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# The origin and evolution of the concept of rural culture

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#### Abstract

The authors consider the human race as a whole, many different cultures and cultural traditions - as unity, as the culture of man. The article presents the evolution of culture from its inception at the anthropoid level to the present time. It is noted that "culture" refers to a certain order or class of phenomena, namely, objects and phenomena associated with the manifestation of a special mental capacity peculiar to the human species, the ability to symbolize. More precisely, culture consists of material objects-tools, utensils, ornaments, amulets, etc., actions, beliefs and relationships that function in a symbolic context. It is a complex extrasomatic mechanism that a certain species of animals - man uses in the struggle for survival and for existence. The ability to transmit culture by non-biological means is one of its most essential properties. It is easy to transfer all aspects of culture – material, social, ideological – to other individual, generation, age group, other people by means of social mechanisms. Culture can be called a form of social inheritance. Culture is a continuum, as a supra-biological, extrasomatic order of objects and phenomena, passing over time from one generation to another. The elements of culture act and interact in a special way. It is possible to define the principles of behavior of some groups of cultural elements or cultural systems in general and formulate the laws of cultural phenomes and systems.

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#### Introduction

Culture is an organized, integrated system. But within this system it is possible to isolate subsystems, or aspects. For our purposes, we will distinguish three subsystems of culture: technological, sociological and ideological. The technological system consists of material, mechanical, physical and chemical tools, coupled with the technology of their use, allowing man as a representative of the animal world to come into contact with the environment. This includes means of production, means of subsistence, building materials, means of warfare and defense. The sociological system consists of interpersonal relationships expressed in collective or individual patterns of behavior. Within this system we can, in turn, distinguish social, economic, ethical, political, military, religious systems, family systems, organizations of labor, recreation, etc. The ideological system consists of ideas, beliefs, knowledge expressed through articulate speech or in another symbolic form. Mythology and theology, legends, literature, philosophy, science, folk wisdom and knowledge are also included in the ideological system.

These three categories constitute the cultural system as a whole. In fact, they are interconnected; each affects the others and, in turn, is influenced by them. But the force of influence varies in different directions. Some subsystems play a more important role in the cultural process than others. The technological system plays the main role. And this is quite consistent with our expectations. There can be no help for it. Man as a species, and therefore culture as a whole, depends on material things, on

mechanical means of adaptation to the natural environment: man needs food. He needs shelter. And he needs to protect himself from enemies. He must provide himself with this in order to survive, and he can do this only with the power of technological means. Thus, the technological system is primary and most important in importance; the life of the human being and his culture depend on it.

Social systems, indeed, are of a secondary and auxiliary nature in relation to technological systems. Roughly speaking, a social system can be defined as an organized group of people, aimed at the use of means of subsistence, protection and attack. The social system is a function of the technological system. Technology acts as an independent variable, the social system as a dependent variable. Systems of technology determine social systems; if the former change, the latter inevitably change.

Ideological or philosophical systems are organizations of beliefs that interpret human experience. But both experience and its interpretation are largely driven by technology. Each type of technology corresponds to a certain type of philosophy. If the coup de poing plays a decisive role in the system of experience, then the interpretation will turn out to be appropriate. And then it is quite possible to talk about Philo Sofia and coup de poing technology. Pastoral, agricultural, metallurgical, industrial, militarized technology-each will find a corresponding expression in philosophy. One type of technology will find expression in the philosophy of totemism, the other – in astrology or quantum mechanics.

But the experience of mastering the external world is expressed not only in technology, it is also reflected in the prism of the social system. All the properties and features of social, political, religious, economic, military and other systems are reflected in philosophy.

We can imagine the cultural system as three horizontal layers: technological at the base, philosophical at the top, social between them. Such a picture would correspond to their relative roles in the cultural process. The technological system is primary, it lies in the foundation. Social systems are functions of technological systems; philosophical systems are derived from productive forces and reflect social relations. The technological factor is thus a determinant of the cultural system as a whole. It defines the form of social systems, and technology and society together determine the content and direction of philosophy. Of course, it cannot be argued that social systems have no influence on technological processes, or that philosophy has no influence on social and technological systems. Both, of course, occur. But influence is one thing; to define another one.

Therefore, the key to understanding the growth and development of culture is technology. Man is a material body; Homo sapiens is a material system. The planet Earth is a material body; the cosmos is a material system. Technology serves as a mechanical means of articulating these two material systems, man and the cosmos. But these systems are not static, but dynamic; hence, their functioning is associated with the expenditure of energy. So, everything-the cosmos, man, culture-can be described based on the concepts of matter and energy.

According to the second principle of thermodynamics, the cosmos as a whole is disintegrating, the organization of the system is increasingly disturbed, the diffusion of energy increases. However, in the tiny sectors of the cosmos, namely in living material systems, the opposite process takes place: organization increases, energy concentrates. Life is a creative process. Nevertheless, to counteract the cosmic flux, living organisms must capture free energy from inanimate systems and use it to sustain life. From this point of view, life is a struggle for free energy. Biological evolution is merely the expression of a thermodynamic process, which, according to the second principle of thermodynamics, is opposed to a similar cosmic process. This is a movement towards greater organization, differentiation of structure, increasing the level of integration, increasing the concentration of energy.

From the point of view of zoology, culture is only a means of maintaining the life of a certain

biological species, homo sapiens, a mechanism of providing man with food, shelter, means of defense and attack, adaptation to the space environment, and reproduction. But in order to satisfy these human needs, energy is required. Therefore, the primary function of culture is to extract energy and use it for the benefit of man. From this point of view, the Kul Tura appears to us as a complex thermodynamic, mechanical system. Energy is extracted and used by technological means. The social and philosophical systems are both complementary and reflective of the technological process. Thus, the functioning of culture as a whole is determined by the amount of energy necessary for this and the way in which it is used.

## Main part

However, when it comes to "how it is used," another factor besides energy is actualized. Energy in itself does not mean anything. In the cultural system, only the energy that is attracted, controlled, directed is important. And this is already achieved by technological means, by various instruments of production. The efficiency of the means of production varies; some are better than others are. Other things being equal, the amount of food, clothing and other goods produced using a certain amount of energy will be proportional to the efficiency of the technological means by which energy is made to work.

Thus, we can distinguish three factors in any cultural situation or system: 1) the amount of energy used per year per capita; 2) the efficiency of the technological means by which energy is extracted and put to the service of man; 3) the amount of goods and services produced to meet human needs. Taking the environmental impact factor as a constant, the level of cultural development measured on the basis of the number of goods and services produced per capita to meet human needs is determined by the quantity of energy produced per capita and the efficiency of the technological means by which this energy is used.

Briefly and precisely, this can be expressed by the following formula: E \* T = C, in which C denotes the level of cultural development, E – the amount of energy consumed per year per capita, T – the degree of efficiency of the tools used to extract and use energy. Now we can formulate the basic law of cultural evolution: all other things being equal, culture develops as the amount of energy consumed per capita per year increases, or as the efficiency of the tools with which energy is used increases. Of course, both of these factors can increase simultaneously. Now let us try to trace the history of cultural development from the very beginning.

