SOI: 1.1/TAS
DOI: 10.15863/TAS
Scopus ASJC: 1000

ISSN 2308-4944 (print)
ISSN 2409-0085 (online)

№ 08 (88) 2020

Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

Philadelphia, USA

Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

08 (88)

2020

International Scientific Journal

Theoretical & Applied Science

Founder: **International Academy of Theoretical & Applied Sciences**

Published since 2013 year. Issued Monthly.

International scientific journal «Theoretical & Applied Science», registered in France, and indexed more than 45 international scientific bases.

Editorial office: **http://T-Science.org** Phone: **+777727-606-81**

E-mail: **T-Science@mail.ru**

ISSN 2308-4944

08

9 772308 494201

International Scientific Journal

Theoretical & Applied Science

International Scientific Journal

Theoretical & Applied Science

ISJ Theoretical & Applied Science, 08 (88), 194.
Philadelphia, USA

Impact Factor ICV = 6.630

Impact Factor ISI = 0.829
based on International Citation Report (ICR)

The percentage of rejected articles:

ISSN 2308-4944
08
9 772308 494201

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 13.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Nigora Akbarovna Nabieva
Samarkand State Institute of Architecture and Civil Engineering
Uzbekistan, Researcher,
nigora.nabieva.83@bk.ru

TESTING A SAND PRESSIOMETER IN MODEL AND NATURAL CONDITIONS

Abstract*: In the paper discusses the results of experimental studies of the strengthened and deformed state of the soil around the walls of the borehole under axisymmetric loading. Analytical expressions are given for determining the soil deformation modulus during the test with a sand pressiometer.*

Key words*: strength, deformation, displacements, load, lateral stress, soil stress on the borehole wall, modeling of soil test, correlation coefficient, axisymmetric task, deformation modulus.*
Language*: English*
Citation: Nabieva, N. A. (2020). Testing a sand pressiometer in model and natural conditions. *ISJ Theoretical & Applied Science, 08 (88),* 1-6.
Soi: http://s-o-i.org/1.1/TAS-08-88-1 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.1
Scopus ASCC*: 2200.*

Introduction

UDC-624.131.38

The reliability of buildings and structures under construction largely depends on the qualitative determination of the basic deformation and strength properties of soils. The results of the calculation of the bases depend on the accuracy of determining the quantitative values of the deformation characteristics of the soil. Currently, in the world practice, the tendency to comprehensively determine these characteristics remains, giving preference to in-situ methods for determining direct tests in the soils [1-4]. These include all plate [5], in-situ and pressiometric tests [6-9], as well as methods of static and dynamic sounding of soils [10-13]. The first two methods are mainly used for quantitative comparison of the results of determining soil resistance by the depth of the base with static (penetrometer) and dynamic sounding methods. As you know, the last two methods make it possible to test and determine the soil resistance at a depth of more than 20 m. These results are necessary when designing pile foundations or when substantiating the depth of the foundations [14]. But when calculating deformation bases, preference is still given to classical parameters, such as the deformation modulus, determined by stamp and pressiometric tests [15]. For stamp tests of soils, it is necessary to use special anchor and frame bulky equipment, jacks, dynamometers and other measuring instruments. Stamp tests are mainly carried out on the bottom surface of pits. In contrast, pressiometric tests are carried out relatively on compact equipment and, most importantly, allow testing at different depths of the soils. In this regard, pressiometry tests have gained quite a lot of popularity in engineering surveys. In terms of accuracy, pressiometric readings are second only to plate tests in pits. Plate and pressiometric tests are carried out in accordance with GOST 20276-2012 [1,16].

The aim of the experiments is to compare the results of various parameters of soil deformability obtained in in-situ experiments, in particular: plate, pressiometric tests and dynamic sounding of soils in depth. The comparison is subject to classic plate and radial pressiometers. In some cases, when comparing the results, the results of penetration and dynamic test methods are also taken into account.

In respect that loess soils are widespreaded [17,18], on the basis of Geofundamentprojekt LLC, with the participation of the author, a new type of pressiometer was created to study the deformation, including subsidence, properties of loess soils. The goal was set for the author - to study the operability of

the new design in bench and in-situ conditions and to compare these results with known standard methods.

The design of the pressiometer proposed by the authors is based on the axial compression of the graded sand cylinder inside the borehole (Fig. 1).

A sand cylinder with an aspect ratio of at least d/h =1/2 is formed by filling its measured amount into the borehole above the GWH (Fig. 1). Sand is poured into the borehole on the surface of the lower round plate (3) connected to the vertical rod (5) (inside the rod) mounted on the bottom of the borehole. A second upper plate in the form of a doughnut (4) is mounted on the upper end of the sand cylinder, mounted on the end of a hollow rod made of a thick-walled pipe. The rod (5) moves freely inside the hollow rod. The diameters of the lower and upper plates of the pressiometer, as well as the borhole are 76 mm. Vertical pressure on the sand cylinder is carried out by using the opposite movement inward of the lower and upper dies.

The proposed method for determining the deformation characteristics of soils is as follows. A borehole is being erected at the research object by drilling with a hand motor drill or a drill with a diameter of 71 mm and a depth of 1.5-6 m from the bottom of the pit. To obtain the exact specified diameter of the borehole, a hollow cutting pipe with a diameter of 75 mm is driven into it to the design level. A rod with a lower disk plate with a diameter of 75 mm is lowered into the borehole. The central disk plate is connected to the shaft by a screw connection. The vertical shaft consists of a section 80 cm long and, if necessary, is extended by means of a screw connection. A measured amount of sand is poured into the borehole, which forms a cylinder diameter of 76 mm and a height of 15-20 sm. A thick-walled pipe built up using a threaded connection is put on top of the rod. It serves both for conducting test cases and for filling a measured amount of sand into the borehole. The lower plate is made in the form of a disk with a thickness of 4 mm and a diameter of 76 mm. Axial loading of the sand cylinder is carried out using weights suspended on levers. The force transmitted by the lever system increases in multiples of the ratio of the shoulders of the mechanism (10 times). The vertical movement of the plates is measured by the Maximov deflection meter with a division accuracy of 0.1 mm. Radial deformation and stresses on the walls of the borehole are determined by analytical calculation [19].

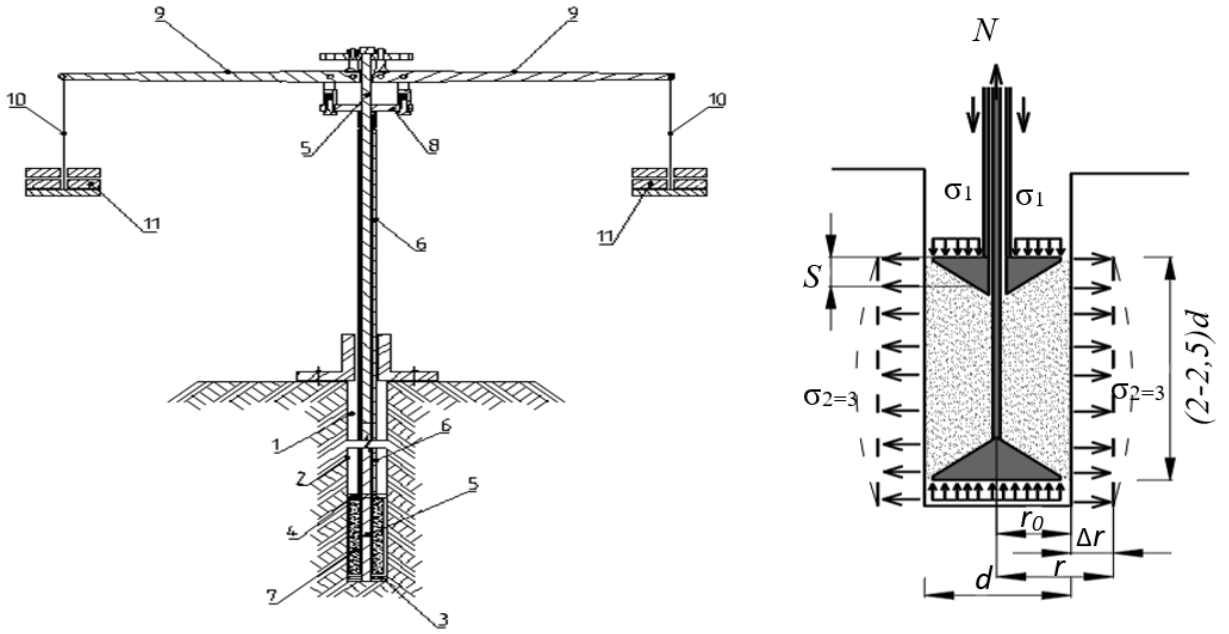


Fig. 1. Devices for determining soil deformation: 1-borehole; 2- borehole wall; 3-lower plate; 4-upper plate; 5-rod; 6-section pipes (rod); 7-cylinder (sand); 8-stop plate; 9-arms with equal shoulders; 10-pendant; 11-kettlebell.

2. Experimental bench studies of the operation of a sand cylinder inside a borehole and determination of the SDS around it.

To simulate the strengthened state of an axisymmetrically compressed cylinder and soil located around it, we performed laboratory bench tests. The main purpose of the tests is to study the vertical and horizontal displacements of the soil of the working body of the sand pressiometer in the form of a cylinder. Previously, such studies with sands were carried out on triaxial compression devices using stabilometers [20]. The results of such tests and devices are given in [17,20,21].

In this work, the object of study is a soil layer filled into the borehole in the form of a cylinder with dimensions: diameter 76 mm, height 150 mm. This

soil is the working body of the sand pressiometer to determine the deformation characteristics of the soil layers in depth. Fine-grained sands are accepted as the soil of the working body of the pressiometer. The following are experimental results.

Results of model bench experiments with a sand pressiometer. Ways to solve the task are carried out using the volumetric tray, which allows you to simulate the interaction of structures and soil base under various external loads. The volumetric tray with dimensions AxBxH = 45x45x30 cm^3 is made in the form of a box-like structure and a loaded frame. The bench is designed for model, plate and pressiometric tests of various configurations. A general view of the bench is shown in (Fig. 2). The results of the experiments are shown in (Table No. 1) and in the form of graphs are presented in (Fig. 3-4).

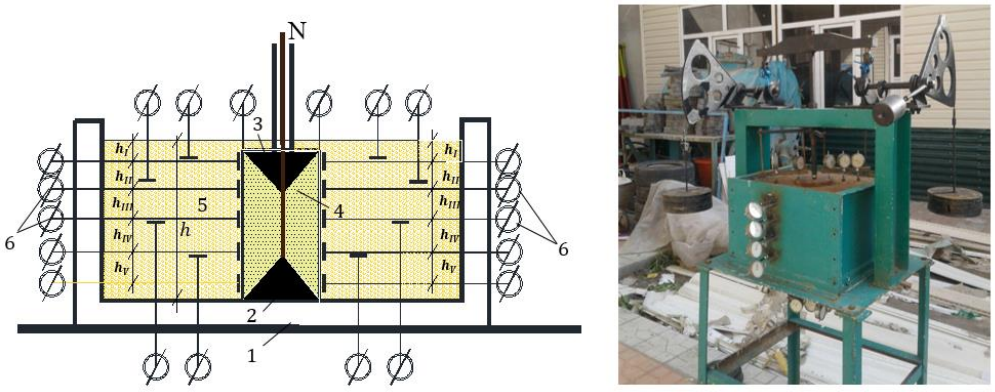


Fig-2. Bench scheme of indicators for measuring displacements, general view of the bech of measuring equipment: 1-volume tray with dimensions AxBxH = 45x45x30 cm^3; 2-lower plate of the pressiometer; 3-upper plate of the pressiometer; 4-tared finely grained sand; 5 - coarse sand; 6-masses; h_I-V-horizontally directed indicators.

Table No.1. The results of experiments of vertical and horizontal movements

Vertical movement of the plate, mm				Lateral (horizontal) movements, mm. The distance from the bottom is 10, 37, 69, 102, 132 mm.				
N, kg	A	P	$S_ш$	h-10	h-3,7	h-6,9	h-10,2	h-13,2
0	43,07	0	0	0	0	0	0	0
19	43,07	0,44	5	0,015	0,025	0,115	0,195	0,35
29	43,07	0,67	16	0,015	0,04	0,185	0,255	0,41
39	43,07	0,90	30	0,03	0,29	0,445	0,615	0,675
49	43,07	1,14	71	0,06	0,38	0,935	1,155	0,99
59	43,07	1,37	119	0,11	0,785	1,565	1,775	1,235
69	43,07	1,60	181	0,14	1,365	2,415	2,515	1,365
79	43,07	1,83	284	0,155	2,43	4,045	3,8	2,35
89	43,07	2,06	410	0,155	3,9	6,93	5,375	2,38

To measure horizontal displacements in the radial direction along the outer surface of the sand cylinder in height (h_I =10 mm, h_{II} = 37 mm, h_{III} = 69 mm, h_{IV} = 102 mm, h_V = 132 mm), special indicators were installed (Fig-2). The movements of the indicators are measured by the mass. The dependences between axial stresses and their radial movements are presented in (Fig. 3). During axial loading, the central part of the cylinder expands more dynamically than its edge parts.

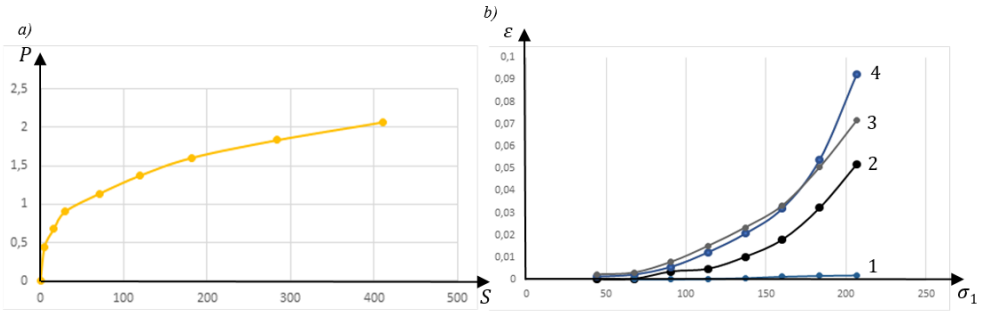


Fig.3.a) Vertical movement of the plate, mm; b) Lateral (horizontal) movements from the distance of the indicators from below; 1) indicator No. 1-10 mm, 2) indicator No. 2-37 mm, 3) indicator No. 3-102 mm, 4) indicator No. 4-69 mm.

The same is observed when conducting triaxial stabilometric tests. The graph of the relationship between the relative lateral strains and the axial pressure $\varepsilon_{2=3} = f(\sigma_1)$ for different points is shown in (Fig. 4). As can be seen from the graphs, the nonlinearity and their absolute displacements in the vertical direction occur more intensively than for lateral displacements.

$$E = n[1 - 2\xi\mu]\frac{\sigma_1}{\varepsilon_1} = k\frac{\sigma_1}{\varepsilon_1}.$$

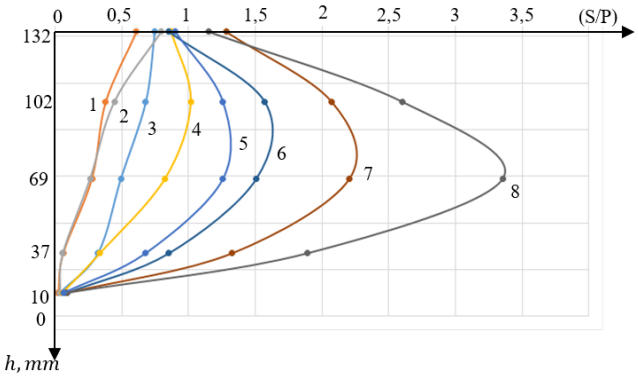


Fig. 4. Schedule lateral movements of beacons, installed on the height of the sand cylinder. The values of points 1-8 for deformation are presented in table No.1.

3. Experimental studies of the sand pressiometer in real engineering and geological conditions and comparing them with the results of plate testing and other methods.

Consider the basic equations that mathematically relate the radial stresses and strains characteristic of radial pressiometers. Given the theoretical solutions discussed above in the coordinate system, the expressions of the cylindrical deformation will have the following form:

$$\varepsilon_x = \frac{\Delta r}{r_0} = \mu\varepsilon_z = \mu\frac{\Delta S}{h_0}, \quad (1)$$

where

$$\Delta r = \mu r_0 \frac{\Delta S}{h_0}; \quad (2)$$

$$\sigma_3 = \xi\sigma_1. \quad (3)$$

The parameters, lateral expansion coefficients, and pressure μ, ξ for medium or fine sands are determined by the results of triaxial stabilometric tests in laboratory conditions with limited lateral displacements. In these expressions, ΔS_z is the measured vertical displacement of the sand cylinder during compression, mm; $\sigma_1 = \frac{N}{A}$ is the vertical stress at the ends of the sand cylinder, kPa; N and A - respectively, the vertical load, kN and the area of the dies, minus the transverse area of the vertical inner rod, sm^2.

The soil deformation modulus is determined for the linear plot of the graph Δr = f(p) by the formula:

$$E = \frac{(1+\mu)r_0\,\Delta p}{\Delta r} \quad (4)$$

or in accordance with [20]

$$E = K_r r_o \frac{\Delta p}{\Delta r}, \quad (5)$$

where, K_r - correction factor; r_o - initial radius of the borehole, sm; Δp - pressure increment on the borehole wall, MPa; Δr- increment of displacement of the borehole wall (along the radius), see.

As a rule, pressure increments are determined in the second deformation zone when the initial pressure exceeds the natural pressure $P>Pg$.

The value of the coefficient K_r for a particular type of soil is determined by comparative plate and pressiometric tests. In the absence of such capabilities, it is determined in accordance with the requirements of GOST [1]. In particular, according to our studies, it was found that the correlation coefficient K_r for boreholes up to 6 m deep for clay soils: at $I_L < 0.25$; $K_r = 2$, and at $I_L > 0.5$; $K_r = 3$.

For the proposed type of pressiometer, the deformation modulus is determined by the expression:

$$\varepsilon_x = \frac{\Delta r}{r_0} = \frac{\sigma_x}{\mathrm{E}} - \frac{\mu}{E}\left(\sigma_y + \sigma_z\right). \quad (6)$$

$$\varepsilon_x = \frac{\Delta r}{r_0} = \frac{1-\mu}{E}\sigma_{x=y} - \frac{\mu}{E}\sigma_z = \frac{\sigma_z}{E}[(1-\mu)\xi - \mu]. \quad (7)$$

$$E = \frac{r_0\,\sigma_z}{\Delta r}[(1-\mu)\xi - \mu]. \quad (8)$$

In view of (6) and (7) we write in the following form:

$$E = \frac{r_0\,\sigma_z}{\mu r_0 \frac{\Delta S}{h_0}}[(1-\mu)\xi - \mu] = \frac{h_0\sigma_z}{\Delta S}\left[\left(\frac{1}{\mu} - 1\right)\xi - 1\right] = K_r^S \frac{h_0\sigma_z}{\Delta S}, \quad (9)$$

where K_r^S- correction factor for the proposed pressiometer. To solve practical tasks, the coefficient K_r^S is determined by the comparative results of stamping and pressiometric tests.

To reduce the error of the device due to compression of sand, at the beginning of the experiment, instead of a borehole, a metal pipe with a diameter of 76 mm was used. Based on the results of these experiments, a calibration curve is constructed for the S_z draft versus stresses - P. The sand cylinder draft is determined taking into account the calibration curve graph (Fig. 5):

$$\Delta S = (S_2 - S_{t2}) - (S_1 - S_{t1}), \quad (10)$$

where S_2, S_1 -is the vertical sediment of the sand cylinder inside the borehole corresponding to the stress $\mathrm{P}_2, \mathrm{P}_1$; S_{t2}, S_{t1} is the same as determined by the calibration curve inside the metal pipes.

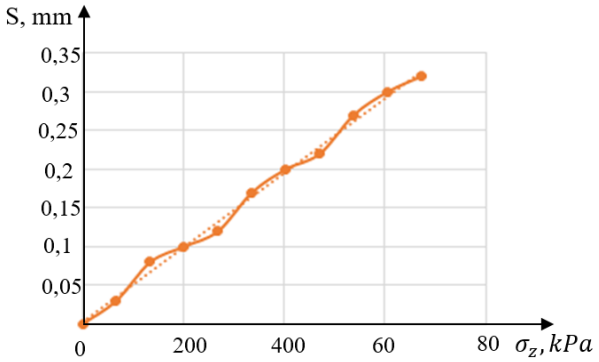


Fig.5. Calibration graph of the upset *S* versus axial pressure σ_z.

4. Conclusion:

1. Experimentally obtained graphs of the relationship between the axial and lateral deformations of the sandy soil inside the borehole during its axisymmetric loading.

2. Based on the experiments, an analytical expression of the lateral stress coefficient is obtained in the absence of restrictions on the movement of the borehole wall.

3. It is proved that with the help of a sand pressiometer designed by GEOFUNDAMENTPROEKT LLC, it is possible, with practical accuracy, in in-situ conditions, to determine the value of the soil deformation modulus (1)-(10).

References:

1. (2012). GOST 20276-2012. In-situ methods for determining the characteristics of strength and deformability.
2. Bugrov, A. K. (1984). *Field methods for determining the characteristics of soils*: textbook. (p.43). L.: Publishing house LPI.
3. (2000). ENV 1997-2:2000. Eurocode 7. Geotechnical design. Part 2. Design assisted by laboratory testing. UK: British Standards Institution.
4. (2000). ENV 1997-3:2000. Eurocode 7. Geotechnical design. Part 3. Design assisted by field testing. UK: British Standards Institution.

5. (2009). EN ISO 22476-8: Geotechnical investigation and testing. Field testing. European Union, 2005–2009. p.18.
6. Trofimenkov, Yu. G., &Vorobkov, L. N. (1981). *Field methods for studying the building properties of soils*. (p.215). Moscow: Stroyizdat.
7. Denisov, V.N., & Mineev, L. N. (1978). Automated pressiometer for soil research. *Foundations, foundations and soil mechanics*, No. 4, pp. 16–18.
8. Menard, L. (1957). Mesures in situ des proprietes physique des sols / *Annales des Fonts et Chaussees*, V. 127, pp.357–377.
9. Baguelin, F., Jezequel, J. F., & Shields, D. H. (1978). The pressuremeter and foundation engineering // *Trans Tech Publications*, V. 2, № 4, p.617. http://www.cambridge-insitu.com/specs/Instruments/CPM.html.
10. (2001). GOST 19912-2001. Soils. Field test methods by static and dynamic sounding. Moscow: Gosstroy RF.
11. (2010). Engineering survey November. Testing of soils by the methods of penetration. Part I. Boldyrev G.G. Professor of the Department of Foundations and Foundations of the Penza State University of Architecture and Construction, member of the Russian National Committee for Soil Mechanics and Foundation Engineering, Technical Director of NPP Geotek LLC, Penza, g-boldyrev@geoteck.ru.
12. Boldyrev, G. G., & Khryanina, O. V. (2012). Methods of field tests of soils. Part VI. *Engineering surveys* 3/2012, pp. 46-55.
13. (1999). ASTM D1586-99 Standard test method for penetration test and split-barrel sampling of soils. Philadelphia, USA: American Society for Testing and Materials.
14. Khasanov, A. Z., & Khasanov, Z. A. (2006). Foundations and foundations on loess subsidence soils. (p.154). Tashkent. IPD "Uzbekistan".
15. Ziangirov, R. S., & Koshelev, A. G. (2010). Determination of the deformation modulus of soils by the method of loading a stamp // *Engineering research*, No. 2, pp. 26–31.
16. (2017). GOST ISO 22476-4-2017. Test by Menard pressiometer. (ISO 22476-4: 2012, Geotechnical investigation and testing - Field testing - Part 4: Mdnard pressuremeter test, IDT). Moscow Standartinform 2018.
17. Ukhov, S.B. (2004). *Soil mechanics, foundations and foundations*. Higher School Moscow.
18. Mavlyanov, G. A. (1958). "*Genetic types of loess and loess-like rocks of the Central and Southern parts of Central Asia".* Publishing house of the Academy of Sciences of the UzSSR. (p.609). Tashkent.
19. Glushkov, G. S., & Sindeev, V. A. (1965). *"A course of materials resistance"*, (pp.538-542). Moscow: publishing house "Higher school".
20. Khasanov, A. Z., & Khasanov, Z.A. (2015). *Experimental and theoretical studies of the strength and stability of soils*. (p.126). Samarkand: GP publishing house "Zarafshon".
21. Khasanov, A. Z., & Khasanov, Z. A. (2018). *Engineer geology wa gruntlar mekhaniki*. (p.200). Samarkand: IPTD "Zarafshon".

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 01.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Amanay Tursunbaevna Akmatova
Osh state law institute
Candidate of History, acting Associate Professor of
Department of theory and history of state and law

THE EVOLUTION OF PERCEPTIONS OF STATE GUARANTEES FOR THE PROTECTION OF HUMAN RIGHTS

Abstract: *The evolution of ideas about guarantees of individual rights in the domestic legal literature went from a simple enumeration of individual guarantees to the formulation of their general definition and the construction of appropriate classifications. Moreover, in understanding the nature of guarantees of individual rights, according to the dissertation, three main approaches can be traced: activity - guarantees as an event; normative - guarantees as obligations; instrumental - guarantees as legal means. The concept of "guarantee" covers the entire combination of factors of an objective and subjective nature that have or are capable of exerting a positive effect on the legal status of the individual as a whole, and rights and freedoms in particular. It is proposed to understand state guarantees of human rights protection as a system of political, organizational, special legal means (tools and technologies) that directly express the purpose, competence (powers and duties) and responsibility of the state in the field of ensuring the protection of human rights and are carried out in the human rights activities of its bodies and officials.*

Key words: *guarantees, rights, law, personality, evolution, state, protection, obligations, law.*

Language: *English*

Citation: Akmatova, A. T. (2020). The evolution of perceptions of state guarantees for the protection of human rights. *ISJ Theoretical & Applied Science, 08 (88),* 7-9.

Soi: http://s-o-i.org/1.1/TAS-08-88-2 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.2

Scopus ASCC: *3308.*

Introduction

The concept of state guarantees is an essential component of the general [1] teaching on human rights. Although initially human rights arise more likely in a declarative form, reflecting the idea of inalienable and natural human freedom, it is already relatively early that there is a real need to introduce the concept of a mechanism for the practical realization of these rights.

The concept of guarantees has long been used in philosophical and legal literature on human rights. It is found, for example, even in J. Locke [2], who writes about the purpose of electing legislative bodies: "so that laws are enacted and rules are established as a guarantee and protection of the property of all members of society, so that power is limited and the dominance of each part and each member is tempered society. " However, they did not disclose the concept of a guarantee.

According to L. Dugi [3], it is the presence of guarantees that represents the main sign of a citizen's rights. He points out that, according to the initial ideas of the creators of the Declaration of Human Rights and Citizens in France, the rights of a citizen in their content are no different from human rights: these are the same rights that have been protected and guaranteed. Their other name is civil rights; "These are the natural rights of the individual, as they are recognized and guaranteed by the state" [4]

The formation of the institution of state guarantees, if not simultaneously, then almost simultaneously with the constitution of human rights themselves, can be explained primarily by the fact that the creation of a legal regime for the use of these rights inevitably requires the need to protect them in case of violation.

Thus, a human rights policy that does not require any consistent actions and does not limit them solely to ideological recognition requires the temporary development and application of appropriate guarantees. In case a person has his own values.

At the end of the nineteenth century, the concept of "guarantee" begins to be quite actively used in legal literature. In accordance with this, as a rule, within the framework of this document disclosure of its exact content, classification guarantee, etc. are not allowed.

This is a guarantee of the right of citizens. N. Chicherina [5] "The course of state science." Judges must be independent and independent. Habeas corpus (guarantee against unlawful arrests); participation of taxpayers or their representatives in the establishment of taxes; jury trial; the right to file a complaint; administrative justice, etc. Moreover, the author's conclusions are mainly based on the experience of Western European states. "Warranty", no guarantee N. Chicherin [6] does not lead.

Lawyer as S. A. Kotlyarevsky [7]. It can be absolutely guaranteed. As concrete concrete guarantees, he is liable to the jury, for secret voting, for political responsibility of the executive branch to the people's representatives, etc. However, like B. N. Chicherin, A. Kotlyarevsky does not interpret as much as he wants.

The issue of warranty was often considered. So, V. M. Gessen [8], examining the issue of personal integrity, saw her guarantees at the institute of "judicial order", organization of judicial control, supervision of places, etc. P. I. In particular, publicity of the court, independent advocacy, the right to appeal, the responsibility of officials, etc. The provisions on guaranteeing human rights are absent in the article. V. Challand [9] "Supreme Court and Constitutional Guarantees". Unlike most other authors, L. V. Shalland gives a general definition of the constitutional guarantee: "measures aimed at protecting the constitutional act from any encroachment on it, from whomsoever they come from. This means that the actions of the authorities must be allowed, and they will act independently of each other".

Challand [8] also draws attention to the fact that any constitutional guarantees can be effective only on the condition that the constitutional system itself must be recognized and approved by citizens. Under normal conditions, these guarantees can be guaranteed to be used to protect against violation of the law or for various bodies or individuals to prevent unforeseen changes to the constitution in its application. The constitutional responsibility of ministers, the conditions of the legislative branch, judicial review of constitutional laws.

Known uncertainty also relates to an understanding of the nature and classification of the so-called organizational guarantees. This is not so bad.

So, according to L. N. Fedorova [9], "the allocation of organizational guarantees as an independent type is unreasonable, since the activities of state organizational bodies in all first cases require the adoption of normative acts (in the form of status, competencies) in the legislation".

Warranty obligations are legal and organizational guarantees.

The main disadvantage is that, in our opinion, this is not

In accordance with the principles of state power and the rule of law. It is believed that the activities of state bodies, state authorities, authorities and the state are legal.

We are talking about law enforcement, law enforcement, law enforcement and other types of legally significant activities of the state. Organizational and regulatory, organizational and ideological, etc.).

The specificity of organizational activity from the point of view of the legal criterion is that, although the latter is carried out on the basis of the requirements of legality and is somehow related to the competence of the state body, it nevertheless does not give rise to legal consequences in the form of publication, application and other legal acts.

M. I. Baitin [10] in this connection reasonably remarked that "legal forms are always organizational. However, far from all organizational forms are legal". A differentiated approach to the forms of activity of the state was also established in the science of public administration, where, along with legal and organizational, organizational and legal forms are also distinguished.

So, in the opinion of G. V. Atamanchuk [11], it is possible to talk about two forms of state management activity: legal, through which managerial decisions and actions that have legal meaning are fixed (establishment and application of legal norms); and organizational, associated with the implementation of certain collective or individual actions (operational-organizational and material-technical operations).

Along with this, the researcher believes, a special place is taken by organizational and legal forms, stating the fact that in state bodies many legal forms are legally correct only if they are adopted through established organizational forms.

In particular, strict organizational procedures are in place when legislative acts are adopted by representative bodies of authority, in the activities of collegial executive bodies, in the administration of justice, etc. Ignoring such procedures renders the corresponding legal acts null and void.

At the same time, attention is drawn to the fact that organizational and legal forms must be approached differentially and concretely, since "there are no forms applicable to any case, each form contains only its inherent potential for solving a particular managerial problem."

In view of the foregoing, the point of view of those authors who propose to consider organizational guarantees as an independent form, different from both general and legal guarantees, seems more convincing. However, even within the framework of

this approach, there are known discrepancies in understanding the nature and significance of organizational guarantees. Some researchers assign them an auxiliary role, linking them with organizational, technical, organizational and ideological and similar means.

In particular, in the opinion of I.V. Rostovschikov [12], organizational guarantees "should be understood as special organizational, technical, informational and similar activities of competent entities aimed at facilitating the process of exercising rights and freedoms and the effective functioning of their general social and special guarantees.

This refers to improving the work of the entire state apparatus [13], the effective use by the government of the economic potential, institutions of democracy, social forecasting, etc.

Organizational activity, although generally based on the law, as a rule, is not connected with strict, detailed normative regulation, is not directly carried out through lawmaking, law enforcement, but "permeates them" [13]

As the specific varieties of these guarantees, the author calls information support for citizens (about events in public life, movement of vehicles, weather, time, etc.), assistance in the exercise of certain rights (employment, exchange of housing, issuance of certificates, etc.), the introduction of technical means (improving the communication system, computerization of training, installing alarms in apartments, etc.), maintaining order in public places, proper sanitary conditions, etc.

