sources and mechanisms for dealing with the existing problems. It is important to realize that the disastrous risks are taking on global proportions. In this regard, it is important to create new mechanisms for the interaction of civilizations at all levels, both globally and locally. The knowledge paradigm of understanding and managing the development of mankind can become an imperative for the survival and development of states. A new worldview level of understanding of current events is needed, capable of adequately and correctly formulating the existing problems and outlining ways to adequately resolve them, to ensure the transition to a new intellectual level in the study of social reality. At the same time, according to the Belarusian scientist, Doctor of Economics, Professor Kirill Rudy, it is important to take into account everything that affects life - economic laws, personal experience, habits, phobias, intuition, mood, understanding of the present and vision of tomorrow. This is all that is "encoded" in the form of information, emotions, events, and then reproduced in new knowledge [7].

We need a fundamentally new model of human development based on new knowledge. The theory of civilizational coding can become such a model, which makes it possible to go beyond the framework of scientific reflection, to comprehend the problem of "how to develop, where and how to go?" and become an urgent need of the society. But first, it is necessary to answer a number of very complex and important theoretical questions and, first of all, what is civilization in the modern sense, what is its structure and methodology of cognition.

In the current century, the attention of domestic and foreign scientists to the problems of civilization has increased. At the same time, the idea of society as a set of fields with different structures, actors and strategies (a key theme in the extremely influential works of Pierre Bourdieu) is clearly more attractive to many researchers than the idea of civilization [8]. It is necessary to study the civilization more deeply and thoroughly as a sociological phenomenon that affects all aspects of human life. The famous Icelandic sociologist Johan Arnason proposed an ideal type (analytical model) of civilizational formations, in which he distinguished two sides: interpretive-institutional and spatial-temporal [8].

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In his works, J. Arnason develops the so-called relational approach to the study of civilizations. One of its key features is the emphasis on the ability of civilizations to mutual enrichment and borrowing certain civilizational features. At the same time, the development of civilization, according to the author, is not always limited to a predictable scenario - its direction can change under the influence of the creativity of social action and random events. Characterizing the relationship between different civilizations, the researcher highlights the interaction of history and traditions, various ways of modernization and alternative forms of modernity. [8, 9].

The famous Israeli sociologist, specialist in the field of comparative studies of civilizations Shmuzl Eisenstadt proposed a definition of the "civilizational dimension of human societies", which he understood as "a combination of ontological or cosmological visions ... with the definition, construction and regulation of the main arenas of social life and interaction" [10, p. 2]. In S. Eisenstaedt's understanding, we are talking about civilizations not as some self-sufficient structures of the greatest space-time coverage in the spirit of the "metahistorical" tradition of civilizational analysis [10]. His version emphasizes not homogeneity and internal consistency, but heterogeneity, ambivalence and antinomy of the cultural premises of civilizational formations. Cultural orientations of civilizations do not program the institutional structure of societies, but rather form common cultural problematics, suggesting a plurality of different and often contradictory articulations and interpretations, some of which can crystallize into relatively stable cultural models [8, 9].

Based on the analysis of numerous domestic and foreign studies, I propose the author's structural and temporal definition of civilizations - these are social organizations of people located on a rather vast territory, united by a geographical environment and living space, a system of economic management and historical memory, ethnic characteristics and mentality, politics and religion, fundamental values and spiritual and moral traditions, a system of knowledge and technologies for their storage and transmission and constantly developing on their basis.

Thus, at present, civilization is understood as a certain integrity, a set of material and spiritual, mental and moral, aesthetic and other values. The living space and length in time, historical memory and stability in comparison with other social formations, heterogeneity and ambivalence of modernity and constant development in time are its most important characteristics. This approach allows us to formulate the idea of the discreteness of history and the possibility of dividing the civilization process into specific types of civilizations.

The theory of civilization coding is based on a fundamentally new knowledge and aimed at studying and creating concepts that reflect the essential properties of the current and future state of civilizations, outlining landmarks and trajectories of forward movement, allowing to go beyond scientific reflection and comprehend the problem of "how to develop, where and how go?". The essence of civilizational coding is in the

scientific study of social reality, a radical rethinking of ideas about it, the development of specific proposals for its improvement and the purposeful movement of societies towards a better future. The development of competencies and capabilities of civilizational coding, the use of its basic principles as methods of searching and forming a fundamentally new knowledge about the future states of societies allow subjects of management activities of various levels of complexity to more effectively use the potential of civilizational technologies in conditions of intense novelty and reach a new level of understanding of modern civilization.