If culture is to be regarded as a mechanism for the use of energy, it must take this energy from somewhere; it must possess, in some form or other, natural resources in order to put them at the service of man. The first source of energy that was used in the earliest cultural systems was, of course, the human body itself. Human power is not very great, about 1/10 horsepower. If we take into account women, children, the elderly, the sick, etc., the average energy resources of the ancient cultural system should be considered as 1/20 horsepower per capita. Since the level of cultural development – the amount of goods and services produced per capita per village-is, other things being equal, proportional to the amount of energy consumed per capita per year, the oldest human cultures, based on the meager energy resources of the human body, were themselves simple, meager and crude. No cultural system based on the energy of the human body can develop for any length of time. Some progress can be made by increasing the efficiency of the tools that use this energy, but there is a limit to cultural development at the very root. We can fairly realistically imagine the development of a culture limited in its resources by human energy, observing the culture of modern Tasmanians, inhabitants of Tierra del Fuego and

Andamans, or studying the Paleolithic culture of Europe.

If culture is to develop on a basis that goes beyond the technological efficiency and energy resources of the human body, it must invent new ways to attract up to the full amount of energy from natural resources. In some pre-written cultural systems, fire, wind, or water were used as energy sources, but irregularly and in small quantities. The development of fire is a very ancient cultural achievement, but it was only with the invention of the steam engine that fire became important as a source of energy. In early cultures, fire was needed for cooking, heating, scaring away wild animals and as a symbol, but not as a source of energy. In more developed cultures the fire became is enjoy in pottery and in craft, but he still not is enjoyed as source of energy: camping on E. in these cases we not can substitute them muscular force rights or recalculate last on force ceasefire. Only in one context in primitive cultures does fire function as energy: fire burned the core of a log in the manufacture of a canoe. Here, indeed, the fire replaced a muscular force. Obviously, we can give a few more examples that are similar. But in general, before the invention of the steam engine in the modern era, the cultural systems in a very small extent used fire as a source of energy that can replace the muscular strength of man.

Primitive peoples were able to float cargo down the river, but until the invention of the water wheel shortly before the beginning of our era, no other way was invented to use the flow of water as a source of energy for the development of culture. Until relatively recent times, wind was not used as a source of energy, and it never became any significant source of power.

Therefore, we see that fire, water, and wind were used in very small quantities as sources of energy during the first hundreds of thousands of years of cultural history. However, primitive man knew and used for the development of culture another source of energy: it is the energy of plants and animals.

Plants are known to accumulate and multiply energy. In the process of photosynthesis, the energy of the sun is captured and stored in the form of plant mass. The life of the entire animal world ultimately depends on the solar energy that plants accumulate. That is, all life depends on photosynthesis.

The first people as well as their prehuman ancestors, existed at the expense of plants and animals. In the ancient cultural systems of Chile, the development of hunting technology, fishing, device traps for animals, gathering, etc. as a means of using energy sources of animal and vegetable origin. But to assign to natural resources is one thing; to convert and control them with everything else. It took about 985 thousand years of cultural development, before man began to cultivate several varieties of plants and tamed some species of animals, i.e., began to control them. As a result of increased human control over nature, the energy resources for the development of culture have greatly increased. The displacement of the gathering of wild plants by the cultivation of cultivated ones led to a strong increase in the productivity of human labor to provide themselves with plant food. Selection has led to the emergence of the best varieties of plants. Care, fertilizers and irrigation increased the return on the use of human energy, his work. Especially important was the cultivation of cereals. Tylor called them "the mighty driving force of civilization." All the great civilizations of Antiquity were nurtured by the cultivation of the evil coves; no great culture arose without the cultivation of grain.

Domestication of animals also increased energy resources for the development of culture, expanding the scope of human control over forms of energy. Replacing hunting with breeding of domestic animals will significantly improve the efficiency of food production and other products of animal origin. The economy of hunters animals continue to de than to use should slay, and once one animal was used, it was necessary to overtake and kill the next one. Has the creation of domestic animals allowed man to consume animal products, not reducing the number of the herd, and even pre-multiplying it? In the same way as it happened with plants, purposeful selection (inbreeding)

significantly improved the consumer properties of animals; and in addition to milk, meat, wool, skins, man was able to use some types of cattle as a driving force for the plow or carts or as pack animals. Thus, the domestication of animals dramatically increased the amount of human-controlled energy that he was able to use for the development of culture.

With the development of agriculture and animal husbandry, per capita energy production and consumption per year have increased dramatically, allowing for a leap in cultural development. That is exactly what happened. Archaeological evidence fully supports our concept. Within a few millennia, after the full development of agriculture and cattle breeding by man, the great civilizations of antiquity arose in Egypt, Mesopotamia, India, China, and in the New World in Mexico, Central America, and the Andes. After hundreds of thousands of years of relatively slow and scanty development in the Paleolithic era, suddenly under the influence of the expansion of energy resources caused by the transition to agriculture and cattle breeding, there was a jump in cultural development. Great cities, Nations, and empires sprang up in the place of former settlements, tribes, and alliances of peoples – all the result of the agrarian revolution. At the same time, there was rapid progress in all crafts, arts and in the intellectual development of man. This is especially noticeable in the Old World. Bold engineering projects were undertaken and successfully completed, and architectural structures were erected. Expanded and flourished pottery, textile crafts, metallurgy. Astronomy, writing, mathematics developed. Great successes of medicine were noted. Impressive works of art were created – reliefs, sculpture and even lively writing. Progress and development have been observed in all areas of culture.

However, culture did not develop steadily and progressively as a result of the expansion of energy resources caused by the development of agriculture and cattle breeding. Following a period of rapid growth, the progressive development curve gradually leveled off and development slowed. The apogee of cultural development in Egypt, Mesopotamia, India and China was reached before the beginning of the first Millennium BC, much earlier, and since then and until the beginning of the nuclear era around 1800 ad, no culture has managed to surpass the great achievements of the Bronze Age in all respects. Of course, it cannot be said that from 1000 BC to 1786 ad there was no progress in culture. Some discoveries were made, and many already known elements were further developed.

But if we consider the culture as a whole, taking into account such parameters as the size of the political association, size of cities, scope of architectural structures and engineering buildings, population density, production and consumption of wealth, etc., the culture of Europe in the period between the collapse of the Roman Empire and before the beginning of the fuel era did not reach the level peculiar to the ancient civilizations of the East. So why did culture not begin to develop progressively under the influence of the pulse given by the development of agriculture and cattle breeding? Now we are trying to answer this question.

It seems that, at least in the Old World, culture reached the highest level on the basis of agriculture and cattle breeding before the beginning of our era. The new Light lingered a little. And it is reasonable to assume that until a new way is invented to extract energy from natural sources and thereby increase its consumption per capita per year, culture will not be able to surpass the already reached peaks. A new natural source was found: the energy of coal, later oil and gas was converted using a steam engine and an internal combustion engine. By developing vast reserves of coal, oil and natural gas, man has dramatically increased the amount of energy that can be used to develop culture. The consequences of the fuel revolution is largely similar to the effects of the agricultural revolution: population growth, the consolidation of political associations, the growth of th birth, the accumulation of wealth, the rapid development of Sciences and arts, in General – a fast and extensive development of culture.

After a rapid rise, the curve of cultural development again began to gradually align. We are not

saying that culture has already reached the highest possible level of development on a fuel basis, we only think that there is a tendency to slow down development. But before the question of how long a culture could develop on a fuel-agricultural muscular energy basis actually became relevant, an event of great importance occurred in technology: the energy of the atomic nucleus was extracted. For the first time in the history of culture, it has been possible to transform energy that is not the energy of the Sun. So far, the use of this new type of energy in production has not caused a leap in the development of culture. And before this can happen, it is necessary to realize and solve the question of the military consequences of the use of nuclear energy.