References:

1. Locke, J. (1988). Two treatises on the board. *Works*: in 3 volumes T. 3. - M.: Thought, pp. 137-405.
2. (n.d.). Retrieved from https://pravo.hse.ru/constlaw/constitutionalists/dugi
3. (n.d.). Retrieved from https://history.wikireading.ru/395193
4. (n.d.). pravo.hse.ru ›constlaw› constitutionalists ›chicheri. Boris Nikolaevich Chicherin - an outstanding Russian lawyer, publicist, historian, philosopher, public figure.
5. Chicherin, B. (1984). *State science course*. Part I. General state law. (p.492). Moscow: Tipo-lit. t-va I.N. Kushnerev and Co..
6. Kotlyarevsky, S. A. (2010). *Constitutional State*. Selected Works. (p.704). Moscow: ROSSPEN.
7. Hesse, V. M. (1908). *About the inviolability of personality*. (p.68). St. Petersburg.
8. Challand, L.V. (1905). *Supreme Court and Constitutional Guarantees*. Constitutional State: Sat. Art. - 2nd ed. (pp.388-430). SPb..
9. Fedorova, L. N. (2007). *The mechanism of legal guarantees of constitutional rights and freedoms of man and citizen in the Russian Federation*: author. dis .... cand. legal Sciences. (p.29). Volgograd.
10. Baitin, M. I. (2006). *Questions of the general theory of state and law*. (p.398). Saratov: Sarat. state Acad. Rights.
11. Atamanchuk, G.V. (1997). *Theory of public administration: a course of lectures*. (p.400). TS— M .: Yurid. lit..
12. Rostovschikov, I. V. (1997). *Ensuring and protecting the rights and freedoms of the individual: theory and practice of internal affairs bodies*: author. dis. ... Dr. law. sciences. (p.40). Moscow.
13. Markheim, M. V. (2005). *The constitutional system for the protection of the rights and freedoms of man and citizen in the Russian Federation*: dis. ... Dr. jur. sciences. (p.385). Moscow.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 01.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Elnara Abduvalievna Madmarova
unemployed
Candidate of Law, acting docent
Kyrgyz Republic, Osh city

THE CONCEPT AND STRUCTURE OF THE STATE MECHANISM FOR GUARANTEEING THE PROTECTION OF HUMAN RIGHTS

Abstract*: Ensuring a decent quality of life in a modern state is impossible in isolation from the protection of human rights and freedoms. The system of rights and freedoms acts as a universal legal mechanism that mediates the access of members of society to fundamental, vital social benefits. In the system of guarantees of human rights, which includes various instruments of a socio-economic, cultural, ideological and other nature, state guarantees traditionally occupy a significant place. To date, the state has come a long way towards institutionalizing human rights. The current situation in this area is characterized by a combination of relatively complete and consistent normative consolidation of fundamental rights and human freedoms with a clearly unsatisfactory state of their practical implementation, expressed in the impossibility for a significant part of the population to fully use their rights, in their systematic violations and in the absence of reliable mechanisms for their restoration and protection.*

Key words*: protection, rights, guarantee, freedom, implementation, mechanism, citizen, person, state.*

Language*: English*

Citation: Madmarova, E. A. (2020). The concept and structure of the state mechanism for guaranteeing the protection of human rights. *ISJ Theoretical & Applied Science, 08 (88)*, 10-13.

Soi: http://s-o-i.org/1.1/TAS-08-88-3 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.3

Scopus ASCC*: 3308.*

Introduction

"The tradition of a strong state is characteristic of the Kyrgyz Republic," said S.Sh. Jeenbekova, President of the Kyrgyz Republic. "Therefore, it is the state that is addressing the main public inquiries today: to ensure the protection of civil rights and justice, to reduce the level of violence and social inequality ..." [1]

Along with the guarantees emanating from civil society and international institutions, state guarantees are designed to strengthen the effectiveness of the mechanism of state protection of human rights and freedoms.

One of the central features of state guarantees for the protection of human rights and freedoms is that these guarantees are based on the legal possibility of enforcement measures. However, another specific feature is related to this: the same institutions that are created as a guarantee of human rights (court, prosecutor's office, police, etc.) can also act as entities violating these rights. [2]

It is proposed to understand state guarantees of human rights protection as a system of political, organizational, special legal means (tools and technologies) that directly express the purpose, competence (powers and duties) and responsibility of the state in the field of ensuring the protection of human rights and are carried out in the human rights activities of its bodies and officials.

The main features (properties) of state guarantees for protecting human rights are highlighted:

• they directly express the purpose of the state as a public-power institution in the field of ensuring the protection of human rights and the content of its human rights function;

• have a comprehensive nature, detail specific political, organizational, special legal opportunities, as well as the state's responsibilities in the field of ensuring the protection of individual rights and freedoms;

• express the type and measure of responsibility (positive and retrospective) of the state to the

individual for the quality of functioning of the relevant human rights mechanisms;

• carried out in the human rights activities of state bodies and officials;

• by their socio-political and legal nature, they relate to objective guarantees.

Many scientists who study the mechanism for protecting rights and freedoms reveal only its structure, i.e. the internal structure of the system, without analyzing the process of carrying out such activities, the action itself in this case is only implied.

So, O.A. Snezhko [3] believes that the constitutional mechanism for the protection of rights and freedoms is a certain system of bodies, means enshrined in the Constitution, providing the most complete and effective protection of the rights and freedoms of man and citizen. In his opinion, the constitutional mechanism consists of two elements: a system of state bodies with which everyone can protect their rights and freedoms, and remedies (judicial, administrative, civil law, criminal law and others) [4].

B.L. Zheleznov [5] in the mechanism of state protection of human rights and freedoms, and the citizen distinguishes:

• relevant norms of constitutional, administrative, criminal, civil, labor, family, environmental and other branches of law. Moreover, the norms of other branches of law, firstly, follow from the norms of constitutional law, and secondly, the very norms of constitutional law, fixing the status of a person and citizen, are implemented through the norms of other legal branches;

• public relations regulated by the norms of law in the field of state protection of rights and freedoms. These relationships exist in almost all areas of society. They are formed between the individual, public associations, national and other social structures, on the one hand, and the state, on the other;

• guarantees of human and civil rights [4].

A.S. Mordovian [7] proposes to distinguish between a mechanism for ensuring the rights and freedoms of man and citizen in a broad and narrowly professional interpretation. The named mechanism in the broad sense should be presented in the form of four main blocks.

The first block is basic, its core is man as the highest value of democracy.

The second block is the principles of human rights: humanism, justice, equality, freedom, personal integrity, direct operation of the Constitution and others.

The third block is social institutions and normative establishments through which life-affirming values and principles of human rights are directly substantiated, enshrined and implemented.

The fourth block - the procedural control organizationally and procedurally streamlines relations in the field of human rights, creates the most favorable conditions for the realization of citizens' rights and freedoms, strengthening the rule of law, public and personal security.

In a narrowly professional interpretation, the mechanism of protection and protection of rights and freedoms can be understood as guarantees [7]

It can be assumed that the concept of a mechanism for protecting the rights and freedoms of man and citizen can be considered in a broad and narrow sense.

In a broad sense, this mechanism should consist of the following elements:

• legal norms that established the rights and freedoms of man and citizen;

• legal facts that are the basis for the emergence, amendment or termination of legal relations. For the most part, such legal facts should be unlawful actions - tort, namely violation of established rights and freedoms;

• legal relations - “acting as a means of translating general patterns of behavior, laid down in the rules of law, into concretized and individualized acts of behavior of members of society (subjects of law)”;

• activities of subjects of human rights activities, including public authorities within the established powers, non-governmental organizations and the most authorized person to protect their rights and freedoms;

• application by these persons of certain protection methods, namely, those or other means (methods) of protecting violated rights and freedoms;

• social, including legal liability, to which persons who violate the rights and freedoms of man and citizen are brought.

The mechanism for protecting the rights and freedoms of man and citizen in the narrow sense is a set of applied guarantees for the protection of violated rights and freedoms of man and citizen.

The category of guarantees of the rights and freedoms of man and citizen is a complex concept, consisting of subjects of human rights activities, as well as forms and methods of protection, where forms are the conditions provided by law for protecting violated rights, and methods are means and methods of influence by which any a human rights activist can protect fundamental rights and freedoms. Moreover, each form of protection must correspond to a certain method or means of protection, i.e. method of protecting violated rights. This means that the subjects of human rights activities and forms of protection occupy the main, dominant position, and the methods of protection are secondary, subordinate.

The direct action of the mechanism for protecting rights and freedoms is as follows: the subject of human rights activity, being in certain legal conditions (form of protection), applies one or another established means or method of protection (method of protection).

It is necessary to distinguish between four levels of protection of rights and freedoms [9], and, therefore, four types of guarantees, where the territory of their application serves as the criterion for delimiting, these are:

• international guarantees;

• domestic (national) guarantees;

• regional guarantees of the rights and freedoms of man and citizen, ensuring the implementation of rights and freedoms in the territory of a single region.

Regional and local guarantees are closest to the person, first of all, citizens should contact them in case of violation of their rights and freedoms. As practice shows, people are not inclined to choose these types of guarantees, due to lack of information, lack of knowledge of their capabilities and very often a negative attitude towards regional and local authorities. Therefore, they are increasingly choosing national and, more recently, even international guarantees for the protection of violated rights and freedoms.

Each type of guarantee corresponds to a specific mechanism for the protection of rights and freedoms, namely: international, national, regional and local.

The international mechanism for the protection of human rights operates both at the level of the world community (planetary level) and at another multilateral level (CIS, European Union, African Union, etc.). The national defense mechanism includes the protection of rights and freedoms within a particular state. The local mechanism for the protection of human and civil rights and freedoms can be implemented at the municipal level.

Between these mechanisms, there is a certain relationship and subordination. The local mechanism for the protection of rights and freedoms must comply with the regional standard of rights and freedoms.

The national mechanism for the protection of human and civil rights and freedoms must comply with the international human rights standard established primarily in the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights.

The compliance of the national mechanism for the protection of human and human rights and freedoms with the international human rights standard stems from those obligations, fixing the principle of priority of generally recognized principles and norms of international law in clause 3 of article 6 of the Constitution of the Kyrgyz Republic. [10]

The same principle of compliance of the mechanism for protecting the rights and freedoms of man and citizen in the Kyrgyz Republic with the standard of rights and freedoms established by the state.

Thus, the mechanism of protecting the rights and freedoms of a person and a citizen should be understood as a system of certain means and methods of protection, with the help of which human rights activists protect violated rights and freedoms while in a certain life situation.

Lawyers understand the function of protecting human rights in the constitutional aspect in different ways. For example, S. S. Alekseev [11] wrote that “the protection of law is a state-compulsory activity aimed at restoring a violated right, ensuring the fulfillment of a legal obligation”.

O. E. Leist [13] believed that this concept, if preventive measures are excluded from it, is essentially the same as restorative sanctions.

A. N. Golovistikova [12]notes that the protective function of the state is in demand in connection with the need to further strengthen the system for protecting human rights and freedoms, which is constituted as a state’s priority duty.

The Kyrgyz Republic guarantees each person protection against arbitrary or unlawful interference in his personal and family life (Article 36), against encroachment on his honor and dignity (Article 30), and against violation of confidentiality of correspondence and telephone conversations (Article 29).

Thus, constitutional legislation refers to personal freedom and personal life of citizens.

However, these constitutional formulas do not receive a comprehensive and deep understanding, and even more so, subsequent support.

The Constitution of the Kyrgyz Republic, reflecting the mechanism of constitutional protection of the individual in the Kyrgyz Republic, should be based on such principles as:

• belonging to a person of fundamental rights and freedoms from birth and their inalienability;

• recognition of human rights and freedoms in force;

• legal equality (equality) of citizens, including the equality of all before the law and the court, equal rights and freedoms for man and woman, equality regardless of origin, gender, race, nationality, language,

• religion, political and religious beliefs, conditions and circumstances of a personal or public nature;

• the exercise of the rights and freedoms of man and citizen, not violating the rights and freedoms of others, the interests of society and the state;

• individual freedom;

• compliance of the status of a person with internationally recognized principles and standards;

• Guaranteed constitutional status of the individual, his rights and freedoms.

In our opinion, in Kyrgyzstan more attention needs to be paid to resolving issues of the rights and freedoms of citizens, and if disagreements and contradictions arise, try to reach a consensus. In modern society, caring for the disadvantaged, for those who are not able to protect themselves, is an

integral function of the state. The protection of the rights and freedoms of citizens belonging to socially vulnerable groups should be one of the priorities of the Kyrgyz Republic's human rights policy.

References:

1. (2019). *Slovo Kyrgyzstana No. 67, 2019 New Year's Message from the President of the Kyrgyz Republic S.Sh. Jeenbekova*.
2. Matuzov, N. I. (2003). *Actual problems of the theory of law*. (p.512). Saratov: Publishing House of the Saratov State Academy of Law.
3. Snezhko, O. A. (2005). President of the Russian Federation - the guarantor of the rights and freedoms of citizens. *Law and Politics*, No. 2, p. 69.
4. Snezhko, O.A. (2009). *The constitutional foundations of state protection of the rights and freedoms of man and citizen in the Russian Federation*: Dis .... cand. legal sciences. (pp.74-75). Saratov.
5. Zheleznov, B.L. (2010). The mechanism of state protection of fundamental rights and freedoms. Scientific notes. T. 138. Jurisprudence. (p.28). Kazan: Publishing house of Kazan University.
6. Mordovets, A.S. (2010). General theory of state and law. *Academic course:* In 2 t. / Otv. ed. prof. M.N. Marchenko. Volume 1: Theory of the State. (p.282). Moscow: Mirror.
7. (2005). *Theory of state and law*: Textbook for universities / Otv. ed. D. Yu. N., Prof. V.D. Passes. 3rd ed., Revised. and add. (p.158). Moscow: Norma.
8. Anokhin, Yu. V. (2007). *The mechanism of state-legal support of the rights and freedoms of the individual (based on materials of the Russian Federation)*: dis. ... Dr. jur. Sciences. (p.465). Saratov.
9. (2016). Constitution (Basic Law) of the Kyrgyz Republic of June 27, 2010 Adopted by referendum (popular vote) on June 27, 2010 (Enforced by the Law of the Kyrgyz Republic of June 27, 2010) (As amended by the Law of the Kyrgyz Republic of December 28, 2016 No. 218).
10. Alekseev, S. S. (1994). *State and law. Beginner course*. (p.73). Moscow.
11. Leist, O. E. (1962). *Sanctions and responsibility under Soviet law*. (p.113). Moscow.
12. Golovistikova, A. N., & Grudtsyna, L. Yu. (2008). Human rights: textbook. (p.282). Moscow.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 19.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Nargisxon Muxtarovna Umurzakova
Tashkent state University of Economics
researcher

INTERNATIONAL SECURITIES MARKET

Abstract: *Today, the process of functioning of organizations in a market economy is provided by the movement of financial resources. The processes of formation and use of these resources are largely associated with the conduct of active and passive operations in the securities market*

Key words: *securities market, economy, business, Eurobond, stock.*
Language: *English*
Citation: Umurzakova, N. M. (2020). International securities market. *ISJ Theoretical & Applied Science, 08 (88),* 14-18.
Soi: http://s-o-i.org/1.1/TAS-08-88-4 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.4
Scopus ASCC: *2000.*

Introduction

A security is a monetary document that testifies to the ownership of its owner for a certain amount of money or specific property values.

The emergence of securities as a special object of property turnover is associated with the historical period when people, having received the need to move large amounts of goods and money, faced the lack of an economically justified method of such movement.

The solution was found by lawyers who already in the VI - V centuries BC guessed to turn the documents themselves, certifying specific transactions, into a special kind of product, a special system of values that do not coincide with goods in the proper sense of the word, or with money. As long as transaction documents were executed on clay and wax tablets, papyrus, or parchment, they were not widely distributed.

In the VI century ad, paper was invented in China, and in the IX - X centuries. the recipe for its production was entered in Western Europe. It was there, in the conditions of natural economy and feudal fragmentation, which are extremely far from market economy, that paper documents on specific transactions received universal recognition and distribution as special objects of economic turnover.

Securities (CB) are shares, bonds, promissory notes and other certificates of property rights (rights to resources) that have been separated from their basis and are recognized as such by law.

Each type of property (resources) can correspond to its own securities, which in turn can be owned, bought and sold, pledged, etc.

The international loan capital market (international financial market), being a reflection of the real reproduction process on a global scale, at the same time lives a relatively independent life, subject to its own special laws. It has a huge reverse effect on production processes, both at the national and global economic levels.

The international loan capital market emerged at the turn of the 50s-60s of this century. By the end of the 1980s, the total amount of net borrowing at the international level had already reached 14% of the total amount of net borrowing in all financial markets of the world combined. At the same time, the current stage of development of the international financial market is characterized by an increasing role and importance of the securities market. The securities market is an integral and relatively firmly isolated part of the loan capital market. Together with the market for medium-and long-term Bank loans, it forms the capital market (its financial part). Securities are a special area of investment of loan capital, although they themselves are not such.[1;23]

The securities market, like any other market, is a system of economic relations about buying and selling, where supply and demand collide, and the price is determined. The size of the market, as we know, is directly related to the degree of specialization of social labor. This fully corresponds

to the securities market, which is also developing due to the growing specialization of issuers and investors, i.e. sellers and buyers of the commodity "security". On the one hand, the number of issuers that issue securities is growing; on the other hand, their types are becoming more differentiated, the scale of their circulation is increasing, and the range of investors is expanding.[2;11]

The securities market consists directly of primary and secondary markets.

In the primary market, government and municipal bonds are issued, as well as shares and bonds issued by various joint-stock companies of both financial and non-financial profiles. Direct investors in the primary securities market are commercial and investment banks, exchange-traded firms themselves, insurance companies, pension funds, non-financial corporations (institutional investors) and individuals (individual investors) who purchase shares and bonds directly or through exchange-traded firms and investment banks. The secondary securities market is a non-centralized or centralized (stock exchange) purchase and sale of issued securities. The existence of a non-centralized securities market does not mean the element of trading them. Small joint-stock companies usually place their securities among a small circle of well-known individuals. The vast majority of medium-sized and large corporations that do not list their securities on stock exchanges, most often resort to the help of broker-dealer firms of commercial banks that trade securities, using modern communication systems.

In developed market economies, the scale of bond issuance is much larger than that of equity issuance. This is due to two main reasons: first, the issuers of shares are only corporations, and the issuers of bonds-not only they, but also the state, municipalities, and various non-corporate institutions; second, for the corporations themselves, the issue of bonds, other things being equal, is more profitable, because it is cheaper and gives a faster placement among investors, without increasing the number of shareholders.

Securities have one characteristic feature that makes them different from other types of loan capital placement: it is reversibility, i.e. the ability for the holder to convert them into money at any time. The possibility of reversibility of securities depends crucially on the liquidity of the market in which they are objects of purchase and sale.[3]

This liquidity is higher the higher the security turns around, the more acts of purchase and sale are made with it.

The characteristic features of the securities market and the security itself as an object of transactions in this market, discussed above, are also manifested in the international securities market, but with some features. The international securities market is primarily a primary market. Secondary this market has not yet been adequately developed. Therefore, the "international securities market" refers to the issue of the latter, expressed in so-called Euro-currencies and carried out by issuers outside the framework of any national regulation of issues. More broadly, the international securities market is considered as a combination of international issues and foreign issues, i.e. the issue of securities by foreign issuers on the national market of other countries. Currently, the international securities market includes both the stock market and the bond market.

Issues of international shares began on a somewhat noticeable scale only from the mid-80s, while bond issues - from the mid-60s and in terms of value so far exceed the first 9-10 times. It is bonds that are now the main and predominant type of security issued at the international level.[4;7]

The international bond market can be represented, with a certain degree of conditionality, as a combination of two secrets: the foreign bond market and the international bond market itself - the so-called Eurobond market ("Eurobonds"). The foreign bond market is a market of securities issued by foreign borrowers through banking consortia on national bond markets in order to raise capital primarily from local investors. Foreign bond markets flourished in the first two decades of the twentieth century, and then their role fell sharply, but since the 60s began to grow again. International bonds ("Eurobonds") are issued by borrowers through international banking consortia and are denominated in Euro currencies.

Most foreign bond issues are almost concentrated on the national markets of only four countries - the United States, Germany, Switzerland and Japan. Until the early 70s, there was an undisputed superiority of the American capital market. For example, in 1963-1970, almost 2/3 of all foreign bond loans were issued on this market.

However, since the 70s, the situation has changed and an increasing part of the issues is carried out on the European and Japanese securities markets.

Although the us bond market is the broadest and largest in the world in terms of both the amount of borrowing and the duration of capital lending, its participation in international transactions is generally insignificant. Over the past decade, foreign bond issuance has accounted for just over 8.5% of national corporate bond issuance. For a long time, most of the borrowers in the Yankibonds market - this is the name given to the US foreign bond market - were represented by States and government organizations (with the exception of Canada, where private corporations also acted as borrowers). Development banks - the World Bank, the inter-

American development Bank, the Asian development Bank, etc. - are also very frequent and quite large buyers in this market. The total amount of capital that lenders placed through the Yankibonds market increased from $ 1 billion in 1973 to $ 10.6 billion in 1976, an undertaking by 1980. it fell and remained at the level of 4.5-10 billion dollars of emissions per year throughout the 1980s.[5;56]

The foreign bond market in the United States is attractive to international borrowers primarily by large loan sizes: on average, $ 100 million, with the largest reaching $ 300 million. and higher, as well as a significant duration. The longest loans were granted for up to 30 years, which is much longer than in Western Europe. The cost of emissions is about 1%, i.e. about half of the cost in the dollar Eurobond market, about a third of the cost in the West German mark bond market, and only a quarter of the cost in the foreign Swiss franc bond market. The interest rate on foreign bonds is usually slightly higher than for first-class domestic borrowers, but the little-known borrower must pay, of course, at a much higher rate, significantly higher than the rate of the domestic first-class borrower,which in the second half of the 80's fluctuated in the range of 9-9.7%.[6;3]

Another center for issuing foreign bonds is Germany. For the first time, the issue of foreign bonds in Germany began in 1959 with the introduction of convertibility of the West German mark.

In principle, there are no restrictions on foreign emissions. However, for each month, the six main issuing banks of Germany, together with representatives of the Bundesbank, set a kind of calendar plan for new issues. Although statistics record separately issues of foreign bonds and Eurobonds denominated in German marks, in reality the difference between them is very small: Eurobond issues are carried out by international consortia, and foreign issues in German marks - by consortia consisting only of German commercial banks.

Both types of bonds are issued to bearer and are legally denominated in 1,000 Deutsche marks each, with interest not subject to income tax. In both cases, there are no restrictions on the sale of these bonds to non-residents.[7;34]

Bonds are issued for various terms: from 5 to 15 years. German government regulation restricted the ability of non-residents of Germany to own German assets.

The purchase of foreign and international bonds issued by German banks was previously one of the ways in which non-residents of this country could acquire German financial assets.therefore; the majority of international bonds issued in German marks belong to foreigners. It is obviously no coincidence that the Bank for international settlements (BIS) in recent years has begun to classify all international bonds denominated in German marks as foreign bonds, although the OECD monthly Bulletin financial statistics manzli has just as emphatically begun to classify all of them as Eurobonds.

One of the world's most important centers of foreign bond issues is Switzerland, which accounts for more than half of the total amount of these issues. In some years, exports of capital in Swiss francs, including private placements and Bank loans, exceeded 10% of the country's gross national product. This, of course, does not mean that Switzerland exported capital in excess of 10% of its GNP. The point is different: huge amounts of international capital are re-exported through this country, and this re-export is carried out very quickly. Little Switzerland has been ranked fourth in terms of its annual new investment in securities abroad in recent years, behind only Japan, Germany and the UK. There is no other country that, according to the balance of payments data, has such a favorable ratio of interest and dividends received from abroad and paid abroad.

In Switzerland, it averaged 2.5:1 in the eighties, while in Germany it was 1.4:1, and in Japan it was 1.3:1.[8;9]

Foreign bonds in Swiss francs are issued publicly through a banking consortium and are usually issued in high denominations and for substantial amounts. A loan that can be issued in any quarter of the year must be authorized by the currency authorities. Emissive costs are relatively high compared to the usual level of costs for Eurobond issues and foreign bond issues in other markets (such as new York). Borrowers on the foreign bond market in Switzerland are usually only international institutions, foreign countries and major corporations. Issues are made by banking consortia on the stock exchanges of Basel and Zurich. Interest on foreign bonds is exempt from Swiss income tax. Unlike the foreign bond market in Germany, the Swiss market is subject to state regulation: prospectuses must be approved by the national Bank of Switzerland, and the issues themselves, if they exceed the equivalent of us $ 10 million, require special permission from the authorities.

The Japanese bond capital market is still lagging behind markets in other countries in terms of internationalization and liberalization. However, since the late 70s, there has been a trend towards a significant increase in these processes in the Japanese market, due to a number of factors and, in particular, the extraordinary expansion of exports of Japanese capital; the growing use of the yen as a reserve currency by Central banks in many countries; the use of the yen by international investors attracted by the strengthening position of securities in the capital markets and the relative strength of the yen

compared to other currencies. As a result, non-Japanese borrowers began to borrow capital in yen terms rather rapidly. The volume of foreign bonds in yen is now growing in amounts comparable to those recorded in the foreign bond markets in the traditional centers of their issuance.

The Japanese (Tokyo) bond capital market issues to foreign borrowers in two main ways: by issuing traditional or classic foreign bonds. The Eurobonds market appeared in 1963 and has been a source of increasing financial resources for corporations and governments in many countries since 1964.

At the same time, throughout the second half of the 60s and early 70s, the leading borrowers in the market of "Eurobonds" were us corporations, which accounted for from 1/4 to 3/5 of the total amount of issues. A significant part of the borrowed capital was used by American companies to Finance the growth of direct investment, mainly in Western Europe. However, in the following years, the share of American issuers began to decline, and currently the leading issuers on the Eurobonds market are corporations and financial institutions in Japan and a number of Western European countries. The Eurobonds market is a market of preferred borrowers, where the most reliable borrowers from economically highly developed countries are admitted. Developing countries, as unreliable debtors, have very limited access to this market.

In the international bond market, as well as in national markets, banks and brokerage firms act as intermediaries linking investors and borrowers. But this role is played not by individual institutions, but by groups-consortia that are formed at the time of the issue. They are headed by the world's most famous commercial and investment (trade) banks. And usually the leader is the Bank in the currency of the country where the issue occurs (with the exception of dollar issues). Banks participate in international issues not as intermediaries claiming commissions, but as direct guarantors of issues. For this purpose, the international banking consortium. The question of the degree of yield on the international bond market is very important. Here, there is a fairly clear trend of interest rates depending on the stability of the currency, i.e. on the risk of a fall in its exchange rate. The greater the risk, the higher the percentage. Thus, Euro-denominated bonds for a period of five years during l988-1990. they were issued at a rate of 12.1-14.4%, Eurodollar bonds-8.6-9.8, foreign bonds in Germany-7.0-8.5,and Euro-denominated bonds with a rate of 6.0-7.5%.[9]

The total amount of income received from international bonds is known from a study conducted by the Orion international banking group, which covers data on the movement of bond loans issued during 1963-1977. The total amount of capital in dollars invested in Eurobonds during this period was 45.2 billion rubles. Of these, 21.3 billion. it was returned until 1982 due to payments on the main debt. Thus, the repayment was 45% of the issue amount. However, during this period, $ 23.5 billion was paid in interest.

Consequently, having invested $ 45 billion in capital, the owners of Eurobonds received a revenue of $ 23.5 billion over 15 years, which is evidence of high profitability. Of course, at present, due to changes in the very conditions of the international market, many things should change, but the conclusion of investors about a fairly high degree of yield on international bonds is obviously unambiguous. Despite almost thirty years of operation, the Eurobonds market remains largely unclear, primarily in terms of the source of incoming loan capital.

There are different assessments of the nature of investors in the Eurobonds market. Most of them agree that this securities market is dominated by institutional investors. Only very large individual investors representing significant capital can compete to some extent with institutional investors in carrying out international capital movements, establishing links with issuing banking syndicates, obtaining correct information about the movement of bond prices, etc.[10;21]

Although the exact nature of investors is unknown, it is generally assumed that at least a significant portion of them are clients of European banks. This group includes institutional investors such as insurance companies, pension funds, and individual investors from countries with unstable currencies. Eurobonds are also purchased by petrodollar investors from the Middle East. Investors from the United States are not included in this group, at least in the group of initial investors, because purchases of unregulated securities for American residents are prohibited by the decision of the securities and stock exchange Commission. But since this prohibition does not apply to the purchase of such securities on the secondary market, American investors can usually purchase Eurobonds 90 days after their initial offer. In recent years, the role of Japanese investors, especially institutional investors, has increased significantly. A curious situation has emerged: Japanese financial institutions act as issuers, intermediaries, and investors on the international market.

CONCLUSION.

At present, it is already possible to state with good reason that a market economy cannot exist without a developed turnover of securities. To prove this statement, it is enough that the growth or mass fall in the value of securities clearly and fully indicates the true economic situation in the country. It is also worth mentioning that securities perform a number of socially significant functions.

1. redistribute money (capital) between sectors and spheres of the economy; territories and countries; groups and strata of the population; the population and spheres of the economy; the population and the state;

2. grant certain additional rights to its owners in addition to the right to capital (for example, the right to participate in management, relevant information, priority in certain situations);

3. provide income on capital and (or) return of the capital itself;

4. enterprises and organizations use securities as a source of investment (creation of new firms, development of existing ones), which has certain advantages over credit;

So, a security is a form of existence of capital, different from its commodity, productive and monetary forms, which can be transferred instead of itself, traded on the market as a commodity and generate income. I.e., a security serves as an object of sale, exchange, collateral or a means of payment. Through the exchange rate of securities, investors determine the economic feasibility of capital investment. Therefore, it is no accident that securities of reliable promising corporations are usually in high demand.

"The only difference between the securities market and the market of any other commodity is the fact that it serves to form monetary capital, which may then be used to invest in the production of a real commodity or to increase the initial capital."

The securities market in Uzbekistan is at the initial stage of formation. Basically, it has developed as an over-the-counter market. Shares of privatized enterprises are sold on the market. There are no shares as such, there is an extract from the population of the country. In the resulting spontaneous market, the rules of trade, requirements for transactions, and securities were established on the principle of "pushing".

References:

1. Golosov, V. (1992). Mezhdunarodnyj rynok cennyh bumag. *Rossijskij Jekonomicheskij Zhurnal*, № 6.
2. (1991). *Tokyo Stock Exchange.* Fact Book, (p.80). Tokyo.
3. (n.d.). Bank for International Settelement. 60-th Annual Report,p. 140.
4. Serebrjakova, L.A. (1996). “Mirovoj opyt regulirovanija rynka cennyh bumag”, *Finansy*, N1.
5. Koltynuk, B. A. (2001). *Cennye bumagi*: Uchebnik, SPb.; Iz-vo Mihajlova V. A.
6. Koltynuk B. A. (2001). Rynok cennyh bumag: Uchebnik, SPb.; Iz-vo Mihajlova V. A.. .
7. Zhukov, E. F. (2005). *Cennye bumagi i fondovye rynki:* Uchebnik dlja stud. vuzov. Moscow: Banki i birzhi: Izd. ob#edinenie «JyNITI».
8. (2003). *Kurs jekonomicheskoj teorii*: uchebnik, Kirov: «ASA».
9. Burenin, A.N. (2004). *Rynok cennyh bumag i proizvodnyh finansovyh instrumentov*: Uchebnoe posobie - Moscow: 1 Federativnaja Knigotorgovaja Kompanija.
10. T`ulz, R., Brjedli, Je., & T`ulz, T. (2004). *Fondovyj rynok*. Moscow: Infra-M.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 19.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Sharifa Madaliyeva Iskandarova
Ferghana State University
Professor, Ph.D. in Linguistics
Department of Uzbek Linguistics,
sharifa-18@gmail.com

GNOSEOLOGY AND THE LINGUISTIC LANDSCAPE OF THE WORLD

Abstract: *The article discusses different interpretations of the semantic system, the issue of semantic and anthropological approach, folk ethno-culture, the content of ethnographic lexicon, some problems in the field of ethnolinguistics.*

Key words: *semantic field, speaker, ethno-culture, ethnographic vocabulary, ethnolinguistics, customs, names of customs, ethnographic system, ethnos.*

Language: *English*

Citation: Iskandarova, S. M. (2020). Gnoseology and the linguistic landscape of the world. *ISJ Theoretical & Applied Science, 08 (88),* 19-22.

Soi: http://s-o-i.org/1.1/TAS-08-88-5 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.5

Scopus ASCC: *1203.*

Introduction

The spread of systematic linguistics around the world has intensified the focus on the study of the internal structure of languages belonging to different systems as a system. As a result, all levels of language began to be studied based on systematic principles. We all know that any new direction in the history of science is born through the old. It is known that the study of high-level units of language with a semantic plan into semantic fields is a separate direction in linguistics, and it has its method and methodology of verification. While the problem of categorizing words has existed since antiquity, the concept of the semantic field is relatively new. It is a product of systematic (linguistic) linguistics, which emerged in the middle of the XIX century as a result of a different approach to the construction of the lexical-semantic system.

Linguists have different answers to the question of what is a lexical-semantic system, what elements it consists of, what relations lead in it, and according to this answer different directions in linguistics are formed. The most important difference between these directions is determined by the recognition of the independence of speech.

Recognizing that a word is the basic unit of language, linguists construct a lexical-semantic system based on the semantic structure of that word, the problem of polysemy. The result is a system of lexical-semantic variants. Linguists who deny the independence of the word recognize semantic fields as the main “building block” of the system [1, p. 5].

It seems that both directions are the product of systematic (structural) linguistics. The first direction was the development of structural semantics, and the second direction was the study of the structure of language concerning the speaker, the introduction of the "speaker" in the paradigm of linguistic research.

The focus on the speaker in the speech process has been a major event in the history of linguistics. As a result of structural linguistics' focus on the study of the relation of sign to sign, the question of the relation of sign to object and sign to the subject was far removed from the view of structuralists who interpret language as a pure "form." In Uzbek linguistics, due to the attempt to fill the same limited area of linguistics, new directions of linguistics, called pragmalinguistics, apropos-linguistics, have emerged [2; 3; 4].

