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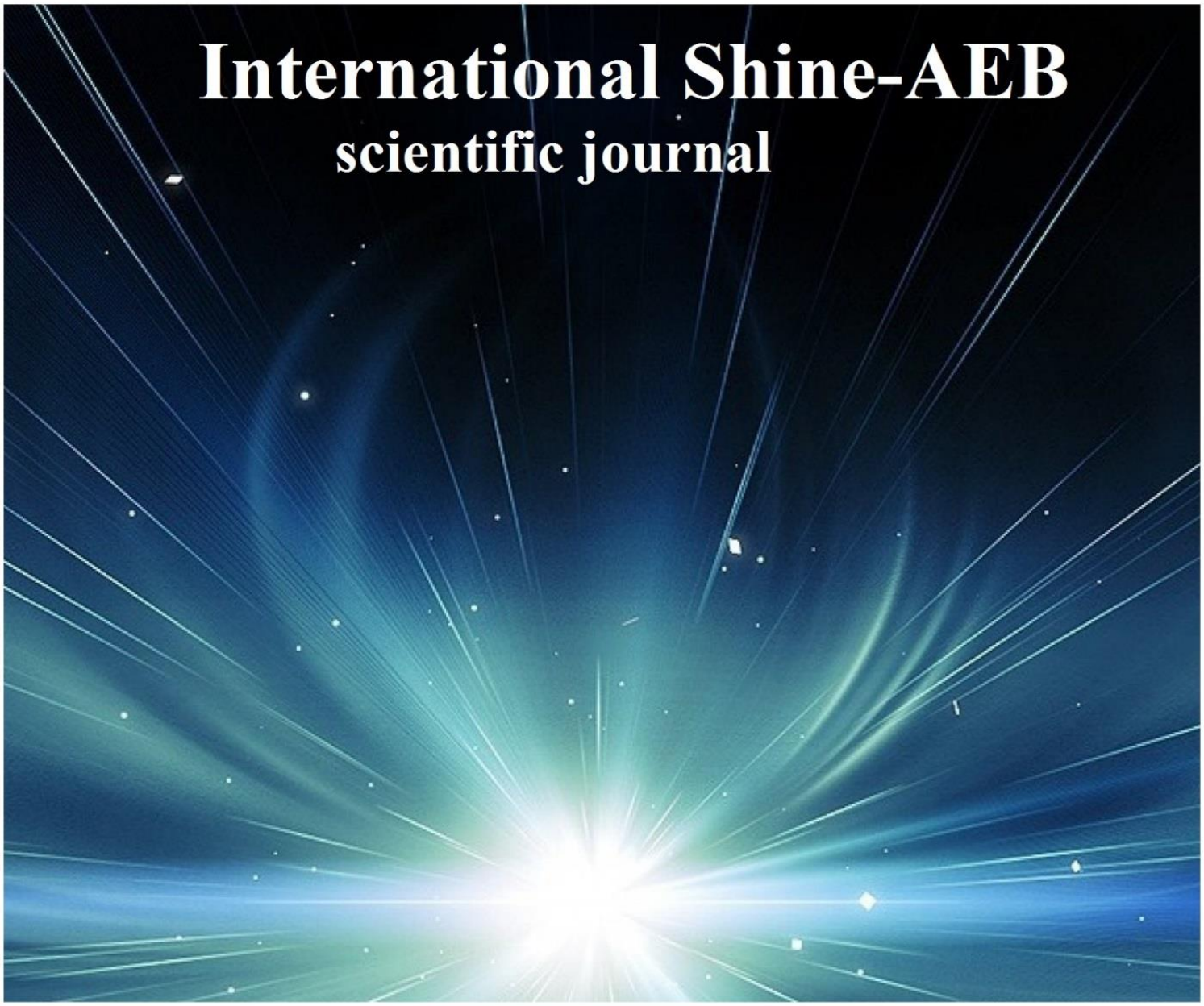

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HEGEL'S VIEWS ON SOCIAL RELATIONS

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Annotation

In the article, nature, things and events in it, the laws of their development, and society, the essence of events and their laws of development are completely different from each other, because the creation, development and future fate of society, its laws of development, and the future fate of all humanity, or rather, its activity dependence was analyzed.

Key words: development, progress, legality, state, society, change.

The perfection and effective functioning of the management system, which plays an important role in regulating social relations, depends on both the managers and the managed. But experience shows that relations between them were not always smooth. In a way, this is natural. Because managers and managed are built on the principle of dialectics with certain aspects. That is, they are opposite to each other, and at the same time, one cannot exist without the other. Sometimes one side, sometimes the other side takes the “initiative” of a conflict between them. On the one hand, these are immoral vices such as injustice, arrogance, arrogance, selfishness, arrogance committed by leaders, on the other hand, bad habits such as irresponsibility, ingratitude, indiscipline, misunderstanding and failure to fulfill their duties committed by leaders. community, on the other hand, are the reasons for taking such “initiative”. By the way, if we think about responsibilities. In this regard, we considered it permissible to quote the following remarks by Hegel, who founded the doctrine of dialectical laws and categories and conducted significant research in other areas of philosophy:

“A person’s duties are divided into four:

1) to their duties;

2) those who are in front of the family;

3) before the state;

4) to those who are in front of other people.

Duty is important in regulating the relationship between the state and citizens, not only between rulers and subjects, but also in society as a whole. In legal terms, duty is the fulfillment of the duties of citizens established by the state and society. True, the state, along with imposing responsibilities on its citizens, also endowed them with certain rights and freedoms. The sustainable and effective functioning of the system of public relations largely depends on the equal observance by citizens of their duties, rights and freedoms. But there is an unpleasant situation that is often observed. Citizens know their rights and freedoms very well, even more than usual. At the

same time, they freeze the demand for their rights and freedoms. Unfortunately, we do not always observe such an attitude of citizens towards their responsibilities. Usually some citizens do not know or do not want to know their responsibilities. And when they find out their purpose, they look at it with their own eyes and worry about its fulfillment. However, citizens should not forget one thing: fulfilling the duties established in society is mandatory. In particular, in the Republic of Uzbekistan, "All citizens fulfill the duties provided for by the Constitution." If citizens do not fulfill their obligations voluntarily, the state forces them to do so. The state has sufficient means of coercion and structures for the use of force. But this is an unpleasant situation, harmful to the nature of civil society. Because one of the important principles of civil society is determined by the fact that citizens fully understand the meaning of their duties, rights and freedoms established in society, and most importantly, they consciously follow them.

There is something - a phenomenon in the world that is doomed to change. Only some of these changes happen in very short moments before our eyes, while other changes take days, months and years to manifest themselves. For some changes, a human life may not be enough. Examples include the movement of underground plates, the formation of mountains and volcanoes. Many philosophers who have left their mark on the history of philosophy have views on this topic. In particular, Hegel, who brought the science of philosophy to a completely new level, "understanding progress on the basis of dialectics shows that the phenomena of nature and society are diverse and its transition from one state to another, as well as the correct way to know the laws of development of nature and society." In this place, the phenomena of nature and society and the laws of development of nature and society are combined and expressed as a single whole. The goal is clear - to explain the essence of things and events in a general, holistic form. However, we must not forget one thing: nature, things and phenomena in it, the laws of their development and society, events in it and the essence of the laws of their development are completely different from each other. You and I have read a lot about these differences in philosophy and other scientific and artistic books. Let's dwell on them the same way. We know that nature is said to have come into existence before man, independent of human consciousness and thought. We agree with this one hundred percent. Then they say again that nature develops according to its own laws that cannot be changed. 100 years ago one could agree with this opinion 100 percent, but now objectionable aspects have appeared. Even now we cannot influence some laws of nature. For example, rotation around the sun and rotation around its axis and hokozo. However, with the growth of human intelligence and the development of science and technology, sometimes consciously, sometimes unconsciously, he began to influence nature and the laws of its development. Unfortunately, in many cases this effect is negative. For example, heat and toxic gases emitted by internal

combustion engines, heating furnaces, factories and other industrial facilities rise into the atmosphere and cause global climate change on earth. As a result, disproportionate and incomprehensible situations arise in the laws of the change of seasons. These include low snowfall, warm days during a cold winter, and warmer than normal days. I mean that it was not man who created the laws of nature, its development, but man, through his activities, influences some of the laws of nature. However, this effect is mostly negative.

The emergence, development and further fate of society, the patterns of its development depend on all of humanity, or rather, on its activities. Hegel has a saying: “Man is so multifaceted that anything can be made of him...”. Since society is made up of people, we will try to apply this idea to the concept of society. Then the following reasoning arises: society is such a comprehensive, multifaceted thing that it can be developed in various ways and forms. In fact, that's how it was. If we look through history books, we will be convinced of this. Until today, how many countries have lived, that is, how many societies have existed. Even now there are more than 230 countries and as many different societies in the world. Whether societies of the past or societies of the present, neither is like the other. Everything is different. This is also proof of our conclusion stated above.

It should be noted about society that the conditions of its existence and the laws of development are constantly developing and changing. No matter how favorable the conditions in any flourishing society, no matter how developed its development paths and laws of development, all this is of relative importance. These areas require constant updating and improvement. Otherwise, they will become inconvenient and outdated over time.

It is known that in every period, in every region, every nation and people adapts its society to itself and builds it the way it wants. In this process there was a strong influence of national leaders, political figures, religious figures and representatives of science. In a modern democratic civil society, all citizens are involved in this process. Because it has already been proven that society will be effective if it is built based on the interests of all citizens living here, and not based on specific categories. However, the process of reaching this correct conclusion was not easy. For centuries, societies have lived according to completely wrong principles. We must acknowledge and note that Hegel's contribution to the development of philosophical science is enormous. His development of philosophical laws and categories served to raise the level of philosophical thinking. Also, Hegel’s scientific works on the history of philosophy and other areas of philosophy contributed a fair share to the development of science. Nobody wants to deny it. However, we cannot agree with some of Hegel’s views on state and society. In particular, one cannot agree with

conclusions that promote grand statism, nationalism and racism. Because such ideas ultimately lead to conflicts between nations and peoples, disagreements between states.