The possibility of code activity aimed at the formation of new models of civilizations is primarily due to the presence of general patterns inherent in civilizations, the existence in social systems of cause-and-effect relationships, stable elements and relationships and an interval of uncertainty in their development, allowing the necessary recombination of biological (genetic) components, cultural and social characters, through which a certain set of values and traditions is formed, transmitted and reproduced in future generations [11].

The core concept of civilizational coding is the civilizational code as an informative system of civilizational signs, symbols, artifacts, which has a specific meaning in a specific and chronotropic context. Without it, it is difficult, almost impossible, to trace the development of human relations. Only the code is able to answer the question: can Belarusians ever become Americans, Russians - French, and Chinese - Japanese. A civilization code is a strictly fixed set of genetic, social and cultural values and meanings, symbols and spiritual experience, a stable set of formal and informal principles and rules for storing historical memory, behavioral formats and knowledge, which has been established in the consciousness and behavior of people, thanks to which culture and social experience, skills and abilities are passed from generation to generation and regulate the interaction of people in everyday activities, form a complex of roles and statuses that can become the basis for the development of civilizational relations. This is the definition of a civilization code in a broad sense. In a narrow sense, the civilization code represents the elements that are naturally related to each other (views, knowledge, values, traditions, etc.) that determine the activity of social subjects aimed at preserving customs and traditions, cultural and historical memory, searching for new ways and opportunities for purposeful influence on the development of civilizations [1-2].

The civilization code determines the stable functioning of civilizational structures, offers a clearly delineated semantic model of social actions and helps to find a way to the future, taking into account the experience of the past and the modern development paradigm. The code is able to offer a clearly outlined civilizational paradigm as a semantic model of actions, to draw an ideal model of the future state of humanity.

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The essence of the civilization code is embodied in its multidimensional structure. The main component of the civilization code is the traditional national values, traditions and spiritual ideals of the people, which for thousands of years have been the spiritual, moral, and ideological basis of the Belarusian society. The worldview, in turn, determines the purpose and meaning of life, determines the development of society and the state, shows what a person is guided by in his daily activities. The main components of the civilization code include: traditional values, social experience, social expectations, generally significant values and meanings, culture, knowledge and mentality, historical memory of the people, etc.

With the help of socio-philosophical analysis of the civilizational coding, to solve numerous problems, collective reflection is constantly carried out as a structured dialogue between various stakeholders in the formation of future civilizations (scientists, designers, specialists), which makes it possible to determine both the narrow sides and prospects of civilizational construction, strategy and success tactics in creating a scenario for an effective future. In the course of civilizational code activity, a clearly delineated semantic model of actions is formed, capable of solving existing problems with the help of new knowledge and theoretical tools provided by philosophy and sociology.

It must be fixed in a certain coordinate system and analyzed using modern socio-philosophical mechanisms in order to understand the integrative civilizational knowledge as a system of attributes and artifacts of being acting in society, carrying information about the past, present and future of civilizations. The theory of civilizational coding is able to conduct a scientific analysis of the knowledge system and offer a fairly accurate scenario for the development of phenomena and events in the future. It is important to understand the importance and necessity of coding as a specific transit of knowledge, search for optimal ways of transforming information and presenting it in the communication space of civilizational processes [2-3, 11].

Civilizational coding as a model for obtaining a fundamentally new integrated knowledge in its activity uses values and symbols, historical traditions and peculiarities of mentality, mental schemes and collective ideas, confessional and political, social and cultural, aesthetic and moral, ethnic and other factors. The main objects of civilizational coding are multilevel and structural-functional, actually existing and objectively operating social systems with specific organizational, civilizational, subjective-identification technical, technological and organizational parameters. At all levels of the spiritual order, it is important to see and perceive,

understand and feel how much they mean in the life of each person, how much they are able to give new knowledge, what meanings and values, aspirations and attitudes, desires and interests, ideals and motives that affect thoughts and actions, consciousness and worldview of people [2-3, 11-12].

Human history is the history of civilizations. It is impossible to imagine the improvement of societies in isolation from the development of civilizations based on knowledge. It is knowledge that is an integral part of any civilization, its locomotive and helped humanity to move from savagery through barbarism to civilizational (in the modern sense of the definition) development. Knowledge as the ability for purposeful actions directs the subjects of civilization to the solution of the most complex problems. Further accumulation of knowledge, their constellation, use to increase the vital activity of peoples led to the emergence of local civilizations. The modern era has set new challenges for humanity. Its transition to a higher level of civilizational development is real only when using new knowledge, creating new development models, and, above all, the theory of civilizational coding, using the achievements of science and technology in all spheres of human relations.

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