According to Professor Sh. Safarov, the chain "Language - thinking - culture - the world" is strong, each nation has a special place in the common node of the chain, but the status and nature of this place are reflected in the scale of relations between peoples "[5, p. 334].

The national identity and culture of each nation are radically different from the culture of other

nations. This, of course, is manifested through his eloquent speech habits [6], dialogue [7], and ethnographic vocabulary [8].

"It is one of the obvious truths that a phenomenon as complex as the semantic structure of a linguistic unit, but at the same time not beyond the principle of dynamism, develops following the mental and social dynamics of society and language. Therefore, the anthropological approach should be a priority in semantic research as well " [8, pp. 9,7].

Indeed, no language can be learned correctly and completely without distinguishing it from the "master of the language." After all, in every act of speech, the identity of the speaker is felt. In the speech process, the communicators 'knowledge of the language helps them to understand each other correctly and clearly. The great German scientist W. Humboldt's antinomy of "understanding and misunderstanding" was used to describe the same process.

Linguistic knowledge of speakers means not only their ability to use language codes correctly but also their ability to relate language codes to beings. The second skill is inextricably linked to a concept that has been called the "linguistic landscape of the world" (LLW) in recent times. LLW is an integral part of epistemology and reflects the reflection of the members of the universe in the human brain. In other words, the members of the universe are conditioned and interrelated in the human mind, and these reflected members are represented by the codes of a particular language.

While the members of the universe are interconnected and reflected in the human mind as groups, so are its codes. Such an associative relationship between codes is the basis for uniting linguistic units into specific semantic fields. For example, a person's semantic field, such as his behavior, intellectual ability, lifestyle, culture, behavior; while the semantic field of the bird includes the linguistic units that name the behavior, a series of signs that represent its members.

In particular, verbs such as speak, sing, laugh, read, write; qualities such as intelligent, wise, prudent, cultured, rich, poor, based on the "human" archetype; verbs such as fly, dive, spread wings, lay eggs; Horses such as feathers, wings, and beaks form a semantic field based on the "bird" archetype. The semantics "human" or "bird" are repeated in all members of a semantic field. This repetitive sema acts as a unifying sema-archisema for all these members. There will be a hierarchical relationship between small areas and large areas that are broken down from the content of a content area. It is this connection that unites them under one semantic field.

At the same time, the concept of LLW is also closely related to the field of ethnolinguistics. It is known that each nation has its ethnoculture, and ethnoculture as a whole consists of various components that are inextricably linked. One such component is tradition. "Traditions are the best and most exemplary lessons of human life from ancient times, his life and social activity, labor, exemplary life. It would not be wrong to call them instructive lessons for generations to come "[9, pp. 10, 39].

The set of traditions of a nation is an integral part of the ethnoculture of that nation. Any ethnoculture finds its expression in the language of these people. So, it is also a means of expressing the culture, lifestyle, customs, and so on of the speakers of this language. This feature is manifested in the cumulative function of language.

If we consider all the peoples and nations living on earth as a single system, the individual ethnoses in this macrosystem are distinguished by certain characteristics, in particular, language, origin, material and spiritual culture, lifestyle, and psychology.

While customs play the role of a differential sign in the whole ethnographic system of a particular ethnos, the study of their linguistic expression is of great importance not only for linguistics but also for ethnography. Each language has specific lexemes that represent ethnographic concepts, which form a group of ethnographic lexicons, and this microsystem is considered to be part of that language macrosystem.

In linguistics, there is a separate field of study of linguistic means of expressing the ethnoculture of the people, which is called ethnolinguistics. Ethnolinguistics is a branch of science that studies the ethnoculture of particular people with the help of linguistic methods. Ethnolinguistics as a separate branch of linguistics was separated from ethnography in the early twentieth century and developed in America in the 1920s. This direction initially focused on ethnographic materials specific to Hindu tribes in North and Central America.

Ethnolinguistics as a pure linguistic direction was formed in the first quarter of the twentieth century. F. Boas is recognized as its founder. One of the main tasks of ethnolinguistics, founded by F. Boas, is to determine the issue of the genetic kinship of Hindu tribes.

Later, his problems included issues such as the interaction of languages, bilingualism, the influence of ethnoculture on language development. In the process of studying the influence of ethnoculture, special attention was paid to the customs of ethnoses and their naming.

This is because the existence of common name and common language, customs, and traditions of each ethnos has been recognized as important features that distinguish them from other ethnoses. Hence, traditions are recognized as an integral part of ethnos ethnoculture as a key factor determining its existence, and the study of its names is an important area of ethnolinguistics. In our language, tradition and its name are expressed through the mind. In other words, the members of tradition are reflected in our minds as

concepts, and it is manifested through the elements of language.

In particular, one of the first works in Uzbek linguistics was the study of A. Juraboev's study of the existence of various traditions of the Uzbek people, which led to the emergence of several names in the language, and their study is an important theoretical and practical linguistics. is of great importance in disclosing the issues [11].

The author notes that the study of the ethnographic lexicon in the Uzbek literary language and dialects is of great importance not only for linguistics but also for such disciplines as history and ethnography, as these materials are unique for a deeper study of folklife, culture, and customs. shows that it is important.

He points out that ethnographic vocabulary is very broad in terms of subject matter and scope. Includes names of births, circumcisions, and weddings, hospitality, banquets, folk festivals, games and songs, various religious ceremonies, rituals that occur with the death of a person, as well as other relationships [p. 11,10].

A. Juraboev combines lexemes belonging to a certain lexical-semantic group as a whole under the name "wedding ceremony lexemes" and defines their sememe "wedding" as a system-forming feature.

Also, in Uzbek linguistics Z. Husainova's monograph "Onomasiological study of the names of wedding ceremonies in the Uzbek language (based on the materials of the Bukhara dialect group)", F. Hayitova's "Linguistic interpretation of wedding songs" [12, pp. 12; 13].

These dissertations served as a special stage in the history of the study of Uzbek ethnographic vocabulary. In these studies, the names of several concepts representing and related to custom names were analyzed within a limited layer of consumption.

In M. Kakharova's research, ethnographic lexemes belonging to a certain lexical-semantic group contradict each other within a paradigm, and the unifying (integral) and differential (differential) semantics of such lexemes are described [8].

Until the end of the twentieth century, terms specific to various aspects of our lives, production and science were studied in the name of professional and scientific-technical terms, but by the beginning of the XXI century, they were all combined under the term sectoral lexicon. In particular, in her research on the names of wedding ceremonies in the Uzbek language, Z. Husainova introduces such lexical units into the field of everyday lexicon and distinguishes them as a unit different from terms [13, p. 12,7].

In this regard, the research of M. Abdiev is of special importance. Based on the dichotomy of language-speech, the author opposes the contradiction between traditional literary language and folk dialects and acknowledges that folk dialects are also a form of speech. Therefore, in his view, at the lexical level, the general linguistic lexicon and the sectoral lexical system contradict each other based on gender-species relations [14, pp. 14,15].

Subsequent needs necessitated a comparative study of language units. In particular, a special systematic study of the names of concepts related to customs in the Uzbek language is one of such needs. To this end, the integration of concepts related to various traditions and ceremonies in the Uzbek language into a specific microdistrict and their semantic analysis has acquired a special significance.

In subsequent studies, such linguistic units have been studied by combining them into a traditional micro field. These units combine all image-representing lexemes into a specific paradigm based on a custom semantics. At the same time, it is observed that these units merge into smaller cells based on a certain common meaning within the generalization. The study of such units belonging to the field of tradition serves as an important tool in illuminating the peculiarities of any nation, its national values.

References:

1. Karaulov, Jy.N. (1976). *Obshhaja i russkaja ideografija*. Moscow.
2. Safarov, Sh. (2008). *Pragmalingvistika.* Toshkent: Ўzbekiston millij jenciklopedijasi.
3. Xakimov, M. (2013). *Ўzbek pragmalingvistikasi asoslari.* Toshkent: Akademnashr.
4. Hudajberganova, D.S. (2015). *Ўzbek tilida badiij matnlarning antropocentrik talkini*: Filol.fanl.d-ri. diss.avtoref. Toshkent.
5. Safarov, Sh. (2015). *Til nazarijasi va lingvometodologija*. Toshkent: BAYOZ.
6. Iskandarova, Sh.M. (1993). *Ўzbek nutk odatining mulokot shakllari:* Filol.fanlari nomzodi. . diss.avtoref. Samarkand.
7. Mўminov, S.M. (2000). *Ўzbek mulokot hulkining izhtimoij-lisonij hususijatlari*: Filol.fanlari dokt. diss.avtoref. Toshkent.

8. Kaharova, M.M. (2009). *Ўzbek jetnografizmlarining sistemavij tadkiki*: Filol.fanlari nomzodi. . diss.avtoref. Toshkent.
9. Maxmudov, N., & Odilov, Jo. (2014). *Sўz ma#no tarakkijotida ziddijat:* (Ўzbek tili jenantiosemik sўzlarining izoxli luғati), Toshkent: Akademnashr.
10. Murodov, M., Koraboev, U., & Rustamova, R. (2003). *Jetnomadanijat*. Toshkent: Adolat.
11. Dzhurabaev, A. (1971). *Nazvanija svadebnyh ceremonij v uzbekskom jazyke* (na materiale andizhanskom gruppy govorov): Avtoref.diss….kand.filol.nauk. Tashkent.
12. Husainova, Z. (1984). *Onomasiologicheskoe issledovanie nazvanij svadebnyh obrjadov v uzbekskom jazyke* (na materialah Buharskoj gruppy govorov): Avtoref.diss. . kand.filol.nauk. Toshkent. .
13. Xajitova, F. (1998). *Nikoқ tўji kўshiklarining lingvistik talkini:* Filol.fanlari nomzodi. diss.avtoref. Toshkent.
14. Abdiev, M.B. (2005). *Soқavij leksikaning sistem taқlili:* Filol. fanlari dokt. diss. avtoref. Toshkent.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 30.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Dilfuza Koptilewovna Nzamatdinova
Karakalpak scientific research institute of humanities
Student of Basic Doctorate
Karakalpak branch academy of sciences of the Uzbekistan,
dnizamatdinova@mail.ru

STRONG COMPARISONS RELATED TO ANIMAL NAMES IN THE DASTAN "GULNAHAR"

Abstract: *The article discusses the Karakalpak stable comparisons, describing the character of a person, in the linguocultural aspect. In Turkic studies, stable comparisons are considered poorly studied. In Karakalpak linguistics, there are no special studies on the topic under study. This indicates the relevance of this problem in modern Karakalpak linguistics. The analysis of the use of stable comparisons of this category on the material of the dastan Gulnahar is carried out.*

Key words: *stable comparisons, human character, pejorative semantics, phraseological units, cultural linguistics.*

Language: *Russian*

Citation: Nzamatdinova, D. K. (2020). Strong comparisons related to animal names in the dastan "Gulnahar". *ISJ Theoretical & Applied Science, 08 (88),* 23-26.

Soi: http://s-o-i.org/1.1/TAS-08-88-6 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.6

Scopus ASCC: *1203.*

УСТОЙЧИВЫЕ СРАВНЕНИЯ, СВЯЗАННЫЕ С НАЗВАНИЯМИ ЖИВОТНЫХ В ДАСТАНЕ «ГУЛНАХАР»

Аннотация: *В статье рассматриваются каракалпакские устойчивые сравнения, описывающие характер человека, в лингвокультурологическом аспекте. В тюркологии устойчивые сравнения считается малоизученным. В каракалпакском языкознании нет специальных исследований по изучаемой теме. Это свидетельствует об актуальности данной проблемы в современном каракалпакском языкознании. Проводится анализ употребления устойчивых сравнений данного разряда на материале дастана Гулнахар.*

Ключевые слова: *устойчивые сравнения, характер человека, пейоративная семантика, фразеологизмы, лингвокультурология.*

Введение

Лингвистические исследования все чаще в качестве предмета исследования обращаются к языковым единицам, позволяющим выявить особенности мировосприятия определенной нации. К подобного рода единицам относится и устойчивые сравнения, так как они представляют соб ой результат длительного наблюдения за объектами действительности, а также многовекового сбора информации об окружающем мире.

Сравнения занимают в языке и мышлении особое место. Как правило, они экспрессивны, наглядны, с их помощью описывают внешность человека, особенности его характера и поведения, явления природы, повседневные ситуации. Устойчивые сравнения (УС) – их также называют фразеологическими сравнениями и устойчивыми компаративными единицами (мы будем прибегать к этим терминам как к синонимам) – имеются в любом языке, а их национальное своеобразие проявляется в номенклатуре используемых эталонов сравнения, которые, в свою очередь, обусловлены сложившимися в определенной культуре стереотипными представлениями,

которые выявляются исследователями во многих языках 8.).

Устойчивые сравнения довольно емко отражают мировосприятие говорящего, его национальную культуру, убеждения и верования.(3.48)

Устойчивое сравнение – это устойчивое сочетание, представляющее собой образное средство языка, которое «обычно является результатом многовекового употребления» [5.5], один из способов оценки и осмысления окружающей нас действительности, основанный «на сопоставлении двух предметов или явлений для более точного, образного описания одного из них» [6. 304]. В.Н. Телия называет устойчивые сравнения традиционными, т.е. воспроизводимыми из поколения в поколение, или эталонными [7.240].

Устойчивые сравнения являются особым пластом фразеологии каждого народа. К числу языковых единиц, способствующих более детальному изучению национальной картины мира того или иного народа, безусловно, относятся сравнения. Представляя собой устойчивые структуры с особой внутренней формой, признаками и способами выражения, они являются образным средством, которое позволяет войти в национальную языковую сферу. Устойчивые сравнения являются лексическими единицами языка Сравнение называют «первым шагом в познании мира». Одной из основных функций любого национального языка считают фиксацию и хранение всего комплекса знаний и представлений данного языкового сообщества о мире. Такое знание является результатом работы коллективного сознания и фиксируется в языке, прежде всего в его лексическом и фразеологическом составе. Устойчивые сравнения признаны одним из самых многочисленных разрядов фразеологических единиц,которые благодаря своему стабильному характеру позволяют передавать ценностную и культурную информацию от поколения к поколению,обеспечивая преемственность этнических представлений. Особенно ярко ценностная картина мира проявляется в сравнениях, субъектом которых является человек.

Языковое познание мира произошло на раннем этапе становления этноса и его языка . К разряду наиболее древних относят компаративные образы, отражающие мир живой и неживой природы (животный и растительный мир, ландшафт, космические объекты, силы природы). Это объясняется тем, что существование древнего человека было непрерывно связано с естественной средой, определялось его способностью с ней взаимодействовать. Человеческими чертами и разумом наделялись живые существа, обитавшие рядом с людьми: дикие и домашние животные и птицы, насекомые. Полагают, что это было связано с особенностями жизненного уклада человека: в более древнюю эпоху – с охотничьим бытом, в более позднюю – с земледелием и скотоводством, что не могло не отразиться на приоритетном почитании тех или иных представителей животного мира.

Чтобы быть ярким, образ сравнения должен быть общепонятным, зримым и актуальным. Сравнения человека с животным или уподобление ему использовались в языке едва ли не на протяжении всей истории человечества , поэтому во фразеологии разных языков есть устойчивые сравнения, основанные на наблюдениях человека над внешним видом, жизнью.

Устойчивые сравнения изучаются с разных сторон, что позволяет это нам иметь огромную информацию о них.

Труды учёных по изучению устойчивых сравнений являются для нас безценными информациями и дают возможности для дальнейшего научного развития языкового знания. Сравнения могут быть экспрессивными (человеческие чувства,мысли) и образными (природные и бытовые явления). (2.67)

Устойчивость являются основной категории фразеологизма. И это категория служит для связи устойчивых сравнений с фразеологией.

Общность устойчивых сравнений каждого языка определяются семантико-устойчивой структурой.(4.26)

Устойчивые сравнения состоят из трех компонентов: субъект сравнений,источник сравнений и объект (эталон) сравнений. Эталоном сравнений является доминант,который основывается на жизненно бытовые

Устойчивое сравнение, особенно в произведениях устного народного творчества,является одним из главных средств в обрисовке внешного мира,внутренного состояния и характера главныг героев. Уподобление героев сильным, красивым диким животным и птицам являются характерным для фольклора каракалпакского народа. Например:осёл-тупой человек, лев-храбрый,собака-дикий человек и т.п.

Мысаллар:

Әйдарҳадай ысқырған,

Аырысландай пысқырған…(Дастан "Гулнахар" стр.289).

- Тисин қайрап шошқадай,

Бир күн салар аўызды, (Дастан "Гулнахар" стр.252).

Жығылмасаң ҳеш ўақыт,

Биздей нәрўан терекке. (Дастан "Гулнахар" стр.256).

Батыр деп мақтап өзиңди,

Аш бүркиттей талпынып,

Шығалмас таўға өрлейсең,

Алатуғын арысландай,

Ыңыранарсаң өрлейсең. (Дастан "Гулнахар" стр.256).

Еки ийинин жабады,
Ешектей салпы қулағы...(Дастан "Гулнахар" стр.257).
Теңизинди сыйырып,
Тулкидей қылып соймасақ,
Тынышлық жоқ бизге ,-деп,
Арысландай жулқынды,
Аждарҳадай булқынды. (Дастан "Гулнахар" стр.245).

Н. А. Лукьянова, которая считает ее одним из компонентов экспрессивности. «На экстралингвистическом уровне эмоциональная оценка представляет собой мнение субъекта (индивидуального или коллективного) о ценности некоторого объекта, которое проявляется не как логическое суждение, а как ощущение, чувство, эмоция говорящего. На языковом уровне эмоциональная оценка предстаёт как отражённое и закреплённое в семантике языкового знака, в качестве его микрозначения, или семы, мнение субъекта о ценности некоторого объекта» [9.45]. Основными объектами сравнения являются дикие животные:лев,волк, свинья,заяц,лиса и др.

Сравнительные обороты с использованием этих животных остались устойчивыми. Например,волк-голодный, лиса-хитрая. Но эти сранения использовались и для обозначения положительных качеств человека. Например: волк-злой враг, но волк-сила

Бул хабарды еситип ,
Айдарҳадай пуўланды,
Оқ жыландай уўланды,(Дастан «Гулнахар» стр. 247)
Тимискенип сағалдай,
Үнгирге кирип келеди (Дастан «Гулнахар» стр.248).
Кишкентай қара кушиги,
Ийт болгандай еди қасқырдай ,
«Қара Қус» деп қышқырды,
Арысландай «Қара қус»,
Оқтай атып жайынан
Қара журек салдардын,
Сыйрағынаин алады. (Дастан «Гулнахар» стр.249).

Основными образными средствами сравнения являются мир растений и животных, природные явления, фольклорные образы.

Например:

Бәҳәрде шыққан гиядай,
Жасыл дөнип гүллейсең. (Дастан «Гулнахар» стр.259).
Гулнәҳәр атқан ақ масақ,
Гөзлеген жерден шығады,
Түбин тескен теректей,
Теңселип жерге қулады. (Дастан «Гулнахар» стр.249).
Түбин кескен ағаштай ,
Мәткәрим жерге қулады (Дастан «Гулнахар» стр.249).
Шала- жансар жаным бар,
Қуўрадай қуўрап қалған жоқ. (Дастан «Гулнахар» стр.254).
Кесилмеген қызыл тил,
Бүлбилдей сайрап турады. (Дастан «Гулнахар» стр.250).
Пышықты тышқан жыртқандай,
Теримди алып турыпсаң,
Не дейин саған Гулнәҳәр ,
Тағдирим сениң қолында. (Дастан «Гулнахар» стр.250).
Кулки қылып сен мени,
Ыржақлама шайтандай,
Оқранып киснеме,
Айғырға келген байталдай. (Дастан «Гулнахар» стр.251).
Жүндиги узын қузғындай,
Өз ҳаслына тартасаң,
Ата- анам алдында,
Ҳайўанға теңеп сен мени,
Кандай сөзлер айтасаң (Дастан «Гулнахар» стр.251).
Мен- мен деген ерлердиң,
Тауықтай мойнын жулғанман,
Атымды айтсам Гулнәҳәр,
Қатынан шыққан палўанман. (Дастан «Гулнахар» стр.251).
Қустай қылып сайратып,
Ашылмаған гүлиңди,
Ғумшасынан жулғанман. (Дастан "Гулнахар" стр.251).

Образные устойчивые сравнения занимают особое место в каракалпакском языке и являются основными языковыми средствами.

Заключение

В заключение следует отметить,что устойчивые сравнения в дастанах каракалпакского народа имеют стилистические особенности и служат для языковой выразительности произведения народного творчества.

Устойчивые сравнения в устном народном творчестве каракалпакского языка изучаются до сих пор и мы считаем необходимым продолжить на данном фольклорном материале системное изучение языковых форм при использовании разных приемов сравнения и речевых конструкций по лексической соотнесенности их компонентов и в дальнейшем хотим продолжить научно-исследовательскую работу по этому направлению.

References:

1. Ogol`cev, V.M. (1978). *Ustojchivye sravnenija v sisteme russkoj frazeologii*: Monografija. L.: Prosveshhenie.
2. Nazhimov, P.A. (2014). *«Sravnenija karakalpakskogo jazyka»* ("Karakalpak tilinde teneўler). Nukus: «Qaraqalpaqstan».
3. Rojzenzon, S.I. (1968). *Otrazhenie realij v sravnitel`nyh ustojchivyh oborotah* (na materiale anglijskogo jazyka). Samarkand.
4. (2009). *"Karakalpakskij fol`klor"*. Tom 14. Tashkent: «Ma#navijat».
5. Lebedeva, L.A. (2003). *Vvedenie. Ustojchivye sravnenija russkogo jazyka:* Kratkij tematicheskij slovar`, (pp.3-11). Krasnodar.
6. Rusova, N.Jy. (2004). *Ot allegorii do jamba: terminologicheskij slovar`tezaurus po literaturovedeniu*, (p.304). Moscow.
7. Telija, V.N. (1996). *Russkaja frazeologija*. Semanticheskij, pragmaticheskij i lingvokul`turologicheskij aspekty. (p.230). Moscow: Izd-vo «Shkola. Jazyki russkoj kul`tury».
8. Aleshin, A.S. (2012). *Ustojchivye sravnenija shvedskogo jazyka: Lingvokul`turologicheskij aspekt*. (p.260). SPb.: Nestor-Istorija.
9. Luk`janova, H.A. (1976). *O sootnoshenii ponjatij jekspressivnost`, jemotivnost`, ocenochnost`*. Aktual`nye voprosy leksikologii i slovoobrazovanija. (pp.4-19). Novosibirsk: NGU.
10. (2016). *Jazykovaja kartina mira* [Jelektronnyj resurs]. Slovar` metodicheskih terminov. (data obrashhenie: 20.04.2016). Retrieved from http://gramota.ru

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Asliddin Nizamitdinovich Haydarov
Samarkand State University
Doctoral student, Samarkand, Uzbekistan
a.xaydarov88@mail.ru

THE ROLE OF ECONOMIC AND SOCIAL SPHERES IN INCREASING THE LEVEL OF CONSUMPTION OF THE POPULATION

Abstract*: in this article, recommendations on improving the consumption and living standards of the population, the regulation and development of economic and social relations, the importance of the countries of the world in the establishment of interaction and communication, as well as the increase in the production process, adequate satisfaction of the needs of the population, rational consumption and production of consumer products to.*

Key words*: state, socio-economic development, humanitarian economy, population, need, quantity and quality, consumer, consumer culture, healthy competition, rational consumption.*

Language*: English*

Citation: Haydarov, A. N. (2020). The role of economic and social spheres in increasing the level of consumption of the population. *ISJ Theoretical & Applied Science, 08 (88),* 27-29.

Soi: http://s-o-i.org/1.1/TAS-08-88-7 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.7

Scopus ASCC*: 2000.*

Introduction

Many countries of the world, which are developing rapidly today in development, are trying hard to further improve the well-being of the population, the way of life that is worthy of it. “Over the last two decades, “domestic material consumption” has risen rapidly in developing countries to meet the material needs of a growing population and to support improved standards of living [4:27]. The implemented and long-term strategies cover a wide range of reforms carried out in all spheres. To what extent is the work done on this, it is aimed at creating suitable conditions for the citizens of the country and improving their living standards, regulating economic and social relations and being able to meet the demand of the population of consumer products in terms of quantity and quality in production. Bunda quality is based on the property of being able to meet the needs expressed or implied as the sum of the characteristics and characteristics of a product or service. In addition, each state can act correctly in foreign policy through peace, that is, taking into account the interests of both states, and the mutual partner (economic, social, cultural and general.) lik is one of the more fundamental reasons for development. Therefore, the rational policy pursued by our state in Uzbekistan is also of great importance, while it shows its results in all spheres and sectors of foreign and domestic activity. Taking into account these processes, the president of Uzbekistan Important is the historical decree issued by Mirziyoyev and recognized by the countries of the world, that is, the PF–4947 numbered decree on the "strategy of action for 2017-2021 years". [6].

1. Methods and Materials:

While the economic sphere, which is considered important in development, is recognized as the "blood vessel" of the state, this is an important practical movement of the current globalisation era, achieving economic efficiency, attracting a wide range of investments and modernizing the leading sectors of the economy. In the same process, as the economic situation develops rapidly, it is necessary to form a humanistic economy, taking into account critical, many human attitudes and needs, "deviating" some cases of disruption of consumers. "The humanistic economy is a socially oriented economy based on healthy competition, which does not allow a person to meet all his needs for material and spiritual blessings, sharply stratified society." [3:4].

2. Results: Through this healthy economic competition is formed, which leads to a change in the quality of the tub in production. And this is observed in all countries and people of all continents, both economic development and striving to become more independent. With the increase in net income, the growing standard of living is becoming a priority incentive in the purchase of tokens. In this regard, it is worth noting that" selective " entrepreneurs can benefit from the fact that they know their Real and future consumers everywhere, taking into account their needs, personal and cultural characteristics. In the theory of economics, due to the "specificity" of the consumer element, one can only meet the need for a commodity that has "created" a greater profit effect than the consumption characteristics of another commodity, that is, the tendency of the commodity to consume. These activities can be carried out on a strategy such as" product differentiation". The behavior of consumers in relation to the satisfaction of their own demands and needs improves the activity aimed directly at the purchase, consumption and use of products, services. In the consumer movement, we can see in sequence the influence of external and internal factors that influence the consumer's acquisition of goods and services, his conduct of a gradual research in a dialectical way, under the influence of the socio-cultural environment in the perspective, the determination of the processes associated with his consumption. And this makes the demand for the need sufficiently satisfied. "Already, high indicators of economic growth are only means of achieving the main goal of the development of society – to increase the opportunities of people, to better satisfy their spiritual and material needs, to ensure a higher quality of life for people" [5:4]. At the same time, the proportion of demand and supply is not violated. Depending on the demand, the necessary goods and products are produced. As a result, we can see that consumer rights are not violated in humans and population consumption culture is slowly rising. The most important thing in the structure of activity is the need, that is, the type of "social needs (social development needs, as well as the individual's adaptation needs to society)" [2:133]. Therefore, the social sphere is also becoming one of the main spheres of society. For the ranking and development of this sphere, now many countries are spending a large part of their power. Bunda covers the issue of youth, household services, provision of Housing to the population, quality medical services and all other socially significant aspects. In all this, a person acts as a consumer and wants his needs to end quickly, without any difficulties, qualitatively.

Our President Sh.As Mirziyoyev said: "We need to strengthen the concept of" consumer basket" in the legislation and create the means of ensuring it in practice on the basis of advanced foreign experience to determine the incomes necessary for a decent standard of living of the population " [1: 136]. If we can put these on the full path, we will be able to reach the top among the developed countries. Because, for the role and development of"human capital", a wide range of historical works are being done in our country.

The fate of the reforms, the results of which will be effective, and the prospect depends on the active participation of the population, especially young people, in socio-political processes. One of the factors determining the socio-political potential of the state is the consumer culture, intelligence and dedication of the population of this country. In this regard, it is worth emphasizing the need to achieve, above all, the transformation of the population into a truly participant in legal processes, an active defender of democratic values, in order to deepen consumer culture in the population. This extremely difficult task requires stability and determination of the political and legal culture of the population. The protection of consumer rights under the law is important in the regulation of market relations, the establishment of public control over the quality of goods and services. The sphere of consumer protection occupies an important place in the process of socio-economic reforms carried out in many countries. "The work on this is carried out in connection with the general direction of economic and legal reforms, institutional radical changes, development of competition, as well as taking into account their impact on the economic situation of citizens in the consumer market of goods, works and services" [7].

3. Conclusion: In conclusion, it can be said that in today's time of rapid change, the extent to which people are actively involved in socio-economic and legal relations is measured by what goals they can mobilize their strength and potential. If the population has a consumer culture, literacy, then, accordingly, qualitative improvement in production, innovation in social life begins to occur. “Implement the 10-year framework of programs on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries [8]. The strategic goal of the policy of renewal and development, implemented in the countries of the world, is also the formation of a financially solid, strong and just society on the basis of creating suitable living conditions for all people, ensuring guaranteed living standards and freedoms, as in developed democratic countries.

References:

1. Mirziyoyev, Sh.M. (2018). *Address of the president of the Republic of Uzbekistan to the Oliy Majlis. His own.* The consent of our people is the highest assessment given to our activities. 2-volume, - Tashkent: "Uzbekistan" NMIU.
2. Shermukhamedova, N. (2009). *Philosophy* (textbook), (p.715). Tashkent.
3. Negmatova, Sh.Sh. (2016). *"moral, moral and legal aspects of developing healthy competition in Uzbekistan"*. Monographs. (p.165). Tashkent: Science.
4. (2018). Goal 12: Ensure the transition to sustainable consumption and production patterns. Sustainable development Goals report, 20 18. United Nations. New York.
5. (2011). Uzbekistan: practical guide. "Ensuring sustainable socio-economic development and implementation of human development printouts by Parliament, Tashkent.
6. (2017). *Collection of legislative acts of the Republic of Uzbekistan.* Retrieved from www.lex.uz.
7. (2011). *Protection of consumer rights*. 2011 year, 25 February. Retrieved from www.uza.uz.
8. (n.d.). *sustainable development sustainable-consumption-production*. Retrieved from https://www.un.org
9. Farxodjonova, N. F. (2018). Modernization and globalization as historical stages of human integration. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 16-19.
10. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Odil Fayzullaevich Boynazarov
Samarkand State University
Scientific researcher
Samarkand, Uzbekistan

CREATIVE THINKING AND INFORMATION CULTURE

Abstract: *This article gives an idea of the trends in the formation of creative thinking. The role of information culture in the perfection of a person, the formation of his creative way of thinking, is determined by the example of different approaches. It was analyzed that in the era of globalization, the creation of a truthful information environment is one of the important issues. An idea was made about the importance of adherence to the norms of information culture in the creation and adoption of information. It is stated about the moral norms of the use of communication tools, as well as the peculiarities of the analysis of information in the virtual world. The impact of Information Society and neophobia on the information environment has been investigated. The formation of an informative culture has been studied as a measure of prevention of the causes of the occurrence of ocular processes in humans.*

Key words: *creative thinking. information, communication, virtual scientist, information culture, informatized society, neophobia, manipulation.*

Language: *English*

Citation: Boynazarov, O. F. (2020). Creative thinking and information culture. *ISJ Theoretical & Applied Science, 08 (88),* 30-32.

Soi: http://s-o-i.org/1.1/TAS-08-88-8 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.8

Scopus ASCC: *3300.*

Introduction

At present, measures are being taken on the development of Science and innovation technologies, training of highly qualified scientific and scientific-technical personnel, integration of scientific research with education and production. As Sh.M.Mirziyoyev noted: "today, information and communication technologies, Internet system, modernization and renewal of our country without extensive development. It is not possible to say that it will achieve sustainable development." [1.86]

By expanding the IT industry, the satisfaction of people's need for innovation in short seconds is yielding its fruit. But in this regard, it is necessary that we do not forget about the quality, chasing after the result. The law of dialectics “the transition of quantity change to quality change” is aimed at preventing such problems from being applied to society. In the words of the president: "at the same time, we must not forget about one fact: various disputes and disputes in the information field must first be based on the principles of fairness and objectivity, be within the framework of the rules of law and decency, not become personal prejudice and prejudice, a method of obtaining a false reputation, avoid insulting the.” [2]

In the 70-ies of the last century, the famous Marshall Maclouen, who was one of the founders of modern Information Science, said that “every new information tool will test, test those who are of that time,” he had not yet come to the imagination of computers, the internet of mankind. But the period itself proves how true this prophecy is. The society's focus on innovation is on the need for information to be updated at a rapid pace. But age-old concepts have broader meanings in terms of their coverage. The concept of culture is also from the sentence shular. Information culture is being viewed as a concept that protects society from information attacks, distributes it and morally displays it to its users. All this is the result of the intelectual potential and creative thinking of people. Below, we conducted independent research on the importance of Information Culture in the formation of creative thinking.