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DIAGNOSTICS OF THE ROADBED IN THE RAILWAY TRACK IN UZBEKISTAN

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Abdualiyev Elyorbek Begali o'g'li
Kushoshev Ne'matilla Hikmatilla o'g'li
Normurodov Shahboz Ulug'bekovich

Abstract: The article deals with the scientific direction related to determining the actual state of the roadbed. Also with periodic monitoring of the roadbed during the operation of the railway track. And diagnostics of the roadbed is a system consisting of a set of interrelated elements. The economic effect of using a geophysical diagnostic system is due to the faster removal of the speed limit for trains.

Key words: Railway track, roadbed, diagnostics, train traffic, geophysical system.

Scientific direction related to determining the actual state of the roadbed, qualitative and quantitative assessment of changes occurring in it under the influence of dynamic train loads and the influence of natural and climatic factors, as well as periodic monitoring of the roadbed during the operation of the railway track, diagnostics of the roadbed is a system consisting of a set of interrelated elements. It includes: objects of research; methods and technical means of diagnostics; classification of diagnostic features (criteria for recognizing deformations); specially trained personnel who interact with the object of diagnosis according to the rules established by the relevant regulatory and methodological documentation; conclusion about the technical condition of the object with justification for its further operation or suggestions for taking urgent measures to strengthen it [1.2.3.4].

From the diagnostic point of view, the operated roadbed is divided into the following categories: category I – emergency roadbed, i.e. there are areas where major deformations have occurred and the movement of trains has been stopped (for example, alloys of slopes, destruction of embankments, karst sinkholes). In this case, there is an urgent restoration of the roadbed and at the same time, a survey is performed not only of the destroyed section, but also of the adjacent sections of the roadbed; Category II-operated sections with detected deformations of the roadbed, which are subject to warnings about limiting train speeds; category III-sections of the roadbed, located in difficult engineering and geological conditions, therefore requiring increased attention due to the possibility of manifestation of deformations on them (areas of karst, swamps, landslides, permafrost); category IV-high mounds of clay soils, which are usually potentially unreliable; Category V is a stable roadbed, but its condition must be evaluated when setting the timing of track repairs.

Depending on the category of the condition of the roadbed and operational conditions, diagnostic studies of the roadbed (the study of signs that characterize its technical condition) are divided into detailed, reconnaissance (preliminary) and regime studies. Detailed diagnostics is carried out on the objects of the roadbed with already detected or obvious signs of deformation (I, II, III categories) and aims to obtain initial data for the development of measures to strengthen the roadbed. Reconnaissance diagnostics is performed for the purpose of preliminary assessment of the object's condition and determining the need for further detailed examination (category III, IV and V). Routine diagnostics of the object (monitoring of its technical condition) is carried out periodically during the operation of the path to identify abnormal and doubtful sections (in the future they are examined in detail) and determine the timing and order of repair work. They apply to all categories of roadbed, but above all to categories IV and V. The diagnostic system contains

traditional and new methods based on various physical principles (geophysical methods), and specially designed mobile diagnostic systems[5.6.7].

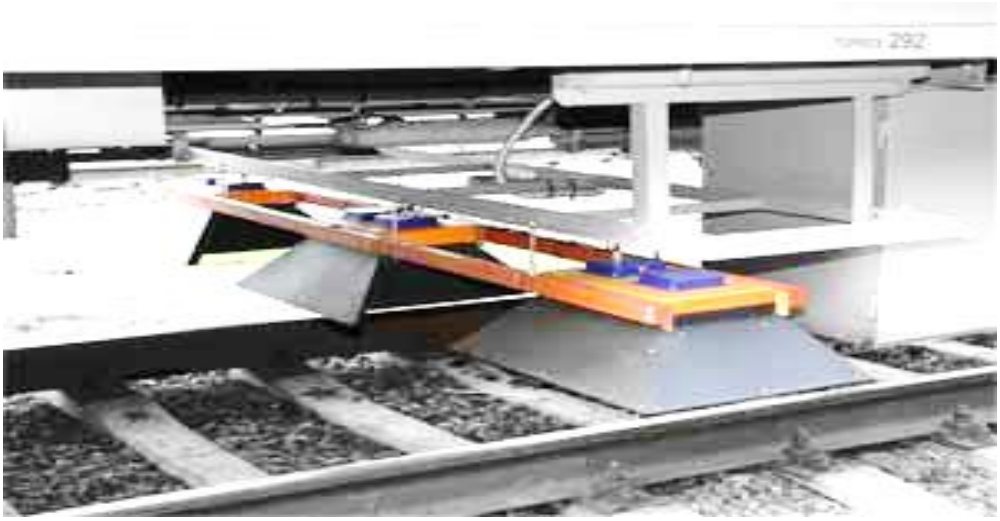

Figure 1. Application of GPR In Railways.

Traditional methods include operational observations (visual inspection, track alignment, measurements of ground mass displacements by beacons and marks, checking the position and growth of cracks); geodetic methods (levelling at the points of gates and rail heads, checking the track shift, shooting transverse and longitudinal profiles of the roadbed); engineering and geological methods (drilling wells, construction of pits, slots, clearing, soil sampling and laboratory tests to determine the physical and mechanical properties). In some cases, special mechanical methods of testing soils in the array are used. Methods of operational observations and geodetic methods characterize the external signs of deformation; engineering and geological methods determine the internal structure and condition of the soil of the roadbed; mechanical methods allow us to assess the strength characteristics of soils in the massif without sampling Using only traditional methods and the existing rates of their use. the problem of timely detection of dangerous sections of the roadbed for train traffic cannot be solved in the next decade.

Geophysical methods are the basis of the modern system of diagnostics of the earth bed, based on the study of patterns of changes in various physical fields in the soil of the earth bed, depending on their composition, properties and condition. Physical fields in the roadbed can arise from the direct effects of direct or alternating electric current through electrodes hammered into the ground (electrometric method); from the impact of shock loads (for example, a hammer) on the ground (seismic method); from a moving train (vibration method); from the radiation of electromagnetic high-frequency probing signals (radar method). The basic scheme of application of geophysical methods is as follows: excitation of physical fields in the groundbed reception and conversion of response signals (system response) registration of signals by measuring equipment automated system for processing the received information interpretation and engineering-geological interpretation of diagnostic results. Geophysical methods are usually used in conjunction with a small amount of control drilling (usually 10-15% of the total amount of drilling performed in a traditional survey), which is necessary for a more reliable interpretation and engineering-geological interpretation of the data obtained. Below is a brief description of the geophysical methods that are used in the diagnosis of the roadbed.

The electrometric method using profiling and vertical sensing allows detecting deformations of the main site in the form of ballast depressions and moistened soil zones; determining karst cavities; estimating the amount of embankment precipitation in swamps; identifying the boundaries of frozen soils in the body of embankments and their base, as well as

solving a number of other tasks. Along with electrical measurements using profiling and probing techniques, when measurements are made on the surface of the roadbed, a modification of the electrometric method - electrodynamic probing (EDS) - has been developed. The essence of the EDZ is that a metal probe consisting of several interconnected pipes is hammered into the soil array at the depth being studied by the blows of the reference load. As the probe dives into the ground at certain intervals, the depth of the current passed into the ground through the electrodes at the end of the probe is measured. The EDS method allows you to obtain not only a lithological section of the roadbed, but also data on the strength characteristics of sand and clay soils to a depth of about 5-7 m.

The seismic method in modification of profiling, longitudinal (along the path) and circular (on the slopes of embankments) sounding, x-ray (seismotomography) of the body of the embankment from opposite slopes allows solving the vast majority of problems that occur in all types of diagnostic studies of the earth bed. Among them, detailed studies of the internal structure of the roadbed, determination of water saturated zones in the embankments and the level of ground water at their base, assessment of soil properties and determination of weakened strength zones in the embankments and their base; survey of the roadbed operated in difficult engineering and geological conditions.

The vibration method is developed for the diagnosis of embankments, which are considered as a system that converts the input dynamic effect in the form of a train load into an output response (system response), for example, in time-varying oscillatory processes. A certain state of the operated embankment corresponds to a group of features that appear as different parameters of oscillations. As a result of research on reference objects of the roadbed, a classification of diagnostic features for various types of deformations was developed. A significant advantage of this method is the ability to assess the dynamic state of the embankment during its operation, i.e. during the impact of the rolling stock. The vibration method is used for reconnaissance diagnostics of embankments with the identification of anomalous objects; for monitoring the condition of embankments during the operation of railway tracks in the year-round cycle in order to predict their condition, including the organization of high-speed passenger trains; to detect embankments that are prone to sudden emergency deformations during the movement of the rolling stock.

The radar method is based on the use of short electromagnetic signals emitted by the radio transmitter that penetrate the ground through the transmitting antenna. Reflecting from layers of soil that have different electromagnetic properties, signals with information about the state of the environment are picked up by the receiving antenna. The echo depth of the reflecting contact is determined by the delay time between the probing and reflected signals (t) and the propagation speed of radio waves (v): h=v*t/2. The rate of propagation of radio waves depends on the dielectric permittivity of the soil (e). The difference in e values for different soils allows you to determine the boundaries between the layers of soil in the roadbed and detect various inhomogeneities. The radar method is characterized by high resolution, technology and high technical and economic indicators. This is due to the possibility of continuous non-contact measurements using the vehicle. To survey a relatively small extent of the plots is used for moving track radar complex "Geodirectory", created on the basis of the GPR (vehicle type defectoscopic bogie) and other accessories. The Geodefectoscope measuring system is designed to assess the state of the upper part of the roadbed at depths of 1.5-2 m with reference to specific pickets. Objectives: the identification of ballast recesses in the main site, the definition of the boundaries of the freezing and thawing of the soil, the allocation of plots with the ballast splashes etc. Measurements are performed continuously along the length of the path with the speed of movement of the operator 3-4 km/h is possible in principle, the location of the GPR system in the car potismedicine and receive comprehensive information on the diagnosed parameters of track structure and subgrade.

Methods of engineering analysis and computer processing of data are used in the diagnosis of the roadbed at the stage of reconnaissance surveys or monitoring the technical condition of the path for processing track measuring tapes. The technology of testing by special mobile complexes with reference loads is also used (for example, LIGO structures of NPF "Spetsmash"), which allow to assess the quality of the sub-rail base and identify potentially dangerous areas where detailed diagnostic studies need to be organized [8].