Thus, we have considered the development of culture from the anthropoid level to the present day as a result of periodic jumps that increase energy consumption per capita per year due to the discovery of new energy sources. But there is another technological factor in this process, which has already been mentioned in passing; now it is time to consider in more detail the role of tools in the cultural process.

Energy, at least in cultural systems, is not created and does not disappear; it is transformed. It is extracted and made to work or poisoned. But this requires tools and mechanisms. The amount of energy converted may depend on the efficiency of the tools used, and the number of items produced per unit of energy consumed certainly depends on it. So far, we considered the factor of tools to be constant and considered only the change of the energy factor. Now we will consider the energy factor as stationary and consider the change in the factor of tools.

In this case, the following generalization will be true: with other factors, the level of cultural development depends on the efficiency of the tools used. If, for example, a person is chopping wood, the quantity of chopped wood per unit of energy expended will vary depending on the quality of the axe; it will increase with the improvement of axes from the Paleolithic through the Neolithic, bronze, and Iron Age until the appearance of modern axes made of alloy steel. The same is true of tools such as saws, looms, plows, harnesses, wheeled carts, boats, etc. the Progress of culture thus depends on the improvement of the working methods as well as on the amount of energy converted.

However, the improvement of the tools of labor can not continue without a doubt; there is a limit beyond which further improvement of this particular tool is no longer possible. Thus, a canoe paddle may be too long or too short, too narrow or too wide, too heavy or too light, etc. We can imagine a canoe paddle of such a configuration that further changes will only lead to a decrease in efficiency. Similarly, we can improve bows and arrows, hoes, plows, saws, etc., but only up to a certain limit. In practice, every instrument of labor attains to perfection or close to it. Violin making has not undergone any significant changes for decades. The engine seemed to be approaching the limit of perfection in size and speed. Of course, for some time there may still be improvements due to the use of new materials, joints, the application of new mechanical principles. But all the same, the perfection of any instrument or mechanism, if it does not reach the goal, then it comes close to it. We cannot imagine a PA ROV or a ship a mile long; they'll just fall apart from their own weight.

Looking at the cultural process, we see that progress and development depend as much on the improvement of the mechanical means by which man converts and uses energy as on the increase in the amount of energy used. However, this does not mean that the role of these factors is the same. Energy factor – primary and primary; it is the source of the movement, the activator process. The instruments of labor are merely the means of serving this force. The energy factor can be increased indefinitely; the effectiveness of the instruments of labour only to a certain limit. With this amount of energy, culture can develop limited: to the limits determined by the efficiency of tools. When these limits are reached, development is impossible without further increasing the amount of energy consumed. But the increase in the amount of converted energy leads to further progress in technology

in all directions, promotes the invention of new tools and the improvement of old ones, if possible. Therefore, we see that no matter how important the factor of tools may seem, it is secondary to the primary and primary energy factor. And since the increase in the amount of energy entails the improvement of the tools of labor, it can be said that it is energy that underlies the ongoing development of the cultural process. Thus, our General assertion that the level of cultural development is proportional to the amount of energy consumed per year per capita under a constant environmental factor is still relevant and confirmed by new arguments.

Let us now turn to the problem of social systems in the process of cultural development. Social systems, as we believe they should be, are closely linked to technological systems. Nomadic hunters, who use their tools in a certain way to obtain food, fur, skins, and other necessities of life, have one type of social organization. Among the settled people, whose diet is based on the extraction of shellfish, pastoralists, farmers, seafarers, traders, people engaged in industrial production, etc., we will find other types of social organization, sometimes very strong. Thus, we see that the social system of the people is based on technological means by means of which protection from enemies is provided and war is waged. Social institutions that are not directly related to technology are indirectly related to it; they help to coordinate different sectors of society and integrate them into a single whole.

The social systems of primitive peoples are very diverse in detail, because the environmental conditions and technology are very diverse. But all social systems based on the use of human muscle energy (i.e., not reached the level of agriculture and agriculture) belong to the same type. They are small in size and have minimal structural differentiation and function specialization. We do not know of any sufficiently developed society that is based on technology that uses only human muscle power.

Pastoralist and agricultural societies in the early stages of these technologies are similarly simple and undifferentiated. As a matter of fact, any society up to a certain point in the development of agricultural or pastoral technology we can characterize as a primitive, primitive society: these are tribes whose members are related, have free access to natural resources, they are characterized by little social differentiation and specialization and a high degree of social equality. When a certain level is reached in the development of agriculture, there are profound changes in social systems. This is the social aspect of the agrarian revolution. Let us trace, at least in General terms, the course of this social revolution.

Compared to hunting, fishing, and gathering, agriculture and ranching contributed to an increase in the amount of food and other human waste per unit of energy expended. When agriculture coexists with livestock, the energy resources for the development of culture become even greater than in the case of conventional cultivation of cultivated plants. For herds of domestic animals not only provide man with meat, milk, wool, and skins, but their muscular strength can be used to carry goods, to pull ploughs, to carry carts, etc. All the great civilizations of the Old World grew up on the basis of agriculture and cattle breeding. And since the cultivation of cereals has become a decisive factor in the emergence of new technologies in agriculture and cattle breeding, we can quite briefly talk about the "social consequences of developing agricultural technology."

As agriculture developed and improved, the properties of plants improved through selection, methods of crop cultivation, irrigation, drainage and fertilization of soils, crop rotation, etc. were mastered and optimized, the amount of food produced increased. And as the amount of food increased, the population grew. Small tribes became large, large ones gradually became peoples and empires; villages grew to the size of cities, small towns became large.

At the same time, agriculture did not just provide more food compared to hunting, fishing and gathering, it provided more food per capita, per unit of labor spent. And with the further development

of agriculture, the productivity of human labor in this field has increased more and more. Gradually it became possible for a part of the population to produce food for all. As a result, part of the population was able to move away from agriculture and engage in other activities, industry and the arts. Agricultural technology improved, and more and more people could leave the fields and engage in other activities. The society was divided by types of employment, differentiated structurally and specialized functionally. This, as we shall presently see, led to the further development of public life.

Population growth, in turn, had important implications for another area of life. Tribes and clans were organized on the basis of kinship; social ties were based on kinship. This mechanism worked quite effectively as long as the social cells were relatively small; a clan or tribe can function normally as a mechanism of social organization and social interaction as long as the number of its members is relatively small, as long as social relations can be personal. But as soon as due to the development of farming and increase food production clans and tribes have increased significantly, they began to fall apart under thee sheet's own weight. As a result of population growth in primitive society there was a tendency to disintegration. A new type of social organization was needed to break out of chaos. And this type was found in the form of a state. This was another consequence of the agrarian revolution.

The development of agricultural technology has also led to profound changes in the organization of the economy. In tribal society, the production, exchange, and consumption of values are based on personal relationships, on kinship relations; economic organization actually coincided with the kinship system. This type of economic organization worked well in a small society with minimal division of labor and not much differentiation of the social structure along the line of employment. But as society was extensively differentiated by the increase in agricultural productivity, a new type of economic system was increasingly needed; it was necessary to isolate classes economically and find a way to interact with them. This could be done either on a feudal basis or on the basis of market relations. In both cases, there is a system in which property relations form social bonds, and not Vice versa, not as it was in a tribal society based on kinship.