2. Methods and Materials:

From time immemorial, there are different opinions about the fact that there is a change in the cultural and spiritual life of people. One of the great thinkers of the XX century, Karl Yaspers, believes that the six-hundred-year period between 800 and 200 BC was a period of great deviations in the history of mankind. In his opinion, it was at that time that the higher spirituality, which marked the next period of development of mankind, developed without interdependence. The development of this high spirituality has always been of decisive importance in the embodiment of new worldviews that facilitate the development of the culture of the stages of development, ideas, teachings, the way of thinking, the way of life of mankind. It is during this period that "consciousness is perceived by the mind. And contemplation became an object of analysis for contemplation. In all directions, the transition to membership had begun to osha out " [3.33] - he wrote.

The fact that we have such information about the past encourages the formation of a new way of thinking, a creative approach in all areas.

One of the signs of modern society is globalism at a rapid pace. The informatization of society, the update of its achorot base is becoming globalized. The importance of an informative culture in ensuring the stability of the communicative environment and the formation of creative thinking in people has increased significantly. The driving force is creativeness-the fourth industrial engine that is happening in the world today. To develop the qualities of creativeness in a person, it is necessary to initially know the content of this concept.

3.Results:

Creativity is understood by the creative ability of a person to create innovation, to solve problems. At its base lies orginality, practicality, nobility and freedom. Also, creative thinking means comprehensive thinking on a particular issue, an approach to a point from different angles.

What is happening in everyday life that is spreading through information and communication technology, as well as. To obtain information on technology and technology, science and production, scientific discoveries, it is necessary to formulate and raise the culture of the population's use of the internet.

To our youth for this:

1) formation of skills of targeted use of the internet;

2) increase the skills of finding the necessary information quickly;

3) efficient use of time, to appreciate time;

4) increase in literacy writing;

5) formation of knowledge and practical skills;

6) realization of creative and intellectual potential;

7) to be able to apply modern technologies to practice"

8) on the basis of teaching to live in harmony with the times, it is necessary to form a culture of their use of the internet. [4.155]

Creativeness as a category that develops personality is an integral part of human thinking, spirituality, it is not the fact that the knowledge that an individual possesses is multifaceted, but it is an intangible in the process of striving for new ideas, reforming and changing established steroids, solving life problems, making unexpected and unusual decisions. That is, through the repetition of the knowledge given, creativeness can not be achieved, in the process of creative thinking, a new thought, the emergence of a new idea is the main condition. [5]

Creativeness is also independent thinking. "In a Democratic Society, children are brought up in such a way that everyone in general is free-thinking. If children do not learn to think freely, it is inevitable that the training attached to him will have a low effect. Of course, knowledge is needed. But knowledge is on its way. Independent thinking is also the greatest asset." [6.70]

As a result of the creative worldview of Man, the creation of the means of communication led to a revolution in the informative environment. The spread of information, the increasing demand for it, is becoming a vital necessity. Intellect a tool that promotes the development of visual ability is also actually the presence of information. An informed society is a dressing of innovative and creative thinking. The term informed society originally came into existence in Japan. This term was first introduced into science by the Japanese philosopher Hayashi. In his opinion, it is not a material product, the product of information becomes a formative and developmental force of society.[7.493]. An informed society is distinguished not by its substance from previous societies, but by the quantity and quality of information, as well as the primacy of knowledge. In the process of information synthesis, intelectualization should stand high. Because the task intelectualization is the process of creating information and developing the ability to perceive it, that is, to increase the intelectual potential of society, including the use of artificial intelect.

In the study of creative thinking, which manifests itself in such activity, researchers began to distinguish between fertile and restorative, reproductive and innovative types of thinking. In our opinion, thinking, as a priority activity, is aimed at the production of new ideas, concepts and projects, and has the basis to define it as an innovative thought, and not simply productive one.The fact is that in every way of thinking there is an idea (image, idea and hoc.) the process of formation exists. A developed idea can be a new or restorative idea for the owner of thought. In a certain sense, the term productive thinking has a broader meaning than the term "innovative thinking". On the basis of the formation of non-directional,

sectoral innovation thinking is aimed at the development, implementation and dissemination of new ideas, after the activity becomes a routine process, creative thinking rises to the level of productive, creative activity, that is, productive activity. In this way, cognitive, intellectual innovation is formed. [8.571]

The style of creative thinking is associated with the style of scientific thinking. It is necessary that any creative thinker first of all has scientific knowledge and his thoughts are not only hypothetical, but also scientifically proven. "The modern post-modern style of scientific thinking gives the opportunity to deeply research and predict the prospects of new ideas, conceptual technological projects created in philosophy, science and technology..... Today, the essence of the post-modern style of scientific thought, the analysis of its creative possibilities; such issues as attitude to scientific traditions, study of theoretical, conceptual innovative ideas that take place in leading science and technology; understanding their epistemological and methodological significance are very relevant." [9:3]

Three requirements must be met in order for the information to be useful:

1) to have enough to develop an algorithm,

2) to ensure that the algorithm can be developed as quickly as possible,

3) ensure high level of reliability of the algorithm.

As a result of the formation of an informative culture, information manipulation (dependence) is observed in the worldview of people. Restrictions on the dissemination and use of information should be considered not as a violation of human rights, but as an advantage over moral views.

4. Conclusion:

From the above points of view, we come to the following conclusions:

First: the information must correspond to the present day, to the worldview of people and encourage it to innovate. Information that incorporates humanism, tolerance, moral and aesthetic characteristics will start people to perfection.

Secondly: useful information that arises in the process of creative thinking causes information of the society, its development. And the development of Information Culture is one of the main factors in the formation of creative thinking, enriched with noble ideas.

Third: the media and the information environment form The Shape of the globe and its wave weight. The correct use of information, the formation of an informative culture is an important issue. After all, community management is also linked to the reliability of information sources. In this it is an important task to eliminate the simulacrylic function of questionable information.

References:

1. Mirziyoyev, Sh.M. (2017). *We will continue our path of national development with determination and raise it to a new level*. 1-volume. (p.592). Tashkent: " Uzbekistan".
2. Mirziyoyev, Sh.M. (2019). *Speech by" employees of the press and mass expert "* 27.06.2019. Retrieved from www.pv.uz.
3. Jaspers, C. (1991). *Meaning and purpose of the story*. (p.33). Moscow.
4. Yaxshilikov, J., & Muhammadiev, N.E. (2019). *Philosophy of technology and Information Technology*. The textbook. (p.216). S.: "SamSU".
5. Jumanova, S. (2019). Enlightenment. uz \ corners\ science-how to form unusual thinking skills or creativeness, 5\07\.
6. Karimov, I.A. (2015). *Youth is the decisive force of our present and future lives*. (p.128). Tashkent: "Spirituality".
7. Yaxshilikov, J., & Muhammadiev, N. (2018). *National idea: strategy of development of Uzbekistan*. (p.684). Tashkent: "Cho`lpon".
8. Sultanova, G.S. (2020). Innovative thinking and heuristics. ACADEMICIA: *An International Multidisciplinary Research Journal*, Retrieved from https://www.saarj.com 1 ISSN: 22 49-7137 Vol. 10, Issue 4, April., pp. 568-574.
9. Sultanova, G.S. (2018). *Dissertation of the doctor of Philosophy (PhD) on philosophical sciences "Ideas continuity and the problems of innovation in the post-nonclassical style of scientific thinking"*. (p.137). Samarkand.
10. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Gulnoza Agzamova
Karshi State University
researcher

THE USE OF THE KALKA METHOD IN THE TRANSLATION OF PHRASEOLOGICAL UNITS

Abstract: *The study of phraseological units has long been one of the essential issues in the focus of linguistics and translation studies. Significant scientific research has been conducted in this area. In particular, as a result of scientific research in the field of phraseology in recent years, phraseological units have been noted as a large part of the lexical layer of language. It is noteworthy that this layer is very wide in language, both in terms of quantity and meaning. Adequate interpretation of phraseological units in translation, which are more complex linguistic means than lexical units of language, is one of the most complex and, at the same time, very responsible issues of translation practice. Because phraseological units, as artistic and descriptive means of speech, are more diverse than simple, neutral expressions of thought, the desire to interpret them in translation is directly related to the re-creation of the figurative and emotional-pictorial value of the work of art. This article also discusses these issues.*

Key words: *phraseological units, idiomatic form, phraseological equivalents, methodological sensitivity, pragmatic task and etc.*

Language: *English*

Citation: Agzamova, G. (2020). The use of the Kalka method in the translation of phraseological units. *ISJ Theoretical & Applied Science, 08 (88),* 33-35.

Soi: http://s-o-i.org/1.1/TAS-08-88-9 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.9

Scopus ASCC: *1203.*

Introduction

Phrases are one of the units that make up and the base of the vocabulary of a language. A phraseological unit is a language unit that consists of two or more words and has a single figurative meaning. Although the structure of a phrase is similar to a phrase, it is completely different from such units, which are counted as a unit of speech. Like a phrase, it does not always occur in the speech itself. Accordingly, expressions are also referred to as fixed expressions. For example:

playing with fire - jouer avec le feu,

love at first sight- coup de foudre,

laughing and rolling - rire comme une baleine, rire comme un bossu.

Because farceologisms, like lexical units, are so ambiguous and multifunctional, two linguistic units that are semantically appropriate do not always replace each other in translation. Phraseological equivalents or alternatives that can replace each other in a particular textual situation may differ from each other in terms of semantic features or methodological functions in another textual situation that may be scientifically-creative to the artist's own responsibility. Although some of the phraseological units that sometimes exist in the languages of origin and translation are semantically and stylistically compatible with each other, but they have a distinct national color, this feature makes them unique and does not allow them to be replaced in their translation. The reason why, no linguistic phraseological unit can cover all aspects of life, a particular phraseology that expresses a particular concept in one language may not have its own equivalent or alternative in another language. In this case, the translation practice is often referred to as kalka *(French, "calque" - copy)*, more precisely, the literal method of translation.

Kalka means to translate words, expressions and phrases from other languages in linguistics accordingly. In linguistics, there are such types of kalkas as: semantic, phraseological, semi, and false. Moreover, kalka is a language carriers. In this way, the compound formed in the language of translation takes the form of a phrase and, if it sounds natural, can

reflect the intended meaning and methodological function. This not only ensures adequacy, but also enriches the vocabulary of the translated language. One of the most effective methods of translation practice is to distinguish the shield from the letter. Unlike literacy, phraseological kalka fully retains its original meaning and methodological function. At the same time, the artistic-aesthetic, ideological-semantic feature of the original is recreated.

This is due to the fact that the shield is made on the basis of strict consideration of the nature of the new language conditions. Therefore, the shield, which is one of the most productive methods of translation practice, cannot be equated with literacy, which is a vague expression of the content and form of the original. However, while the image embodied in some kalkas is understandable and acceptable to translators, it sometimes seems unnatural because it does not have a traditional character in the target language. Since in the process of kalka the expression of another language is embarrassed, and thus its semantic-stylistic aspect and syntactic structure are mastered, it is possible to kalka only a stable phrase with a bright semantic structure. For example, phraseological confusions that do not derive directly from the meanings of their constituent components, as well as other expressions that reflect the national identity of the people to which they belong, are not excluded. It contains the names of ethnographic concepts, lexical and semantic archaisms, as well as phraseological expressions that use words related to the history of the nation, the life of the people and its religion and beliefs.

The following ways of translating phraseological phrases into Uzbek are of interest to us. Fully compatible with the original units in terms of lexical content and methodological function (the grammatical structures of the expressions of the two languages can sometimes differ from each other). If the image embodied in the phraseological phrase used in the original is based on life observations and well-known and popular natural phenomena, as well as on the basis of events familiar to the native speakers, the logical connection between the elements of the phrase It is obvious that the embarrassing translation of such phrases recreates the original semantic style and pragmatic function of the original, and does not seem alien to the language system, as the Uzbek phrase is imported. Sometimes, translators choose this method in order to convey to the reader the national identity of the original language without knowing the equivalent and alternative variants of the originally used phrases in their own language, which is also often ineffective. It is necessary to base the phraseological expressions of the original on the basis of the form, meaning and methodological functions of the stable linguistic means available in the language of such translation. Artists sometimes resort to the kalka method, even though there are alternatives to the original stable phrases in the translation language, so that the resulting phrases sound natural based on the vital realities and figurative generalizations embodied in those existing appropriate means.

Create meaning by adding words that clarify the meaning and expanding the content of the components.

Sometimes translators come to the conclusion that the compounds formed as a result of literal translations of the original phraseological expressions fail to create the necessary meaning and methodological impact, and that they are clarified, logically supplemented words. However, sometimes translators, abusing this method, quote their metaphorical imagery in a methodologically neutral way by over-interpreting word-for-word translations of compressed phraseological expressions, because of the concise and succinct expressions characteristic of phraseological expressions. failure usually also eliminates the methodological sensitivity created by using them. It is possible to recreate the figurative generalizations contained in the units by preserving the specific compression forms of the units in translation.

The internal content and figurative basis of farseologism in the original have a logical basis, and if this basis is clearly visible, but also created on the basis of people's life experiences, such phraseology is sometimes translated in the kalka method, in which case the translation not only the semantic-methodological feature of the relevant phraseological unit in the language, but also the national identity, socio-cultural feature is re-created. This method also lays the groundwork for the enrichment of the language of translation. If the compound that gives the phrase a national character is not based on historical, religious, or other evidence that serves as a purely national basis, but is associated with national customs familiar to the speakers of the translation language and does not contradict their customs, such a phrase can be interpreted. At this point, it is vital that the unit used in the original is free of figurative and emotional expressions.

References:

1. Shanskij, N. M. (1969). *Frazeologija sovremennogo russkogo jazyka*. (p.75).
2. Kindrja, N.A. (2005). *Anglijskie i russkie frazeologizmy s komponentom-zoonimom v svete istorii kul`tury*. Avtoref kand. filol. nauk. Moscow.
3. Malafeeva, E.R. (1989). *Semanticheskaja struktura frazeologizmov s komponentom-zoonimom v sovremennom russkom literaturnom jazyke*. Avtoref kand. filol. nauk. Cheljabinsk.
4. Mardanova, D. M. (1997). *Sopostavitel`nyj analiz frazeologicheskih zoonimov v anglijskom i tureckom jazykah*. Avtoref kand. filol. nauk. Kazan`. (p.6).
5. Malmkjaer, K. (2019). *"Translation and Creativity"*.
6. Bassnett, S. (2018). *"Translation and Word Literature"*.
7. Farxodjonova, N. F. (2018). Modernization and globalization as historical stages of human integration. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 16-19.
8. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.
9. Farxodjonova, N. (2019). Features of modernization and integration of national culture. *Scientific Bulletin of Namangan State University*, T. 1, №. 2, pp. 167-172.
10. Ergashev, I., & Farxodjonova, N. (2020). Integration of national culture in the process of globalization. *Journal of Critical Reviews*, T. 7, №. 2, pp. 477-479.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Maksetbay Mambetniyazov
Nukus State Pedagogical Institute
researcher

USE OF WEB 2.0 TECHNOLOGIES IN ORGANIZING THE INDEPENDENT LEARNING PROCESS

Abstract: *The article now provides ample opportunities for students to have fast, plentiful, credible information and to acquire knowledge independently. Organization of the process of independent learning of students of higher education using Internet services, as well as the use of modern information and communication technologies in the process of independent learning of students using the Internet, in particular, a brief description of Web-technologies and Moodle LMS distance learning system and its main features and advantages is thought to be one of the most pressing issues.*

Key words: *Internet services, Web 2.0 technology, distance learning, Moodle LMS system.*
Language: *English*
Citation: Mambetniyazov, M. (2020). Use of Web 2.0 technologies in organizing the independent learning process. *ISJ Theoretical & Applied Science, 08 (88)*, 36-38.
Soi: http://s-o-i.org/1.1/TAS-08-88-10 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.10
Scopus ASCC: *3304.*

Introduction

Numerous studies show that the organization of the process of independent learning using Internet services gives great results. In this sense, in this study we will explore the possibilities of organizing the process of independent learning using Internet technologies.

It is now possible to organize the distance learning process via the Internet. LMS systems provide the ability to organize the distance learning process. There are many LMS systems available today that allow you to organize the distance learning process.

Web software systems that allow you to organize and manage the distance learning process are called "Learning Management Systems" when translated into English Learning Management Systems (LMS).

The number of LMS systems currently exceeds 30, some of which are: ATutor, Claroline, Dokeos, LAMS, Moodle, OLAT, OpenACS, Sakai.

One of the important directions of reforming the education system is the systematic integration of the educational process with information and communication technologies. At the same time, the organization of the educational process and the radical renewal of its content, the pedagogical activity of the teacher in the environment of information and communication technologies and the organization of the student's learning process is a strategic issue [1].

At the developing stage of scientific and technological progress, the rapid increase in information and the limited time available for their use in the teaching process requires the introduction of new technologies in the education system. One of the directions of improving the content of education is to create opportunities for students to learn independently, to create the necessary conditions for the formation and development of educational information sources. The basis of educational processes is a high-quality and high-tech environment. Although its creation and development is technically complex, but such an environment serves to improve the education system, the radical introduction of information technology in education [2].

Modern information technologies have great potential for students in processes such as data transmission, storage, and retrieval. Currently, many information and educational resources are created in electronic form in educational institutions, but there is no systematic approach to their use. This is primarily due to the lack of scientific and methodological base,

insufficient skills and abilities to apply modern information technologies in the educational process, incomplete solution of methodological problems. Despite the success of the introduction of information technology in the educational process, the results achieved are scattered [3].

In our opinion, the direction of development of informatization of educational processes is directly related to the creation of information-educational environments through the integration of various educational information resources. In creating such an environment, first of all, the organization of information in existing educational institutions, ie the integration of all educational, administrative and economic services, libraries and departments (administration, dean's office, department of education, etc.) into a single network, creating access to the Internet. It will be necessary to control the educational process, organize the electronic exchange of documents, organize independent educational activities of students through the creation of special educational and methodological complexes based on information technology.

MATERIAL AND METHOD

Now it is possible to organize the use of information and educational resources in the performance of such tasks through the creation of portal technologies. The use of information and telecommunication technologies in the educational process is an important direction in the development of a single information and educational environment of the educational institution. Systematization of information facilitates the use of information and educational resources. Creation of information-educational portals helps to logically organize and systematize information [4].

The term Web 2.0 is often associated with a new direction in the development of the Internet, more specifically - web applications are a set of performance technologies and user interactions. These technologies include blogs, wikis, photo and video sharing apps (youtube,…), flex and ajax technologies, and many other apps. The prevalence and relevance of this topic can also be proved by the number of comments sent. Google, for example, has 23,700,000 comments about Web 2.0.

It is no coincidence that Time magazine named the people of the year who are filling the network with new content using Web 2.0 services. The relevance of using Web 2.0 in education underscores the fact that the term “Education 2.0” is becoming a common word.

The term was coined by Google at a conference under the same name. Observations of the didactic potential of Web 2.0 services have shown a growing interest in the following services for use in the educational process:

Blog (Blog) - a guide that allows you to place materials on the network and read them (synonyms: software environment, shell) www.livejournal.ru.

A wiki is a guide to creating collective hypertext that saves changes. Examples: http://wikipedia.com, http://letopisi.ru.

Delishes (delisious) is a guide to storing bookmarks on defined web pages.

Youtube (youtube) is a guide to saving, viewing and discussing videos. In summary, Web 2.0 services allow you to work with web documents, share information, and work with mass publications.

Experience and capabilities in the use of services have made it possible to take into account some trends in their use in the educational process in higher education. The general functional features of the services listed above are sufficiently complete and accurately listed in the independent encyclopedia of wikipedia. A good example of this is BobrDobr, a Russian version of the social bookmarking service, which focuses on working collectively with information and offering resources for searching, rating, and storing it. In short, it is a collection of information about the Internet space in the form of comments, in which the user can not only get acquainted with the information, but also present it to others. It is also a tool for self-identification. Because the user realizes the scope of his interests while searching for comments on this or that source. In the process of using the service, each user discovers his own unique keywords, which are placed in this or that comment. These words express the user’s real interests, and depending on their number, it is possible to determine how much the user is interested in the topic. Sometimes a user’s perceptions of their interests may not be relevant to real life or those of their colleagues. The provision of such information helps to make dreams come true.

The transformation of modern society requires the beginning of changes in the education system as well. Education performs the most important social functions in the modern information society and in this sense is valued as a mechanism that allows the information society to develop in the future. The concept of modern education represents the transition from the paradigm of the system of educational process to responsibility-oriented education. One of the goals of teaching at school is to strengthen information responsibility, to find a way in today's modern information space, to search for information, to select, to critically evaluate Internet resources, to communicate through modern means of communication. Such a change in the reading process helps students to learn on their own and to increase their critical thinking [5].

Information becomes part of the teacher-student interaction that is interconnected through computer technology. That is why today the teaching of foreign languages through web services is becoming not only

a fashion chase, but also an important requirement of the time.

Web 2.0 - (interpreted by Tim O. Reilly) is a methodology for designing systems, and the more people use them, the better. Tim O. Reilly's interpretation needs some clarification. Under the term "improving", the term "filling" is understood, that is, it is about information.

The introduction of Web 2.0 into education has proven itself. First, the application of Web 2.0 technologies in foreign language teaching allows to reach a certain level of communication in a foreign language during schooling. Foreign language communication competence is the acquisition of a certain level of verbal and socio-cultural knowledge in the acquisition of a language, the ability to use their knowledge depending on the situation. Second, it provides an opportunity to further improve the knowledge and skills they have acquired in their future careers.

The development of information technology has led to the discovery of new ways to use the Internet.

The convenience of Web 2.0 technology affects the learning process. Often, such technologies allow students to choose an individual learning method. They emphasize ways of working together and guarantee copyright protection. Such services provide an opportunity to participate in different societies in order to gain and share experiences. Web 2.0 is part of the Internet monitoring process.

The rising generation is trying to enter the computer world by engaging and organizing their peers into communication societies based on their interests. Thus, our young people are growing up in the world of digital technologies, knowing how to turn on a computer from birth, use a mobile phone, use a remote control. It follows that young people in the 21st century are adapting more quickly to changes in computer technology, which provides a good opportunity to use Web 2.0 services in education.

CONCLUSION

In conclusion, it can be said that based on the above, Web technologies make a significant contribution to the modernization of the educational process. In particular, the content and methods of professional and subject training of future teachers of computer science will be improved, the effectiveness of their training will increase.

References:

1. Aripov, M., Dottoev, S., & Fajzieva, M. (2013). *«Web tehnologijalari»*. (p.280). Tashkent: Noshir.
2. Aripov, M., & Fajzieva, M. (2012). *Web tehnologijalarga karatilgan kurslarni ўkitishning ҳozirgi kundagi aҳamijati. Ўkituvchilarning zamonavij tehnologijalar bўjicha kompetentligi: muammo va echimlar.* Vazirliv tizimidagi olij ta#lim va ilmij-amalij anzhuman materiallari. (pp.152-154). Toshkent. TDPU.
3. Voikov, V.D. (1998). Rol` Interneta - Web-tehnologij v dele razvitija i kul`tury. *Zh.Internet Kul`tura i obrazovanie*, SPb., pp.15-19.
4. Nimatullaev, M.M. (2002). *Podgotovka uchitelej informatiki v pedbuze k ispol`zovaniu Web-tehnologij v professional`noj dejatel`nosti*: Disc. k.p.n: 13.00.02. (p.434). Moscow.
5. Hajtullaeva, N.S. (2019). *Bўlazhak informatika ўkituvchilarini metodik tajjorlash tizimida Web-tehnologijalardan fojdalanish*: Avtoreferat: 13.00.02. (p.45). Tashkent.
6. Farxodjonova, N. (2019). Features of modernization and integration of national culture. *Scientific Bulletin of Namangan State University*, T. 1, №. 2, pp. 167-172.
7. (2009). Retrieved from http://ru.wikipedia.org/wiki/Veb 2.0, Veb 2.0., Vikipedija - svobodnaja jenciklopedija., 08.04.2009
8. (n.d.). Retrieved from http://en.wikipedia.org/wiki/Web_3.
9. (2009). Retrieved from http://www.intuit.ru/department/internet/webtechno/ - Web-tehnologii. Uchebnyj kurs.,A.V.Sychev - Internet universitet informacionnyh tehnologij INTUIT.RU., 04.02.2009
10. (n.d.). Retrieved from http://WWW.frankwatching.com/archive/2008/04/11/de-betenis-vanWeb-3.0.-ch-net-semantic-web.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Anvar Bakiev
Termez State University
researcher

Zubayda Yuldasheva
Termez State University
researcher

THE FIFTH CIVILIZATION OF THE ANCIENT EAST

Abstract: *The article is chronologically challenged by urbanist scholars on the development of the public propaganda cycle and is devoted to the organization of Bronze Age cultures in Central Asia. The Center for Ancient Eastern Civilization wanted to support Central Asia and implement the Bronze Age culture with the help of a fifth-level civilization in the sciences. The general features of the BMAK, which entered as an Oxus civilization to the sphere, were revealed on the basis of archeological, anthropological and ethnographic sources. There have been comments that the culture and civilization of the social sciences violates the dangers of the sciences.*

Key words: *civilization, mass culture, periodization, archeology, urbanization processes, culture, Jarkotan, Dashtli, Tugolak, Gonur, city-state, confederation, class stratification, Oxus civilization, BMAK.*

Language: *English*

Citation: Bakiev, A., & Yuldasheva, Z. (2020). The fifth civilization of the ancient east. *ISJ Theoretical & Applied Science, 08 (88),* 39-45.

Soi: http://s-o-i.org/1.1/TAS-08-88-11 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.11

Scopus ASCC: *1202.*

Introduction

In addition to the civilizations of the Ancient East and in other closely related areas such as in Africa, Mesoamerica, the Far East, and the central Asia new civilizations were newly formed [15: 7]. The right to collect new proposals and go down in history has changed the way urbanist scientists interact with new developments in civilization. If science is one of the five most civilized civilizations in the history of the Mesopotamian states, it is for those who study the ideas of polycentrism in urbanism to build and organize central groups that are malicious and new in an unrelated situation [22: 3].

Formative views on the development of society have been sharply criticized by historians and sociologists, but are still used by some historians. Archaeologists prefer a civilizational view because they study the history of cultures and civilizations on the basis of material sources [27; 32].

The concept of civilization has been widely introduced into the history of Uzbekistan, and civilizational views are being formed on the issue of its chronology. Extensive study of the monuments of the Bronze Age Sopolli culture in the territory of southern Uzbekistan, especially as a result of archeological excavations in Jarkotan, this monument was included in the category of the first cities [4]. Phrases such as the first city, the first civilization, the first class relations, the first statehood are synonymous words and complement each other lexically. Whether Jarkotan has the status of the oldest city monument in the territory of Uzbekistan, it is possible to think that its inhabitants have also achieved civilization.

When using the term first civilization in the history of the peoples of Central Asia, we must pay attention to two aspects. First, we must clearly define the boundary between primitive history and the development of civilization, and second, the difference between culture and civilization.

There are different views in history on the first issue. There is a notion that civilization begins with the formation of modern man, the Neolithic revolution, urbanization processes, the formation of a society or state in which a class society is formed [43: 77]. In addition, terms such as "forest civilization",

"paikon civilization", "urban civilization" are used in connection with historical processes and regions [4].

It should be noted that Central Asia is one of the regions where nomadic-pastoral and sedentary cultures were formed and ethnically mixed [8: 5]. Due to the historical natural conditions and way of life of nomadic peoples, the term civilization is also used and very accurately assessed in relation to the society and material culture they created [9: 10-12; 10: 67-98; 11: 215-234; 17; 19: 217; 20: 27-41; 21: 224; 23; 31: 12-40; 33; 34; 50: 37-55; 51: 239; 52: 275].

Recognized by experts in the history of urbanization that civilization in Central Asian irrigated farming communities dates back to the Bronze Age, the emergence process is associated with Ancient Eastern civilization [27: 291] and its new fifth hearth [46]. So, the border of civilization with the beginning was the Bronze Age, from which the processes of urbanization of society, the emergence of the first statehood, the classification of society began. Craftsmanship was developed, international trade and cultural ties were established [56: 7-13].

Culture and civilization are incomparable historical concepts and categories, and culture is applied to a region where the same material cultures are widespread. This is why cultures are radically different from each other. Although primitive, cultures have been formed since the emergence of mankind. The concept of civilization is broadly used in relation to the development of society, appearing at a certain stage of it, although different civilizations, similar in terms of social, economic, technical and technological development [4:24].

As we have said, the value of any civilization is measured by its contribution to the development of society, to the development of humanity. Therefore, it is necessary to analyze the contribution of the population of the Oxus civilization to the development of the peoples of Central Asia.

The inhabitants of the Oxus civilization founded a religion centered in Central Asia. The reason for expressing this opinion with full confidence is the study of monumental temples centered on the monuments of Jarkutan, Dashtli, Tugolak, Gonur [4; 44; 49]. Although scholars do not agree on the nature of the temples studied, religion, scholars who consider them to be the first Zoroastrian temples make up the majority.

The team of the Oxus civilization founded the first urban culture in Central Asia for the first time. Professors in this field T.Sh. Shirinov and B.J. Eshov conducted research and came to important conclusions about the archeological features of the first cities, the processes of their emergence, the stages of development [4; 29: 165-190; 59:42].

The question of the formation of states built at the same time as the first cities is Sh.B. Shaydullaev's research [53]. According to the author, governance in the territory of the Oxus civilization, especially in Bactria, although primitive, was formed before statehood, from the time of communities (family, patriarchal family, rural community management). He compares Jakotan with the city-states of the ancient Eastern world. The historical topography of the monument, the formation of a developed system of management and production, the development of the created material culture, the breadth of the level of cultural ties allowed Jarkotan to be included in the category of city-states. By the early Iron Age, he had justified the formation of territorial states in Bactria. As a result of the confederation of regional states, The establishment of the Bactrian kingdom in the VIII century BC is proved by archeological and written sources. According to Sh.B. Shaydullaev, before the formation of the Ancient Bactrian kingdom, there were two stages of statehood, city-states and regional states, and as a result of the confederation of regional states, the Old Bactrian kingdom was formed, according to the latest research [54: 67-72]. This means that the people of the Oxus civilization founded the oldest city-states in Central Asia.

One of the most important features of civilization is that the population must be class-differentiated. In the example of the Oxus civilization, a number of historians have dealt with this issue [2:21; 18:21]. They noted that the population of the Oxus civilization was socially stratified according to the quantity and quality of samples of material culture buried with corpses, found mainly in the tombs studied in southern Turkmenistan and southern Uzbekistan. In recent years, the study of arches, palaces and temples in a number of Bronze Age monuments has provided a complete solution to this problem, and the social stratification of the population of the Oxus civilization has been scientifically substantiated [1:21; 30: 82-94; 38:42; 41:40; 57:42].

Of course, no one doubts that highly developed craftsmanship is a sign of civilization. In this regard, the representatives of the civilization we are studying have founded and developed many fields. The people who discovered the pottery wheel in the history of the peoples of Central Asia in terms of pottery are the people of Oltin tepa[29: 165-190; 36:19]. Those who elevated this tradition to the level of art are the inhabitants of the Oxus civilization. The invention of the pottery wheel allowed the pottery to be made in a standard, symmetrical style, and laid the foundation for the creation of fine art in the field of pottery.

In Central Asia, not only the pottery wheel, but also the discovery of two-tiered pottery came to the forefront of the Oltin tepa, which is the result of the creative work of the people of the people of Oltin tepa 25]. The history of pottery of pottery culture dates back to A.A. Askarov and U.V. The Rakhmonovs learned. Large jugs have been typologized, evolutionary development and improvement have been observed [5:10; 6: 36-38; 7: 12-41; 36: 6-9].

An example from the pottery of the Oxus civilization.

The two-tiered pots were found in Mesopotamia in the 6th millennium BC,in the territory of Ancient India (Mohenjodaro) In the 3rd millennium, in the territory of Iran (Tepa Gavr) 3900 years ago, in Southern Turkmenistan, it has been found since the 4th period of the Namozgoh(Khapuz, Tekkem, Uchtepa, Gonur, Namozgoh). From the above data it can be concluded that in the Ancient East a great deal of attention was paid to pottery. From the earliest days of pottery, high-quality pottery was produced. It is known that two-tiered jugs differ from other jugs in terms of technological and structural perfection, and jars of this type have been used until the late Middle Ages.

Making a two-tiered pottery, pottery baking required a great deal of knowledge and thinking, a certain professional skill, and unceasing service. According to E. Saiko, pottery was baked in this type of kiln at a temperature of 800,900 [42: 154].

The two-tiered kiln is one of the most advanced devices created by mankind in the field of pottery, which is explained by the constant operation and the invention of thermostat technology. The invention of thermostat technology prevented the production of unusable products in pottery. The fact that none of the monuments of pottery culture has any unusable pottery shows that this technology is well mastered.

Metallurgy is one of the most developed areas of the Oxus civilization. According to K. Rakhimov's research, a total of 23 metal smelting furnaces were studied in the monuments of Sopolli culture [35]. The location of 8 metal smelting furnaces, a workshop, and a well in one room of the Jarkotan Fire Temple indicates the centralization of metallurgy, and the fact that the crucibles were found intact indicates the technology of smelting them.

Two specialists are currently conducting research on the metals of the Oxus civilization. V. Ruzanov's research is devoted to the determination of the chemical composition of metals, ore deposits, while Kay Kaniut deals with the typology of metal products [39: 233-239; 67: 89-115].