The modern system of diagnosis of the subgrade allows for the basis of assessment of its actual technical condition to substantiate the order and to set the dates of repair and reinforcement fabrics; to provide increased security of trains, which is achieved timely identification of damaged areas; to create safe working conditions on the paths personnel, as in the application of geophysical methods using a portable handheld apparatus, and a measurement is performed outside of the envelope approximation buildings.

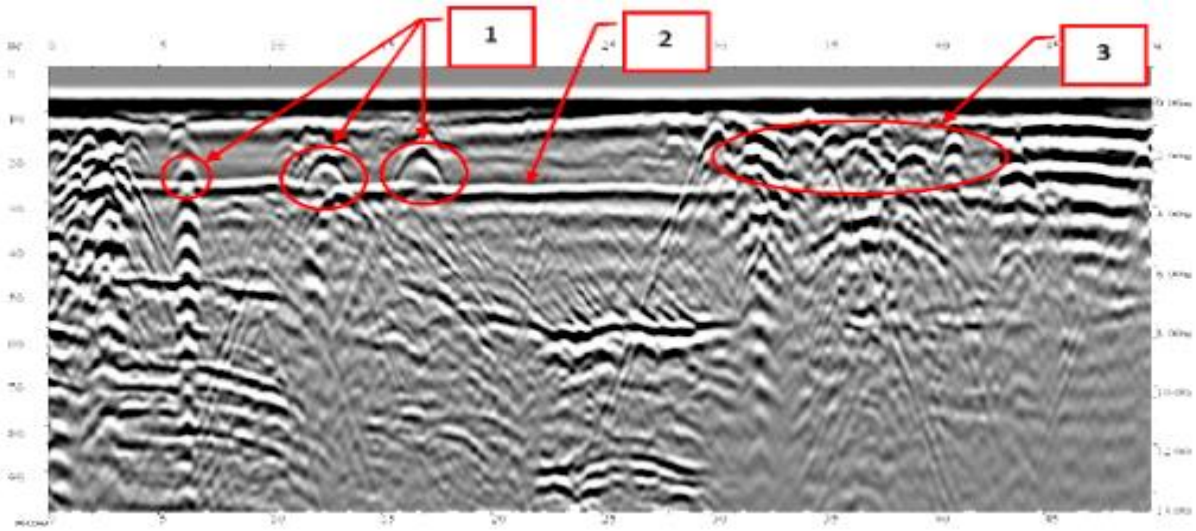

Figure 2. Detection of a fault in the roadbed.

During the production of works, the train schedule is not violated and the provision of technological "Windows"is not required. The economic effect of using a geophysical diagnostic system is due to the faster removal of the speed limit for trains when passing deformed sections (restrictions are removed after work on strengthening the roadbed); the exception of interruptions in train traffic due to timely prevention of sudden destruction of high embankments and the occurrence of karst failures near the track; significant reduction of expensive and time-consuming exploration work.

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ISSUES OF SPIRITUAL EDUCATION IN THE WORKS OF SCIENTISTS OF THE PAST PERIOD

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Annotation

The article analyzes the importance of spiritual ideas in many works of art created by talented writers in the education of the young generation, and in particular, the ideas expressed in the works of one of the great figures of Uzbek literature, Musa Tashmuhammad son of Oibek, have not lost their importance even today.

Key words: literature, education, youth, spirituality, goodness, society.

Since spiritual uplift is a process that affects the entire society, the role of spiritual ideas in many works of art created by talented writers in the education of the younger generation is incomparable. In particular, despite the fact that one of the great figures of Uzbek literature, Musa Tashmuhammad son Oybek, lived and worked in the last century, the ideas expressed in his works have not lost their significance today. In particular, the propaganda in the novel by the writer Navoi of such good ideas as humanity, goodness, justice, interethnic and interreligious harmony, and the expression of the pains of modernity in the work deserves praise. After all, “rarely in the history of world literature is there a poet who, as deeply as Navoi, expresses the joy and sadness of the human heart, the goodness and meaning of life. Love for the native language, a sense of awareness of its incomparable wealth and greatness enters our consciousness, into our hearts, first of all, with Navoi’s creativity. The more we allow our people, especially our youth, to enjoy this priceless heritage, the more powerful educational weapons we will have in enhancing our national spirituality and improving the noble human qualities in our society.”

The opinion of Alisher Navoi in the novel to his brother Darveshali: “Leaving a name forever is a great reward” confirms the above comments. Kindness in general is one of the most basic moral principles. Good is always a historically developing law and cannot exist without its opposite, evil. This battle between good and evil did not arise today or yesterday. Humanity was born to live between good and evil. When a person does good or evil to someone during his life, he sees good or evil from someone. No one can stay away from this process. Because in the behavior of every person the struggle between the dialectic of good and evil is resolved. A person can also choose good in this struggle, educate himself and achieve maturity. Indeed, goodness is the essence of human life. Therefore, a person strives to do good deeds throughout his life. On the contrary, if he chooses evil, there is also a chance that he will indulge in pleasure and ignorance. Good and evil form the basis not only of human life, but also of the development of society. We should not forget that the concept of good remains a pressing issue that does not lose its relevance at all times. It is no longer possible to imagine human life without goodness. We can say that goodness is a great force that shapes a person as an individual, leads him to perfection, and mobilizes him for creative work. So, the concepts of good and man cannot be imagined separately from each other. According to Alisher Navoi, man is “the crown of all creation.” He must live a decent, clean, beautiful life.”

For a person to live a beautiful life, his spirituality must also be high. Moreover, “Today it remains an urgent task for us to educate the spiritual world of our children, to educate them in the spirit of national and universal values.

Especially in these difficult and dangerous times, it is natural that various attacks on our national identity, alien to our ancient values, malicious aspirations aimed at capturing the minds and hearts of our youth are becoming stronger and stronger, it is natural that we should all be more vigilant and conscious.

It is worth noting that incitement and destructive actions aimed at violating the integrity of society were committed at different periods of history, especially during the life of Navoi. Alisher Navoi, the great poet and statesman, says that any disagreements and disputes must be resolved wisely, taking into account the common good. “We must stand above any sectarian strife. There is only one absolute. In the light of the sun, in the turbulence of the seas, in the great hum of the mountains and in the trembling of leaves, we see its beautiful radiance. We need to fill our hearts with love and memory... We take into account the unity of the nation... There is no other pleasant activity in the world than reading books, thinking and reading poetry.

Above, “These words and thoughts of Navoi, which Aibek speaks of, are primarily related to those historical circumstances, of course.” In addition, Alisher Navoi was a great poet and writer who lived the pain of his time and worked for the good of his people. The main ideas of Alisher Navoi’s works were considered such important spiritual concepts as justice, goodness, humanity, patriotism, honesty, and humility. That is why all his works are based on goodness and become relevant not only for his time, but also for later times. In particular, the importance of Navoi’s creativity in educating the mature generation in independent Uzbekistan is incomparable.

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ELIMINATION OF IMPULSE IRREGULARITIES ON THE RAIL HEAD WITH THE HELP OF GRINDING IN THE RAILWAY TRACK IN UZBEKISTAN

Abdualiyev Elyorbek Begali o'g'li
Umaraliyev Shahjahan Muhammadrozi o'g'li
Abdaliyev Otabek Tursunali o'g'li
Normurodov Shahboz Ulug'bekovich

Abstract: In this article, the analysis of intensity of the pulse roughness's arising on a surface of rolling of heads of rails on a site of high-speed movement of trains is carried out.

Key words: Rails, pulse irregularities (ID), measure, indicator, pilot area.

Introductions. Durability of rails, driving comfort and high-speed trains, the rolling stock is largely related to the condition of the running surface of the rail heads. In the course of movement of trains on a surface of rails there are either local, or extended roughnesses (wave-like deformation of rails). According to the accepted classification of rail defects NTD CP-2-93 the most significant are:

- undulating deformation of the rail head (defect 40);
- crumpling and vertical wear of the head (defects 41.1-2);
- lateral wear of the head in excess of the available standards (defect 44).

Undulating wear of the rails (defect 40) causes intense noise, impairs the smoothness of the train and reduces the service life of the elements of the upper structure of the track and the running gear of the rolling stock. It manifests itself as periodic irregularities on the rail head. The occurrence and development of wavy wear are the result of many factors, so there can be no single means to eliminate it. In the presence of initial wave-like defects (on new rails) in the process of dynamic effects during the movement of trains there are further development of the defect, the formation of wave-like irregularities (long waves) with an increase in their amplitude. The wave irregularities on the rail head are essential. Their origin and development are connected both with the technology of production of rails, and with the conditions and nature of their work under moving load [1].

For reliable detection of differently oriented internal defects of rails in the flaw detector several methods of ultrasonic testing are implemented, below are signs of detection of defects and corresponding channels of continuous control of both rail threads. This article deals with the local irregularities of the surface of the rolling head of the rails arising in the areas of high-speed and high-speed movement of trains of JSC "O'zbekistan Temir Yo'llari". At the same time, the so-called "impulse irregularities" (hereinafter referred to as in) are considered, which are measured and evaluated by the track measuring car No. 106 of the track management Department.

To study the presence, intensity and dynamics of IN accumulation randomly within the Tashkent-Samarkand line.

In accordance with the developed research methodology, at the first stage, the presence and intensity of IN is assessed at the experimental sites. Subsequently, it is planned to study the possible causes of IN, to develop recommendations for their elimination and prevention.

For the initial assessment of the condition of the rail heads in the experimental sections, the results of track measurements by track measuring car No. 106 of September 3, 2022 were used. After that,

to assess the condition of the rail heads in the experimental sections, the results of track measurements by the track measuring car No. 106 of September 18, 2023 were used.

The main indicators of the state of the rail heads in the experimental sections by the presence and intensity of IN are presented in table. 1, 2.

