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## **Space and Time in the Context of Social Measurement**

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**Abstract:**

*This paper discusses some of the basic philosophical concepts – the concepts of “space and time” - and their relation to social evolution. The work presents the characteristics of social forms of space and time, shows the specifics of their formation in connection with human activity and the system of social relations.*

*It was found that time duration has different manifestations in the context of historically different cultural epochs. Acceleration of social time takes place in the course of human historical practice development.*

*Meanwhile, some social systems sometimes take the form of a certain deceleration in time. This usually occurs because of the inadequacy of the control system for the capabilities of the social organism.*

*Social space is primarily connected with the dynamics of changes in social bonds and relationships. In the process of historical formation of social systems, social space assumes a more complex structure and expands. In the period of globalization growth, social space takes the form of a truly global integral system.*

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## **1. Introduction**

Positing inextricable connection of space and time with animate matter, the contemporary concept of qualitative diversity of spatio-temporal structures suggests that each level of the world organization has its own specific forms of space and time. On the basis of this idea, science and philosophy produce notions about “physical space-time”, “biological space-time”, “psychological (inner) space-time” and, finally, “social space-time.” For example, the development of wildlife has led to the formation of a specific type of its spatial and temporal organization.

Vernadsky, V.I., (1927), a Russian scientist, found that living organisms are characterized by spatial asymmetry, lacking identity in terms of “right” and “left” in contrast to the three-dimensional Euclidean space. In natural science, time is related to space and motion, with the concept of causality; it is divided into precisely circumscribed segments, into processes occurring in them, which is possible if time is brought to spatial processes. In the social sciences and humanities, the current concept of time and space represents a very complicated picture.

Firstly, the sciences of spirit and culture consider time to be historical in nature; time is closely connected with inner sense and memory, which serves as orientation for an individual and society in the present and the future. Nothing is limited or isolated in historical time; the present always includes the past and the future. Besides, culture (as a universal and necessary habitat of society) embraces all forms of spatio-temporal existence (both inanimate and living) during complicated organized interaction. At the same time, social entity has specific features of its manifestations in space and time, which ultimately creates a special social time and a special social space.

Spatial structures that characterize public life can be reduced neither to the space of inanimate nature, nor to the biological space. Here emerges and develops a historically specific type of spatial relations, which reproduces and develops man as a social being. Social space incorporated into the biosphere and the cosmos, has a special human meaning. It is functionally broken up into a number of subspaces, the character and interrelationship of which are historically changing in line with the development of society. The basis for the formation of social space has always been (and still is) the attitude of man as a social being to the world, society and himself.

That is why social phenomena become a reference system for social time, which is encoded and "calculated" in accordance with significant events in a particular society or culture, and does not always agree with physical time. Social time scales can vary greatly in different cultures. The basic concept that can explain these processes is temporality, i.e., different speed and different dynamics of event flow in different cultures. An attempt to explain and understand social time and social space is an attempt to address the complexity of human and social existence. It is an opportunity to understand ourselves deeper.

## **2. Theoretical, Empirical and Methodological Foundations of the Research**

Man lives in the beautified cultural space, in the so-called “second nature”, which is characterized by its own architectonic. If we look at an urban landscape, a park landscape, irrigated and cultivated land, technical devices, we will see that man builds and organizes space according to his needs and interests. And this spatial architectonic is not limited to the world of objects. Culture is the world of values, meanings, socially significant ideas. Any person is concerned and focused on this world. If talking about society, each of us is “embedded”, “inscribed” in a particular social structure, occupies a particular place in it, belongs to a particular social class, has some social status. Social space is the unity of “social stratification” and “social mobility”. Social time properties are determined by the intensity of human activity and are closely related to the “internal”, subjective or “psychological” time.” And social and individual time has its “width” and “depth”. It may be either slower or faster. At the moments of great exertion, a man may feel that he has lived for many years; on the other hand, happy and measured life is perceived as a slow pace of time. Human time is measured not by the Earth turns but by the deeds of the man himself. That is why social and individual time is multi-dimensional, irregular and multidirectional. Social time is subjected to a special rhythm that is always specified by human activity. The time course of the human activity itself is its temporality. The intensity of practice obviously increases as historical time passes, which means that social changes are getting faster. The result is acceleration of the social time. On the other hand, as a consequence of the deepening and aggravation of social problems, as a consequence of some “slowdown” in social development, there is a kind of “deceleration” of social time.