At the pre-written level of cultural development there were, of course, massacres between tribal groups. Competition for more convenient places for hunting and fishing or for other natural resources, revenge for real or imaginary (magical) insults and insults led to tribal conflicts. But there was no reason for a large-scale and systematic struggle. They arose only as a result of the agrarian revolution. The high level of development of agriculture, Metalworking, pottery and other industries contributed to the production and accumulation of significant wealth. The wealth accumulated by a prosperous people, combined with its natural and human resources, which made possible the further accumulation of wealth, was a tempting prey for another people who could conquer it all. War has become a profitable occupation. And we see, especially in Mesopotamia, a state of almost constant war: Nations fighting each other for rich fertile floodplains, for riches concentrated in castles and palaces, Nations smashing and plundering each other, new kingdoms rising on the ruins of previous ones.

Systematic, chronic wars had very significant social consequences: the formation of a class of professional warriors, who, in Alliance with the nobility, and sometimes even independently, became a powerful political force; the subordination of the masses to the imperatives of constant military conflicts.

Thus, the war divided society into two main social classes: a relatively small ruling group, which organized and directed the military campaign and received the lion's share of the conquered booty, and a large class, representing the "cannon fodder" - peasants, slaves, ordinary soldiers, etc. And, in fact, the difference in the position of most of the people in the country of the captors and in the enslaved country was not so significant.

But it was not only the war that served as a factor that divided society after the agrarian revolution into a small but powerful and wealthy ruling class on the one hand, and a large class of peasants, slaves, and slaves on the other. Such a peaceful occupation as trade, especially after the advent of money, affected society in the same direction. Craft and trade also lead to the concentration of wealth. In the competitive struggle, large traders rise even higher at the expense of small ones. Wealth is concentrated in the hands of a few. Usury becomes a quick and effective means of further impoverishing the poor and strengthening the rich. When the interest on the loan rises from about thirty to a hundred and more, which was typical of those times, small debtors quickly fell into economic dependence on usurers. In Greece, before the Solon reforms, it was not uncommon for peasant to sell his children into slavery in order to pay only the interest on the loan, but not the loan itself. The taxes collected by the ruling class through state machinery and the exorbitant rents paid by smallholders to large landowners also ruined the masses and plunged them into a state of complete economic dependence and unfreedom.

Thus, we see that the technological revolution in agriculture had the following social, political and economic consequences: the disintegration of the former social system of primitive society, the extinction of the tribe and clan; the division of society into numerous groups by occupation-guilds, guilds of artisans, etc.; the division of society horizontally into two main classes: a few rich, powerful ruling class and a Instead of a primitive society based on kinship, there is a civil society based on ownership; the state replaces the tribe and the clan. The revolution in agricultural technology accelerated and brought to an end the revolution in the social, political and economic spheres of culture. As the further development of agricultural technology increased energy consumption per capita per year, society became more differentiated structurally and specialized functionally. This was accompanied by the emergence of a special social mechanism of coordination of functions and correlation of structures, a mechanism of integration and regulation. This political mechanism had two aspects, religious and secular, sometimes joined, sometimes separated, but both were always present. We call this special mechanism of coordination, integration and regulation the "state Church". The evolution of civil society from the early iron age to the present, through many forms of relations between the state and the classes - is a special subject to which we shall return. And now we want to elaborate on another problem that has already been mentioned.

If culture begins to develop when the energy consumption per capita per year increases, why does it not continue to progress uniformly due to the revolution in agricultural technology? We were convinced that this did not happen. On the contrary, having reached a certain level, it ceased to develop and remained at about the same level until it received a powerful new impetus to development during the fuel revolution. And at the same time, agriculture as a technological process, as a mechanism for converting solar energy has not reached the limit of development and, according to agronomists, has not even come close to this limit. So why has technological progress in agriculture slowed and almost stopped after such a rapid rise?

It seems that the answer must be sought in the relationship between the socio-economic and technological systems established by the agrarian revolution. As we have said, every social system is based on and defined by a technological system. However, every technological system functions within a social system and is therefore conditioned by it. The social system generated by the agrarian revolution thus influenced the technological process in order to "restrain it" as much as possible and in General to stop further progress in culture. That is how it worked.

The social system of civil society, as we have seen, was divided into ruling and exploited classes. The latter produced wealth; the former appropriated such a share of it that the latter was left with only the minimum means of maintaining his existence. The increase in production by increasing efficiency did not promise any benefit to the class of producers; the entire increase would still be appropriated by the ruling class. But the ruling class was not inclined to seriously deal with the problem of improving the efficiency of agricultural machinery. If he had needs that could not be immediately met, he saw no use in developing long-term plans to improve agricultural technology, because it was easier to increase the wages of workers. On the whole, the ruling class seems to have been well provided for. Moreover, according to the available sources, he was much more concerned with overproduction, and not providing themselves with the most necessary. This is especially evident in Egypt, but it was the same in Mesopotamia and elsewhere: the ruling class lived in Roscoe Shea and very profligately. Palaces and castles were bursting with treasures, their solid part fell to the dead - it was customary to bury the nobility together with valuable things. In addition, grandiose programs of public works were developed-pyramids, monuments, palaces, tombs were constantly built. It seems that the ruling class often faced the problem of overproduction and the threat of technological unemployment and rapid population growth among the lower class. Large-scale public works programs, treasure burials with the dead, etc., helped them solve these problems in one fell swoop. Thus, when a certain level of development was reached, the social system sought to dampen the impulses of further technological progress. In addition to what has already been noted, child points out that the effect of social systems was not only to concentrate wealth in the hands of the dominant minority, but also to prevent the broad masses of the population from benefiting from technological progress. This did not give the technology a chance to develop intensively, qualitatively, or to spread extensively, quantitatively.

Thus, we see that the new agricultural technology led at first to an unprecedented hitherto cultural growth. But as a result of this development, a social system was created, which over time began to constrain the development of technology, despite the fact that the technological limit of agricultural production was still very, very high. It is reasonable to assume that human culture would never have surpassed the peaks reached long before the beginning of our era, if the invention of new forms of use of natural resources has not been increased energy production per capita per year.

The fuel revolution was the culmination and synthesis of several streams of elements of culture that had long been developing, just as many centuries before the flowering of a number of trends of synthesis was observed in the agrarian revolution. And like its predecessor, the solar revolution brought about enormous social, political and economic changes, dramatically increasing the energy resources for the development of culture by inventing new forms of conversion of solar energy contained in coal, oil and natural gas.

Just as happened in the case of the agrarian revolution, the introduction of technologies related to the transition to new fuels led to rapid population growth. Before the coal age, the population of Europe increased from 100 million in 1650 to 187 million in 1800. from 1800 to 1900, It grew to more than 400 million. the Population of England, the country with which the industrial revolution began and where it reached full swing, from 1700 to 1800 increased by 50%. But during the XIX century. It increased by 260 %. In the two centuries before 1872, the population of Japan increased by only 41%. In the fifty years after 1872 (about this time industrialization began there), the population increased by more than 80%. Similar to what happened in the Bronze Age, new technology pushed and further stimulated the rapid growth of cities. The European feudal system-the rural aristocratic subsistence economy-died out and was replaced by an urban industrial economy that existed under parliamentary conditions and relied on production for commercial profit. The social structure was even more differentiated, the functions even more specialized. The productivity of human labor has grown with the development of technology. The agricultural population has decreased relatively, and sometimes in absolute numbers.