Table 1.The number of pulse irregularities in the experimental area No1. 03.09.2022 year

Km	Number of pulse irregularities							
	Right thread with depth, mm				Left thread with depth, mm			
	to 1.0	from 1.0 to 2.0	from 2.0 to 3.0	more 3.0	to 1.0	from 1.0 to 2.0	from 2.0 to 3.0	more 3.0
3714	0	0	0	0	0	1	0	0
3715	0	0	0	0	1	3	1	0
3716	1	0	0	0	0	2	2	1
3717	0	0	0	0	1	1	0	0
3718	0	0	1	0	0	2	1	1
3719	0	0	0	0	0	0	0	0
3720	0	0	0	0	1	2	0	0
3721	0	0	0	0	0	8	1	0
3722	0	0	0	0	1	2	1	0

For rice. 1, 2 and 3 presents a graphical interpretation of the number of pulse irregularities on the rails of the experimental sections. Thus it is possible to state that on the left rail thread on all experimental sites the number of impulse roughnesses is more than on the right rail thread.

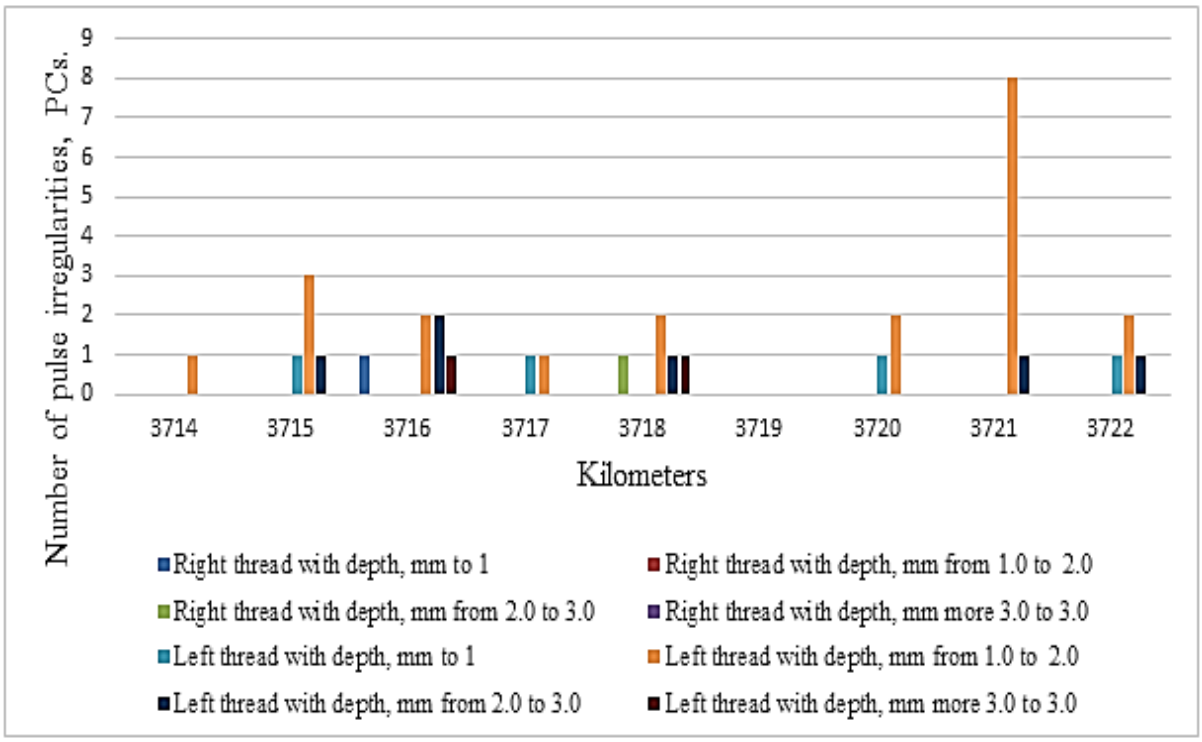

Figure 1. The number of pulse irregularities in the experimental site number 1 [2.3.4.5.6.7].

Table 2.The number of pulse irregularities in the experimental area No1. 18.09.2023year

Km	Number of pulse irregularities							
	Right thread with depth, mm				Left thread with depth, mm			
	to 1.0	from 1.0 to 2.0	from 2.0 to 3.0	more 3.0	to 1.0	from 1.0 to 2.0	from 2.0 to 3.0	more 3.0
3714	0	1	0	0	0	1	1	0
3715	0	1	0	0	0	2	3	1
3716	0	0	1	0	0	2	2	1
3717	0	1	0	0	1	0	1	0
3718	0	0	0	1	0	3	2	2
3719	0	1	0	0	1	1	0	0
3720	0	1	0	0	1	2	0	0
3721	0	1	0	0	0	8	1	0
3722	0	1	0	0	1	2	1	0

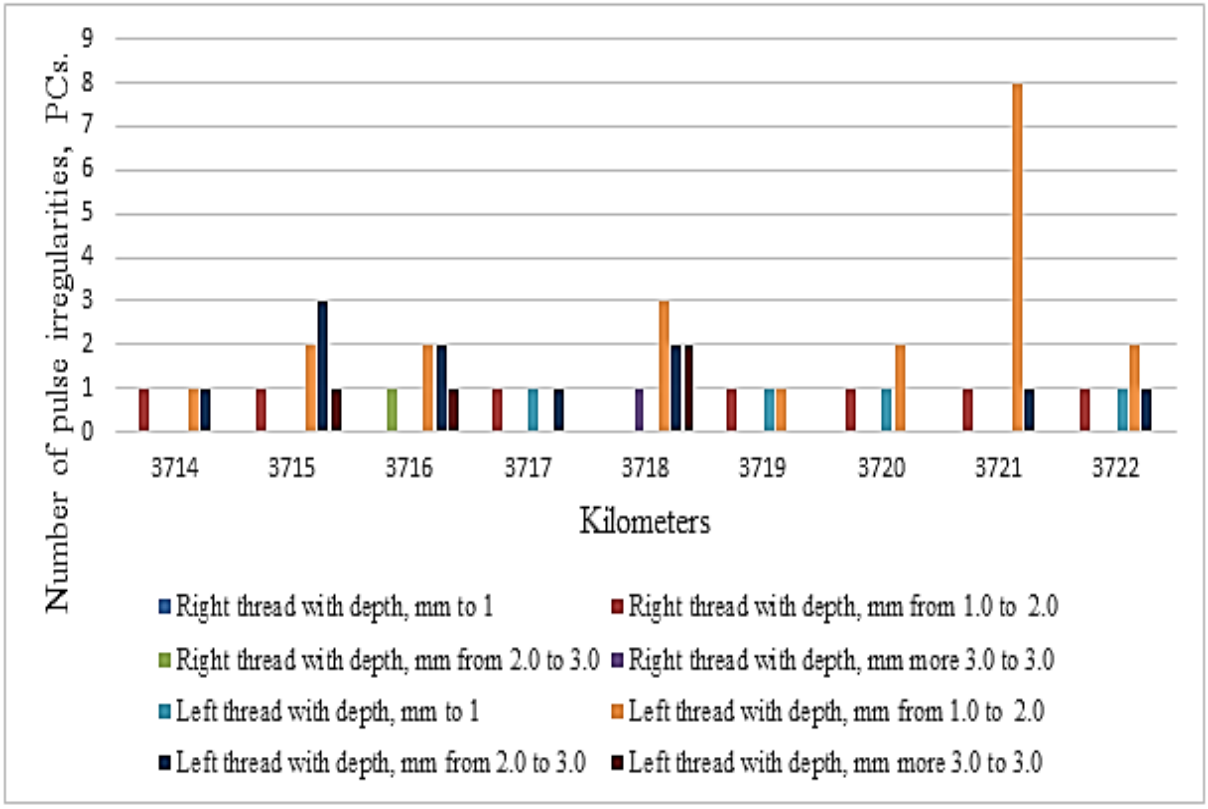

Figure 2. The number of pulse irregularities in the experimental site number 1.

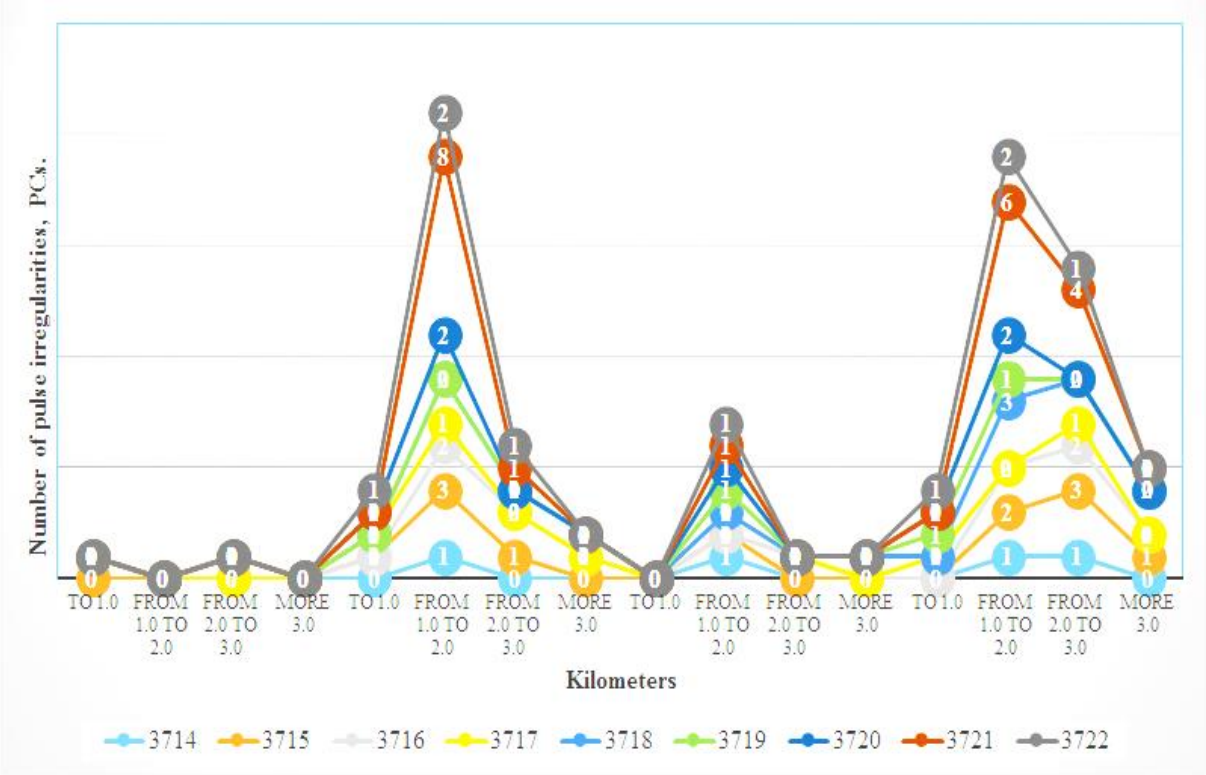

Figure 3. The number of pulse irregularities in the experimental site number 1.