One of the researchers of the Jarkotan monument, According to SH.B Shaydullaev, the inhabitants of the Oxus civilization also knew about iron [53:14]. It was observed that the blades of the bronze knife handle found in the Jarkotan arch were made of iron. It is known from history that iron was discovered by the Hittites, who lived chronologically at the same time as the Oxus civilization. Hittite inscriptions show that the Hittites made various ornaments from iron, statues of gods, and various objects used in religious ceremonies [66; 68]. The Hittites used meteorites and iron ore [75: 682]. In recent years, new data on the emergence and spread of iron in science have been collected. According to Dj. Waldbaum's research, the oldest iron object dates back to the V-IV millennia BC, and the meteorite is made of iron. Many iron objects belonging to the Early Bronze Age were found in Mesopotamia, Anatolia and Egypt [74: 69-98]. In the ancient East, iron was considered a very precious metal. There is evidence that iron is 9-10 times more expensive than gold, 35-40 times more expensive than silver, and 400 times more expensive than lead [74:75].

Samples of metal (bronze) products of the Oxus civilization.

The oldest written source on iron is also known from Hittite cuneiform. The oldest "Anitti" text dates back to XIX-XVIII centuries BC. It tells the story of the XIX-XVIII centuries BC. It states that the governor of Purushandi, from the city of Hurrit, enthroned his vassal Anitti on an iron throne and gave him an iron scepter [12: 3-17; 13: 238-261].

The oldest iron found in Iran belongs to the second half of the second millennium BC. Iron swords and iron bows found on Gian I Hill, iron swords and iron hammers found in Sialk Cemetery are proof of this idea [64: 443].

The timing and distribution of iron in Central Asia is still one of the most pressing issues. V.M. Masson predicted the formation of iron is in the beginning of the first millennium BC and writes that iron spread to Central Asia through the territory of Iran [26: 108]. Based on an iron knife and slag found in Dalvarzintepa, Yu.A. Zadneprovskiy proposed to call the X-VIII centuries BC as the first Iron Age [16:32]. A.S. Sagdullaev proposes to call the X-VIII centuries from the Late Bronze Age to the Early Iron Age, and the VII-IV centuries as the Early Iron Age [40: 229-234].

The iron nail in the handle of the bronze knife found in Jarkotan forces us to think anew. The beginning of the Early Iron Age is about 500 years older than Central Asia, with iron swords and bows found in Gian I and Sialk in Iran [64: 443]. This artifact, found in the Jarkotan arch, serves as a material source indicating that the people of the Oxus civilization knew about iron. Interested in the history of the invention of this invention, We turned to M.V. Gore's research on labor and weapons of war in the Ancient East. Knives similar to the handle of a knife found in Jarkotan were found in monuments in Mesopotamia, Syria and the Hittites [14: Tabl.I.]. During the Bronze Age, Bactria had cultural contacts with the people of Syria and the Hittites. Sarianidi, S. Scholars such as Sarianidi, S. Salvatori have also written about that [48:55]. As a result of such contacts, it is natural that the knife found in Jarkotan also came as an "import".

The Oxus has elevated the field of architecture to the level of art. In this field, they have created a tradition that is radically different from that of other civilizations. First of all, based on the natural conditions of Central Asia, bricks were made from local soil. From large bricks (64x32x14cm) houses,

monumental monuments, including palaces, temples were built. The method of labyrinthic system fortification is unique to the Sopollitepa, Dashtli, Tugolak, Gonur monuments and has not yet been found in other cultural architecture. The method of symmetry in architecture was also discovered by the representatives of this civilization [4; 25; 45: 21-86; 46].

Communities that have achieved civilization will be in cultural and ethnic closeness with other peoples. In Central Asia, the Axis also established international trade and cultural ties [28: 49-65; 29: 165-190]. Researchers have done some research on cultural ties, trade, and communication routes in Central Asia during the Bronze Age [47: 262-265; 55: 34-39; 58: 17-21;]. The cultural connections established between the ancient East and the Oxus civilization are much better studied. In particular, the opening of the Shurtugay monument in Bactria served as the basis for this theme (65).

Representatives of the Oxus civilization had cultural ties not only with the developed eastern culture but also with the nomadic peoples of Eurasia. In recent years, the occurrence of pottery typical of the nomadic Andronovo culture in the Bronze Age monuments of Central Asia, Afghanistan, Iran and many monuments of the Harappan culture has become natural [37: 58-63]. Subsequent scientific findings suggest that the Axis had direct contact with the cultures of Harappa, Ancient Iran, and Andronovo, and indirectly with Syria, Hittite, and Mesopotamia [53:28].

We are witnessing that the representatives of the studied civilization have laid the foundation for a number of art forms in the history of the peoples of Central Asia. These are the areas of sculpture and glyptics. These types of art bear witness to the worldviews of nations.

In the example of terracotta sculptures found in Jakotan, we can see that zoological worldviews also developed. It is known that terracotta statues embody the ideological views of the people of that time. On the basis of terracotta figurines represented in the form of animals such as cows (oxen), camels, snakes, eagles, two-humped camels, we can determine the zoological religious views of the inhabitants of the Oxus civilization. The existence of a type of religion such as worshiping the spirits of ancestors in Jarkotan can be seen in the example of two clay-shaped embryos, a double female abdomen and a bust of a dead man found here [53:34].

The Bactrian and Margian people also founded the field of glyptics in Central Asia. Bronze Age glyptics are represented on seals, tumors, and beads. Gliptics provide the most historical information among the sources of material culture, and the images expressed in them provide information such as the art, mythological and religious worldviews of the Bronze Age, landscapes, wildlife, cultural relations with other peoples, migration of ancient peoples.

An example of the seals of the Oxus civilization.

The study of the history of ox gliptics can be divided into two periods. The first period, covering the 70s and 80s of the last century, is characterized by the collection of sources on gliptics and the accumulation of knowledge about the functions of seals that represent gliptic images [3: 26-34]. During this period, many seals and ornaments from monuments such as Dashtli, Sopolli, Jarkotan, Tugalok, and Honur were illuminated in science with stratigraphic accuracy [24: 132-150], while hundreds of seals sold in Afghan markets appeared as antiques [70] and are now continues to this day.

The next 20-25 years of research on Oxus gliptics are mainly related to the activities of foreign scientists [60; 62; 63]. P Amee, the author of many ideas on the history of Bactria, first raised the issue of the influence of Syrian and Hittite cultures on Bactrian glyptics(61). According to him, the winged people, winged animals represented in the Bactrian glyptics, were first formed in Asia Minor and spread to Bactria through Iran, southern Turkmenistan. The question of the influence of Asia Minor on the formation of the school of glyptics in Bactria and Margiana was discussed by leading archaeologists, including Italian professors S. Salvatori and M. Tosi [69: 97-145; 72: 130-158; 73: 283-386], Japanese orientalists and archaeologists K. Tanabi, A. Xori, K. It is also recognized by his work [71].

From the above data, it can be concluded that the cultural development of the peoples of Central Asia dates back to the period of the Oxus civilization. The first urban culture, the class differentiation of society, statehood, technical and technological innovations formed and developed on the basis of internal and external cultural relations (discovery of the mechanism of rotation, ie pottery wheel and cart), the process of centralization of religion are typical of the Oxus civilization.

Thus, at the end of the third millennium BC, the Oxus civilization was formed in Bactria and Margiana, and during the second millennium, its great historical period began and spread to a vast area, including eastern Afghanistan, Balochistan, eastern Iran, and northern India. This civilization is characterized by generalized signs of material culture and is constantly characterized by the merging of new ethnic groups from the north, the Andronovo culture, and their expansion to the south.

Sopollitepa is the oldest maze system on earth.

References:

1. Abdullaev, U.I. (2008). *Istoriografija drevnej sistemy upravlenija i rannej gosudarstvennosti Srednej Azii (XX-nachala XXI v.).* Avtoref. diss. kand. ist. nauk, (p.21). Tashkent, II AN RUz..
2. Alekshin, V.A. (1977*). Social`nyj stroj rannezemledel`cheskih obshhestv po pogrebal`nym pamjatnikam kul`tur Srednej Azii i Blizhnego Vostoka*. Avtoref. diss. . kand. ist. nauk, (p.21). Moscow: IA AN SSSR.
3. Antonova, E.V. (1984). K probleme funkcij pechatej rannih zemledel`cev Vostoka. *SA*. №4, pp. 26-34.
4. Askarov, A.A., & Shirinov, T.Sh. (1993). *Rannjaja gorodskaja kul`tura jepohi bronzy uga Srednej Azii*. (p.187). Samarkand.
5. Askarov, A.A. (1976*). Bronzovyj vek Jyzhnogo Uzbekistana (k probleme razvitija lokal`nyh ochagov drevnevostochnyh civilizacij).* Diss. d.i.n. (p.10). Moscow.
6. Askarov, A.A. (1977). *Drevnezemledel`cheskaja kul`tura jepohi bronzy uga Uzbekistana.* (pp.36-38). Tashkent.
7. Askarov, A.A. (1973). *Sapallitepa*. (pp.12-41). Tashkent.
8. Askarov, A.A. (1994). Ўrta Osijo kadimgi dunjosining asosij hususijatlari. *ЎIF*. №6, p.5.
9. Bajpakov, K. (1999). Imperija drevnih turok. *Turkskij mir (Jetnopoliticheskij i literaturno-hudozhestvennyj zhurnal),* Moscow, № 1-2, pp. 10-12.
10. Vajnberg, B.I. (1991). Izuchenie pamjatnikov Prisarykamishskoj del`ty Amudar`i v 70-80 godah. *Skotovody i zemledel`cy levoberezhnogo Horezma*, Moscow, pp. 67-98.
11. Gening, V.F. (1984). *Problema social`noj struktury obshhestva kochevyh skifov IV-III vv. do n.je. po arheologicheskim dannym*. F. Jengel`s i problemy istorii drevnih obshhestv, (pp.215-234). Kiev.
12. Georgadze, G.G. (1965). «Tekst Anitty» i nekotorye voprosy rannej istorii hettov. *VDI*, Moscow, 4, pp. 3-17.
13. Georgadze, G.G. (1988). *Proizvodstvo i primenenie zheleza v central`noj Anatolii po dannym hettskih klinopisnyh tekstov.* Drevnij Vostok (jetnokul`turnye svjazi). LXXX, (pp.238-261). Moscow.
14. Gorelik, M.V. (1993). *Oruzhie Drevnego Vostoka* (IV tysjacheletie - IV v. do n.je.), Moscow: Nauka, Tabl.I.
15. (1989). Drevnie civilizacii. (p.7). Moscow.
16. Zadneprovskij, Jy.A. (1978). *Chustskaja kul`tura Fergany i pamjatniki zheleznego veka Srednej Azii*. Avtoref. diss. dokt. ist.nauk, (p.32). Moscow: L..
17. Zdanovich, D.G. (1997*). Sintashtinskoe obshhestvo: social`nye osnovy «kvazigorodskoj» kul`tury Jyzhnogo Zaural`ja jepohi srednej bronzy*, (p.87). Cheljabinsk.
18. Ionesov, V.I. (1990). *Stanovlenie i razvitie ranneklassovyh otnoshenij v osedlozemledel`cheskom obshhestve Severnoj Baktrii*. Avtoref. dis. kand. ist. nauk, (p.21). Samarkand. IA AN Uz.SSR.
19. Itina, M.A. (1977). *Istorija stepnyh plemen Jyzhnogo Priaral`ja.* THAJeJe, T. H, (p.217). Moscow.
20. Kuz`mina, E.E. (1980). Diskussionnye problemy otechestvennoj skifologii. *Narody Azii i Afriki.* M. №6, pp. 27-41.
21. Kuz`mina, E.E. (1994). *Otkuda prishli indoarii*? (p.224). Moscow.
22. Lamberg-Korlovskij, K.K. (1990). Modeli vzaimodejstvija v III tysjacheletii do n.je.: ot Mesootamii do doliny Inda, *VDI*, № 1, p.3.
23. Litvinskij, B.A. (1972). *Drevnie kochevniki «krysha mira»*. (p.269). Moscow.
24. Masimov, I.S. (1981). Novye nahodki pechatej jepohi bronzy s nizovij Murgaba. *SA*. №2, pp. 132-150.
25. Masson, V.M. (1981). Altyn-Depe. *Trudy JyTAKJe*. Tom XVIII. L., p.324.
26. Masson, V.M. (n.d.). *Drevnezemledel`cheskaja kul`tura Margiany*., (p.108).
27. Masson, V.M. (1989). *Pervye civilizacii*. (p.291). L..
28. Masson, V.M. (1958). Problema drevnej Baktrii i novyj arheologicheskij material. *SA*, Moscow, № 2, pp. 49-65.
29. Masson, V.M. (1967). Protogorodskaja civilizacija uga Srednej Azii. *SA*, Moscow, №3, pp. 165-190.
30. Masson, V.M. (1967). Stanovlenie ranneklassovogo obshhestva na Drevnem Vostoke. *VI*, №5, pp. 82-94.
31. Masson, V.M. (1980). Formirovanie ranneklassovyh obshhestv i voprosy tipologii drevnih civilizacij. Drevnij Vostok i antichnyj mir, (pp.12-40). Moscow: MGU.
32. Masson, M.E. (1937). *Prikladnye zadachi v arheologii i ih tematika v Srednej Azii*. Tashkent.

33. Pavlenko, Jy.V. (1989). *Ranneklassovye obshhestva.* Genezis i puti razvitija, (p.172). Kiev.
34. P`jankova, L.T. (1989). *Drevnie stotovody Jyzhnogo Tadzhikistana*. (p.208). Dushanbe, Donish.
35. Rahimov, K. (2011). *Sopolli madanijati jodgorliklarida olov bilan boƶlik kurilmalar va oshhona idishlari tipologijasi.* T.f.n. . diss. avtoreferati. ЎzR FA Arheologija instituti. (p.21). Samarkand.
36. Rahmanov, U. (1987). *Keramicheskoe proizvodstvo jepohi bronzy Jyzhnogo Uzbekistana*. Avtoref. diss. … kand. ist. nauk, (p.19). Samarkand, IA AN RUz.SSR.
37. Rahmanov, U.V., & Shajdullaev, Sh.B. (n.d.). *O vlijanii kul`tur stepnoj bronzy*. (pp. 58-63).
38. Rtveladze, Je.V. (1988). *Drevnjaja Baktrija - Srednevekovyj Toharistan. Dinamika istorika-kul`turnogo razvitija* (po materialam amudar`inskogo pravoberezh`ja). Avtoref. diss. . dokt. ist. nauk, (p.42). Moscow: MGU.
39. Ruzanov, V.V. (1999). Eshhe raz o hronologii Chustskoj kul`tury Fergany. *Rossijskaja arheologija*, №4, Moscow, pp. 233-239.
40. Sagdullaev, A.S. (1982). Zametki o rannem zheleznom veke Srednej Azii. *SA*, №2, pp. 229-234.
41. Sagdullaev, A.S. (1989). *Osedlye oblasti na uge Srednej Azii v jepohu rannego zheleza* (genezis kul`tury i social`no jekonomicheskaja dinamika). Avtoref. dis. dok. ist. nauk, (p.40). Moscow: MGU.
42. Sajko, Je.V. (1982). *Tehnika i tehnologija keramicheskogo proizvodstva Srednej Azii v istoricheskom razvitii*. (p.154). Moskva.
43. Sajko, Je.V. (1987). *Formirovanie drevnejshih gorodov i stanovlenie ranneklassovogo obshhestva*. (p.77). Moscow.
44. Sarianidi, V.I. (1977). *Drevnie zemledel`cy Afganistana*. Moscow.
45. Sarianidi, V.I. (1976). *Issledovanija pamjatnikov Dashlinskogo oazisa.* Drevnjaja Baktrija. Materialy 1969-1973 gg, (pp.21-86). Moscow: Nauka.
46. Sarianidi, V.I. (2002). *Margush. Drevnevostochnoe carstvo v staroj del`te reki Murgab*, (p.279). Ashgabat.
47. Sarianidi, V.I. (1979). Ob odnoj gruppe kul`tovyh izdelij Baktrii. *SA* №3, pp. 262-265.
48. Sarianidi, V.I. (1999). Siro-Hettskoe proishozhdenie Baktrijsko-Margianskoj gliptiki. *VDI*, Moscow: №1, p. 55.
49. Sariianidi, V.I. (2001). *Nekropol` Gonura i iranskoe jazychestvo*. Moskva.
50. Smirnov, K.F. (n.d.). Vooruzhenie savromatov. *MIA*, №101, pp. 37-55.
51. Tojnbi, A.Zh. (1991). *Postizhenie istorii*, (p.239). Moscow.
52. Hazanov, A.M. (1975). *Social`naja istorija skifov: Osnovnye problemy razvitija drevnih kochevnikov evrazijskih stepej*. (p.275). Moscow: Nauka.
53. Shajdullaev, Sh.B. (2009). *Jetapy vozniknovenija i razvitija gosudarstvennosti na territorii Uzbekistana*. Avtoreferat dis. d.i.n. Samarkand.
54. Shajdullaev, Sh.B., & Ikromov, N.M. (2010). Kadimgi Baktrija podshoҳlikmi kavijlikmi. O'zbekicton tarixi. *ЎzR FA Tarih instituti zhurnali*, № 3, pp.67-72.
55. Shirinov, T.Sh. (1990). *Drevnejshie torgovye puti Srednej Azii* (III-II tys. do n.je.). Formirovanie i razvitie trass velikogo shelkovogo puti v Central`- noj Azii v drevnosti i srednevekov`e. Tezisy dokladov mezhdunarodnogo seminara JyNESKO, (pp.34-39). Tashkent.
56. Shirinov, T.Sh. (2001*). Kadimgi Baktrija podsholigi "Katta Horazm".* Ўzbekiston davlatchiligi tarihi ocherklari, (pp.7-13). Toshkent: Shark.
57. Shirinov, T.Sh. (1993). *Rannjaja gorodskaja kul`tura jepohi bronzy uga Srednej Azii*. Avtoref. diss. . dokt. ist. nauk, (p.42). Moscow: IA AN Rossii.
58. Shhetenko, A.Ja. (1970). O torgovyh putjah jepohi bronzy po materialam Turkmenistano-Harapskih parallelej. *KSIA*, Vyp.122, Moscow, pp. 17-21.
59. Jeshov, B.Zh. (2008). *Istorija formirovanija i razvitija rannegorodskoj kul`tury Srednej Azii*. Avtoref. diss. . dokt. ist. Nauk. (p.42). Tashkent.
60. Amiet, P. (1989). *Elam and Baktria. Baktria. An Ancient Oasis Civilizations*. Roma-Venezia.
61. Amiet, P. (1972). *Glyptique Susienne. Des origines a L'epoque des perses Achemenides* (MDAI, t. XLIII). Paris.
62. Amiet, P. (1986). *L'age des echanges inter-iraniens 3500-1700 avant*. P..
63. Baghestani, S. (1997). *Metallene Compartimentsiegel aus Ost-Iran, Zentralasien und Nord-China*. Archaologie in Iran und Turan. Band 1. Leidorf.
64. Forbes, R.J. (1950). *Metallurgy in Antiquily*, (p.443). Leiden.
65. Frangfort, H.P. (1989). *Fouilles de Shortughai. Recherches sur L'Asie Central protohistoriques.* V.I.II, Paris: Boccard.
66. Goetze, A. (1957). *Kleinasien*, Munchen.
67. Kaniuth, K., & Teufer, M. (2001). Zur Sequenz des Gruberfeldes von Rannij Tulchar und seiner Bedeutung fur die Chronologie des sputbronzezeitichen Baktrien. *AMIT*. Band 33, Berlin, pp. 89-115.
68. Laroche, Em. (1957). *Etudes de vocabulaire*. VI. Revue hittite et asianique.

69. Salvatori, S. (2000). Bactria and Margiana Seals. *East and West*. Vol.50, P.97-145;.
70. Sarianidi, V.I. (1981). *Seal-Amulets of the Murgab Style. The Bronze Age Civilization of Central Asia. Recent Soviet Discoveries*. Ed. by Kohl P. L., New York.
71. Tanabe, K., Hori, A., Ishida, K., Nagasava, M., & Itami, S. (1983). *Animals in the Art of the Ancient Orient.* The Ancient Orient Museum, Tokyo.
72. Tosi, M. (n.d.). A Topographical and Stratigraphical Periplus of Sahre Suxteh. Proc.*ASARI* 1975, 1976, pp.130-158.
73. Tosi, M. (1969). Excavations at Shahr-i Sokhta. Preliminary Report on the Second Campaign, Sept.-Dec., *EW* 19, pp.283-386.
74. Waldbaum, J.C. (1980). *The First Archaeological Appearance of Iron and the Transition to the Iron Age.* The Coming of the Age Iron. Ed. by Th.A.Wertime and J.D. Muhly, New Haven-London, pp.69-98.
75. Wertime, T.A. (1973). Pyrotechnology: Man's First industrial Uses of Fire. *American Scientist*., Vol. 61. 6, pp.682.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Shog'dor Davronovich Abdiraimov
Karshi Engineering and Economics Institute
Master

Shaxnoza Olimjon qizi Shukurova
Karshi Engineering and Economics Institute
Master

Abbos Baxtiyor o'g'li Annayev
Karshi Engineering and Economics Institute
Master

Manzura Baxtiyarovna Beknazarova
Karshi Engineering and Economics Institute
Master

Farrux Erkinovich Raimov
Karshi Engineering and Economics Institute
Master

COVID-19: WAS IT REALLY HARMFUL? OR THOSE WHO MADE MONEY FROM THE PANDEMIC

Abstract: *This article discusses one of the global problems, the devastating effects of the Covid-19 virus, which is increasingly plaguing the world economy. It is known that the pandemic has weakened the economic activity of all sectors. However, there are industries that have managed to increase their wealth several times during this period, earning millions. The analysis of these is presented in this article with statistical indicators.*

Key words: *COVID-19, World Economy, Tax Fairness and Institute for Policy Studies, Forbes data, high-tech companies, Zoom platform and etc.*

Language: *English*

Citation: Abdiraimov, S. D., Shukurova, S. O., Annayev, A. B., Beknazarova, M. B., & Raimov, F. E. (2020). COVID-19: was it really harmful? Or those who made money from the pandemic. *ISJ Theoretical & Applied Science, 08 (88),* 46-49.

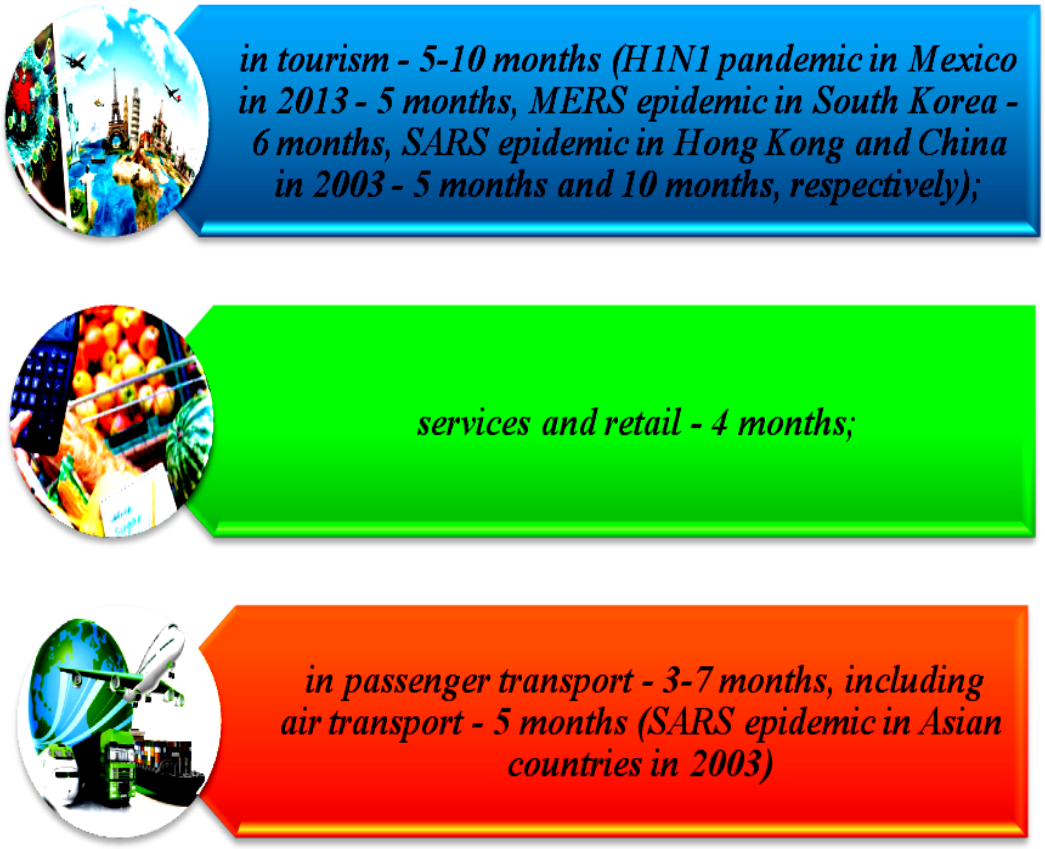
Soi: http://s-o-i.org/1.1/TAS-08-88-12 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.12

Scopus ASCC: *2000.*

Introduction

Each year, the United Nations Organization has repeatedly stressed the need to work together to address global challenges such as environmental catastrophe, climate change, poverty, freshwater scarcity, and depletion of resources. But for some reason, the efforts, the forces were not united enough, and everything remained on paper. The reason is simple. The countries of the world have forgotten what unity is. The chase, the "competition" (whatever it was), was rampant. But it is impossible not to unite in the face of the next struggle. That's right- we need to help each other, not just hand in hand. Because even the human mind, which is conquering distant planets and making wonderful inventions and changing the world, is unable to control the slightest infection. Nowadays, it is not easy for any country where the coronavirus has entered to maintain the country as before. In this situation, the main task of the country is to save the lives of the population. This can only be

done through the introduction of quarantine rules and strict control. This means that many organizations, agencies, enterprises and institutions must be suspended. The side effects of coronavirus have not gone unnoticed. There are serious problems and concerns, especially in the economy, health care and food industry. It is true that even the complications of the pandemic have changed the psychological landscape of the world. What for? Because humanity was not yet ready for such a catastrophe as the coronavirus. It is true that many battles, world wars, and plagues that have claimed the lives of 50 million people have healed mankind. But in this age of progress, some unfamiliar infection has once again reminded us that man is a very small and helpless creature in the eyes of all beings. As a result, we had to defend ourselves. The results of international studies show that after the end of the quarantine period, it will take an average of 3-12 months for the world economy, including the areas most affected by quarantine restrictions, to return to pre-pandemic levels. In particular, in the fields of electrical engineering and light industry, construction materials industry, construction, financial and medical services, economic activity is expected to recover faster (average recovery period is 2-3 months). However, economic activity is recovering relatively slowly in the following areas:



Pic.1

The relatively slow recovery of economic activity in these sectors is due to the relatively late removal of quarantine restrictions and the time it takes for the population to adapt to post-pandemic conditions.

In general, one of the key factors in minimizing the negative effects of the pandemic and ensuring a speedy recovery of economic activity is to eliminate the pandemic as soon as possible by applying timely and strict (aggressive) quarantine measures against the spread of the virus.

However, our idiots say that "one bad has one good". While much of Kurrai's land is homeless as a result of unemployment, and the economy is in crisis, but some are making better money. It should be noted that during the pandemic there were millions of people who amassed wealth. How do they do? Now let's talk about it:

Shares of high-tech companies are rising steadily amid a general decline in the value of companies in the stock markets during the pandemic.

Apple and Microsoft are the first companies in history to reach a market capitalization of $ 1.5 trillion. The incident occurred during the next trading on the NASDAQ. Apple's stock rose to $ 352 and Microsoft's stock rose to $ 196. Market prices of other techno-giants are also rising. Currently, Amazon has a market capitalization of $ 1.3 trillion, while Google-

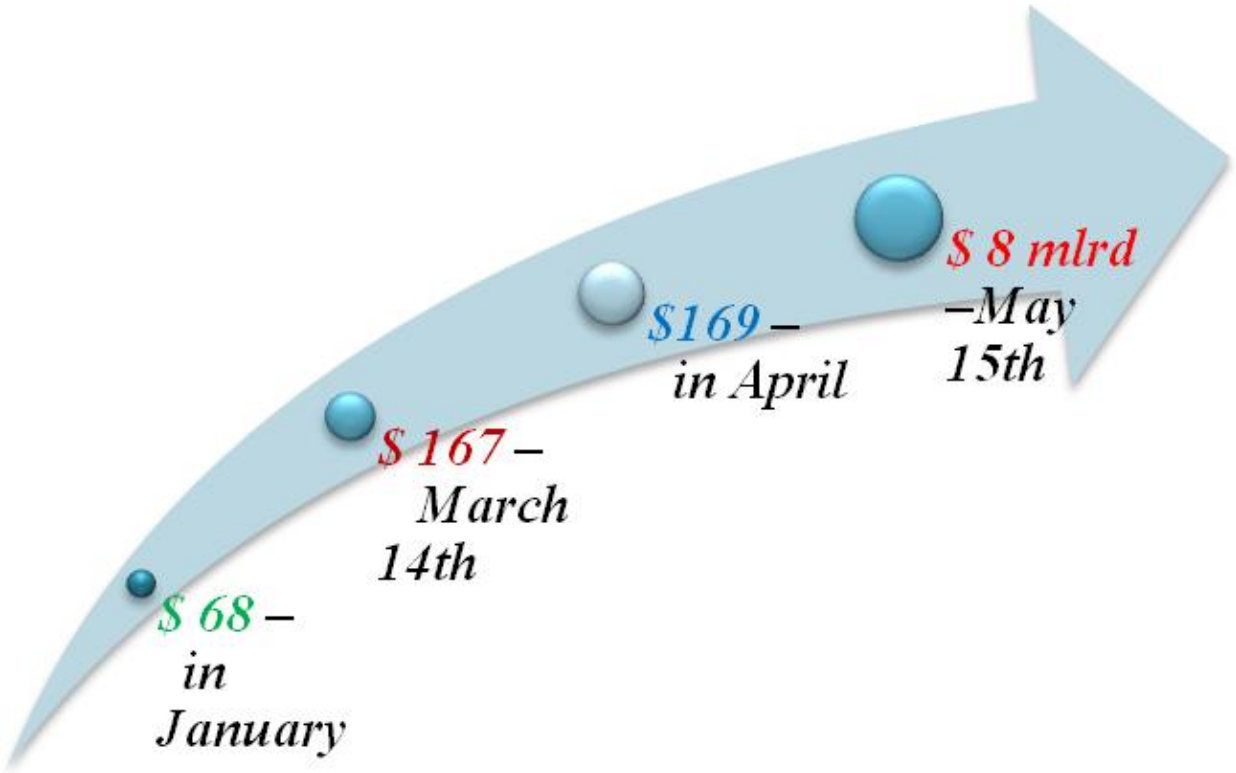
owned Alphabet has a market capitalization of $ 1 trillion.

Accordingly, research teams from the ***Americans for Tax Fairness and the Institute for Policy Studies*** conducted a study on who amassed wealth during the pandemic. The study found that the fortunes of U.S. billionaires have increased by 15 percent in the last two months of the coronavirus pandemic. The study takes into account changes in the fortunes of billionaires between March 18 and May 19 this year, according to Forbes. According to it, during this period, their wealth increased by a *total of $ 434 billion (from $ 2.948 trillion to $ 3.383 trillion).* Also:

- *Amazon founder Jeff Bezos' fortune rose 30.6 percent to $ 34.6 billion,*
- *Microsoft co-founder Bill Gates is valued at $ 8 billion (8.2 percent),*
- *Facebook co-founder Mark Zuckerberg's $ 25.3 billion (46.2 percent),*
- *Berkshire Hathaway CEO Warren Buffett is worth $ 524 million (0.8 percent),*
- *Oracle founder Larry Ellison's fortune increased by $ 7 billion (11.9 percent).*

Among the top 30 billionaires in the U.S., Menards founder John Menar Jr. and Snake Mask (62.8 percent and 48 percent, respectively) were the richest in terms of percentage (but not in absolute numbers). The study also found that the number of billionaires has also increased. In March, the number was 614, and in May it was 630.

It is also essential to note that video conferencing companies, and especially Zoom, are among the most successful during the coronavirus crisis. This service allows many people to communicate via video at the same time, which in turn is very useful for working remotely, studying, conducting business meetings online. For example, in our country there are a lot of conferences and events through the Zoom platform. For most people, such services allow for a small amount of benefit during quarantine. Rising demand has also allowed Zoom to break the Dow Jones industrial average, which has fallen to its lowest level since 1987. In the days of the coronavirus outbreak, the number of downloads more than doubled, as did the company's stock price. The growth dynamics of Zoom stocks during the pandemic period are as follows:



Pic.2

Demand for zoom has led its founder, *Eric Yuan*, to become one of the richest people on the planet. In 2020, the businessman entered the traditional ranking of the richest people in the world, compiled by Forbes magazine, and secured a 205th place in this ranking.