Already in the early stages of human history, there was formation of special spatial spheres of life that were important to humans. The space of direct habitat (housing and settlement) and the area around it, including special zones for household cycles, were functionally isolated from the environment. The tribes of hunters and gatherers created these zones depending on the cycles of recovery of useful plants and animals in the ecosystem, in which the tribes lived. Upon the emergence of ancient agricultural societies, fertile land areas become particularly important. For example, the area on the banks of the Nile was a special space for the dwellers of ancient Egypt; its importance for the fate of this civilization was crucial. For the ancient Chinese, the territory of alluvial soils between the Huang Ho and the Yangtze was also the greatest value of their life. Both the “humanized” and undeveloped space of nature is defined by historical features of reproducing the modes of human activity and behavior.

The specific features and characteristics of social space are reflected in the worldview of people from corresponding historical period, although this reflection is not always appropriate. For example, ancient myths clearly reveal the idea of the qualitative difference between the parts of space, the opposition of the orderly space of human life to other space, in which there are powers that are obscure and evil to

man. In these representations, people reflected, in a fantastic form, the real difference between the “humanized” space and the space of nature, which remained outside the sphere of human activity, i.e., between the space mastered by humans and not yet mastered by them. Thus, the cosmology of the ancient Egyptians differentiated the space filled with the waters of Chaos on the one hand, and the Earth’s orderly space created by Sun God on the other hand. They believed the latter was originated from a pristine mound of land created by Sun God in the waters of Chaos, and on which he could stand. All these images are rooted in the social practice of the ancient Egyptian civilization. The plots of land suitable for agriculture were located on the banks of the Nile. They were constantly covered with water during flooding, and when the water subsided, they were originally exposed as small hillocks fertilized with river silt. This annual “birth” of the fertilized plots - the source of life for the ancient agricultural civilization - was perceived as a kind of sacrament of the world, which was reflected in the ideological image of space. Everything that was significant and sacred to the ancient Egyptians (the places of temples, the Pharaohs’ burial vaults) was associated with the space of the primary hillock and was seen as a special place coessential to that first hillock. This position is common to many ethnic forms of the early outlook.

The concepts and ideas of space, characteristic of different historical ages, express different historically developing meanings of the fundamental ideological category. It primarily reflects the characteristics and properties of social space, in the light of which a human being considers the remaining space of the universe. The familiar ideas of space, where all the points and directions are uniform, emerged as dominant images of the world outlook at relatively late stages of human history. Their establishment as philosophical orienting points in European culture took place during the formation of early bourgeois relations and was associated with the process of changes in ideological orientations in the Middle Ages.

It was typical for medieval mentality to consider space as a system of places of different quality. Each of them was provided with a certain symbolic meaning. People distinguished between the earthly sinful world and the heavenly world - the world of “pure entity”. In the mundane world, they marked out holy places and special destinations (destinations of pilgrimage to holy places, particular spaces in temples for healing and redemption, etc.).

The basis for the meaning of these categories of space was the actual system of relations between people and the ways of their activities, peculiar to the feudal society of medieval Europe. A peasant serf tied his entire life activity with a certain piece of land; he perceived hard work on it as punishment and redemption and unconsciously considered the place of his life to be special. His suzerain, the owner of the land, experienced personal attachment to his family estate, which was not only a source of his income, but also a symbol of his class privileges allowing him to participate in social communication, to belong to a certain social privileged group. It is important to bear in mind that the world outlook categories, including the

categories of space, do not simply reflect social being, but also actively influence public life. They function as a kind of matrix, whereby people's typical lifestyle is reproduced in certain periods. Acting in accordance with this matrix, having learned the understanding of space contained in it, man reproduces, through his real activities, certain types of social space relations, including not only the relations of things, but their relationship with mankind. It turns out that social space includes not only objects interacting with each other, but also people related to each other somehow.