The rail condition indicators are shown in table 3. At the same time, it can be noted that the intensity of pulse irregularities for all experimental sections differs significantly for the left and right rails. This fact requires additional study with the analysis of the state of the surface of the rolling rails directly at the full-scale survey of the rails of the experimental sites.

Table 3. Indicator of the state of the rails by the presence of impulse irregularities.

Number of tests at the test site	Rail condition indicator at pilot site No. 1		
	the left rail	right rail	two rails
03.09.2022 year	9,00	0,40	4,70
18.09.2023 year	11,88	2,63	7,26

As follows from tables 1-2 the number and intensity of the manifestation of impulse irregularities associated with the speeds of trains on the experimental site. Despite the lowest missed tonnage on the rails of the experimental section 1, the intensity of the manifestation of impulse irregularities as of 18.09.2023 significantly exceeds the same indicator for other experimental sites [8].

The running surface of the rail heads in areas of high-speed trains is observed the formation of impulsnykh irregularities, which are fixed measuring system puteizmeritelny car No. 106 and the number of pulse irregularities are unevenly distributed along the path and adversely affecting the structural condition of road and rolling stock. To do this, it is necessary to grind the head of the rails of the railway track.

Based on many years of experience, German railwaymen argue that grinding rails can seriously extend the service life of metal elements of the railway web. In addition, the search is

still ongoing for the grade of rail steel that will require the least frequent grinding, which will reduce the running costs of both workers and the life cycle of the rails.

Experience suggests that the damage in its most part do not arise from the actual contact of the wheel and rails, but due to the rocking of the train left and right in the direction of movement. As a result, there are dents and mesh cracks. Scientists aim to increase the operational life of the rails to 40-45 years.

In railways the following variants of grinding of steel rails are accepted:

- ✓ primary treatment of newly commissioned tracks;
- ✓ periodic grinding operations on lines where rolling stock runs at speeds exceeding 250 km / h;
- ✓ periodic processing of suburban railways of the most intensive train traffic;
- ✓ periodic processing of curves with the most significant radius, which are in the register of the basic part of the railways;
- ✓ grinding work required as needed.

Rail grinding technologies in the conditions of the railway track, which allowed to form technical and technological solutions, the introduction of which makes a significant contribution to the development of the railway industry and the economy of the country as a whole by improving the efficiency of operation, maintenance and repair of the railway track by ensuring the quality of rail profiling.

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THE IMPORTANCE OF USING NEW PEDAGOGICAL TECHNOLOGIES IN EDUCATION

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Annotation

The article shows that great attention is being paid to the education system in our country, that a great future cannot be achieved without reforming the education system, that this process imposes a great responsibility on pedagogues, because the education received at school, academic lyceum, vocational college, and higher educational institutions is of great importance in the fate of every person. analyzed.

Key words: education, responsibility, pedagogue, pedagogy, future.

As we all know, today the education system in our country pays great attention. After all, without reforming the education system it is impossible to achieve a great future. Of course, this process imposes great responsibility on us, teachers. After all, the education he received at school, academic lyceum, vocational college and higher educational institutions is important in the fate of every person. The quality of education in general education institutions depends primarily on teachers and coaches. Of course, there are many teachers among us who are constantly working on themselves and trying to teach on the basis of new pedagogical technologies, and there is no doubt that today’s talented pupils and students will become great specialists in the future. It is known that the field of science and education must always keep up with the times and meet the requirements of the time. Today's education system in our country is completely different from the system 10-15 years ago. In fact, as a result of reforms carried out over the past period, the level of quality and efficiency of personnel training in Uzbekistan has increased significantly. However, reforms in the industry are not going very well. To do this, it is necessary to solve and complete a number of tasks and tasks. In particular, these include training and education of young people using innovative technologies. After all, the knowledge and skills, enlightenment and spirituality of our youth, educated on the basis of advanced pedagogical and innovative technologies, will be high. It is important for us that our youth receive an education in this spirit.

In fact, the development of the education system in all countries that have achieved high development and a comfortable standard of living is also at a high level today. Therefore, from the first years of independence, the education sector in our country has been given attention at the level of state policy. A number of laws and other regulatory documents related to this area have been adopted and are under development, such as the Law on Education and the National Personnel Training Program.

It should be noted that over the past period, a number of positive works have been carried out in the field of education in our republic, and promising projects for the further development of this field in the future have been identified. It should also be noted that training using innovative technologies is equally important and important for both students and teachers. If innovative technologies teach young people to think independently, consolidate their knowledge and gain deep, comprehensive knowledge on a specific topic, then this encourages us, teachers, to be creative and, most importantly, to constantly work on ourselves. We must accept the fact that today's student is different from yesterday's students and young people in general receive a lot of new information every day by connecting to various social networks on the Internet through mobile communication devices. Therefore, we, professors and teachers, must keep up with the times, conduct our lectures and seminars using innovative technologies.

It should be noted that innovative technologies can be applied in all disciplines. Naturally, its manifestations and forms are different depending on the content and essence of applied science. Moreover, discovering new innovative technologies for each subject or lesson does not have to be tedious. Because today many innovative technologies have been created. We are only required to adapt them to our subject and subjects. This innovative technology was created on the basis of the Federal State Medical University and problem-based lesson technologies. In this case, students are asked the following general question and four questions arising from it:

The problem of excessive mobile phone use:

1. What do you know about the origins of cellular communications?

2. Provide information about the positive and negative aspects of mobile communication and its excessive use.

3. What laws do you know regarding the use of mobile communication devices?

4. Your personal proposal to regulate excessive use of mobile communications.

As can be seen from the essence of the above innovative technology, it gives students the opportunity to think independently, and most importantly, freely express their opinions. It takes students beyond the importance of mobile communication, which is one of the rare discoveries of development. They reflect the negative impact of its use on our moral life. Most importantly, students will have the opportunity to make their own reasoned personal suggestions on how to reduce the negative impact of excessive cell phone use on our lives. This innovative technology can be used individually or in groups depending on the number of students in the study groups.

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VIEWS ON THE FORMATION OF SOCIAL RELATIONS

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Annotation

Education is a social force that determines the direction of social relations. It is known that the subject of social relations is a person. How a person behaves depends on his upbringing. Simply put, people interact when they live in society. This relationship can be good or bad. Or else it can be a mixture of good and bad.

Key words: human, good and bad, education, social relations.

He French scientist La Mettrie said that "without education there would be very few good people in the world. Only education improves a person's inner world. Only education can direct a person to be useful for the benefit of other people. In essence, education is a social force that determines the direction of social relations. It is known that the subject of social relations is a person. The way a person behaves depends on his upbringing. Simply put, people interact when they live in society. This relationship can be good or bad. Or it could be a mixture of good and bad. Also, everyone can act in their own interests, without doing each other either good or evil. Our people have a proverb: "If you can't do good, then don't do bad." In a sense, this is also a kind of education. But the beauty of society is that the people living in it do good to each other, use each other, and make a living with each other's interests in mind. Positive social relationships also emerge. Of course, this has to do with education. Because only a well-educated person can do good to other people and can sympathize with the pain and worries of others. A large number of people receiving such education will lead to further development of this society. Humanity, humanity and generosity are necessary for all members of society.

However, this is especially important for representatives of a materially rich layer of society with high educational qualities, that is, for the rich. Why it should be "It is the duty of a rich man to provide for the happiness of society and to lighten the hearts of others with his happiness." What we agree on is that poor, poor or middle class people who do not have much wealth cannot help others even if they want to. Because their financial capabilities do not allow this.

"If we bring happiness to society, we create our own happiness with it." A very good point. After all, society consists not of one person, but of millions, or even billions of people (in the case of China and India). It is the minds, dreams, aspirations, human or non-human behavior of these people that determine the future of society. We used the phrase "inhumane behavior" for a reason. Because, no matter how pleasant it may be, the existence of a perfect, ideal society is very doubtful. In real life, no society can consist of 100% perfect people. Whether you like it or not, there are different people in any society. In particular, there are bad guys and villains who hold back the progress of society. Society has created laws to restrain such people and fights them through these laws. No matter how hard it is, we must admit that "Only fear of the law stops evil people."

Montesquieu's social and philosophical views among European philosophers are very different from those of others. This difference is that in his philosophy the first level of attention is focused on economic-geographical factors. "Montesque considers the development of the production of material goods through agriculture and crafts to be the most important condition for improving people's lives." A very wise and insightful comment. In fact, views on the fate of human and social life, on the future of social relations in general, have long been of interest to philosophers or scientists involved in philosophical science.