We can say that the pandemic has been successful for ***drug companies*** as well. ***Pharmaceutical companies*** are also on the rise. The reason is that in any epidemic, the search for drugs from the disease becomes the number one topic. Therefore, crises are not a hindrance to the development of manufacturers in this area. For example, shares of the pharmaceutical company Gilead Science, which tested the drug remdesivir to

determine its effectiveness against coronavirus, rose from *$ 65 to $ 77 in January*. The company's stock jumped to $ 84 in a short period of time after it was discovered in April that the drug had been effective in fighting coronavirus in critically ill patients. Gilead Science competitors continue to grow in their own race to be the Discovery of the Year.

Inovio Pharmaceuticals, which began testing the drug in early April, also saw its *shares increase by 300%*. Shares of Moderna, which has begun work on an anti-COVID-19 drug, rose 25 percent from January. Pharmaceutical giants Pfizer and BioTech, which have begun using coronavirus vaccines in humans in the United States and Germany, also continue to see rising paper prices.

Biotechnology companies and Internet retailers have also performed well during the pandemic. At the same time, as a result of high demand for daily necessities, the market for disinfectants and preservatives has become more active. Clorox, an American manufacturer of disinfectants and cleaning products, is particularly active. In addition, the coronavirus saved the company from bankruptcy: a few years before the epidemic, its financial situation had deteriorated due to high pressure from competitors. But Clorox shares hit a 50-year high as demand for disinfectants soared during the pandemic.

In conclusion, while the coronavirus has wreaked havoc on the global economy, it has become a source of profit for some. We can say that the funds that were not available during his career were earned during this period.

The rise of technology companies has also given a powerful impetus to the global economy's transition from real to virtual. The beginning of 2020 was able to turn the real world into a virtual world. While the disruption of global supply chains as a result of border closures has made companies think a little, it is true that it is now encouraging them to do more research. Countries that do not have global experience in remote work have also tried to take a step forward by introducing it in the wake of the pandemic. It is true that the pandemic has damaged some areas. Even from imagining the complications it causes, no definite solution has yet been found on how to overcome it. However, we must not forget that the scales have two phases. After dark comes bright days. Therefore, it is safe to say that the coronavirus has completely changed the economic landscape of our planet.

References:

1. (n.d.). *Forbes informations*.
2. (n.d.). Retrieved from Kun.uz.
3. (n.d.). Retrieved from https:. zamin.uz/u.
4. (n.d.). *Bloomberg agentligi ma'lumotlari*. Retrieved from https://www.bloomberg.com/europe.
5. (n.d.). Retrieved from «Gazeta.uz».
6. Farxodjonova, N. (2019). Features of modernization and integration of national culture. *Scientific Bulletin of Namangan State University*, T. 1, №. 2, pp. 167-172.
7. Ergashev, I., & Farxodjonova, N. (2020). Integration of national culture in the process of globalization. *Journal of Critical Reviews*, T. 7, №. 2, pp. 477-479.
8. Farxodjonova, N. F. (2018). History modernization and integration of culture. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 13-15.
9. Farxodjonova, N. F. (2018). Modernization and globalization as historical stages of human integration. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 16-19.
10. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Nilufar Komilovna Jumaniyozova
Sergeli district of Tashkent region
The teacher of mathematics at
State general education in 300

TRIANGLE AND ITS STRIKING POINTS

Abstract: *Historically, geometry began with a triangle, so for two and a half thousand years the triangle has been a symbol of geometry; but it is not only a symbol, it is an atom of geometry. Why can a triangle be considered an atom of geometry? Because the previous concepts - point, line, and angle - are vague and intangible abstracts, along with a set of theorems and problems. Therefore, school geometry today can only become interesting and meaningful, and only then can it become the geometry itself when a deep and comprehensive study of the triangle emerges in it. Surprisingly, the triangle, despite its simplicity, is something that cannot be studied - even in our time he cannot dare to say that he has learned and knows all the features of the triangle.*

Key words: *triangle, geometry, angle, radius, object, source, material, type, right angle.*

Language: *English*

Citation: Jumaniyozova, N. K. (2020). Triangle and its striking points. *ISJ Theoretical & Applied Science, 08 (88),* 50-53.

Soi: http://s-o-i.org/1.1/TAS-08-88-13 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.13

Scopus ASCC: *2600.*

Introduction

Therefore the study of school geometry cannot be carried out without an in-depth study of triangular geometry; the diversity of the triangle as an object of study, and therefore as a source of different methods of studying it, it is necessary to select and develop a material for the study of the geometry of the points of interest of the triangle. In addition, the choice of this material should not be limited to the attractions noted in the school curriculum by the State Education Standard, such as the center of the inscribed circle (the point of intersection of the bisectors), the center of the circle (intersection of the middle perpendiculars) , the intersection of the medians and the intersection of the altitudes. But to delve deeper into the nature of the triangle and understand its infinity, it is necessary to have an idea of as many wonderful aspects of the triangle as possible. In addition to the fact that a triangle is inexhaustible as a geometric object, the most striking feature of a triangle should be noted as an object of study: the study of the geometry of a triangle can be started by studying any of its properties; then a methodology for studying the triangle can be constructed so that all other features of the triangle are surprising. In other words, no matter where you start learning the triangle, you can always go to the bottom of any of these amazing figures. But then - as an option - you can start exploring the triangle by exploring its amazing aspects.

The points of interest of a triangle are points that are determined by this triangle and are independent of the order in which the edges and ends of the triangle are obtained.

Theorem2. The medians of a triangle intersect at a single point and are divided by a ratio of 2: 1 at the point of intersection.

Proof.Assume that point M is the center of the AC side and point N is the center of the side BC, i.e. MA = MC, NB = NC. N point B and

Because they lie between points C, points B and C lie on opposite sides of the straight line AN. For straight lines AN and AC, point A is common, so they cannot have other common points. Therefore, point M lying on the line AC and point B lying on the line AN lie on different sides of the line. As a result, the medians AN and BM intersect at an O point.

Since M and N are the midpoints of the sides AC and BC, respectively

then MN is the midline of the cross section ΔABC and MN AB. Two mutually parallel straight lines AB and MN intersect with straight lines AN and BM. The internal alternating angles formed at that

time are equal to each other: ∠BAN = ∠ANM, ∠ABM =∠BMN. Now that the two angles in ΔABO are equal to the corresponding angles of ΔMON, they are similar, i.e. ΔABO ΔMON, their corresponding sides are proportional.

Theorem 2. All the heights of the triangle intersect at one point.

Proof. From the ends A, B, C of a given triangle we draw straight lines A2C2 AC, A1B1 AB, B1C1 BC parallel to its opposite sides. The intersection of these straight lines results in the formation of A1B1C1. By construction C1B AC, C1A BC, A1C AB, BA1 AC.

Thus, the rectangles AC1BC and ABA1C are parallelograms and C1B = AC, BA1 = AC, BA1 AC. From this we get C1B = BA1, ie point B is in the middle of the intersection A1C1. Similarly, points A and C can be shown to be the midpoints of sides B1C1 and A1B1, respectively. From the end B of the triangle ABC we pass the height BN. However, in A1B1C1, the height BN is the median perpendicular to its side A1C1. Similarly, the heights CK and MA are perpendicular to the sides A1B1 and B1C1, respectively. Since the median perpendiculars intersect at a single point in any triangle, the heights MA, NB, and KC intersect at a single point O.

The bisector of a triangle is the angular cross section of the triangle that connects it with the point on the opposite side of the triangle.

Theorem Each point on the bisector of an undeveloped angle is equal to each other from its sides (i.e., an equation of straight lines containing the sides of a triangle). Conversely: every point that is equal in angle and on the sides of the angle lies in its bisector.

Let's look at some properties of the bisector of a right triangle.

Theorem 1. The points of the angle bisector lie at equal distances from the sides of the angle.

Proof. The straight line AD is the bisector of the angle BAC, ie ∠BAD = ∠DAC. Taking an arbitrary point K on the bisector AD, we draw from this point the perpendiculars KN ⊥ AC, KM ⊥ AB to the sides of the angle. In the resulting right-angled triangles AKM and AKN, the hypotenuse is common and the acute angles ∠MAK, ∠KAN are equal, so they are equal to each other: ΔKMA ΔKNA. In equal triangles, equal sides lie opposite opposite equal angles. Therefore, KM = KN. The theorem is proved.

Theorem 2. The opposite side of the bisector of the interior of a triangle is divided into parts proportional to the sides adjacent to it.

Proof. Let AD be the bisector of the interior angle ΔA = a, ie aBAD = ∠DAC. From the angles B and C of the triangle, we draw perpendiculars to the straight line AD: BE ⊥ AD, CF ⊥ AD. Then ΔABE and ΔACF are right angles and ∠BAF = ∠CAF

because they are similar, i.e. ΔABE ΔACF. Hence CAC AB BE. On the other hand, since CFD and BDE are right-angled and vertical angles, the equation ∠BDE = ∠CDF is appropriate, so the triangles are similar, i.e., CFD BDE. Hence or (b). By comparing the resulting equations (a), (b), we obtain the required equation. The theorem is proved. We now give the formulas for calculating the bisectors of a triangle. Construct the bisector AD ΔABC with sides AB = c, BC = a, AC = b and express its length la by a, b, c. We get the relationship according to the property of the bisector of the interior angle of a triangle.

The gergonn point is the point of intersection of the segments connecting the ends of the triangle with the tangent points of these sides and the opposite sides to the circles inscribed on the triangle.

Let the point O be the center of the circle of triangle ABC. Connect the marked circle to the sides of the triangle BC, AC and AB at points D, E and F, respectively. The Gergonn point is the point of intersection of the AD, BE, and CF segments. Let O be the center of the circle inscribed? ABC. Connect the marked circle to the sides of the triangle BC, AC and AB at points D, E and F, respectively. The Gergonn point is called the intersection of the segments AD, BE, and CF (we rotate the triangle clockwise)), the segments intersect at one point.

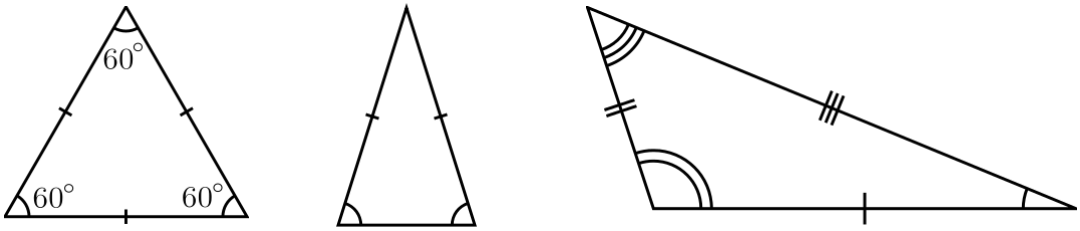
Recorded apartment features:

A circle, if it touches all its sides, is called a triangular inscription.

Given three points A, B, and C that do not lie on a straight line. By connecting these points through a series of intersections, we form a shape called a triangle and denoted by ABC. Points A, B, C are the ends of a triangle, AB, BC, CA are called its sides. The intersections AB, BC, CA form a closed broken line, and therefore the definition of a triangle can be given as follows: The part of the plane bounded by a closed broken line consisting of three joints is called a triangle. The angles ∠CAB, ∠CBA, ∠ACB are called the interior angles of the triangle ABC, which are sometimes denoted by a single letter: ∠A, ∠B, ∠C. Continue the AC side of the triangle to the right of point C. The resulting angle ∠BCD is called the exterior angle of triangle ABC.

Triangles are divided into three types: equilateral, equilateral, or regular, with different sides. A triangle with two sides equal is called equilateral. A triangle with three equal sides is called equilateral or regular. A triangle with sides of different lengths is called a triangle. There are three types of triangles. A triangle with all its interior angles is called an acute angle. A triangle with one interior angle is called an obtuse triangle. A triangle with an interior angle of 90° is called a right angle.

Depending on the length of the sides of a triangle, there are three types:



Equilateral. Equilateral Different sides

Pic.1.

Definition. The median of a right triangle is AK, which connects the end A of the triangle with the center K of the opposite side BC. By definition, ABC has three media outlets. Let AD ∠BAC in ABC be equal to two, that is, ∠BAD = ∠DAC and let AD be the point of intersection of the ray with the side BC of the triangle BC. Then the cross section AD is called the bisector of the angle A of the triangle ABC. Obviously, a triangle can have three bisectors. Draw ABC perpendicular to the straight line BC from the end A of the triangle and let F be their point of intersection. At that time AF is called the height of the intersecting triangle. There are three heights in a triangle. The midpoint of the triangle ABC is the midline of the triangle connecting the points K and N between the sides AB and AC. Three midlines can be drawn in a triangle.

Theorem 1. The center line of a triangle is parallel to its base and half the length of its base:

theorem. The sum of the interior angles of a triangle is 180 °.

Theorem 3. The exterior angle of a triangle is equal to the sum of the interior angles that are not adjacent to it:

∠BCD = ∠BAC + ∠ABC.

An equilateral triangle and its properties. Given ABC, then AB = BC, that is, let it be equilateral. This triangle has the following properties.

1. The bisector drawn from the end of an equilateral triangle to its base is both the median and the altitude. In other words, if AB = AB and BC in ABC

If ∠ABD = ∠DBC, then BD ⊥ AC and AD = DC.

2. The angles at the base of an equilateral triangle are equal to each other, if in ABC

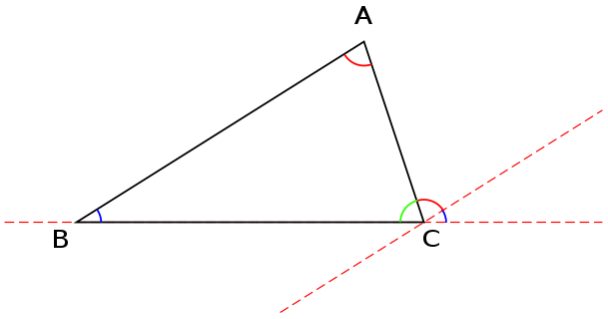
If AB = BC, then ∠A = ∠C.

Proof. In the equilateral ABC (AB = BC) we pass the bisector BD for B, that is, ∠ABD = ∠DBC. According to property 1, BD ⊥ AC and AD = DC.

Now let's turn ABD by ABC's median. Since ∠DBC = ∠DBA, when ABD is placed on top of BDC, BA goes in the direction of BC.

Since DC = DA, point A overlaps point C and sides BA and BC also overlap, BA = BC. Now that BC = BA and CD = DA, the angles between them are also equal, i.e. ∠BAD = ∠BCD. The property is proved. Moved to the sides in an equilateral triangle:

a) heights; b) medians; d) The bisectors are, respectively, equal to each other.



Pic.2.

the interior angles of a triangle are 180 ° (mutually equal in the same color)

the sum of the interior angles of a triangle is 180°;

the exterior angle of a triangle is equal to the sum of two interior angles that are not adjacent to it;

like all polygons, the sum of the exterior angles of a triangle is 360 °;

the sum of any two sides of a triangle is always greater than the third side: a + b> c, a + c> b, b + c> a

Pythagorean theorem

The Pythagorean theorem applies to a right-angled triangle, the square of the hypotenuse of a right-angled triangle is equal to the sum of the squares of its legs. A right-angled triangle with legs a and b, hypotenuse c given, then the Pythagorean theorem is represented by the formula: The main properties of a right triangle are: the sum of the acute angles of a right triangle is 90 °, they complement each other; if the

legs of a right triangle are equal, the angles opposite the legs are 45 ° and the hypotenuse by Pythagorean theorem is found using the following formula: c = √2a; the hypotenuse of a right-angled triangle with angles of 30 ° and 60 ° is equal to the doubling of the catheter opposite the minor angle:; In all right-angled triangles, the median drawn to the hypotenuse is half of the hypotenuse.

References:

1. Karimov, I.A. (1997). *Uzbekistan is on the threshold of the XXI century. Security threat, conditions of stability and guarantees of development*. (p.326). Tashkent: Uzbekistan.
2. Karimov, I.A. (2009). *The global financial and economic crisis in the context of Uzbekistan ways and means to eliminate it*. (p.56). Tashkent: Uzbekistan.
3. Farxodjonova, N. F. (2018). History modernization and integration of culture. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 13-15.
4. Farxodjonova, N. F. (2018). Modernization and globalization as historical stages of human integration. *Teorija i praktika sovremennoj nauki*, №. 3, pp. 16-19.
5. Numonjonov, S. D. (2020). Innovative methods of professional training. *ISJ Theoretical & Applied Science*, 01 (81), pp. 747-750.
6. Tolipov, Ў., & Usmonboeva, M. (2005). *Pedagogik tehnologija: nazarija va amalijot*. Tashkent: Fan.
7. Farberman, B.L. (2000). *Peredovye pedagogicheskie tehnologii*. Tashkent: Fan.
8. Holmuhammedov, M.M., et al. (2005). *Ta#lim pedagogik tehnologijalari*. Uslubij kўllanma, (p.49). Samarkand.
9. Farhodzhonova, N. F. (2016). *Problemy primenenija innovacionnyh tehnologij v obrazovatel`nom processe na mezhdunarodnom urovne*. Innovacionnye tendencii, social`no-jekonomicheskie i pravovye problemy vzaimodejstvija v mezhdunarodnom prostranstve, pp. 58-61.
10. Farhodjonovna, F. N. (2017). Spiritual education of young in the context of globalization. *Mir nauki i obrazovanija*, №. 1 (9).

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 21.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Jasurbek Zokirjonovich Akhmedov
National Institute of Arts and Design named after Kamaliddin Bekhzod.
Teacher of the Department of Museology,
Tashkent, Uzbekistan.
jasur184@list.ru

E`tibor Yadgarovna Mirzanazarova
National Institute of Arts and Design named after Kamaliddin Bekhzod.
Teacher of the Department of Museology,
Tashkent, Uzbekistan.

THE IMPORTANCE OF WALL PICTURES OF AFROSIYAB IN STUDYING THE CULTURAL HERITAGE OF UZBEKISTAN

Abstract: *The center of civilization that has existed since antiquity on the territory of Central Asia and has come down to us is a vivid proof that the formation of the Uzbek costume and art in general has its roots in ancient times. An especially important role is played by wall painting, where you can enjoy the culture and be a people. With the help of the found monumental works of painting in Afrosiyab, the peculiar specific qualities of the costume of each region were examined.*

Key words: *wall paintings, traditional clothes, ornament, archaeological object, constructive decision, historical manuscript, material, spiritual value.*

Language: *English*

Citation: Akhmedov, J. Z., & Mirzanazarova, E. Y. (2020). The importance of wall pictures of afrosiyab in studying the cultural heritage of Uzbekistan. *ISJ Theoretical & Applied Science, 08 (88)*, 54-57.

Soi: http://s-o-i.org/1.1/TAS-08-88-14 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.14

Scopus ASCC: *1202.*

Introduction

In the second half of the 20th century, among the ruins of ancient Afrosiyab, 150-200 meters west of the Afrosiyab museum, a palace with wall paintings dating back to the 7th century was found. The walls in some rooms of the palace are completely decorated with picturesque paintings. Despite the fact that thirteen centuries have passed, the purity of the colors and colors of the paintings is amazing (the frescoes are currently exhibited in the halls of the Afrasiyab Museum). The central hall of this palace, 11x11m, is very well preserved. Like the walls of other rooms, the walls of the hall were made of straw, thinly plastered with straw clay, then plastered and painted. The height of the preserved wall is 2-2.5 meters. The upper parts of the walls were destroyed and have not survived. The restored frescoes have been shown to the general public since 1985.

The paintings on the west, north and south walls of the room reflect independent content and landscape. To the left of the wall on the western part, opposite the entrance, there is a depiction of a man in white and on the hem of his clothes there is a 16-line Sogdian inscription. The inscriptions refer to the reception of ambassadors by King Varhuman, a descendant of Unash. The ceremonial procession of ambassadors carrying gifts depicted in the middle of the wall matches the inscriptions. On the right and left sides of the wall, according to early narratives, spears are depicted mounted on pillars (eleven on the right and nine on the left), battle shields are decorated with legendary masks. In the images on the left and right in the middle ground, it is likely that the long-haired heroes sitting behind the viewer are the Turks who formed the royal army.

Materials and Methods

Research in recent years has led to the assumption that these heroes may not be the Turkic army, but representatives of a small principality who gathered to politically unite under one state. If they were soldiers of the royal army, the focus would be on the side where the king was sitting and the ambassadors of different states. But they are depicted as sitting freely, interacting with each other. The spears shown in the upper plan (they must be in the hands of the guards as a security requirement) may be the flags of these principalities. Because if you look closely, you can see eleven flagpoles on the right side, tied with tape, and on the left, nine that do not have such a connecting tape. The reason is that they are still negotiating unification under the same flag. More precisely, this composition reflects a great event in the history of Sogd - the solemn coronation of Sogd ihidi, Samarkand Afshin Varhum.

Information about these events is contained in the chronicles of the Tang Dynasty of China. At the beginning of the 7th century, the East Turkic khanates were in crisis, and in 657 the Western Turkic khanates. After that, small principalities in the Sughd region came under the rule of Varhuman. The wall paintings depict congratulations and gifts from the ambassadors of China, Korea, Chaganiyan and Choch at the official erection of Varhuman's cemetery in 658.

Looking at Afrosiyab's wall paintings, one can study the rich cultural heritage of different states and objects of applied art, including clothes of that era. Since the works depict plots of the palace way of life, they contain images of the palace nobility, representatives of the upper class, generals, merchants, dancers and musicians, etc.

Let's consider clothes separately by type, starting with outer swing clothes, with smells in the front. We will begin our analysis of clothing with cut, drawing on ethnographic data that will help us study the ancient design of clothing.

In the wall paintings of the 7th-8th centuries, one can see tunic-like outerwear for men that have existed since antiquity on the territory of Uzbekistan. The merchants' clothing is portrayed as lush and rich. A large amount of matter in clothes testifies to the wealth and social status of representatives of the upper stratum of society. In the depiction of merchants' clothes, the sleeves are long and wide, at the place of the shoulder seam folds in a circle and taper at the wrist, they are gathered in wide folds along the entire arm to the level of the cuff.

On the neckline, front part and hem, a strip of fabric of a different color is sewn - a border (or braid), 5-6 cm wide. The swing part hides only the braid. Since the robe was not fastened at the top, the inner garment was visible from the outside. From the bottom of the clothes, a round neckline was visible, which repeated the line of the neck and covered part of the chest. In some works, the front of the outer garment is depicted in a single cut. This suggests that the outerwear was of two types.

The clothes were narrow at the waist and widened downwards. At the waist line was a belt made of leather, decorated with a silver buckle. To guess what the silver buckle was, let us turn to one of the buckle samples from the excavations at Khalchayan. This buckle belongs to the 1st century BC. Oe., made of gold, circumference 4.7 cm, engraving 0.95 cm, weight 75 g 40 mg. It is believed to have been used for various purposes. Perhaps it was fastened to the belt, to the clothes itself, or served as an ornament for the handle of a long knife and dagger. In the middle, in a round shape, there is an image of an animal with two ears, at the edges it is surrounded by twenty heart-shaped cells (undoubtedly, these cells contained precious stones) and it, in turn, was also surrounded by round hooks.

Varakhsha (VII-VIII centuries AD) was located on the territory of Bukhara Sogd. The murals that have come down to us are few, of the surviving depictions of the costume, only three are clearly visible, with the help of which we examine the women's clothing of this area. In the eastern part of the wall painting of Varakhsha, in the scene of the incense burner on the southern wall of the eastern hall, there is an upper swinging men's clothing like a robe, sewn from painted fabric with a belt weapon in the form of an engraved dagger and sword. Patterned tape trims the hem and wide cuffs. Clothes are not fastened at the top and were worn on an open chest.

On the left side of the wall of the room of the Afrosiyaba palace, three bearded heroes are depicted, armed with swords and daggers in royal robes. The fabrics from which the costumes are sewn are decorated with images of various animals. The heroes were dressed in accordance with the tradition of the Sogdian culture, which at that time spread from the Sassanids of Iran to China. Messengers from different countries, one of them carries jewelry and ornaments, and the other a roll of silk fabric. According to the inscription, the central character in a red robe was appointed by the head of the Chancellery of King Chocha. Heroes dressed in civilian clothes stand next to him. In the middle of the wall, two groups emerge, symmetrical to each other, to celebrate. On the right are Chinese ambassadors in black hats with fruit and silk fabrics. To the right of these heroes are the Turks with long hair, and in this case they are depicted as foreign ambassadors.

On the right are also depicted three heroes, dressed in camisoles with false collars, but long stockings-boots on their legs. Apparently, these people were ambassadors of the mountainous region. The two men are behind them with a headdress with feathers thinking. These are ambassadors from Korea. The wall above is broken and it is not known what is depicted there. Probably Varhuman himself was depicted at the top.

The compositions of the north wall, which start from the right side of the hall, call for a completely different world. On the left are two boats depicting women, and one of them is well preserved. The back of the boat depicts musicians playing various musical instruments. The woman pictured larger than the others is the Chinese queen. Various mythical creatures are depicted in the water, as well as a dragon with a serpentine tail and a goat's head. The long-haired hero on the right holds the tail of a horse floating in the water. On the other hand, depicting a wavy line divides life into water and land. Here, the Chinese, dressed according to the Tang era, hunt tigers. This wall depicts the diplomatic and embassy relations of the Sogdian state with China.

The paint on the south wall of the hall is well preserved. The ceremony is not moving towards the central stage, but towards the opposite east. The end point of the procession is a separate building, and not a city in which several people are standing. It is known from the Chinese chronicles that every new year the Sogdian rulers of Zoroastria visited the graves of their ancestors and made sacrifices. These ceremonies are reflected in the center section of two men with their mouths tied. The representative of the Zoroastrian religion carries sacrificial animals. One of the animals is a gray horse that saddles, but without a rider. Another representative carries four white birds, and two horsemen with golden sticks walk in front of the victims. At the end of this ceremonial procession, King Varhuman is depicted on a yellow horse with jewelry on his neck and a tiger skin on his shoulders in a red shirt. A high-ranking woman sits on a throne atop a white elephant, next to the place where the descendants of kings lie. This must be the Queen of Sogd. Behind her are three young women on horses. One of the women had the inscription “the official lady-hostess” on her wrist. The horses' legs are visible in the top row. The king's bodyguards must be sitting on them.

The image of fish swimming in the water, children swimming and bulls in the middle of the east wall are not well preserved. Perhaps this is paradise - the image of the river separating the dead and the living.

The wall paintings reflect three aspects of the policy of Ikhshid Varhuman: the reception of ambassadors depicted on the western wall, recognition of the independence of the Sogdian state with other states; the image on the north wall signifies the visit of the Chinese ambassadors to Sogd; the religious ceremony depicted on the south wall means that King Varhuman will strengthen his dynasty in Sogd by adhering to local customs.

The compositional and stylistic harmony of the plot of the murals testifies to the fact that the decoration of the palace of the ruler of Afrosiyab was carried out by the artists of the majestic school of painting of early medieval Sogd.

Conclusion

Analysis of Afrosiyab's wall paintings makes it possible to study the rich cultural heritage of Uzbekistan. This is a school of painting, formed from antiquity, traditional clothes, musical instruments, gold jewelry, weaving and many other types of decorative and applied arts of Uzbekistan, the continuity of which can be traced through the centuries. B.Bernshtein, G.Grachev, S.Ayazbekova note that the “national prism” is not formed during the formation and development of the nation - the highest stage of the evolution of the ethnos, but much earlier. Its most important foundations were formed in ancient times, although in the future, adjustments are constantly being made that affect the design of the “picture of the world” of this or that ethnic group. These adjustments are very relevant for the Central Asian type of culture, which constantly appeals to its heritage, preserving age-old continuity with its roots, the peculiarity of which can be traced long before the formation of nations. And it was the rich heritage of the people that attracted rulers and researchers, connoisseurs of the art of foreign countries with its diversity. The originality of the wall painting is that it has been preserved in its original form.

Studying the wall painting of Afrosiyab and the early Middle Ages makes it possible to see features rooted in a deep historical tradition in modern painting and clothing, and other types of decorative applied art of Uzbekistan.

References:

1. Tolstov, S.P. (1952). *Horezmskaja arheologo-jetnograficheskaja jekspedicija AN SSSR* (1945-1948 gg.) - THAJeJe.
2. Mustafokulov, S., & Ahmedov, Zh. (2015). *Afrosijob muzejining devorij suratlari ҳakida //* “Moddij-ma#navij meros va umumbasharij kadrijatlar” Respublika ilmij-amalij konferencijasi. (pp.104-106). Toshkent.
3. Pugachenkova, G.A. (n.d.). *K istorii kostuma Srednej Azii i Irana XV - pervoj poloviny XVI v.* trudy SAGU.
4. Mukminova, R.G. (1979). *Kostum narodov Srednej Azii po pis`mennym istochnikam XVI*

veka. Kostum narodov Srednej Azii. (p.71). Moscow.

5. Hakimov, A.A. (2010). *Iskusstvo Uzbekistana: istorija i sovremennost`*. (p.134). Tashkent: San'at.
6. Lobachjova, N.P. (1979). *Sredneaziatskij kostum rannesrednevekovoj jepohi.* Kostum narodov Srednej Azii. Istoriko-jetnograficheskie ocherki, Moscow: Nauka.
7. Pugachenkova, G.A., & Rempel`, L.I. (1982). *Ocherki iskusstva Srednej Azii*. (pp.111-148). Moscow: Iskusstvo.
8. (2002). *Chaғanijon tarihi.* (p.127). Toshkent: Toshkent islom universiteti.
9. Tolstov, S.P. (1952). *Horezmskaja arheologo-jetnograficheskaja jekspedicija AN SSSR* (1945-1948 gg.) - THAJeJe.
10. Ahmedova, N.R. (2004). *Zhivopis` Central`noj Azii XX veka: tradicii, samobytnost`, dialog*, Tashkent.

Impact Factor:						
	ISRA (India)	= **4.971**	**SIS** (USA)	= **0.912**	**ICV** (Poland)	= **6.630**
	ISI (Dubai, UAE)	= **0.829**	**РИНЦ** (Russia)	= **0.126**	**PIF** (India)	= **1.940**
	GIF (Australia)	= **0.564**	**ESJI** (KZ)	= **8.997**	**IBI** (India)	= **4.260**
	JIF	= **1.500**	**SJIF** (Morocco)	= **5.667**	**OAJI** (USA)	= **0.350**

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 25.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Rahmat P. Booc
Asian College of Technology
Researcher

Kimberson B. Rafaela
Asian College of Technology
Researcher

Louis C. Jabonero II
Asian College of Technology
Researcher

Ian Jay M. Cortuna
Asian College of Technology
Researcher

Benjie M. Gabiana
Asian College of Technology
Researcher

Leif Jay B. De Sagun
Asian College of Technology
Researcher

Joel E. Asuncion
Asian College of Technology
ORCID: 0000-0002-6832-4998
Web of Science ResearcherID: AAE-8787-2019
Researcher, Philippines
joel.asuncion@act.edu.ph

IoT BASED: MOBILE CONTROLLED APPLIANCES WITH ONLINE MONITORING SYSTEM

Abstract: *In the age of information and communications technology, life should be enjoyed with comfort and with convenience. In most developed countries across the globe, the necessity to develop automated systems that are capable of reducing human effort is given the priorities. This project was intended to construct a home automation system that used mobile devices to control home appliances. This home automation system is based on IoT (Internet of Things). This paper proposes the design of the Internet of Things (IoT) home-based automation system using Node MCU (Esp8266 12e). Node MCU is a credit card size computer and it supports a large number of peripherals. Node MCU has a built-in WIFI module that is used to connect to the internet that allows controlling the number of home appliances simultaneously.*

Key words: *system, mobile, automation.*

Language: *English*

Citation: Booc, R. P., et al. (2020). IoT based: mobile controlled appliances with online monitoring system. *ISJ Theoretical & Applied Science, 08 (88),* 58-64.

Soi: http://s-o-i.org/1.1/TAS-08-88-15 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.15
Scopus ASCC: *1700.*

Introduction

The advancement of technology is the language of modern society. With the rapid evolution of computers where the Internet of Things, Big Data, Cloud Computing and the like are the universal direction, appraisal and evaluation of human resources, in a similar manner have to cope with such change. Home automation has made huge advances in recent years. With better technology, home appliances can be operated just by using smartphones through automation and can be adopted in individual homes (Asuncion, J. E. & Secretaria, N. M., 2019). Home automation is a modern technology that modifies our home to perform different sets of tasks automatically (Gulati, 2017). With the increase in consumption of energy and population, there is a grave need to conserve energy in every way possible. The inability to access and control the appliances from remote locations is one of the major reasons for energy loss and unexpected fire incidents (Ahjit et al., 2019). Today, home automation technology is gaining more recognition among people not just for home modification but also in industrial and business sectors too (Asadullah, 2016).

Some of the foreign countries have started the Internet of Things (IoT) concept in which people can operate their home appliances even they are not around. In the Philippines, home automation is not that popular with Filipino people because it is not widely used in the said country. The adaptation of the Internet of Things (IoT) in the Philippines remains in the infancy stage hence the Philippines should adopt new technologies like IoT because technology nowadays has been growing fast and it is more getting high (Panth et al., 2013).

Based on the above-mentioned, the researcher decided to make or invent the IoT Based: Mobile Controlled Appliances with Online Monitoring System where people can easily operate or control their home appliances just by using a smartphone. Isn't a great idea? Yes, with the help of WIFI, node MCU and MQTT dashboard application it is possible.