There have been changes in the class structure of society. The basic dichotomy – a small ruling class and a subordinate expatriate majority of the population – remained, but the composition of these classes has changed radically. Industrial lords and financial barons replaced the feudal rural aristocracy as the dominant element in the ruling class, and the urban industrial proletariat took the place of serfs, peasants and slaves as the main component of the subordinate class. The workers ' strike replaced the peasant revolt and the slave and serf revolts of earlier centuries. Again, but in a new form, the Church-state mechanism began to serve for coordination and regulation, seeking to preserve the integrity of society, restraining class antagonisms and mobilizing public resources for the defense of the Fatherland and the conduct of war.

Here we can briefly interrupt the course of our reasoning and note an interesting feature of the process of cultural evolution: as culture develops, the rate of growth accelerates. We have already noticed that the growth rates in the late Neolithic and early Bronze Age significantly exceeded the growth rates in the Paleolithic and Eolithic eras. The agricultural revolution took several thousand years, to develop to their full potential. The fuel revolution, on the other hand, began only a few hundred and fifty years ago, but since then there has hardly been a change more profound than in the whole course of previous history. Changes are so rapid, and we are so involved in them, that it is difficult for us to grasp the situation and assess the depth and nature of this revolution, which is taking place in the technological, social and political spheres.

In 1922 in the book "a New look at American history" Professor A. M. Schlesinger has compared the culture of the United Stays of Lincoln's time with the culture of the country in times of Benjamin Franklin, on the one hand, and the culture of its time on the other. He noted that the daily routine surrounding Lincoln would have been no stranger to George Washington and Franklin. But the American culture of 1922 would have surprised and puzzled Lincoln if he had returned to the stage of the political life of the country: "he would have been surprised by the building height of more than three-four floors. In his time, there were no huge glass storefronts, electric lights on the streets, cinemas, electric elevators in the houses, large University magicians. He would have marveled at the smooth asphalt streets and cemented sidewalks. He would have been even more amazed at the cars and the electric-powered public transport. Even a boy on a Bicycle would interest him. When visiting the White house, he would have to get acquainted with such familiar realities of our lives as plumbing, steam heating, sulfur matches, telephone, electric lighting and even a fountain pen. In Lincoln's time, water and sewer systems were just beginning to develop, only coal-fired, kerosene-fired, or gas-fired lighting appeared, and the steel feather had only recently replaced the traditional goose feather. Steel rails, metal bridges, powerful locomotives, refrigerated trucks, artificial ice, oil separators, crawler tractors, money orders, parcels by mail, Telegraph, radio, gasoline-powered motorcycles, automatic weapons, dynamite, submarines, airplanes-all these and hundreds of other new inventions were unknown in his time."

Now imagine the changes that have taken place since Schlesinger wrote this in 1922 – in transport, in medicine, in communications, and in technology in General! Perhaps the most striking technological progress in military Affairs. The equipment used during the First World War, today already looks like a Museum exhibit, but much of what was first tested in the Second world war, is already quite outdated. It is terrible to even imagine how the next major military conflict will look like; something has already opened up, something you can only guess to imagine how far technological progress has gone since the days of Perl Harbor. And behind Mars are large research laboratories and landfills, which will continue to develop and improve new tools and technologies in all areas of production. The pace of progress of culture today is greater than ever. "Our lives," wrote the famous physicist Arthur Holly Compton in

1940," differ from those of our ancestors two generations earlier more strikingly than their lives differed from civilized life at the dawn of written human history." And since Compton wrote this, the deepest, most terrible, and perhaps most important revolution in human history has occurred – the extraction of atomic energy.

But again, just as in the case of the agrarian revolution and its aftermath, the social system created by the new fuel technology began to counteract the further development of culture. A system based on price and profit promotes production and technological development as long as the goods produced are marketed. But just as it happened in the social and economic system of the bronze age, the new commercialism of the fuel era was internally limited. In no industrialized state is there an internal market capable of absorbing all the production produced: the very system of profit in industry is based on the fact that the value of what is produced exceeds the value of the cost of production, which includes the wages that the workers receive. Investigator but, it is extremely important to export the goods produced; "we must export, otherwise we will die" - this desperate cry in recent years, we have heard from many countries. Some time markets can serve other countries. But as production grows with the development of technology, and non-European countries such as Japan become industrialized and compete for markets, the international profit-making system begins to stall. Industrial production is growing and the world market is shrinking. When goods Are not sold abroad, domestic production is reduced. Traitors try not to produce goods that cannot be sold profitably. Factories, factories, mines are closing. Millions of people are losing their jobs. Excess production is destroyed, reduced agricultural production. There is a terrible scourge of overproduction and unemployment, " famine in the midst of plenty." The social system strangles the great machine of production, paralyzes politics. We have to choose between stagnation and death, between war and revolution. If the social system were able to contain the development of fuel technologies and the resulting commercial competition and class conflicts, society would stabilize in a stagnant form of industrial feudalism. But if the forces generated by the new technology were able to withstand the constraints imposed by prices and the parliamentary system, then culture would develop further and reach new heights.

#### Conclusion

It is obvious that the development of culture, which was given impetus by the powerful forces of fuel technology, is gradually slowing down. The initial phase of the second great cultural revolutionthe industrial revolution-is complete, and we are entering the second phase, the phase of the social, political and economic revolution. And as before, war remains a means of profound political renewal. The system of free individual entrepreneurship has practically disappeared from business and trade.

The gold standard has become a monument of a bygone era. The parliamentary system of government, a device specially designed to provide maximum freedom for the development of industrial and financial enterprises, as such has almost outlived its usefulness. Private law has reemerged as such an important means of achieving freedom of growth as at the dawn of the era of commercialism. Today it breeds competition, internecine strife, chaos and paralysis. The concentration of power in the absence of public responsibility in the hands of those who own or control vast amounts of wealth, or in the hands of representatives of organized labor, is no longer compatible with the degree of unity and strength that a nation must possess in order to successfully confront rivals in the international arena. The necessity of national prosperity requires the subordination of private law to the General welfare, part to the whole. In short, the state, as an integrating and regulating mechanism of civil society, will have to concentrate even more power and exercise even more control in its hands. The evolution of society inexorably leads to a higher level of integration, to an even greater concentration of political power and control.