We noted above that there are a number of reasons why countries are at one or another level of development. In this regard, another unique idea was put forward in the teachings of Montesquieu. "He relates these reasons to the geographic environment. It shows the three basics of the geographic environment: climate, soil, and topography. If we look at the geographical map of the

world, and then pay attention to the development indicators of countries, we notice the following conditions affecting the development of countries:
firstly, the presence of direct access to the sea and other routes of communication;
secondly, the possession of many desirable useful natural resources;
thirdly, dependence on the level of development of neighboring and regional countries;
fourthly, the geographical location of the country and natural conditions.
The management process in the system of social relations is very complex, and therefore is a very responsible social phenomenon.
The effectiveness of management depends on a number of factors, in particular, on the educational process. Management is continuous continuing education. This education is carried out throughout society and at different levels of the communities that make up it. At the moment, it is difficult to create a single principle of education that is correct for everyone, with the exception of partial generalization of certain aspects. Because there are as many people in the world as there are different character types. The same conclusion can be drawn about communities consisting of different people. There are no communities whose conditions are exactly the same. Therefore, each of them requires an individual approach to itself. An individual approach is one of the main rules of education.
Immanuel Kant, who laid the cornerstone of pho forming the German classical philosophy of the new era, when analyzing social relations, he puts forward the idea of people's power. The essence of this idea is that “the legislative power should express only the will of the people” and “such a will of the people should be the source of laws in a rule-of-law state.” These interrelated and complementary considerations may not surprise many people today. After all, these or similar thoughts are often expressed by ordinary citizens and heads of state and are recognized as the main principle serving the development of countries. The above phrase “the legislative power should only express the will of the people” is currently the main criterion of social relations.
However, several hundred years ago, under the conditions in which Immanuel Kant lived, it was practically impossible for him to be recognized by the state and applicable to the processes of state and society. After all, at that time all the countries of the world were ruled by monarchs, that is, individual farmers, kings, emperors, and they defended the interests of the upper classes, feudal lords and capitalists. Laws and rules in countries were created directly based on their requirements and interests and served them. The interests of the general public were left behind. Only progressive people of their time, like Kant, could say that this state of affairs was wrong, and put forward the ideas that the state should take into account the will of the entire people, and not just the upper class, and the laws of the state should also serve the interests of the people. Heads of state and ruling classes, in turn, resisted the implementation of these ideas. Because the implementation of such ideas required the provision of freedom and liberty to the people. In turn, the emergence of this situation was unpleasant for the rulers. The reason is that people who have freedom and freedom exercise their rights and do not want to obey the rulers and always serve others. They begin to demand participation in government and the adoption of laws. They begin to fight for the equal distribution of material and spiritual benefits in society for everyone, to ensure everyone has an equal, decent life. They knew very well what the outcome of this struggle would be, and representatives of the ruling class did their best to prevent this. These obstacles are created in various forms, methods and means.

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SOCIAL SIGNIFICANCE OF THE BENEFITS OF MARITIME TRANSPORT

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Annotation

Although Uzbekistan cannot go directly to the shores of the world's seas, our country has its own ships, its own fleet, and has opportunities to speak on the world's sea routes. In our opinion, to achieve this, a number of tasks must be solved. We believe that the implementation of these interstate tasks will bring social relations to the modern level.

Key words: sea, river, ship, opportunity, transport.

As you know, river transport in our country was effective in the past. Ships and boats constantly sail along our rivers. Since the 18th century, the expansion of trade relations between Russia and the countries of the East had a positive impact on the development of river transport in Central Asia. Meanwhile, Russia's interest in Central Asia grew and it gradually began to implement its invasion plan. Russia, which occupied the northern coast of the Aral Sea and the lower reaches of the Syr Darya, formed the Aral military flotilla in 1847. The purpose of this military flotilla was to protect the occupied territories, develop new lands and create the ground for further campaigns. Thus, the khanates of Central Asia were subsequently completely conquered.

The Russian government created the conditions for the development of river transport in Central Asia primarily for military purposes and for the purpose of control over the territory. Of course, this river transport, which developed over time, had a positive impact on improving socio-economic relations in the region. Since 1873, uninterrupted steamship traffic has been established along the Amu Darya. In 1887, the Amudarya flotilla was created. By 1913, this flotilla consisted of 8 steamships and 14 barges. In addition to serving military garrisons, they were also involved in passenger and cargo transportation, as well as postal services. In 1923, during the times of the former Soviet Union, which replaced the Russian Empire, the joint-stock company “Central Asian Powder Industry” was created. At this time, he had 20 ships, 50 barges and 1,500 boats plying the 887-kilometer route of ships and boats. And in subsequent years their number increased again. In 1930, a maritime technical school was opened in Tashkent to provide this large industry with the necessary specialists. In order to consolidate theoretical knowledge in practice, in 1939 the technical school was transferred to Chorzhoy.

By 1980, the total length of river routes in Central Asia was 2800 km. Shipping on the Amu Darya was carried out from the port of Pyanj in Tajikistan to the port of Moinok in Uzbekistan.

Of course, many countries, especially the Republic of Uzbekistan, make maximum use of the advantages of inland waterways. Unfortunately, today the Aral Sea is almost drying up, so it is no longer possible to use ships there. In Uzbekistan, waterways and transport have been preserved only in the Amu Darya. However, the water level in the Amudarya is no longer what it used to be. In our other rivers, low water levels do not allow river boats to navigate.

It should be noted that the contribution of the Amu Darya to the water transport of our country is significant. Therefore, in 1950, the first river port was built in the city of Termez,

Surkhandoy region. After this, in 1952, a ship repair plant was established in Khojaly, another city on the banks of the Amu Darya. Then new harbors were built along the banks of the Amu Darya, such as Sharlavuk, Tortkol, Beruni, Karatov.

Currently, the following information can be provided about the waterways and river transport of our country, with a total length of about 1000 kilometers. The country's river fleet includes about 150 locomotives, as well as stock exchanges, auxiliary vessels and other equipment. Cargo is mainly transported in the directions Termez-Hayraton, Sharlovuk-Tortkol, Khojayli-Tortkol, Khojayli-Beruniy, Karatov-Takhiatosh. Among river ports, the share of export-import cargo of the and subjective reasons. Firstly, the passage of river vessels is difficult due to a decrease in the water level in the Amu Darya due to the use of large amounts of water for land irrigation. Secondly, the ships in the Amudarya fleet are morally and physically outdated. Therefore, it is necessary to replace these ships with modern small-sized ships.

It is known that over the years of independence, Uzbekistan has been developing a road communication system and is looking for opportunities for direct access to world markets. The country is undergoing large-scale reforms to improve all types of transport and design new roads. Of course, the positive work being done in the areas of airlines, roads and railways is commendable. It is not for nothing that almost 80 percent of world trade is carried out by sea. So why don't we think about using such efficient sea transport. Having our own ships, we cannot sail along the world’s sea routes under the flag of Uzbekistan on our ships. What prevents us from doing this? There is only one answer - nothing can interfere. Only if there is desire, desire, effort and the will to do it, the finish is ours. If Uzbekistan is located thousands of kilometers from the world's oceans and seas, in the depths of the continent, then how can it go to sea and have its own ships and merchant fleet?

Fair question. In fact, Uzbekistan is located in the middle of the land, and our country has to go through not one, but two countries to reach the maritime borders of the world. In such a situation, the idea of owning your own ships, your own fleet, may seem a little strange.

However, just because it is far from the sea does not mean that it cannot build its own ships and create its own fleet. Although Uzbekistan cannot directly access the shores of the world’s seas, our country has its own ships, its own fleet, and has the ability to operate on the world’s sea routes. In our opinion, for this it is necessary to solve the following problems.

We think that the implementation of these interstate tasks will allow us to bring public relations to the modern level:

- firstly, to achieve the signing of agreements and contracts with partner countries that have seaports and seaports on the use of their ports;

- secondly, the purchase first of one or two modern Navy ships;

- thirdly, to establish cooperation with enterprises that produce modern Navy ships, whose ships have been purchased. Creation of joint ventures for ship maintenance and, if possible, production;

- fourthly, the creation of secondary specialized educational institutions and higher educational institutions or special faculties that carry out training, retraining and advanced training of specialists serving in the fleet;

- fifthly, prepare and implement projects for connecting roads and railways leading to seaports where our ships dock for delivering goods;

- sixthly, in the future, in agreement with interested countries and with the support of the international community, to carry out the construction of a canal connecting the Aral Sea with the Caspian Sea, also intended for shipping.

If the above planned works are implemented, the capabilities of the road communication system of Uzbekistan will increase significantly. This will reduce the cost of our exported products and will find a place for our products in the global market. Because now our products are transported by ships of other countries at a very high cost. This leads to higher prices for our products. It is not enough to do what we recommended above. It requires a lot of money, hard work, effort and patience. If we manage to complete this difficult task, it will definitely yield positive results in the future. This creates the basis for the growth of our country's economy and increasing export-import potential. It serves to improve social relations of the population and increase the authority of our country at the international level.

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TOPOGRAPHIC SURVEY USING SATELLITE TECHNOLOGIES IN THE RAILWAY TRACK

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Abstract: The article presents the main methods of topographic survey using satellite technologies for engineering and geodetic surveys and discusses the prospects for expanding their functionality.

Key words: Engineering surveys, method of satellite geodetic measurements, topographic survey, methods of satellite definitions.

Engineering surveys a set of works carried out to obtain information necessary for the selection of economically feasible and technically sound location of the structure, to address the main issues related to the design, construction and operation of structures.

Tasks of engineering surveys complex study of natural and technogenic conditions of the territory (region, district, site, site, route) of construction objects, making forecasts of interaction of these objects with the environment, justification of their engineering protection and safe living conditions of the population.

Engineering surveys main types:

- engineering-geological and hydrogeological surveys;
- инженерно engineering and geodetic surveys;
- engineering and environmental surveys;
- engineering and hydrometeorological surveys.

When conducting engineering surveys, modern methods such as the method of satellite geodetic measurements are used [1.2.3.4.5].

To speed up the timing of survey work and improve their quality, the method of satellite geodetic measurements is used, which are especially effective in areas that are difficult to access for ground study (swampy lowlands, deserts, etc.). Methods of space shooting, for which special equipment has been developed, methods of decoding images, allowing to obtain high-precision and reliable information, are widely used in modern conditions.

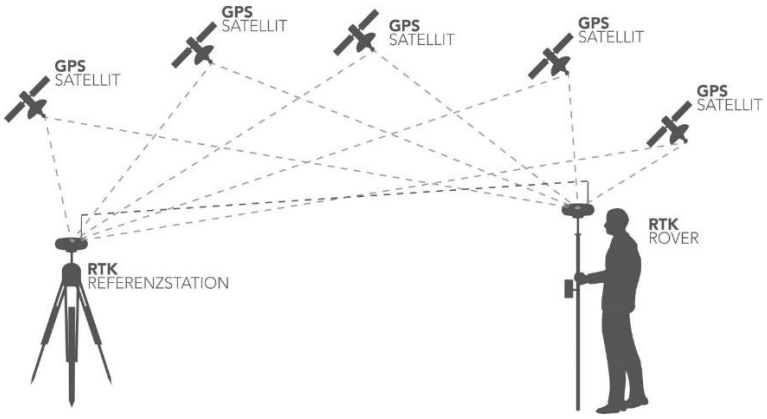

Fig.1. Methods of decoding images

Work, but shooting the situation and terrain using satellite technology is designed for those cases of topographic and geodetic practice, when the conduct of such work using this technology is economically profitable, as well as technically justified. The technical possibility of conducting such works appears where natural and artificially created objects available on the ground allow for satellite observations [6].