Thus, we can talk about appearing and functioning economic, political, religious, cultural spaces in general. We can see the picture of anthropocentric culture of the antiquity, or the cosmocentric picture of the ancient Chinese culture. These principles were the base to arrange the social space; the entire system of relations of these peoples with the world and themselves.

To understand the special nature of social space as something objectively existing, it is important to develop a conception of the holistic system of social life. The components of this system include the objective world that man creates and updates during his activities, the man himself and his relationship to other people, the states of human consciousness governing his activities. This indivisible system unit exists only through the interaction of its parts - the world of things of the "second nature", the world of ideas and the world of human relations. The organization of this whole becomes complicated and changes in the process of historical development. It has its own particular spatial architectonics, which is not limited to the relation of man to material things, but includes all interpersonal communicative relationships and those meanings that are recorded in the system of socially significant ideas.

The world of things of "second nature" (they surround mankind) and their spatial organization possess supra-natural, socially significant characteristics. The spatial forms of technical devices, the ordered space of fields, orchards, irrigated land, artificially created water bodies, and urban architecture – all of them are social spatial structures. They do not appear by themselves in nature but are formed only due to human activity and bear the stamp of social relations typical of a certain historical period, acting as a significant cultural and spatial forms. It should be noted that human representation of space changed historically. Previously, people equated space with *ecumene* (limited and finite area); the modern man, while learning the outer space and creating modern means of transportation or information technologies, discovers new territories (both in the macro and micro world), extends and intensifies space. Modern electronic technology has generated the virtual space of the Internet – the almost boundless space of modern communication.

It should be emphasized that all socio-spatial forms characterize the historically specific social time of a certain age. Actually, social time is formed by the very procedural modification of social space, the emergence and duration of the social forms of existence. Since the emergence and existence of various forms of human

relations are different in terms of their duration measurement, there are various forms of social time. For example, the space of urban architecture shows the characteristics of the industrial life of the people in this or that stage of the society history, the specificity of their social ties (an ancient city differs from any medieval city or a modern city in its spatial composition), the peculiarities of ethnic and national traditions (the same era provides many samples of urban architecture of different peoples: London and Paris are unique, Chinese and Indian cities bear the stamp of the national exceptional features). Historical development changes urban spatial environment; new spatial forms superimpose the old ones, altering them. This means that architecture is not only spatial; it also reflects a certain time of a certain age as a specifically organized human relation to the world, society and mankind itself.

Architecture is not only music carved in rock, but also a relatively fixed time of the human creativity. So, the social time associated with the mode of human activity organization (i.e. with the social space) is the speed of such activity implementation or its duration. This is the reason why social time is characterized by temporality. Obviously, social space is closely related to the specifics of social time, which is the internal time of social life and is as though inscribed in the external time of natural processes. Social time is a measure of the variability of social processes, historically occurring changes in people's lives. Social processes rhythms flowed differently at different stages of social development. Tribal communities and subsequent first civilizations of the ancient world reproduced existent social relations for centuries.

The social time of these societies was of quasi-cyclic nature. The benchmark of social practice was a repetition of the experience already gained, a reproduction of acts and deeds of the past, which had a form of hallowed traditions. Hence, the past time had a special value in the life of traditional societies. The man of the ancient civilizations lived, looking at the past, which seemed to be a golden age. It is no accident that in traditional societies, the concepts "old" and "good" were almost synonymous.

The traditional society of archaic cultures had no concept of the future. These cultures live either in the past or in the present (like the classical culture, where the past and present were conceived alongside). In the classical and early medieval cultures, the concept of "time" is closely linked with the concept of "space", which was presented as "limited or fenced." Since traditional husbandry cultures are most closely associated with the cycles and rhythms of the nature, time is perceived as recurrence, as a permanent return to the starting point. It is no coincidence that the symbol of time in archaic cultures was a wheel.