#### References

- 1. Bai Y. (2014) Predicament faced by exotic culture in interior home space design application Zhengzhou as an example. *Energy Education Science and Technology Part A: Energy Science and Research*, 32(6), pp. 8829-8834.
- 2. Berdoulay V., Morales M. (1999) Public space and culture: Strategies for Barcelona [Espace public et culture: strategies barcelonaises]. *Geographie et Cultures*, (29), pp. 79-96.
- Cai H. L. (2016) Interaction between human being and urban culture space: One of the motivations for higher education internationalisation. *Integration of Education*, 20(2), pp. 150-157. Available at: https://doi.org/10.15507/1991-9468.083.020.201602.150-157 [Accessed 12/12/19].
- Chatterton P., Unsworth R. (2004). Making space for culture(s) in boomtown. Some alternative futures for development, ownership and participation in Leeds city centre. *Local Economy*, 19(4), pp. 361-379. Available at: https://doi.org/10.1080/0269094042000286855 [Accessed 19/12/19].
- 5. Chekha V.V. (2011) Gosudarstvennoe (munitsipal'noe) zadanie obrazovatel'nym uchrezhdeniyam: kommentarii k federal'nomu zakonu ot 8 maya 2010 g. № 83-FZ "O vnesenii izmenenii v otdel'nye zakonodatel'nye akty Rossiiskoi Federatsii v svyazi s sovershenstvovaniem pravovogo polozheniya gosudarstvennykh (munitsipal'nykh) uchrezhdenii" [State (municipal) task for educational institutions: commentary to the Federal Law No. 83-FZ of May 8, 2010 "On amendments to certain legislative acts of the Russian Federation in connection with the improvement of the legal status of state (municipal) institutions"]. *Ezhegodnik rossiiskogo obrazovatel'nogo zakonodatel'stva* [Yearbook of Russian educational legislation], 6, pp. 127-142.
- 6. Chekha V.V. (2010) Sozdanie innovatsionnoi infrastruktury v obrazovatel'nom uchrezhdenii [Creating an innovative infrastructure in an educational institution]. *Spravochnik rukovoditelya obrazovatel'nogo uchrezhdeniya* [Directory of the head of an educational institution], 11, pp. 40.
- Chen W., et al. (2017) Research on space-time evolution model of Xiangshan Culture knowledge graph based on named graph. In: *Proceedings of 2017 IEEE 2nd Advanced Information Technology, Electronic and Automation Control Conference, IAEAC 2017*, pp. 673-678. Available at: https://doi.org/10.1109/IAEAC.2017.8054101 [Accessed 20/12/19].
- Damjanov K., Crouch D. (2018) Global media cultures among the stars: Formations of celebrity in outer space. *International Journal of Cultural Studies*, 21(5), pp. 553-568. Available at: https://doi.org/10.1177/1367877917705915 [Accessed 11/12/19].
- Dement'ev K.N., Zashchirinskaya O.V., Pristav O.V. (2016) Vozmozhnosti ispol'zovaniya fitnes-tekhnologii v sisteme spetsial'nogo i inklyuzivnogo obrazovaniya detei [Possibilities of using fitness technologies in the system of special and inclusive education for children]. *Teoriya i praktika fizicheskoi kul'tury* [Theory and Practice of Physical Culture], 7, pp. 41-43.
- Demetry D. (2013) Regimes of Meaning: The Intersection of Space and Time in Kitchen Cultures. *Journal of Contemporary Ethnography*, 42(5), pp. 576-607. Available at: https://doi.org/10.1177/0891241613483562 [Accessed 11/12/19].
- 11. Fan D.-D., Kim S.-H. (2019) The Study on the Residential Space in Culture-led Urban Regeneration: A case study of Residential Space in Henan. In: *E3S Web of Conferences*, 79. Available at: https://doi.org/10.1051/e3sconf/20197901005 [Accessed 11/12/19].
- 12. Fomina M.N., Borisenko O.A. (2019) Globalizing culture in transboundary space. In: *IOP Conference Series: Earth and Environmental Science*, 274. Available at: https://doi.org/10.1088/1755-1315/274/1/012143 [Accessed 11/12/19].
- Gong J., Liu Y., Zhang X., Zhou Y. (2019) Integration of talent training and corporate culture in the field of space environment simulation. In: *ACM International Conference Proceeding Series*, pp. 70-73. https://doi.org/10.1145/3345035.3345066 [Accessed 08/12/19].
- 14. Gorman A. (2016). Culture on the Moon: Bodies in Time and Space. *Archaeologies*, 12(1), pp. 110-128. Available at: https://doi.org/10.1007/s11759-015-9286-7 [Accessed 11/12/19].
- 15. Harris P.R. (1986) The influence of culture on space developments. *Behavioral Science*, 31(1), pp. 12-28. Available at: https://doi.org/10.1002/bs.3830310103 [Accessed 06/12/19].
- 16. Harris P.R. (1995) The impact of culture on human and space development-New millennial challenge. Acta Astronautica, 36(7), pp. 399-408. https://doi.org/10.1016/0094-5765(95)00116-6 [Accessed 11/12/19].
- 17. Harvey, D. C. (2010). The space for culture and cognition. *Poetics*, 38(2), pp. 185-204. Available at: https://doi.org/10.1016/j.poetic.2009.11.009 [Accessed 11/12/19].
- Isah A.D. (2016) Culture as an Integral Phenomenon in Housing Space Transformation. Urban Book Series, pp. 27-40. Available at: https://doi.org/10.1007/978-3-319-40192-8\_3 [Accessed 11/12/19].
- 19. Lamminpiya A., Zashchirinskaya O.V., Shelepin Yu.E. (2014) Ponimanie morali skazok na primere izucheniya

glazodvigatel'nykh reaktsii [Understanding of the moral of fairy tales through the study of oculomo-tor reactions]. *Sbornik statei Mezhdunarodnoi nauchnoi konferentsii "Neironauka v psikhologii, obrazovanii, meditsine"* [Proc. Int. Conf. "Neuroscience in psychology, education, and medicine"]. Saint Petersburg, pp. 16-22.