Topographic survey using satellite receivers is usually used for fairly open areas in a wide range of terrain, it is possible in the presence of low buildings. It can be territories of one-storeyed civil and industrial building (garages, objects of trade and municipal services, warehouses, etc.), transport objects (Railways and highways, pipelines, canals, airfields), water areas, recreation areas, areas of the state border, etc.

The question of the technical capability of satellite observations to capture the situation and relief of a particular object is solved by studying the object on the map before the start of design work. In the process of this work on the object identify existing on the ground natural and artificially created objects that prevent the passage of radio signals from satellites and at the same time establish the technical possibility of conducting satellite observations.

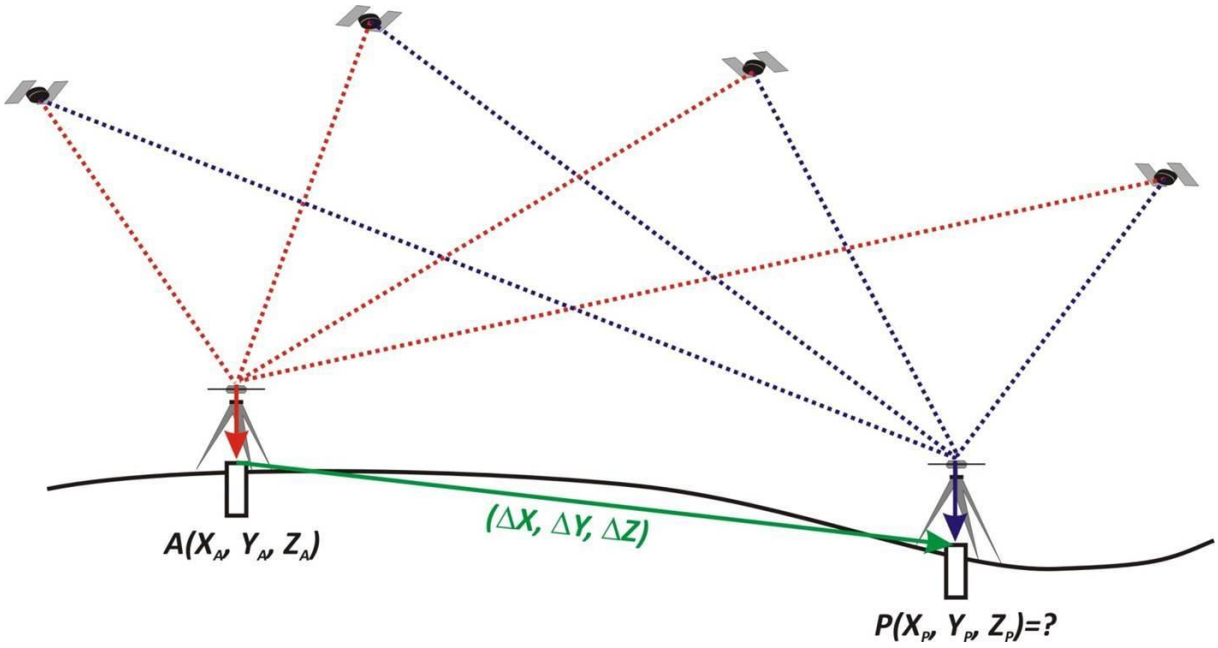

Fig.2. Definitions of geodetic points

If the obstacles to the passage of radio signals from satellites, available at the site or in its immediate vicinity, greatly complicate the organization of observations of satellites, making shooting irrational, then at such an object to carry out shooting by satellite definitions is impractical.

If the obstacles to the transmission of radio signals from satellites are located only in the vicinity of the object, and they are such that they do not exclude the possibility of observing satellites on the object, or if there are no obstacles at all, in these cases, the survey can be designed.

In the process of designing survey work in accordance with the specified scale of shooting and the height of the relief section perform the following work:

• Select the method of satellite definitions to perform the binding (i.e., obtaining the data necessary to bring the survey results in the coordinate system and the heights of the points of the geodetic basis), as well as the method of this binding.

• Select the materials of topographic and geodetic study of the object of work points geodetic basis for reference. Develop a working program of zero work on the binding to the points of the geodetic basis.

Methods of satellite definitions, but the range and accuracy fundamentally provide the possibility of conducting survey work directly on the basis of the state geodetic and leveling network, which has the appropriate density. Therefore, the survey work by these methods eliminates the need to create and use geodetic networks of condensation, creation of survey justification and its condensation [7.8].

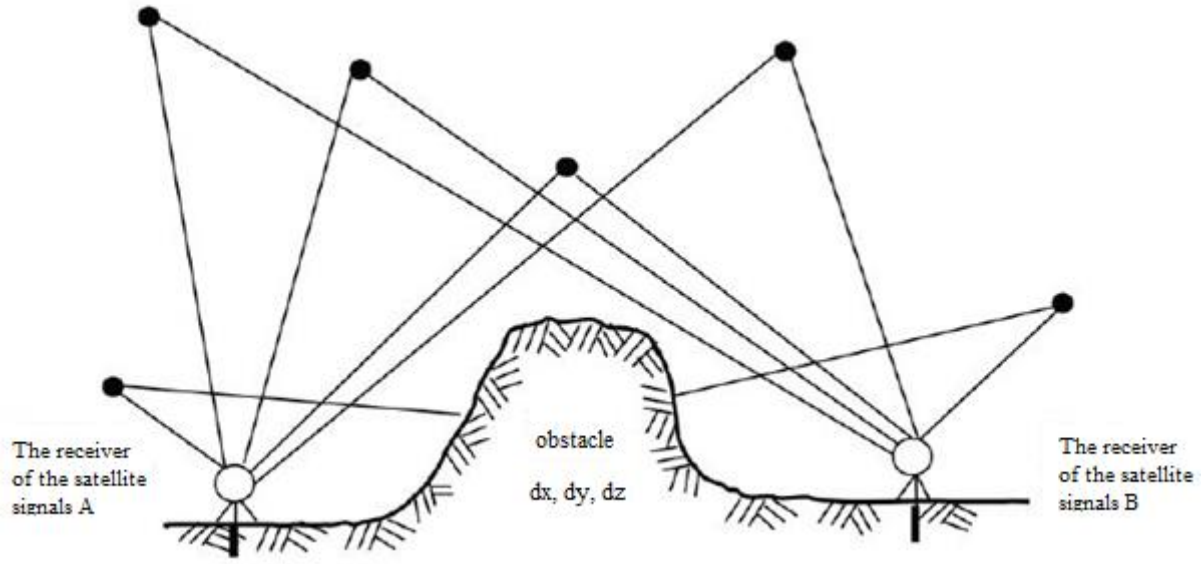

Fig.3. Scheme of observations using the method of satellite geodetic measurements

Geodetic basis used as a support for surveying the situation and terrain, must meet the requirements for the smooth and noise-resistant passage of radio signals.

As the starting points for the reference should be used all points of the geodetic basis, located within the object, and the closest to the object outside it, but not less than 4 points with known planned coordinates and not less than 5 points with known heights.

For the production of shooting the situation and terrain is recommended to use the method of "stand-go", which is a kind of kinematic method of satellite definitions.

For production of shooting of a situation and a relief as points of installation of base station it is necessary to design use of any points of a geodetic basis involved for binding with such calculation that distances from them to shooting pickets on which during works the mobile station is placed, were minimum. Thus it is necessary, using a map of object, to break object on the sites carried to certain points of a geodetic basis, with observance of this requirement.

When using satellite equipment to capture the situation and terrain before going to Iole produce preparatory work, which consists of the following actions:

1) comply with the requirements of operational documentation, but the preparation of equipment for work;

2) comply with the requirements of operational documentation, but the preparation of equipment for work;

3) performing operations on the prediction of the satellite constellation.

Prediction of the satellite constellation for surveying the situation and terrain should be carried out in accordance with the instructions supplied with the software packages.

According to the obtained as a result of forecasting the time periods optimal for observing satellites at each point of the geodetic basis and the survey area, the overlap zones are found and the time periods optimal for the session (when performing the binding) or the survey area are established. These data in the form of the date of work and the time of the beginning and end of the interval (period), in which the configuration parameters of the satellite constellation are optimal, are entered in the work program of zero works.

Field work when shooting the situation and relief on the object consists of the delivery of receivers and equipment to the points of geodetic basis, binding sessions in accordance with the work program and shooting the situation and relief in accordance with the work program of field surveys.

At the same time, carrying out binding, for implementation of "fast static "and" static " methods of satellite definitions on each point of the geodetic basis it is necessary to perform one reception, and implementing the occupation method-two receptions with an interval from 1 to 4 hours. Carrying out shooting on each site, the mobile station must perform the initialization reception and receptions on all shooting pickets, and the base station-one reception, covering all the time receptions performed by the mobile station.

Thus, when shooting at each site, the reception carried out by the base station should be performed during the entire time of work by the mobile station on this site.

When shooting, the work carried out by the mobile station should be carried out, guided by the operational documentation attached to the receiver. Since the use of the "stand-go" method requires continuous observation of the required number of satellites during the entire time of the survey on the site after each initialization, it is necessary to avoid communication losses both during the reception on the picket line and during the transition from picket to picket line. If there is a loss of connection during the survey, then to continue shooting, you must eliminate the causes of the loss of communication, repeat the initialization process and again make measurements on this site.

Performing field work when shooting must be combined with cameral processing of shooting materials, during which the following must be performed:

1) checking zero logs and drawing up a detailed binding scheme;

2) calculation of coordinates and heights of all pickets;

3) overlay on the tablet of points of the geodetic basis and picket points, drawing horizontal lines and drawing the situation.

These works are recommended to be performed on a computer, using the General recommendations for computational processing.

Summary:

- ✓ When conducting satellite imagery, the time spent on field work is reduced by 85% depending on the complexity of the topographic survey area, which significantly reduces the cost of work.

✓ Cameral works at the same time do not increase significantly, and the quality of the field material is improved.