Methodology

This paper developed an IoT Based: Mobile Controlled Appliances with Online Monitoring system using a design method through node MCU and MQTT dashboard application to control appliances through the internet with online monitoring, this system also can detect motion and send warnings using a buzzer.

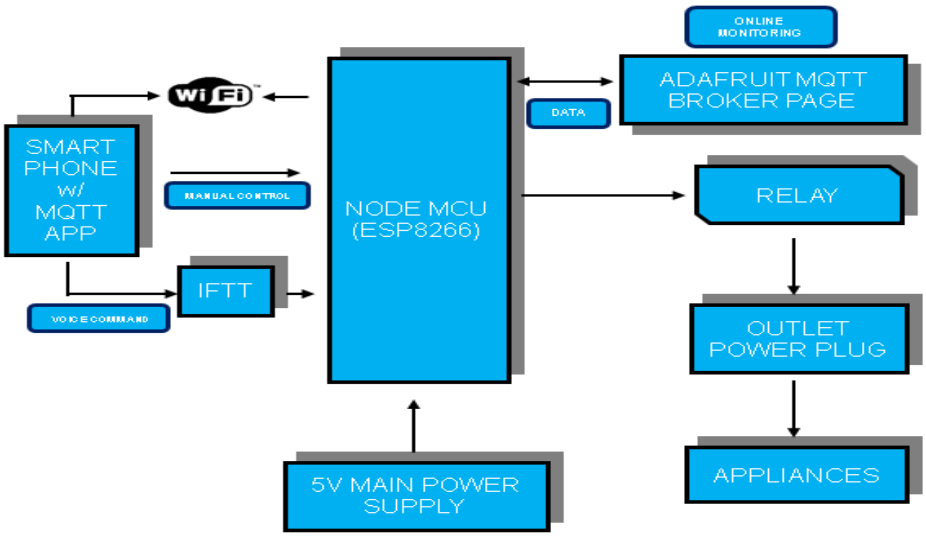


Figure 1. Block Diagram

Figure 1 shows the whole process of the project. The Node MCU is the main microcontroller, it needs to be connected to WIFI, same as the Smartphone with configured MQTT dashboard application on it. Controlling the appliances remotely using manual control will just go directly to the Node MCU and then sends command to the relay on the specified device, if you will use voice command, you command will go to IFTT server, IFTT will convert your command into an input and output so that the Node MCU will understand the command and then it will turn on your specified appliances. ADAFRUIT MQTT BROKER is a server in which all of the data will be gathered and

it will display the collected data on the webpage with the button controls.

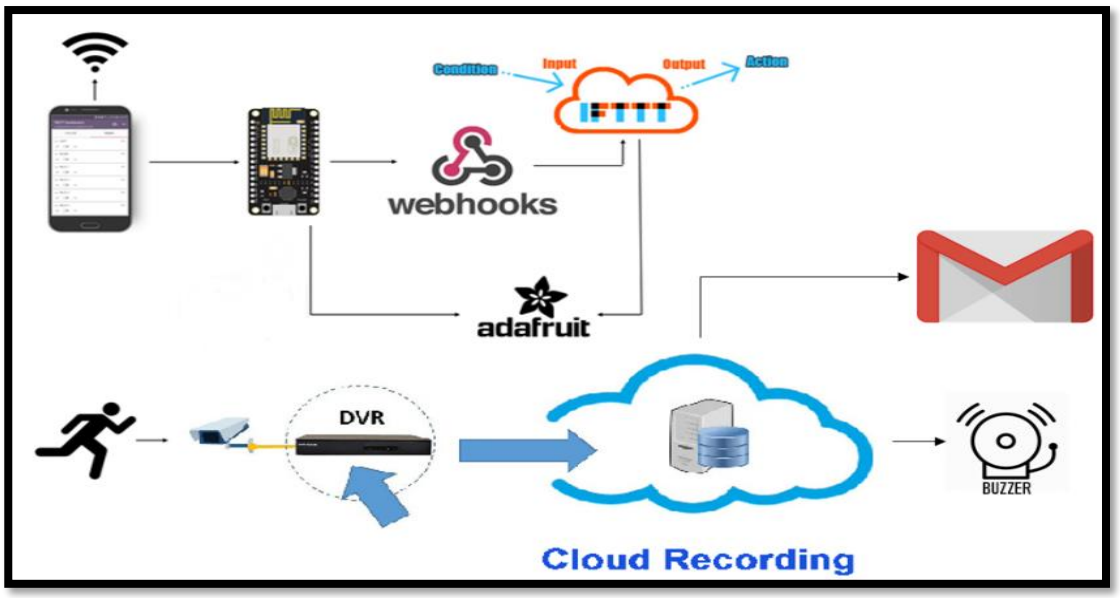


Figure 2. Concept and Overview of the System

Figure 2 presents the Concept and Overview of the System. Since IoT is a network of Internet-connected objects able to collect and exchange data. The illustration above shows the connection between hardware and software and how it is being used in the system. The phone with MQTT dashboard application is connected to the internet to send signals to the microcontroller. The microcontroller will trigger the relays to on/off appliances after the data is recorded, it will be published in the Adafruit MQTT Server. The use of webhooks and IFTTT is to convert the voice command into a signal that a microcontroller will understand to trigger the relays in controlling the appliances. Built-in motion sensors from CCTV is used to detect whether a human has moved in or out of the sensors range. All data is recorded in DVR cloud recording, it will trigger the buzzer if the sensor detects any movement and it will publish a message to the email account of the user with the date, time and IP address of the sender.

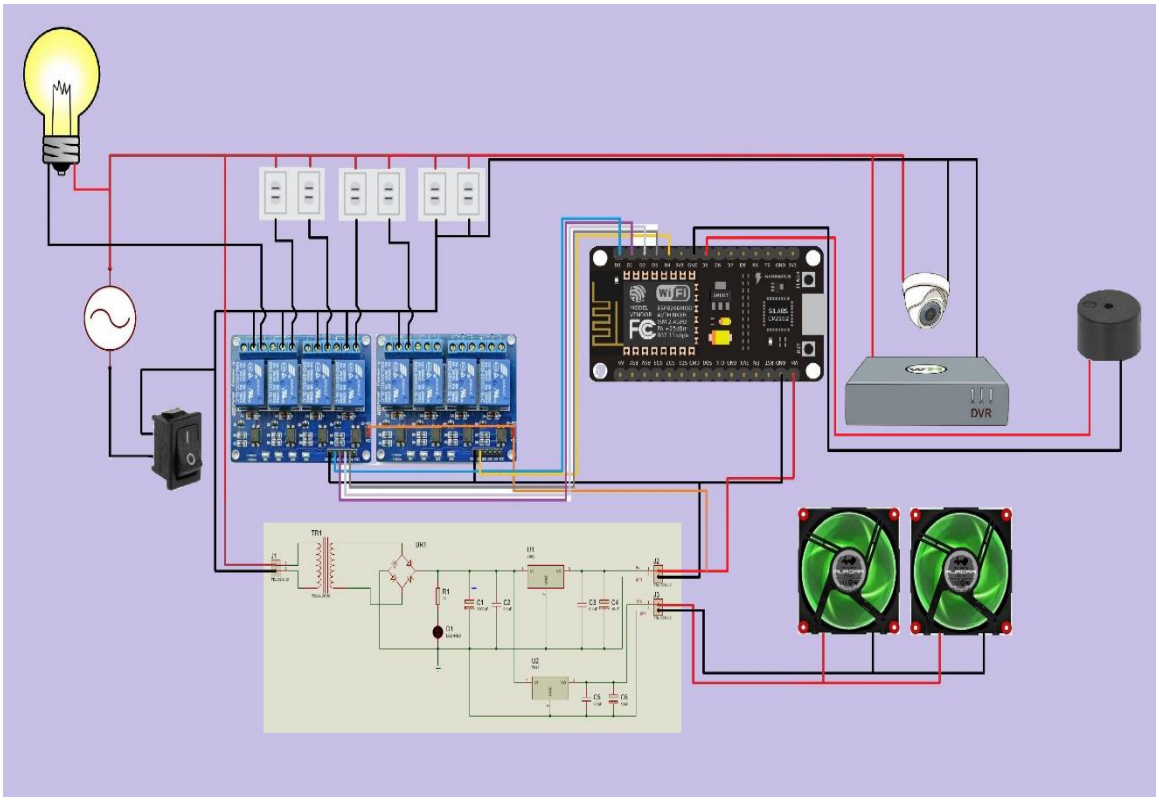


Figure 3. Circuit Design

Figure 3 shows the Circuit Design wherein the Esp8266-12e serves as the microcontroller of the whole system. The relay serves as a switch to on and off appliances with high voltages. Our main power supply that has 5v and 12v output serves as the supply for sensors, node MCU, relay and fans. PIR motion sensor is responsible for sensing motion in the area where the system is located. The two led fans servers as the exhaust fan for cooling the system. The Z-BEN dome-style camera is our main camera for monitoring (if needed) and also motion sensing. The buzzer serves as the alarm if the microcontroller is connected to MQTT server or not. The four electrical sockets are where you will plug the different appliances that you have to switch it on and off. The bulb is directly connected to the system the purpose of the bulb is to check the functionality of the system and also to see if the system is working or not.

The system is controlled by an android application called MQTT dashboard. MQTT dashboard is directly connected to the MQTT server that's why the application and our online monitoring server have simultaneous transferring and publishing of data because it has the same server.

Results and Discussion

Relay Module Test

Performed the test to know how much supply will be used and how it functions properly.

NodeMCU Esp8266 12-E to Wi-fi Connection Test

Performed the test using Arduino IDE by getting the Wi-fi credentials specifically its SSID and password to be inputted in the Esp8266-12e flash memory to ensure the connectivity between the two.

5v and 12v Dual Output Power Supply Test

Performed the test to decide what supply is intended for a certain component.

MQTT Dashboard Mobile Application Test

Performed the test to ensure how efficient its communication to the Adafruit MQTT server and the functionality of the buttons.

IFTTT Test

Performed the test to ensure how efficient its communication to Google's assistant voice commands

CCTV and DVR Test

Performed the test to access through the internet using XMEYE mobile application to be able to monitor the interior of a property.

CCTV built-in Motion Sensor

Performed the test to know how far it can sense motion from CCTV.

Quality Test Results

Table 1. CCTV built-in Motion Sensor

Distance (Feet)	Performance
5	DETECT
10	DETECT
15	DETECT
20	DETECT
25	DETECT
30	DETECT

Table 2. NodeMCU Esp8266 to WiFi Connection Test

No. of Attempts	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Duration of Connectivity in seconds	3	2	2	4	3	3	3	4	3	3

NodeMCU Esp8266 12-E to Wi-fi Connection Test

From the testing and data gathering conducted, the average time duration of the node MCU in connecting to the wifi was computed using the formula.

Connection Duration Time =

$$\frac{t1 + t2 + t3 \ldots + 10}{N}$$

Where:
t = Connection duration time in seconds
n = number of attempts

Using the formula above, the connectivity time duration is equal to the summation of time divided by the total number of attempts that the test had done.

Substituting these values to the equation.

Connectivity time duration in seconds =

$$\frac{t1 + t2 + t3 \ldots + t10}{N}$$

Connectivity time duration in seconds =

$$\frac{3 + 2 + 2 + 4 + 3 + 3 + 3 + 4 + 3 + 3}{10}$$

Connectivity time duration in seconds = 3 s

From the test conducted and doing some computation, the average connection time duration in connecting the Node MCU to the wifi is 3 seconds. This indicates that the Node MCU in the system has a simultaneous connection with wifi and functioning effectively.

Table 3. 5v and 12v Dual Output Power Supply Test

COMPONENT	OPERATED VOLTAGE	
	5V	12V
NodeMCU	YES	YES
FAN	NO	NO

Table 4. Relay module Test

RELAY	Received "ON" test via MQTT Dashboard Mobile Application	Received "OFF" test via MQTT Dashboard Mobile Application	Received "ON" test via MQTT Server	Received "OFF" test via MQTT Server	Performance
RELAY 1	1	1	1	1	DETECT
	2	2	2	2	DETECT
	3	3	3	3	DETECT
	4	4	4	4	DETECT
	5	5	5	5	DETECT
RELAY 2	1	1	1	1	DETECT
	2	2	2	2	DETECT
	3	3	3	3	DETECT
	4	4	4	4	DETECT
	5	5	5	5	DETECT
RELAY 3	1	1	1	1	DETECT
	2	2	2	2	DETECT
	3	3	3	3	DETECT
	4	4	4	4	DETECT
	5	5	5	5	DETECT
RELAY 4	1	1	1	1	DETECT
	2	2	2	2	DETECT
	3	3	3	3	DETECT
	4	4	4	4	DETECT
	5	5	5	5	DETECT
RELAY 5	1	1	1	1	DETECT
	2	2	2	2	DETECT
	3	3	3	3	DETECT
	4	4	4	4	DETECT
	5	5	5	5	DETECT

The IoT Based: Application Controlled Appliances with Online Monitoring System was evaluated through designing and developing features. The test results show that its hardware and software go along based on several examinations and observations. The capability of the system can satisfy the users in controlling and monitoring their appliances wherever they are.

After the series of tests and validation conducted to the system device, it was proven reliable and functional. The tests and examinations conducted on the IoT Based: Application Controlled Appliances with Online Monitoring System was proven functional and reliable. It has the capability of controlling and monitoring appliances anywhere in the world as long as there is an available internet connection, the users can control and monitor any appliances or devices that is/are attached to the system.

Conclusion

This research has presented a technological manual and a prototype device of IoT Based: Application Controlled Appliances with Online Monitoring System for homes, schools, companies and other establishments. The conclusion of IoT Based: Application Controlled Appliances with Online Monitoring System for homes and different establishments is to control and monitor the appliances even though they are miles away, as long as they have internet connection, using the mobile application or the MQTT server, they can manually and easily control the devices attached to the system. The system will also send emails to the users/owners' emails if there is a motion detected from the CCTV camera.

References:

1. Asuncion, J. E., & Secretaria, N.M. (2019). Innovated technology of the performance evaluation system for academic heads. *ISJ Theoretical & Applied Science, 08 (76)*, 64-74.
2. Gulati, A. (2017). *Home automation: Smart houses with connected products intended to make our lives comfortable*. Retrieved from: https://www.financialexpress.com/industry/technology/home-automation-smart-houses-with-connected-products-intended-to-make-our-lives-comfortable/934559
3. Singh, A., & Sinha, R. K. (2019). *Comparative Study on Smart Home Automation Technologies.* Retrieved from: SSRN https://ssrn.com/abstract=3411465 or http://dx.doi.org/10.2139/ssrn.3411465
4. Asadullah, M., & Raza, A. (December 2016). *An overview of home automation systems.* Retrieved from: https://www.researchgate.net/publication/311923032_An_overview_of_home_automation_systems
5. Panth, S.N., & Jivani, M.N. (Nov 2013). https://www.researchgate.net/publication/258884207_Home_Automation_System_HAS_using_Android_for_Mobile_Phone
6. Essays, UK. (November 2013). Importance Of Home Automation Information Technology Essay. Retrieved from: https://www.uniassignment.com/essay-samples/information-technology/importance-of-home-automation-information-technology-essay.php?vref=1
7. (n.d.). NODEMCU 1.0 (ESP8266) CONTROLLED RELAY USING BLYNK. Retrieved from: https://www.instructables.com/id/NODEMCU-10-ESP8266-CONTROLLED-RELAY-USING-BLYNK-OV/
8. Bohora, B., Maharjan, S., & Shrestha, B. R (2016). "IoT Based Smart Home Using Blynk Framework". Zerone Scholar, 1(1), 26-30.
9. Reddy, P. S. N., Reddy, K. T. K., Reddy, P. A. K., Ramaiah, G. K., & Kishor, S. N. (2016). "An *IoT based home automation using android application."*. International IEEE Conference on Signal Processing, Communication, Power and Embedded System (SCOPES), October, 2016, pp. 285-290.
10. Hingorani, A. (2017). *Home automation using node mcu and google assistant in under 20$.* Retrieved from https://codeometry.in/home-automation-using-nodemcu-and-google-assistant/
11. (n.d.)._ *ESP8266 to IFTTT Using Arduino IDE.* Retrieved from: https://www.instructables.com/id/ESP8266-to-IFTTT-Using-Arduino-IDE/
12. (n.d.)._*ESP8266 Wifi Controlled Home Automation.* Retrieved from https://www.instructables.com/id/ESP8266-Wifi-Tutorial/
13. Verma, K. (2018). *Smallest IoT Home Automation using ESP8266 -01 with videos (Hindi % English).* Retrieved from: https://electronicsforu.com/electronics-projects/smallest-iot-home-automation-esp8266-01
14. (n.d.). *Controlling Appliances through Google Assistant | ESP8266 projects | IoT projects | Home Automation.* Retrieved from: https://www.youtube.com/watch?v=Jc6Jet1Yqsk&t=414s
15. (n.d.). *No need of writing wifi credentials in the code | ESP8266 Smart Config | ESP8266 projects.* Retrieved from: https://www.youtube.com/watch?v=5D6lkFGPPSw&t=104s
16. Sharma, R. (2018). *5V & 12V DC dual output power supply using LM7805 & LM7812*. Retrieved from: https://www.twovolt.com/2016/08/22/5v-12v-dc-dual-output-power-supply-using-lm7805-lm7812/
17. Schwartz, M. (2019). *Control a Relay from Anywhere Using the ESP8266*. Retrieved from https://openhomeautomation.net/control-relay-anywhere-esp8266

Impact Factor:					
	ISRA (India) = **4.971**	**SIS** (USA) = **0.912**	**ICV** (Poland) = **6.630**
	ISI (Dubai, UAE) = **0.829**	**РИНЦ** (Russia) = **0.126**	**PIF** (India) = **1.940**
	GIF (Australia) = **0.564**	**ESJI** (KZ) = **8.997**	**IBI** (India) = **4.260**
	JIF = **1.500**	**SJIF** (Morocco) = **5.667**	**OAJI** (USA) = **0.350**

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 25.08.2020 **http://T-Science.org**

QR – Issue **QR – Article**

Zokir Bozorboyevich Khudayberdiyev
Samarkand State University
Senior Lecturer to Department of
Theoretical and Applied Mechanics,
xudoyberdiyevz@mail.ru

Sherzod Narkazakovich Isroilov
Samarkand State University
Lecturer to Department of
Theoretical and Applied Mechanics

Xudoynazar Norim o'g'li Axatov
Samarkand State University
Lecturer to Department of
Theoretical and Applied Mechanics

Rashid Sharafovich Usanov
school № 15 of the city of Samarkand
Teacher

NON-STATIONARY VIBRATIONS OF THREE-LAYERED ELASTIC PLATE

Abstract: *Theory of non-stationary vibrations of three-layered elastic plate from 2D statement of problem on the basis of exact solutions of the equations of the linear viscoelasticity theory in transformations is developed. The equations of symmetric vibration infinite three-layered plate concerning two principal functions which are bodies of displacements of some intermediate surface of a middle layer are received. The algorithm allowing to define of SSS by required functions unequally the of arbitrary layer of the plate is offered.*

Key words: *three-layer plate, vibration, non-stationary, layer, linear theory.*

Language: *Russian*

Citation: Khudayberdiyev, Z. B., Isroilov, S. N., Axatov, X. N., & Usanov, R. S. (2020). Non-stationary vibrations of three-layered elastic plate. *ISJ Theoretical & Applied Science, 08 (88)*, 65-72.

Soi: http://s-o-i.org/1.1/TAS-08-88-16 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.16

Scopus ASCC: *2200.*

НЕСТАЦИОНАРНЫЕ КОЛЕБАНИЯ ТРЁХСЛОЙНОЙ УПРУГОЙ ПЛАСТИНКИ

Аннотация: *Разработана теория нестационарных колебаний трехслойной упругой пластинки исходя из плоской постановки задачи на основе точных решений уравнений линейной теории упругости в преобразованиях. Получены уравнения колебания симметричных колебаний бесконечной в плане трехслойной пластинки относительно двух вспомогательных функций, являющихся главными частями перемещений некоторой промежуточной поверхности срединного слоя. Предложен алгоритм, позволяющий по полю искомых функций однозначно определить НДС произвольного слоя пластинки.*

Ключевые слова: *трехслойная пластинки, колебания, нестационарный, слой, линейная теория.*

Введение

Динамический расчет трехслойных, пластин во многих случаях основывается на классических теориях, которые опираются на гипотезы Кирхгофа на уточненные теории типа Тимошенко [1-4].

Исследования по развитию и уточнению классической теории [5-7] можно подразделить на два направления: разработка асимптотических теорий и разработка теорий типа Тимошенко и Рейсснера. За последние несколько десятилетий разработаны теории колебания пластин, основанные на методе точных решений Г.М.Петрашеня [8-9]. Этим методом разработаны различные варианты теории колебания трехслойных пластин симметричной структуры И.Г.Филипповым и его учениками [10-13].

Статья посвящена разработке теории симметричных колебаний трехслойной упругой пластинки в плоской постановке относительно двух неизвестных функций, являющихся главными частями перемещений некоторой «промежуточной» поверхности пластинки. Разработан алгоритм определения НДС пластинки в произвольном её сечении.

Постановка задачи и метод решения.

В декартовой системе координат рассмотрим бесконечную трёхслойную пластинку. Считается, что рациональная конструкция пластинки с точки зрения его работы на изгиб будет такой, когда основная масса жесткого материала в виде двух слоев (назовем их несущими слоями) разнесена на некоторое расстояние с помощью (тонкой стенки) третьего слоя из того же материала, или когда пространство между жесткими слоями заполнено более лёгким, а следовательно, менее жестким материалом (заполнителем), удерживающем слои на этом расстоянии и осуществляющим их совместную работу. Если рассматривается задачи, отличные от задач чистого изгиба пластины, то нетрудно понять, что совместная работа несущих слоев зависит от способности заполнителя сопротивляться их относительному сдвигу. Исходя из этих соображений, будем считать, что контакты между несущими слоями и заполнителем жесткие.

Учитывая неограниченность размеров пластинки, в дальнейшем будем считать, что она находиться в условиях плоской деформации, те отнесем её к системе прямоугольных координат Oxz (рис. 1). При этом ось Ox направим вдоль поперечного сечения Oxz по его среднему линию, а ось Oz – вверх. Пронумеруем слои пластинки на рис.1, т.е. верхний несущий слой назовем первым слоем, нижний несущий слой – вторым, а заполнитель – нулевым слоем. Пусть h_1, $2h_0$ и h_2 толщина первого, нулевого и второго слоев. λ_m, μ_m- упругие постоянные материалов слоев т.е. коэффициенты Ляме; ρ_m- объёмные плотности слоев.

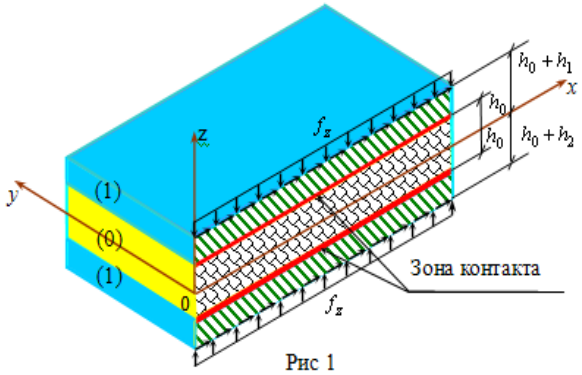


Рис 1

Зависимости напряжений $\sigma_{ij}^{(m)}$ от деформаций $\varepsilon_{ij}^{(m)}$ в точках слоев пластинки описываются законом Гука для каждого слоя (m=0,1,2). Уравнения движения точек составляющих слоев в декартовой системе координат

$$\sigma_{ij,j}^{(m)} = \rho_m \ddot{U}_i^{(m)}; \qquad (1)$$

при зависимости (1) значительно упрощаются введением потенциалов Φ_m и ψ_m продольных и поперечных волн по формуле

$$\vec{U}^{(m)} = grad\Phi_m + rot\vec{\psi}_m; \qquad (2)$$

и принимают вид волновых уравнений.

$$\begin{cases} \lambda_{m1}(\Delta\Phi_m) = \rho_m \ddot{\Phi}_m; \\ \mu_m(\Delta\vec{\psi}_m) = \rho_m \ddot{\vec{\psi}}_m; \end{cases} \quad \lambda_m = \lambda_{1m} + \mu_m, \qquad (3)$$

где Δ - дифференциальный оператор Лапласа.

В случае плоской деформации учитывая, что векторы перемещений точек слоев равны

$$\vec{U}^m = U_m \cdot \vec{i} + W_m \cdot \vec{k};$$

$$U_m = U_m(x,z,t),\ W_m = W_m(x,z,t), \qquad (4)$$

где $\vec{i}$, $\vec{k}$ – единичные орты осей координат достаточно положить

$$\vec{\Phi}_m = \varphi_m(x,z,t),\ \vec{\psi}_m = \psi_m(x,z,t)\vec{j}, \qquad (5)$$

где $\vec{j}$ – единичный орт оси Oy, чтобы уравнения движения точек слоев пластинки приобрели вид

$$\begin{aligned} \lambda_m(\Delta\varphi_m) &= \rho_m \frac{\partial^2\varphi_m}{\partial t^2}; \\ \mu_m(\Delta\psi_m) &= \rho_m \frac{\partial^2\psi_m}{\partial t^2}, \end{aligned} \qquad (6)$$

где

$$\Delta = \partial^2/\partial x^2 + \partial^2/\partial z^2 .$$

В силу теоремы Гельмгольца [3] при отсутствии внутренних источников векторные потенциалы $\vec{\psi}_m$ поперечных волн должны удовлетворять условиям соленоидальности векторных полей

$$div\vec{\psi}_m = 0, \qquad m = 0,1,2,$$

которые в случае (5) выполняются автоматически.

Предполагается, что при $t<0$ пластинка находилась в покое, а в момент $t=0$ к её граничным поверхностям прикладываются динамические воздействия [5]

$$\begin{aligned} &\sigma_{xz}^{(i)}(x,z,t)\big|_{z=\pm h_i^*} = \pm F_x^{(i)}(x,t); \\ &\sigma_{zz}^{(i)}(x,z,t)\big|_{z=h_i^*} = \pm F_z^{(i)}(x,t); \\ &\sigma_{yz}^{(i)}(x,z,t)\big|_{z=\pm h_i^*} = 0, \quad h_i^* = h_0 + h_i . \end{aligned} \qquad (7)$$

Кроме того, на поверхностях заполнителя $z=\pm h_0$ имеют места динамические и кинематические контактные условия

$$\sigma_{zz}^{(0)}(x,z,t)\big|_{z=\pm h_0} = \begin{cases} \sigma_{zz}^{(1)}(x,z,t)\big|_{z=h_0}, \\ \sigma_{zz}^{(2)}(x,z,t)\big|_{z=-h_0}; \end{cases}$$

$$\sigma_{xz}^{(0)}(x,z,t)\big|_{z=\pm h_0} = \begin{cases} \sigma_{xz}^{(1)}(x,z,t)\big|_{z=h_0}, \\ \sigma_{xz}^{(2)}(x,z,t)\big|_{z=-h_0}; \end{cases} \qquad (8)$$

$$\sigma_{yz}^{(0)}(x,z,t)\big|_{z=\pm h_0} = 0,$$

и

$$\begin{aligned} U_0(x,z,t)\big|_{z=\pm h_0} &= \begin{cases} U_1(x,z,t)\big|_{z=h_0}; \\ U_2(x,z,t)\big|_{z=-h_0}, \end{cases} \\ W_0(x,z,t)\big|_{z=\pm h_0} &= \begin{cases} W_1(x,z,t)\big|_{z=h_0}; \\ W_2(x,z,t)\big|_{z=-h_0}. \end{cases} \end{aligned} \qquad (9)$$

Начальные условия задачи считаются нулевыми, т.е. при $t=0$

Таким образом, решение задачи о нестационарных колебаниях трехслойной пластинки приводится к решению шести интегро-дифференциальных уравнений второго порядка (6) с двенадцатью граничными и контактными условиями (7), (8), (9), а также нулевыми начальными условиями.

Теперь, выразим компоненты векторов перемещений, а также тензоров напряжений и деформаций слоев через введенные потенциальные функции (5). Подставляя (4) и (3) в формулы (2) легко получить

$$\begin{aligned} U_m &= \frac{\partial\varphi_m}{\partial x} - \frac{\partial\psi_m}{\partial z}; \\ W_m &= \frac{\partial\varphi_m}{\partial z} + \frac{\partial\psi_m}{\partial x}, \ (m = 0,1,2). \end{aligned} \qquad (10)$$

Аналогично, нетрудно вывести формулы для компонент напряжений

$$\begin{aligned} \sigma_{xx}^{(m)} &= \lambda_{1m}(\Delta\varphi_m) + 2\lambda_m\left(\frac{\partial^2\varphi_m}{\partial x^2} + \frac{\partial^2\psi_m}{\partial x\partial z}\right); \\ \sigma_{xz}^{(m)} &= \mu_m\left(2\frac{\partial^2\varphi_m}{\partial x\partial z} - \frac{\partial^2\psi_m}{\partial z^2} + \frac{\partial^2\psi_m}{\partial x;^2}\right); \\ \sigma_{zz}^{(m)} &= \lambda_{1m}(\Delta\varphi_m) + 2\mu_m\left(\frac{\partial^2\varphi_m}{\partial z^2} + \frac{\partial^2\psi_m}{\partial x\partial z}\right). \end{aligned} \qquad (11)$$

Решение задачи. В соответствие с принятыми представлениями для функции внешнего воздействия

$$\begin{aligned} f_x^{(1,2)}(x,t) &= \int_0^\infty \left.\begin{matrix}\cos kx \\ \sin kx\end{matrix}\right\} dk \int_{(l)} \tilde{f}_x^{(1,2)}(k,p)e^{pt}dp; \\ f_z^{(1,2)}(x,t) &= \int_0^\infty \left.\begin{matrix}\sin kx \\ -\cos kx\end{matrix}\right\} dk \int_{(l)} \tilde{f}_z^{(1,2)}(k,p)e^{pt}dp, \end{aligned}$$

решение задачи будем искать в виде

$$\begin{aligned} \varphi_m(x,z,t) &= \int_0^\infty \left.\begin{matrix}\sin kx \\ -\cos kx\end{matrix}\right\} dk \int_{(l)} \tilde{\varphi}_m(z,k,p)e^{pt}dp; \\ \psi_m(x,z,t) &= \int_0^\infty \left.\begin{matrix}\cos kx \\ \sin kx\end{matrix}\right\} dk \int_{(l)} \tilde{\psi}_m(z,k,p)e^{pt}dp. \end{aligned} \qquad (12)$$

Подставляя (12) в (6) будем иметь

$$\frac{d^2\tilde{\varphi}_m}{dz^2} - \alpha_m^2\tilde{\varphi}_m = 0, \ \frac{d^2\tilde{\psi}_m}{dz^2} - \beta_m^2\tilde{\psi}_m = 0. \qquad (13)$$

где

$$\alpha_m^2 = k^2 + \rho_m p^2\tilde{\lambda}_m^{-1}, \ \beta_m^2 = k^2 + \rho_m p^2\tilde{\mu}_m^{-1}.$$

Как известно, общие решения (13) имеют вид

$$\begin{aligned} \tilde{\varphi}_m(z,k,p) &= A_m^{(1)}(k,p)ch\alpha_m z + A_m^{(2)}(k,p)sh\alpha_m z; \\ \tilde{\psi}_m(z,k,p) &= B_m^{(1)}(k,p)sh\beta_m z + B_m^{(2)}(k,p)ch\beta_m z, \end{aligned} \qquad (14)$$

В случае симметричных воздействий в соответствии,

$$f_x^{(2)} = -f_x^{(1)} \quad \text{и} \quad f_z^{(2)} = -f_z^{(1)},$$

что влечет за собой то, что в (14) следует полагать

$$A_m^{(2)} = 0, \quad B_m^{(2)} = 0, \quad (m = 0,1,2).$$

Тогда, решениями уравнений (12) в случае продольных колебаний пластины будут

$$\tilde{\varphi}_m(z,k,p) = A_m^{(1)}(k,p)ch\alpha_m z;$$
$$\tilde{\psi}_m(z,k,p) = B_m^{(1)}(k,p)sh\beta_m z, \quad (m = 0,1,2). \tag{15}$$

Перемещения U_m и W_m также представим в виде (12)

$$W_m(x,z,t) = \int_0^\infty \left.\begin{matrix}\sin kx \\ -\cos kx\end{matrix}\right\} dk \int_{(L)} \tilde{W}_m(z,k,p)e^{pt}dp;$$
$$U_m(x,z,t) = \int_0^\infty \left.\begin{matrix}\cos kx \\ \sin kx\end{matrix}\right\} dk \int_{(L)} \tilde{U}_m(z,k,p)e^{pt}dp. \tag{16}$$

Подставляя (12) и (16) в выражение перемещения (10), для преобразованных функций $\tilde{U}_m$ и $\tilde{W}_m$ будем иметь

$$\tilde{U}_m = k\tilde{\varphi}_m - \frac{\partial}{\partial z}\tilde{\psi}_m, \quad \tilde{W}_m = \frac{\partial}{\partial z}\tilde{\varphi}_m - k\tilde{\psi}_m. \tag{17}$$