The perception of time as a stream or flow came later. In the Russian language, "time" reflects the archaic notion of "turn-over." This type is called "cyclical time" in the humanities. "Cyclical time" is opposed to the newer "linear time" related mainly to the biblical picture of the world. The idea of the "arrow of time" (time

orientation, orientation to future) appears in the Christian culture. However, the future (as it appears in Christianity) is extremely sacral, i.e. of sacred character. The concepts of “the beginning of the world”, “the end of the world” are not used in cyclical time - everything in the world goes circle-wise. On the contrary, the Christian “linear time” introduces the mandatory terms of the “beginning” and “end” of the world.

Time became an economic value in New Europe’s culture. Capitalism has accelerated the development of all social processes. The idea of time direction and orientation towards the future emerged in the culture of this particular period. The capitalist system of production, compared with the previous structures, led to a sharp acceleration of productive forces development and the entire system of social processes. Similar acceleration is even more peculiar to the modern age, with its rapidly evolving scientific and technological progress. The attitude to the future has changed.

Contemporary man either moves for the future, relating it to his life and thoughts, or lives only in the present. And here we are talking about the so-called “existential time”, the time of the human existence. Transience and finiteness are essential definitions of human being. For mankind, time is life itself, in which the past, present and future are not successive moments, but co-existing states of first-hand personal experience. Human life is full of events; life is determined by them. Everything that happens to a person takes place only once; human life depends this outline of events that never repeats itself.

Man is not only struggling with time in the desire to overcome it and to resist its inexorable course, but also fighting for the time as he has learned (or learning) to appreciate it. Time turns into an imperishable value. Realizing the transience and finiteness of his existence, man begins to think about the meaning of his life, about his mission.

Thus, the socio-historical time flows unevenly. It becomes compacted and accelerates in line with social development. In a pivotal troubled epoch, the “compaction” of historical time implies its saturation with ambiguous events to a much greater extent than in the periods of relatively quiet development. Such periods in the development of society are usually called transitive. When describing such timeframes, it makes sense to introduce the concept of transitive time. These periods are characterized by mixing of the present, the past and the future.

Transitive time is defined by the contradiction between the non-contemporaneous social richness, dynamism of different socio-spatial forms and their collision on the one hand, and a clear “deceleration” of social development on the other hand. In the periods of transitive time, there are situations of “ambiguity”, “unclear” social choice, when society is not out of the crisis yet. In general, transitive time is the time of social crisis.

Social time, as well as social space, has a complex structure. It appears as a superposition of different time structures. One may also distinguish the time of individual human being, which is defined by the occurrence of various socially and personally significant events. Social time and social space are always poly-structural, and thus provide one of the most complex (from the scientific point of view) basis for the existing systems' content, namely the foundation for the system of man and society. The analysis of spatio-temporal structure at different stages of the society history and the study of the change and development mechanism are of particular importance. We can understand the nature and essence of ourselves within our own human world due to the method of historicism, the deductive method, and the method of system analysis and synthesis. As a result, we will be able to understand the development of society in the past and to predict its future development.

### **3. Conclusions**

It should be noted that the time, in which we live today, has its own specifics. It is associated with genesis, i.e. the emergence of new space - the space of global public relations. For the first time in our history, we are standing on the threshold of a really global history. The time of this new era is assuming an unprecedentedly complex form of social time and social space. Nowadays we often hear a quite plain characteristic of globalization. Some researchers make intimidating forecasts that globalization is unification, uniformity of all countries and peoples. But pondering over the issue can bring other results. The modern human world is extremely heterogeneous in its space-time terms. After all, there are different social spaces and different social times that exist in the world at the same time: from still preserved primordial to traditional or fundamentally non-traditional civilizations. Here and now, we are standing in front of a global choice. This choice requires hard efforts of the global modern intelligence.

We may organize a truly global space of mankind, which will comprise every nation and every culture united in their interaction. Alternatively, we are doomed, according to Nietzsche, to the recurrence of time, in which new failures and destruction of civilizations are possible. Still, science and philosophy, with a few exceptions, continue to demonstrate the triumph of the human will and mind. Thus, Karl Jaspers' judgements about the future of the world history were well-reasoned; just after the most terrible war of all times, based on the fact of the victory over fascism and Nazism, he noted that common historical space of humanity should be inevitable and it should necessarily lead to a global unity of all mankind.

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