- Lamminpiya A.M., Zashchirinskaya O.V., Shelepin Yu.E. (2015) Psikhofiziologicheskii analiz protsessov chteniya i ponimaniya tekstov [Psychophysiological analysis of reading and understanding of texts]. Fiziologiya cheloveka [Human Physiology], 41 (2), pp. 23-28.
- Liu L., Zhang Q. (2016) Adaptive mixed-culture shuffled frog-leaping algorithm for continuous-space optimization. *Information and Control*, 45(3), pp. 306–312. Available at: https://doi.org/10.13976/j.cnki.xk.2016.0306 [Accessed 11/12/19].
- 22. Low S.M. (2002) Lessons from imagining the world trade center site: An examination of public space and culture. *Anthropology and Education Quarterly*, 33(3), pp. 395–405. Available at: https://doi.org/10.1525/aeq.2002.33.3.395 [Accessed 11/12/19].
- Lv D. (2013) Formation mechanism of taichiquan culture based on space panel measurement analysis. *Lecture Notes in Electrical Engineering*, 217 LNEE, 2, pp. 683-689. Available at: https://doi.org/10.1007/978-1-4471-4850-0\_87 [Accessed 11/12/19].
- 24. Morrison D.R. (1987) Suspension cell culture in microgravity and development of a space bioreactor. In: NASA Conference Publication, pp. 1-18.
- 25. Morrison D.R. (1988) Human cell culture in a space bioreactor. NASA Technical Memorandum, 1(4069), pp. 195-215.
- Morrison D.R., Cross J.H. (1987) Cell culture experiments planned for the space bioreactor. In: NASA Conference Publication, pp. 161-177.
- Nakamura K. et al. (2011) Evaluation of drug toxicity with hepatocytes cultured in a micro-space cell culture system. *Journal of Bioscience and Bioengineering*, 111(1), pp. 78-84. Available at: https://doi.org/10.1016/j.jbiosc.2010.08.008 [Accessed 11/12/19].
- Nishimura M. et al. (2010) Secretion of albumin and induction of CYP1A2 and CYP3A4 in novel three-dimensional culture system for human hepatocytes using micro-space plate. *Drug Metabolism and Pharmacokinetics*, 25(3), pp. 236-242. Available at: https://doi.org/10.2133/dmpk.25.236 [Accessed 11/12/19].
- 29. Poletaeva Yu.G. (2011) Problemno-al'ternativnyi kharakter metoda testirovaniya [Problematical and alternative character of the tested method]. *Vestnik gumanitarnogo nauchnogo obrazovaniya* [Bulletin of the humanities scientific education], 8, pp. 11-13.
- 30. Šporer, D. (2013) Rhetoric of space and poetics of culture. Primerjalna Knjizevnost, 36(3), pp. 159–171.
- 31. Sun N., Liu Z.-J., Zhao J. (2013) University campus outdoor space environment characteristics of culture shape. Advanced Materials Research, pp. 610-613, pp. 2871-2874. Available at: https://doi.org/10.4028/www.scientific.net/AMR.610-613.2871
- 32. Tixador R. (1988) Cell culture devices for biological experiments in space. In *IEEE/Engineering in Medicine and Biology Society Annual Conference*, 10, pp. 1298-1299.
- Wessels A.R., Collins P. (1994) Space activities and global popular music culture. *Acta Astronautica*, 32(2), pp. 143-150. Available at: https://doi.org/10.1016/0094-5765(94)90065-5 [Accessed 11/12/19].
- 34. Yi X., Weng J. (2018) The multi-roles and impact of air and space Museum of Beihang University on space education and space culture heritage. In: *Proceedings of the International Astronautical Congress, IAC*, 2018.
- 35. Yu Y., Lv F. (2012) Study on the urban streets space forms from the perspective of recycle culture concept. *Applied Mechanics and Materials*, 174–177, pp. 2357–2360. Available at: https://doi.org/10.4028/www.scientific.net/AMM.174-177.2357 [Accessed 11/12/19].
- 36. Zashchirinskaya O.V., Belobrykina O.A. (2018) Ponimanie kak mezhdistsiplinarnaya kategoriya [Understanding as an interdisciplinary category]. In: Belobrykina O.A. et al. *Ponimanie i kommunikatsiya: kognitivnyi kontekst soderzhatel'no-smyslovykh konstruktov* [Understanding and communication: the cognitive context of meaningful constructs]. Saint Petersburg: Russian State Pedagogical University named after A.I. Herzen, pp. 8-16.
- 37. Zashchirinskaya O.V., Lapteva A.V. (2017) Spetsifika predstavlenii o druzheskikh otnosheniyakh u mladshikh shkol'nikov s narusheniyami intellekta [Concepts of friendship among primary school children with intellectual disability. Introduction]. *Nauchnoe mnenie* [Scientific opinion], 7-8, pp. 74-79.
- 38. Zashchirinskaya O.V., Nikolaeva E.I., Rybnikov V.Yu., Byzova V.M. (2017) Vliyanie vnutrisemeinoi kommunikatsii na spetsifiku vospriyatiya zhestov det'mi mladshego shkol'nogo vozrasta s legkoi umstvennoi otstalost'yu [The influence of intra-family communication on the specifics of the perception of gestures by children of primary school age with mild mental retardation]. *Vestnik Novosibirskogo gosudarstvennogo pedagogicheskogo universiteta* [Bulletin of Novosibirsk State Pedagogical University], 7 (5), pp. 81-93.
- 39. Zashchirinskaya O.V., Nikolaeva E.I., Rybnikov V.Yu., Byzova V.M. (2017) Vliyanie vnutrisemeinoi kommunikatsii na spetsifiku vospriyatiya zhestov det'mi mladshego shkol'nogo vozrasta s legkoi umstvennoi otstalost'yu [The influence of intra-family communication on the specifics of the perception of gestures by children of primary school age with mild mental retardation]. *Vestnik Novosibirskogo gosudarstvennogo pedagogicheskogo universiteta* [Bulletin of Novosibirsk State Pedagogical University], 7 (5), pp. 81-93.

- 40. Zhang, L. (2017). Exploration the correlation between geographical space and music culture based on the development of regional music culture. *Agro Food Industry Hi-Tech*, 28(3), pp. 1938-1942.
- 41. Zueva V.S., Zashchirinskaya O.V. (2019) Vospriyatie doshkol'nikami reklamnykh obrazov skazochnykh personazhei [Perception of promotional images of fairy-tale characters by preschool children]. *Nauchnye issledovaniya vypusknikov fakul'teta psikhologii SPbGU* [Scientific research of graduates of the faculty of psychology of the Saint Petersburg State University], 6, pp. 53-57.

# Происхождение и эволюция понятия «культура» по отношению к сельской местности

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#### Аннотация

В статье представлен краткий анализ развития культуры от ее зарождения на антропоидном уровне и до настоящего времени. Рассматривается человеческая раса в целом, множество разных культур и культурных традиций как единство – как культура человека. Авторы отмечают, что культура представляет собой определенный порядок или класс феноменов, а именно предметы и явления, связанные с проявлением особой ментальной способности, свойственной исключительно человеческому виду, – способности к символизации. Иначе говоря, культура состоит из материальных предметов – орудий труда, утвари, орнаментов, амулетов и т.д., действий, верований и отношений, которые функционируют в символическом контексте. Она представляет собой сложный экстрасоматический механизм, который определенный вид животных – человек использует в борьбе за выживание и за существование. Возможность передавать культуру небиологическими средствами является одним из ее наиболее существенных свойств. Все аспекты культуры легко передать другому человеку, поколению, возрастной группе, другим людям при помощи социальных механизмов. Культуру можно назвать формой социальной наследственности. Таким образом, авторы рассматривают культуру как экстрасоматический порядок предметов и явлений, переходящий с течением времени от одного поколения к другому.

#### Для цитирования в научных исследованиях

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#### Ключевые слова

Культура, структура, развитие, возможности, становление.

### Библиография

1. Дементьев К.Н., Защиринская О.В., Пристав О.В. Возможности использования фитнес-технологий в системе специального и инклюзивного образования детей // Теория и практика физической культуры. 2016. № 7. С. 41-43.