✓ The accuracy of the obtained materials is not inferior to the works performed by the classical method of topographic or cadastral survey, and sometimes (when obtaining relief) and superior.

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IDEAS OF SOCIAL EQUALITY AND SOCIAL JUSTICE OF FRENCH SCIENTISTS

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Annotation

In the article, it is analyzed that René Descartes is considered one of the thinkers who left an indelible mark on the development of philosophical thoughts with his remarkable philosophical views, that Descartes was not indifferent to the processes taking place in society in his socio-ethical views, and that he described several of his moral procedures.

Key words: ethics, customs, laws, stability, justice.

René Descartes, who went down in history with his important scientific research in the fields of mathematics, geometry and physics, is one of the thinkers who left an indelible mark on the development of philosophical thought with his remarkable philosophical views. First of all, let's talk about Descartes' social and moral views. Descartes, who was not indifferent to the processes taking place in society, describes several of his moral procedures. On their basis, he builds his life principles, and among them the first rule is obedience to the laws and customs of his country. It should be noted that this principle of life, previously put forward by Descartes, has always acquired significance for both citizens and the state. In particular, it plays a large role in ensuring socio-political stability in the life of society. It was also useful for ordinary people. Because citizens who abided by the laws and customs of their country continued their peaceful lifestyle in society without being persecuted by the state. Then the question naturally arises. Well, if following laws and customs is necessary and beneficial, then why shouldn't everyone follow this procedure. Who are those who violate the laws of the state, who deny the customs of society? The correct answer to this question can be given the following several considerations:

Firstly, the laws established in the state are unfair, and the established traditions are outdated. Such situations exist in times of slavery, feudalism, dictatorships and autocratic regimes based on individual power;

Secondly, there are different approaches to compliance with laws and customs. For example, what is impossible for many people is possible for others. Or, in other words, there is punishment for some of those who disobey laws and customs, but not for others;

Thirdly, the laws of the country are fair and customs are all right, but citizens do not obey them for various reasons, sometimes from immorality, sometimes from legal illiteracy, sometimes from negligence, sometimes intentionally and for other reasons.

It should be said that non-compliance with laws and customs within the framework of existing social relations occurs mainly in the second and third cases, which we indicated above. Because today in most countries of the world a democratic system has been established, a civil society has been formed or continues to develop to achieve this goal. Therefore, their laws are formulated on the basis of international democratic requirements, customs are formed on the basis of the harmony of national and universal values. Therefore, we believe that it would be appropriate if our contemporaries followed the example of Rene Descartes' principle.

However, with a thousand regrets and regrets, it should also be mentioned that instead of living according to the customs established on the basis of fair laws and national values in society

and universal human principles, some “people have no hope of losing their intelligence as a result of the blind influence of their interests” will lead on an unknown path." It is a pity that those who choose lifestyles that only harm themselves, their loved ones, and the entire society can be found not only in the time of Rene Descartes, but also today, especially in our society.

The development of social relations is determined by the level of education, mental and intellectual potential, spiritual, cultural, political and legal literacy of members of society. The experience of the development of human society has already confirmed the correctness of this conclusion. This is confirmed by the opinions of many famous thinkers in the field of philosophy. For example, Julien Offrede La Mettrie, born and raised in the town of Saint-Malo in France, who studied both medicine and philosophy, writes on this subject: “You must spread enlightenment and serve society, even if you suffer.” In our previous comments, we emphasized and analyzed in detail the need for a number of factors in the development of social relations, the development of the state and society. Without hesitation we can include among these factors the principle of knowledge. In fact, science is part of enlightenment, an integral part of it. To make it more understandable to people, science and education are often used together. However, the concept of enlightenment is a very comprehensive concept that includes many other concepts besides science. Education means the education of the people, mastery of all areas of science, achievement of technological advances and digital technologies, their use in real life to increase the efficiency of production in the national economy and agriculture, in general, in all spheres of the economy, and ultimately bring the country's development to higher level. You see how great the power of enlightenment is. Those who were able to correctly assess this force and use it effectively were now among the advanced countries of that time in the war. As an example, let's take the well-known country of Japan. The situation in Japan in 1945-1950 was not the best. The television series “Oshen” and other feature films and documentaries shown on television channels in Uzbekistan vividly describe the backwardness of the Japanese state of that time and the hard life of the Japanese people. Thirty years later, the people and the state, who found themselves in such a difficult situation, emerged from the quagmire of backwardness and reached a high level of development. Panasonic, Sony, Toyota, Nissan and many other Japanese companies and manufacturing enterprises have occupied the world market with their products. As a result of the increase in GDP per capita, the standard of living of the Japanese has naturally increased. Real cash incomes of the population have increased, and lifestyles have become more prosperous. This short-term development was recognized by the world community as a “Japanese miracle.” Currently, everyone knows the secret, that is, the important factors of this Japanese miracle. The most important of them: patriotism, joint actions towards the goal, legality and, of course, attention to education as a factor of national importance. At the same time, in Japan, youth education, excellent education and diligent mastery of all subjects were controlled at the state level, and all conditions were created for this. This approach paid off. Knowledgeable, talented, capable, skillful and intellectually capable representatives of the new generation of youth came out and created this “Japanese miracle” and delivered high-tech products to the world population.

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THE USE OF BASALT FIBER IN REINFORCED CONCRETE SLEEPERS IN THE RAILWAY TRACK

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Abdualiyeva Muhlisa Adham qizi
Normurodov Shahboz Ulug'bekovich

Abstract: In this article the analysis of the Railways, which railway sleepers were made of different materials. Wooden sleepers, tarred to protect against the negative effects of weather conditions. Today, reinforced concrete structures are rightly considered the material of the future for the manufacture of support under sleepers. Thus, the analysis shows the high efficiency of basalt fiber structures in reinforced concrete sleepers.

Key words: Rails, Railways, sleepers, basalt fiber, wooden sleepers, reinforced concrete structures.

During the existence of Railways, supports for sleepers were made of various materials. Were stone, but the stone is difficult to process, quickly cracks and becomes unusable. Durable wooden sleepers, tarred to protect against the negative effects of weather conditions. However, after a while, they also required either replacement or repair of railway tracks. Today, reinforced concrete structures are rightly considered the material of the future for the manufacture of support for sleepers and foundations for buildings and structures. Apply the Foundation of reinforced concrete sleepers for buildings of all kinds of complexity and number of floors on all types of soil. However, it should be borne in mind that this product weighs a lot. During this time, new types of reinforced concrete products are accepted at the experimental sites. Such reinforced concrete sleepers use basalt fibers. The properties of basalt fibers, such as resistance to high temperatures, acids, and especially alkalis, open up huge prospects for the use of basalt fibers in construction as:

- Reinforcing material for concrete and asphalt concrete pavements of motor roads, takeoff and landing strips and taxiway of airfields;
- Corrosion and chemical resistant rebar, the strength of which is several times higher than the strength of alloy steels;
- Non-flammable and fire-resistant composite materials for nuclear and thermal power plants, oil refineries and chemical plants, firewalls (fire blocking structures) of high-rise buildings and other critical industrial facilities where the occurrence and spread of fires is unacceptable;
- Chemically resistant and wear-resistant coatings, composite materials;

- Filters for filtering industrial and household effluents, filters for smoke and dust emissions of industrial enterprises.

Applications of basalt fiber in concrete is determined by technical and economic efficiency, which is due to the most full use of the positive properties of basalt fiber reinforced concrete compared to conventional concrete and concrete-reinforced steel rebar. When choosing design solutions, the methods of manufacturing, installation and operating conditions of structures are taken into account.

Rice.1. Basalt fiber.

The shape and dimensions of the elements should be taken based on the most complete use of the features of the properties of basalt fiber in reinforced concrete, the possibility of mechanized and automated factory production, the convenience of transportation and installation of structures [1]. It is also advisable to take into account the specific properties of dispersed reinforced concrete. For example, the GRC and the radio waves are not susceptible to overgrowing of algae in reservoirs. The accumulated domestic and foreign experience allowed us to determine the initial nomenclature of cost-effective basalt fiber structures in reinforced concrete. The most effective thin-walled structures are without a roll panel of coatings, ribbed panels of coatings and ceilings, elements of fixed formwork, elements of underground communications, wall panels and partitions, floor slabs, monolithic shells, elements of loggia fences, balconies and architectural facades, elements of hydraulic structures. Important at present are the issues of saving energy required for the production of various building materials. The amount of energy required for the production of concrete is minimal compared to the amount of energy (reduced to a single equivalent) required for the manufacture of steel, aluminum, glass, bricks, and plastics. In addition, the production of concrete materials requires less water consumption than the production of steel and has less impact on environmental pollution. Concrete reinforcement leads to a corresponding increase in the energy intensity of the material. Since the use of steel-reinforced concrete is carried out on a large scale, it becomes a significant problem to minimize the consumption of metal and its most rational use in concrete. For example, often-concrete reinforcement with steel reinforcement is performed

only based on the forces acting on the structure during transportation or installation [3]. In this case, the thickness of structural elements is usually set at least 60-80 mm (since it is necessary to provide a sufficient thickness of the protective layer of concrete to protect the reinforcement from corrosion). However, at the same time, the specified thickness of the elements in terms of strength may be unjustified. This leads to structural overspending of concrete and rebar, which practically does not fulfill its direct purpose during the operation of structures. In addition, a significant amount of steel in reinforced concrete structures is spent on mounting, cross-section and distribution fittings. Thus, there are potential opportunities to reduce the consumption of valves in structures.

If the weak component in the concrete is the mortar part, then in this case, the dispersed reinforcement will prevent the appearance of cracks in the mortar part and the main load will be borne by the filler-expanded clay when stresses appear. When getting basalt fiber into reinforced concrete, not only the correct choice and rational combination of raw materials, but also the technology of their production are important [2-4]. The principles of technology and methods of dispersed reinforcement depend largely on the type of concrete matrix used. The type of concrete determines the type of dispersed reinforcement that is rational for it and the optimal values of the geometric parameters of the dispersed reinforcement.

Rice.2. Basalt fiber in reinforced concrete sleepers.

Thus, the analysis shows the high efficiency of basalt fiber structures in reinforced concrete. At the same time, further research is needed to determine the areas of the most rational use of concrete using fibers from various materials.

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TABLE OF CONTENTS