- Защиринская О.В., Белобрыкина О.А. Понимание как междисциплинарная категория // Белобрыкина О.А. и др. Понимание и коммуникация: когнитивный контекст содержательно-смысловых конструктов. СПб.: Российский государственный педагогический университет им. А.И. Герцена, 2018. С. 8-16.
- 3. Защиринская О.В., Лаптева А.В. Специфика представлений о дружеских отношениях у младших школьников с нарушениями интеллекта // Научное мнение. 2017. № 7-8. С. 74-79.
- 4. Защиринская О.В., Николаева Е.И., Рыбников В.Ю., Бызова В.М. Влияние внутрисемейной коммуникации на специфику восприятия жестов детьми младшего школьного возраста с легкой умственной отсталостью // Вестник Новосибирского государственного педагогического университета. 2017. Т. 7. № 5. С. 81-93.
- 5. Защиринская О.В., Николаева Е.И., Рыбников В.Ю., Бызова В.М. Влияние внутрисемейной коммуникации на специфику восприятия жестов детьми младшего школьного возраста с легкой умственной отсталостью // Вестник Новосибирского государственного педагогического университета. 2017. Т. 7. № 5. С. 81-93.
- Зуева В.С., Защиринская О.В. Восприятие дошкольниками рекламных образов сказочных персонажей // Научные исследования выпускников факультета психологии СПбГУ. 2019. Т. 6. С. 53-57.
- 7. Ламминпия А., Защиринская О.В., Шелепин Ю.Е. Понимание морали сказок на примере изучения глазодвигательных реакций // Сборник статей Международной научной конференции «Нейронаука в психологии, образовании, медицине». СПб., 2014. С. 16-22.
- 8. Ламминпия А.М., Защиринская О.В., Шелепин Ю.Е. Психофизиологический анализ процессов чтения и понимания текстов // Физиология человека. 2015. Т. 41. № 2. С. 23-28.
- 9. Полетаева Ю.Г. Проблемно-альтернативный характер метода тестирования // Вестник гуманитарного научного образования. 2011. № 8. С. 11-13.
- 10. Чеха В.В. Государственное (муниципальное) задание образовательным учреждениям: комментарий к федеральному закону от 8 мая 2010 г. № 83-ФЗ "О внесении изменений в отдельные законодательные акты Российской Федерации в связи с совершенствованием правового положения государственных (муниципальных) учреждений» // Ежегодник российского образовательного законодательства. 2011. Т. 6. С. 127-142.
- 11. Чеха В.В. Создание инновационной инфраструктуры в образовательном учреждении // Справочник руководителя образовательного учреждения. 2010. № 11. С. 40.
- 12. Bai Y. Predicament faced by exotic culture in interior home space design application Zhengzhou as an example // Energy Education Science and Technology Part A: Energy Science and Research. 2014. No. 32(6). P. 8829-8834.
- Berdoulay V., Morales M. (1999). Public space and culture: Strategies for Barcelona [Espace public et culture: Strategies barcelonaises] // Geographie et Cultures. No. 29. P. 79-96.
- Cai H. L. Interaction between human being and urban culture space: One of the motivations for higher education internationalisation // Integration of Education. 2016. No. 20(2). P. 150-157. URL: https://doi.org/10.15507/1991-9468.083.020.201602.150-157
- Chatterton P., Unsworth R. Making space for culture(s) in boomtown. Some alternative futures for development, ownership and participation in Leeds city centre // Local Economy. 2004. No. 19(4). P. 361-379. URL: https://doi.org/10.1080/0269094042000286855
- 16. Chen W. et al. Research on space-time evolution model of Xiangshan Culture knowledge graph based on named graph // In: Proceedings of 2017 IEEE 2nd Advanced Information Technology, Electronic and Automation Control Conference, IAEAC. 2017. P. 673-678. URL: https://doi.org/10.1109/IAEAC.2017.8054101
- Damjanov K., Crouch D. Global media cultures among the stars: Formations of celebrity in outer space // International Journal of Cultural Studies. 2018. No. 21(5). P. 553–568. URL: https://doi.org/10.1177/1367877917705915
- Demetry D. Regimes of Meaning: The Intersection of Space and Time in Kitchen Cultures // Journal of Contemporary Ethnography. 2013. No. 42(5). P. 576-607. URL: https://doi.org/10.1177/0891241613483562
- 19. Fan D.-D., Kim S.-H. The Study on the Residential Space in Culture-led Urban Regeneration: A case study of Residential Space in Henan // In: E3S Web of Conferences. 2019. Vol. 79. URL: https://doi.org/10.1051/e3sconf/20197901005
- Fomina M.N., Borisenko O.A. Globalizing culture in transboundary space // In: IOP Conference Series: Earth and Environmental Science. 2019. Vol. 274. URL: https://doi.org/10.1088/1755-1315/274/1/012143
- 21. Gong J., Liu Y., Zhang X., Zhou Y. Integration of talent training and corporate culture in the field of space environment simulation // In: ACM International Conference Proceeding Series. 2019. P. 70-73. URL: https://doi.org/10.1145/3345035.3345066
- 22. Gorman A. Culture on the Moon: Bodies in Time and Space // Archaeologies. 2016. No. 12(1). P. 110-128. URL: https://doi.org/10.1007/s11759-015-9286-7
- 23. Harris P.R. The influence of culture on space developments. Behavioral Science. 1986. No. 31(1). P. 12–28. URL: https://doi.org/10.1002/bs.3830310103
- Harris P.R. The impact of culture on human and space development-New millennial challenge // Acta Astronautica. 1995. No. 36(7). P. 399-408. URL: https://doi.org/10.1016/0094-5765(95)00116-6
- 25. Harvey D.C. The space for culture and cognition // Poetics. 2010. No. 38(2). P. 185-204. URL: https://doi.org/10.1016/j.poetic.2009.11.009

- 26. Isah A.D. Culture as an Integral Phenomenon in Housing Space Transformation // Urban Book Series. 2016. P. 27-40. URL: https://doi.org/10.1007/978-3-319-40192-8\_3
- 27. Liu L., Zhang Q. Adaptive mixed-culture shuffled frog-leaping algorithm for continuous-space optimization // Information and Control. 2016. No. 45(3). P. 306-312. URL: https://doi.org/10.13976/j.cnki.xk.2016.0306
- 28. Low S.M. Lessons from imagining the world trade center site: An examination of public space and culture // Anthropology and Education Quarterly. 2002. No. 33(3). P. 395-405. URL: https://doi.org/10.1525/aeq.2002.33.3.395
- Lv D. Formation mechanism of taichiquan culture based on space panel measurement analysis // Lecture Notes in Electrical Engineering, 217 LNEE. 2013. Vol. 2. P. 683-689. URL: https://doi.org/10.1007/978-1-4471-4850-0\_87
- Morrison D.R. Suspension cell culture in microgravity and development of a space bioreactor // In: NASA Conference Publication. 1987. P. 1-18.
- Morrison D.R. Human cell culture in a space bioreactor // NASA Technical Memorandum. 1988. No. 1(4069). P. 195-215.
- 32. Morrison D.R., Cross J.H. Cell culture experiments planned for the space bioreactor // In: NASA Conference Publication. 1987. P. 161-177.
- Nakamura K. et al. Evaluation of drug toxicity with hepatocytes cultured in a micro-space cell culture system // Journal of Bioscience and Bioengineering. 2011. No. 111(1). P. 78-84. URL: https://doi.org/10.1016/j.jbiosc.2010.08.008
- 34. Nishimura M. et al. Secretion of albumin and induction of CYP1A2 and CYP3A4 in novel three-dimensional culture system for human hepatocytes using micro-space plate // Drug Metabolism and Pharmacokinetics. 2010. No. 25(3). P. 236-242. URL: https://doi.org/10.2133/dmpk.25.236
- 35. Šporer D. Rhetoric of space and poetics of culture // Primerjalna Knjizevnost. 2013. No. 36(3). 159-171.
- Sun N., Liu Z.-J., Zhao J. University campus outdoor space environment characteristics of culture shape // Advanced Materials Research. 2013. No. 610-613. P. 2871-2874. URL: https://doi.org/10.4028/www.scientific.net/AMR.610-613.2871
- Tixador R. Cell culture devices for biological experiments in space // In: IEEE/Engineering in Medicine and Biology Society Annual Conference. (1988). Vol. 10. No. 3. P. 1298-1299.
- Wessels A.R., Collins P. Space activities and global popular music culture // Acta Astronautica. 1994. No. 32(2). P. 143-150. URL: https://doi.org/10.1016/0094-5765(94)90065-5
- 39. Yi X., Weng J. The multi-roles and impact of air and space museum of beihang university on space education and space culture heritage // In: Proceedings of the International Astronautical Congress, IAC. 2018. Vol. 2018-October.
- Yu Y., Lv F. Study on the urban streets space forms from the perspective of recycle culture concept // Applied Mechanics and Materials. 2012. No. 174-177. P. 2357-2360. URL: https://doi.org/10.4028/www.scientific.net/AMM.174-177.2357
- 41. Zhang L. Exploration the correlation between geographical space and music culture based on the development of regional music culture // Agro Food Industry Hi-Tech. 2017. No. 28(3). P. 1938-1942.