Подстановка (15) в (17) дает выражение

$$\tilde{U}_m = kA_m^{(1)}ch(\alpha_m z) - \beta_m B_m^{(1)}ch(\beta_m z);$$
$$\tilde{W}_m = \alpha_m A_m^{(1)}sh(\alpha_m z) - kB_m^{(1)}sh(\beta_m z). \tag{18}$$

Разложим правые части выражений (18) в степенные ряды по степеням αz и βz. Для этого используем стандартные разложения гиперболических функций в степенные ряды, получим

$$\tilde{U}_m = \sum_{n=0}^{\infty}\left[k\alpha_m^{2n}\cdot A_m^{(1)} - \beta_m^{2n+1}B_m^{(1)}\right]\frac{z^{2n}}{(2n)!};$$
$$\tilde{W}_m = \sum_{n=0}^{\infty}\left[\alpha_m^{2n+2}\cdot A_m^{(1)} - k\beta_m^{2n+1}B_m^{(1)}\right]\frac{z^{2n+1}}{(2n+1)!}. \tag{19}$$

В качестве искомых функций в уравнениях колебания трехслойной пластинки примем главные части преобразованных перемещений $\tilde{U}_0$ и $\tilde{W}_0$ такой поверхности нулевого слоя, расстояние от поверхности $z = 0$ которой определяется формулой

$$\xi = \chi \cdot h_0, \quad -1 \le \chi < 0; \quad 0 \le \chi < 1,$$

где χ - постоянное число, удовлетворяющее неравенству $-1 \le \chi \le 1$. Для этого в уравнениях (19) примем $z = \xi$, $m = 0$ и $n = 0$. Тогда введя обозначения $\tilde{U}_0^{(0)}$ и $\tilde{W}_0^{(0)}$ получим

$$A_0^{(1)} = \frac{\frac{1}{\xi}\tilde{W}_0^{(0)} - k\tilde{U}_0^{(0)}}{\alpha_0^2 - k^2}; \quad \beta_0 B_0^{(1)} = \frac{\frac{k}{\xi}\tilde{W}_0^{(0)} - \alpha_0^2\tilde{U}_0^{(0)}}{\alpha_0^2 - k^2}.$$

Введем обозначения

$$q_m = 1 - \lambda_m\mu_m^{-1}.$$

Подставляя решения (18) в контактные условия (9) при $z = h_0$ получим

Систему

$$\begin{aligned} &kA_1^{(0)}ch\alpha_0h_0 - \beta_0B_1^{(0)}ch\beta_0h_0 = \\ &= kA_1^{(1)}ch\alpha_1h_0 - \beta_1B_1^{(1)}ch\beta_1h_0; \\ &\alpha_0A_1^{(0)}sh\alpha_0h_0 - kB_1^{(0)}sh\beta_0h_0 = \\ &= \alpha_1A_1^{(1)}sh\alpha_1h_0 - kB_1^{(1)}sh\beta_1h_0, \end{aligned} \tag{20}$$

которая, является системой двух алгебраических уравнений относительно двух неизвестных $A_1^{(1)}$ и $B_1^{(1)}$. Решив эту систему будем иметь

$$A_1^{(1)} = \frac{1}{(\alpha_0^2 - k^2)\Delta_1^0}\left[\frac{1}{\xi}\left(\Delta_{11}^0 + \frac{k}{\beta_0}\Delta_{12}^0\right)\tilde{W}_0^{(1)} - \left(k\Delta_{11}^0 + \frac{\alpha_0^2}{\beta_0}\Delta_{12}^0\right)\tilde{U}_0^{(1)}\right]; \tag{21}$$

$$B_1^{(1)} = \frac{1}{(\alpha_0^2 - k^2)\Delta_1^0}\left[\frac{1}{\xi}\left(\Delta_{21}^0 + \frac{k}{\beta_0}\Delta_{22}^0\right)\tilde{W}_0^{(1)} - \left(k\Delta_{21}^0 + \frac{\alpha_0^2}{\beta_0}\Delta_{22}^0\right)\tilde{U}_0^{(1)}\right],$$

где

$$\Delta_1^0 = \begin{vmatrix} kch\alpha_1h_0 & -\beta_1ch\beta_1h_0 \\ \alpha_1sh\alpha_1h_0 & -ksh\beta_1h_0 \end{vmatrix} = \beta_1\alpha_1 \times \tag{22}$$
$$\times sh(\alpha_1h_0)ch(\beta_1h_0) - k^2sh(\beta_1h_0)ch(\alpha_1h_0);$$

$$\Delta_{11}^0 = \alpha_0\beta_1sh(\alpha_0h_0)ch(\beta_1h_0) - k^2sh(\beta_1h_0)ch(\alpha_0h_0);$$
$$\Delta_{12}^0 = k[\beta_0ch(\beta_0h_0)sh(\beta_1h_0) - \beta_1sh(\beta_0h_0)ch(\beta_1h_0)];$$
$$\Delta_{21}^0 = k[\alpha_0sh(\alpha_0h_0)ch(\alpha_1h_0) - \alpha_1sh(\alpha_1h_0)ch(\alpha_0h_0)]; \tag{23}$$
$$\Delta_{22}^0 = \alpha_1\beta_0ch(\beta_0h_0)sh(\alpha_1h_0) - k^2sh(\beta_0h_0)ch(\alpha_1h_0).$$

Представим напряжения $\sigma_{xz}^{(m)}$, также как (16) т.е.

$$\sigma_{xz}^{(m)}(x,z,t) = \int_0^\infty \left.\begin{matrix}\cos kx \\ \sin kx\end{matrix}\right\} dk \int_{(l)} \tilde{\sigma}_{xz}^{(m)}(z,k,p)e^{pt}dp;$$
$$\sigma_{zz}^{(m)}(x,z,t) = \int_0^\infty \left.\begin{matrix}\sin kz \\ -\cos kz\end{matrix}\right\} dk \int_{(l)} \tilde{\sigma}_{zz}^{(m)}(z,k,p)e^{pt}dp. \tag{24}$$

Тогда для, преобразованных величин $\tilde{\sigma}_{xz}^{(m)}$ в соответствии с формулами для напряжений (11) будем иметь формулы

$$\tilde{\sigma}_{xz}^{(m)}(z,k,p)=\mu_m\left(2k\frac{\partial}{\partial z}\tilde{\varphi}_m(z,k,p)-\right.$$

$$\left.-\frac{\partial^2}{\partial z^2}\tilde{\psi}_m(z,k,p)-k^2\tilde{\psi}_m(z,k,p)\right);\quad (25)$$

$$\tilde{\sigma}_{zz}^{(m)}(z,k,p)=\lambda_{1m}\left(-k^2+\frac{\partial^2}{\partial z^2}\right)\tilde{\varphi}_m(z,k,p)+$$

$$+2\mu_m\left(\frac{\partial^2}{\partial z^2}\tilde{\varphi}_m(z,k,p)-k\frac{\partial}{\partial z}\tilde{\psi}_m(z,k,p)\right).$$

Постановка решения (15) в (25) приводит и выражениям

$$\tilde{\sigma}_{xz}^{(m)}(z,k,p)=\tilde{\mu}_m\left(2k\alpha_m A_1^{(m)}sh(\alpha_m z)-\right.$$

$$\left.-(\beta_m^2+k^2)B_1^{(m)}sh(\beta_m z)\right)\quad (26)$$

$$\tilde{\sigma}_{zz}^{(m)}(z,k,p)=\tilde{\lambda}_{1m}(\alpha_m^2-k^2)A_1^{(m)}ch(\alpha_m z)+$$

$$+2\tilde{\mu}_m\left(\alpha_m^2A_1^{(m)}ch(\alpha_m z)-k\beta_m B_1^{(m)}ch(\beta_m z)\right).$$

С учетом (24), (26) граничные условия (7) можно записать как

$$2k\alpha_m A_1^{(m)}sh(\alpha_m z)-$$

$$-(\beta_m^2+k^2)B_1^{(m)}sh(\beta_m z)=\tilde{\mu}_m^{-1}\tilde{f}_x^{(m)}(k,p);$$

$$\tilde{q}_m(\alpha_m^2-k^2)A_1^{(m)}ch(\alpha_m z)-2\left(\alpha_m^2A_1^{(m)}ch(\alpha_m z)-\right.$$

$$\left.-k\beta_m B_1^{(m)}ch(\beta_m z)\right)=\tilde{\mu}_m^{-1}\tilde{f}_z^{(m)}(k,p).\quad (27)$$

Учитывая (19) и в соответствии с указанными выше соображениями, относи-тельно граничных условий в первом уравнении системы (27) положим $m=1$, а во втором $m=2$. Получим

$$2k\alpha_1 A_1^{(1)}sh(\alpha_1 z)-$$

$$-(\beta_1^2+k^2)B_1^{(1)}sh(\beta_1 z)=\tilde{\mu}_1^{-1}\tilde{f}_x^{(1)}(k,p);$$

$$\tilde{q}_1(\alpha_1^2-k^2)A_1^{(1)}ch(\alpha_1 z)-2\left(\alpha_1^2A_1^{(1)}ch(\alpha_1 z)-\right.$$

$$\left.-k\beta_1 B_1^{(1)}ch(\beta_1 z)\right)=\tilde{\mu}_1^{-1}\tilde{f}_z^{(1)}(k,p).\quad (28)$$

Подставляя сюда значения постоянных $A_1^{(1)}$, $B_1^{(1)}$ по формулам (28) и (29) и разлагая в степенные ряды по степеням толщиной координаты гиперболические функции, входящие в выражения полученных таким образом уравнений, будем иметь общие уравнения симметричных колебаний трехслойной пластинки, имеющие бесконечно высокие порядки по производным. Считая выполненными условия усечения бесконечных рядов, указанных в работе [7], будем ограничиваться нулевым или первыми членами разложений и получим уравнения колебания трехслойной пластинки, пригодные для применения при решении прикладных задач колебания пластин

$$\left\{A_{11}\frac{\partial^4}{\partial t^4}+A_{12}\frac{\partial^4}{\partial x^2\partial t^2}+A_{13}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+A_{14}\frac{\partial^2}{\partial t^2}+A_{15}\frac{\partial^2}{\partial x^2}+A_{16}\right\}\frac{\partial}{\partial x}W_0^{(0)}(x,t)+$$

$$+\left\{B_{11}\frac{\partial^4}{\partial t^4}+B_{12}\frac{\partial^4}{\partial x^2\partial t^2}+B_{13}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+B_{14}\frac{\partial^2}{\partial t^2}+B_{15}\frac{\partial^2}{\partial x^2}\right\}U_0^{(0)}(x,t)=$$

$$=\left\{S_{11}\frac{\partial^4}{\partial t^4}+S_{12}\frac{\partial^4}{\partial x^2\partial t^2}+S_{13}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+S_{14}\frac{\partial^2}{\partial t^2}+S_{15}\frac{\partial^2}{\partial x^2}+S_{16}\right\}f_x^{(1)}(x,t)\quad (29)$$

$$\left\{A_{21}\frac{\partial^4}{\partial t^4}+A_{22}\frac{\partial^4}{\partial x^2\partial t^2}+A_{23}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+A_{24}\frac{\partial^2}{\partial t^2}+A_{25}\frac{\partial^2}{\partial x^2}+A_{26}\right\}W_0^{(0)}(x,t)+$$

$$+\left\{B_{21}\frac{\partial^4}{\partial t^4}+B_{22}\frac{\partial^4}{\partial x^2\partial t^2}+B_{23}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+B_{24}\frac{\partial^2}{\partial t^2}+B_{25}\frac{\partial^2}{\partial x^2}+B_{26}\right\}\frac{\partial}{\partial x}U_0^{(0)}(x,t)=$$

$$=\left\{S_{21}\frac{\partial^4}{\partial t^4}+S_{22}\frac{\partial^4}{\partial x^2\partial t^2}+S_{23}\frac{\partial^4}{\partial x^4}+\right.$$

$$\left.+S_{24}\frac{\partial^2}{\partial t^2}+S_{25}\frac{\partial^2}{\partial x^2}+S_{26}\right\}f_z^{(2)}(x,t),$$

где A_{kj}, B_{kj} или S_{kj}:

$$A_{13}=-(1+2q_0)\frac{z_1h_0^4}{12}-(4+6q_1-9q_0q_1)\frac{z_1^3h_0^2}{36};$$

$$\ldots\ldots\ A_{26}=1-q_2;$$

$$B_{11}=-\xi\left(\frac{3(1-q_1)(q_0-1)}{a_0^2}-\frac{1}{b_1^2}\right)\frac{1}{a_1^2}\frac{z_1h_0^2}{6}-\xi\frac{q_1-1}{a_1^2b_1^2}\frac{z_1^3}{6};$$

$$\ldots\ldots B_{26}=-\xi(1+q_2);$$

$$S_{i1}=\xi\mu_i^{-1}\frac{1}{a_i^2b_i^2}\frac{h_0^4}{12};\ldots S_{i6}=\xi\mu_i^{-1},$$

где $(i=1,2)$; $z_1=h_0+h_1$; $z_2=h_0+h_2$;

$q_m=1-\frac{\lambda_m}{\mu_m}$; a_m, b_m - соответственно скорости продольных и поперечных волн в

материале пластинки. При этом перемещения точек пластинки определяются по формулам

$$U_0(x,z,t)=\left[(1-q_0)\frac{z^2}{2}\frac{\partial^2}{\partial t^2}-(1-q_0)\frac{z^2}{2}\times\right.$$

$$\left.\times\frac{\partial^2}{\partial x^2}+1\right]U_0^{(0)}(x,z,t)-\frac{1}{\xi}q_0\frac{z^2}{2}\frac{\partial}{\partial x}W_0^{(0)}(x,z,t);$$

$$W_0(x,z,t)=\frac{1}{\xi}\left[\left(\frac{1}{b_0^2}+q_0\right)\frac{z^3}{6}\frac{\partial^2}{\partial t^2}-(1+q_0)\frac{z^3}{6}\times\right.$$

$$\left.\times\frac{\partial^2}{\partial x^2}+z\right]W_0^{(0)}(x,z,t)+ \qquad (30)$$

$$+q_0\left[\frac{\partial^2}{\partial t^2}-\frac{\partial^2}{\partial x^2}\right]\frac{z^3}{6}\frac{\partial}{\partial x}U_0^{(0)}(x,z,t).$$

Частный случай. Постановка прикладной задачи и её решение. Рассмотрим задачу о симметричных колебаниях защемленной в продольном направлении пластины, при $x=0$ и $x=l$, где l - длина пластинки в направлении оси Ox В качестве уравнений колебания примем систему (29). Граничные условия задачи имеют вид

$$U_0^{(0)}=0;\ \frac{\partial^2 U_0^{(0)}}{\partial x^2}=0;\ \frac{\partial W_0^{(0)}}{\partial x}=0;$$

$$\frac{\partial^3 W_0^{(0)}}{\partial x^3}=0.$$

Начальные условия считаются нулевыми.

Решение системы уравнений (29), удовлетворяющее условиям закрепления торцов, а также функции внешних воздействий представим в виде

$$U_0^{(0)}=\sum_{m=1}^{\infty}u(t)\sin\frac{m\pi x}{l};\ W_0^{(0)}=\sum_{m=1}^{\infty}w(t)\cos\frac{m\pi x}{l};$$

$$f_x=\sum_{m=1}^{\infty}f_{xm}(t)\sin\frac{m\pi x}{l};\ f_z=\sum_{m=1}^{\infty}f_{zm}(t)\cos\frac{m\pi x}{l}. \qquad (31)$$

Подстановка (31) в (29) приводит к системе двух дифференциальных уравнений четвертого порядка относительно функций $u(t)$ и $w(t)$.

Задача решена численно при следующих значениях физико-механических и геометрических параметров трехслойной пластинки:

$$\xi=0.9h_0;\ l=0.4m;\ h_0=0.04m;$$

$$h_1=0.001m;\ h_2=0.001m;\ \rho_0=30kg/m^3;$$

$$\rho_1=2700kg/m^3;\ \rho_2=2700kg/m^3;$$

$$E_0=0.165\cdot10^9\ Pa;\ E_1=69\cdot10^9\ Pa;$$

$$E_2=69\cdot10^9\ Pa;\ \nu_0=0.03125;\ \nu_1=0.33;$$

$$\nu_2=0.33;\ f_{xm}(t)=t^2;\ f_{zm}(t)=3t^2.$$

Результаты представлены на рис.2-3 в виде графиков продольного и поперечного перемещений точек срединного слоя.

Результаты расчетов. На рис.2-3 приведены графики зависимостей продольного и поперечного перемещений $U_0(x,t)$ и $W_0(x,t)$ от времени при различных значениях координаты x.

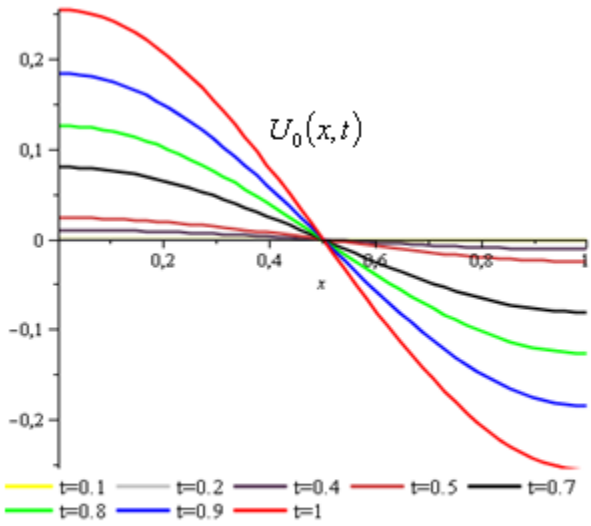


Рис.2. Зависимости перемещений $U_0(x,t)$ от времени при различных значениях координаты x.

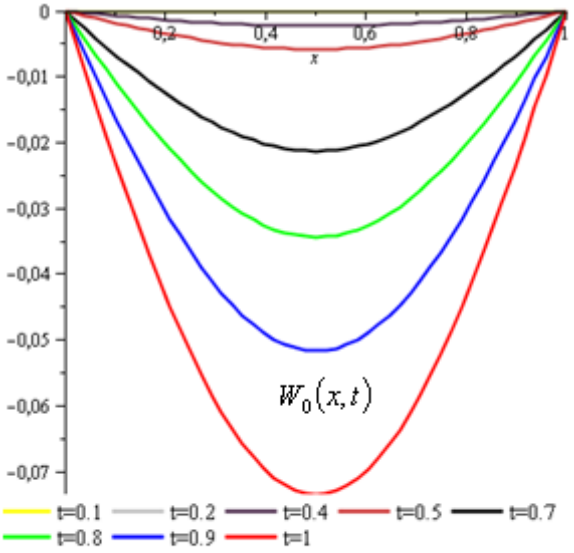


Рис.3. Зависимости перемещений $W_0(x,t)$ от времени при различных значениях координаты x.

Из приведенных графиков на рис.2 следует, что амплитуды продольного перемещения слоя $U_0(x,t)$ в начале процесса имеют небольшие отклонения от нулевой отметки. В моментах времени больших, чем одной пятой части действия нагрузок, т.е. при $t>0,2$, они начинают резко возрастать для сечений пластинки, расположенных до середины пластинки, т.е. до $x<0,5$. Это указывает на то, что точки сечений пластинки, находящихся левее срединного сечения $x=0,5$ получают положительные перемещения, т.е. продольные волокна пластинки в левой ее половине испытывают растяжения.

С другой стороны в тех же моментах времени точки сечений пластинки, находящихся правее срединного сечения $x=0,5$, получают отрицательные перемещения, т.е. продольные волокна пластинки в правой ее половине испытывают сжатие. Данное двоякое поведение сечений, находящихся по разным сторонам срединного сечения пластинки, полностью согласуется с физической сущностью решаемой задачи.

В поперечном направлении амплитуда поперечного перемещения слоя $W_0(x,t)$ в начальный момент времени очень мала, которая начинает возрастать с течением времени. Деформация слоя в поперечном направлении становится значительной с течением времени (рис.3).

При этом на торцах слоя $W_0(x,t)$ равна нулю. Максимальные значения $W_0(x,t)$ наблюдаются в сечении $x=0.5$ в конце времени расчета при $t=1.$ Это показывает, что амплитуды $W_0(x,t)$ в сечениях срединного слоя возрастают с течением времени (рис.3). Значение $W_0(x,t)$ в точке максимума небольшое и равно 0.08, что примерно на один порядка меньше, чем соответствующее значение главной части продольного перемещения.

Следовательно, можно сделать вывод о том, что при симметричных колебаниях трехслойной пластинки можно пренебречь поперечными перемещениями точек. С другой стороны ясно, что появление незначительных поперечных перемещений точек пластинки вызвано действием продольных внешних нагрузок f_x, на лицевой и обратной сторонах пластинки. Эти перемещения незначительны и на порядок меньше по сравнению с продольными перемещениями. Поэтому, можно пренебречь поперечными перемещениями точек слоев.

Данный фактор также соответствует физической сущности поставленной задачи.

Выводы.

Разработана теория нестационарных симметричных колебаний трехслойной упругой пластинки в плоской постановке свободной от гипотез и предпосылок. Предложены общие уравнения колебания нестационарных симметричных колебаний трехслойной упругой пластинки, в плоской постановке из которых, в частных случаях, следуют уравнения колебания упругих трехслойных пластин, для двухслойных упругих пластин, однородных упругих пластин.

Разработаны эффективная математическая модель, методика расчёта, вычислительный алгоритм и некоторые аналитические решения расчета колебаний трехслойной пластинки с

заданными граничными условиями при динамическом нагружении.

References:

1. Aleksandrov, A.Ja., & Kurshin, L.M. (1968). *Trehslojnye plastinki i obolochki.Prochnost`, ustojchivost`, kolebanija*. (pp.245-308). Moscow: Mashinostroenie, t.2.
2. Lexniskiy, S.G. (1977). *Teoriya uprugosti anizotropnogo tela*. (p.416). Moscow: Nauka.
3. Sarrera, E. (2001). Developments ideas and evaluations based upon the Reissner's mixed theorem in the modeling of multilayered plates and shells. *Appl. Mech. Rev.* 54(4), pp. 301-329.
4. Ambarsumyan, S.A. (1987). *Teoriya anizotropnix plastin.* (p.493). Moscow: Nauka.
5. Reissner, E. (1984). On a certain mixed variational theory and a proposed application. *Int. Z. Numer. Methods Eng*. 20, pp. 1366-1368.
6. Ren, Z.G. (1986). Bending theory of laminated plates. *J.Comp.Sci. Technol*, 27, pp. 225-239.
7. Grigoluk, Je.I., & Selezov, I.T. (1973). *Neklassicheskie teorii kolebanij sterzhnej, plastin i obolochek*. Itogi nauki i tehniki. Ser. Mehanika deform. tverdyh tel, T. 5. (p.272). Moscow: VINITI.
8. Petrashen`, G.I., & Hinen, Je.V. (1968). *Ob inzhenernyh uravnenijah kolebanij neideal`no-uprugih plastin*. Trudy MIAN. T. 95, (pp.151-183). L.: Nauka.
9. Petrashen`, G.I., & Hinen, Je.V. (1971). Ob uslovijah primenimosti inzhenernyh uravnenij neideal`no-uprugih plastin. *Voprosy dinamiki teorii rasprostranenija sejsmicheskoj volny*, № 11, Moscow: Nauka, pp. 48-56.
10. Filippov, I.G., & Cheban, V.G. (1988). *Matematicheskaja teorija kolebanij uprugih i vajazkouprugih plastin i sterzhnej*. (p.188). Kishinev: «Shtiinca».
11. Hudojnazarov, H. H. (2003). *Nestacionarnoe vzaimodejstvie cilindricheskih obolochek i sterzhnej s deformiruemoj sredoj*. (p.325). T.: Izd-vo med.lit. imeni Abu Ali Ibn Sina.
12. Mirzakobilov, N.H. (1992). *Kolebanija trehslojnyh plastin chastnogo vida*. Diss. na sois. uch. st. kand. nauk. (p.139). Moskva.
13. Khudoynazarov, Kh., & Khudoyberdiyev, Z. (2018). Symmetrical vibrations of a three-layered elastic plate. *Int. J. of Advanced Research in Science, Engineering and Technology*, 5(10), pp.7117-7121.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 26.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Dilfuza Mahammadovna Ahmedova
Ferghana State University
Candidate of Biological Sciences, Associate professor

Gulnora Muhammadjonovna Maksudova
Ferghana State University
Assistant lecturer

THE ROLE OF MOISTURE AS AN ECOLOGICAL FACTOR IN GROWTH OF COTTON PLANTS

Abstract: *This article identifies the optimal regimes and water requirements for the pre-irrigation soil moisture of promising varieties of cotton C-6524 and Colden Valiiey-1 in the light gray soil conditions of Fergana region and preliminary results on the development of important agro-measures for obtaining a quality cotton crop.*

Key words: *ecological factors, climate conditions of soil, quantity of water, soil moist, irrigation dates, scheme of irrigation period, and water evaporation in soil.*

Language: *English*

Citation: Ahmedova, D. M., & Maksudova, G. M. (2020). The role of moisture as an ecological factor in growth of cotton plants. *ISJ Theoretical & Applied Science, 08 (88),* 73-76.

Soi: http://s-o-i.org/1.1/TAS-08-88-17 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.17

Scopus ASCC: *1101.*

Introduction

Attaining efficient utilization of water resources has outstanding importance in steady development of agriculture because approximately 92% of water resources in our country are used in agriculture. Over 97% of farm products are produced in the irrigated land.

In our country, the law of "Water and its usage in the Republic of Uzbekistan" was adopted on the 6th of May in 1993 to arrange proper utilization of water resources, so water practices related to it has been controlled according to this law and other additional legislative documents in our country.

The availability of water resources in soil depends on many factors, particularly, rate of percipitation, the depth of fertile soil and its features (granular and mechanical components) and structure. The soil features are defined by its capacity to conserve water and its relative balance of preserving nutritious and organic matters (sand, argil, clay) in various dimensions. Heavy rain drops can smash down topsoil aggregates and tiny porous particles can block off the the flow of water. As a consequence, it prevents water absorption in soil. Shielding topsoil with organic matters can be conducive to better absorption of water and as a result of its effective use, precipitation water can be preserved in soil and water evaporation can be minimized.

It is possible to maintain water schedule of each type of plant watering system according to our country's soil-climate conditions, depth of underground aqueducts and the biology of the plant and along with it efficiency of irrigation water.

The main part

It is known that moist of soil is considered to be an important ecological factor in cotton fertility. Therefore, in terms of irrigation it is essential to create an optimal water regime for plant's development in growth period. During growth period, cotton's demand for water is interrelated with its assimilated action change and the size of leave structure.

As it was noted by M. Nazarov, K. Mirzajanov, o. Ibragimov, C. Isaev (2014) irrigation is held in the care of cotton plants during growth period when the optimal moist of soil is 65-5% according to Bordered Field Moist Capacity (BFMC), as it creates foundation for steady growth of cotton, having proportional

steady root system, yield elements as well as high abundance of cotton harvest.But when moist of soil is reduced to 55% according to BFMC, it has been observed radical lessening of cotton growth. Beside, zenith of cotton plant's demand for water is in its flourishing and cotton-yielding phases during which cotton plant is each hectare requires 50-55m^3 of water, in blossom period 18-20m^3 and while ripening period it consumes 30-50m^3.

According to some data, less water is consumed in 24 hours when plant's fertility to accumulate organic elements per a day is low and also this is a period for cotton plant to use water efficiently which causes high intensity of plant's photosynthesis. The main reason of less water demand of cotton plant in early stages is its short height of leaves. Cotton's average consumption of water in an area unit suddenly increases due its assimilation productivity under the influence of environment andenlargement of cotton leaves along with cotton plants under the influence of environment.

Cotton plant demands a large amount of water when it starts to blossom and grow, that is, during intensive assimilation period of cotton plants. In this period cotton plans evaporates major part of water to protect its leaves' optimal functional structure against negative influence of dry climate and high temperature of summer. Therefore, it is an important factor to irrigate cotton plants on time during this blossom and growth period to yield bigger harvest. It is necessary to designate exact irrigate time during each stage of cotton plant development. If water is maintained before optimal growth, that is even if the cotton plants are not thirsty, in that case, the plant will grow in height and cotton branches' length will become longer but fertilizing body's growth will be reduced.

The root of cotton which grows in extra humid conditions develops in high layers of soil and it can't stand short period of draught, as a result fruits of cotton blossom drops abruptly. Consequently, harvest reduces, and the quality of cotton gets lower.

For experiment, types of cotton, C-6524 and Golden Valley-1 were taken, experiments were conducted in Fergana region's virgin soil to determine amount and norms of seasonal watering. Implanting date, blossom period, the start of ripening period, period between growing and ripening, medium harvesting measures by hundredweight, the weight of cotton in each unripe cotton bolls, fertilizers and irrigation system and their schedule of experimenting cotton types were elaborately studied. These studies were conducted in four repetitive scale.

In each repetitive case, the length of sector were 25m, the number of row was 4 and distance between rows was 60 cm. the width of sector was 2.4, and the planting scheme was 60x15 (Table1).

As it can be said by phrases of Professor Vysotsky, water in soil content is equal to the blood of living organism. Water in soil takes part in all existing process of land (alteration of chemical elements, biological life-span of soil, formation of organic elements, rotting and others) therefore, irrigation of cotton plants is divided into 4 periods according to bolls of cotton demand, that is, first is from cotton's incipient stage of growth to formation of bud, second is from bud stage to blossom period, third is from blossom to formation cotton, and the forth, is ripening period.

Table 1. Division size and feeding area

	Type	quantity of rows in sector	distance between plants in a row	distance between rows (cm)	nutrition per a plant in an area unit	sector area m^3 general	calculated	defined plants quantity (thousands)	number of plants in determined area unit
1	C- 6524 sample	4	15	60	0,9	60	50	100000	500
2	Golden Valley-1	4	15	60	0,9	60	50	100000	500

It is known that first vegetation water is very significant point to determine crop production. Delaying first irrigation deprives cotton's growth. That's why first water is maintained to cotton plants until it blossoms through every other row in the sector by turn. Due to short size of leaves in the early growth stage of cotton, cotton plants consumes less water, but in blooming and bud forming period, air temperature is high and the size of leaves enlarges as water evaporates rapidly. Therefore, consecutive irrigation is held based on exact growth signs. The onset of cotton blossom, irrigation date is defined according to location of cotton flower's growing point.

At the end of growth, particularly at the end of September in autumn, cotton plants' demand for water lessens considerably owing to reduction of environmental factors influence. Taking into account, autumn irrigation is an important factor to improve the quality of cotton, normal ripening of bud. Motion of

nutritious elements, next irrigation is provided after first cotton harvest collection.

Comparing indications of experimenting types, C-6524 type yielded cotton in 32.5 hundredweight in 2017 and 37.0 hundredweight harvest was yielded in 2018. Cotton plants' growing period, from germinating to ripening differed in 9 days. Cases of cotton's getting infested with Vealt were 8.4%, higher in 2017 than in 2018.

It is clear that from 2017-2018 results, cotton types' under experiment in 2018 all indicators, namely harvesting , expenses of cotton cotton's weight in each boll of cotton, overall cotton's harvest was higher than in cotton types experimented in 2017. Cotton types' growing period from germinating to ripening in 2018 was rather shortened to 8-10 days than in 2017. In this experiment bud bursting was accelerated. Especially it was observed that Golden Valley-1 type's ripened 10 days earlier. Cases of getting infected with Vealt in 2018 compared to 2017 in C-6524 sample type were reduced to 8.1% and Golden Valley-1 to 4.0% (Table 2).

Table 2. Extension of the main indecators of cotton varieties by variants

#	Type	Years of experiment	Average crop productivity (hundredweight)	expenses of cotton %	general cotton's harvest (hundredweight)	weight of cotton in each boll Grams	Period between germinating to ripening	Cases of getting infected with Vealt
1	C-6524-Sample	2017	32.5	35.5	11.5	5.3	130	22.5
		2018	37.0	35.6	13.2	4.9	121	14.4
	median		34.8	35.6	12.4	5.1	125	18.3
2	Golden Valley-1	2017	34.2	38.0	13.0	5.0	132	16.4
		2018	37.5	35.4	13.3	5.1	122	12.5
	median		35.9	36.7	13.2	5.0	127	14.5

In our experiment, diverse waster consumptions at various development stages of cotton plants and growing conditions (soil condition, high temperature of climate, humidity and others) were taken under strict control. Considering 400-800 grams of water consumptions of cotton plants in order to accumulate 1 gram of dry substance in plant according to the soil and climate conditions, 1-2-1 irrigation scheme is applied. (Table3)

Table 3. Distribution of water by phases of guza development

№	Irrigation Period	Quantity of water (m^3
1.	before Bud formation	750
2.	From bud stage to blossom	850
3.	From blossom to formation bolls of cotton	850
4.	After first cotton harvest collection	650

Conclusion

It can be noted as conclusion, it is essential to hold juice watering system as an effective watering method. In the usage of dung juice system, dung serves as protection cover along with given nutrition to plants. It also reduces soil evaporation and increases in absorption into soil. For this reason, dung should be formed in each 10 hectare of cotton fields in shape of 10x10 and before irrigation dung pit should be dampened and mixed.

Irrigation should be held in the evening, when water reaches ¾ part of scratch, water consumption should be lessened twice and when water reaches the end of scratch, it should be minimized twice less again. By maintain trickling water flow regularly, it is possible to decrease draining.

References:

1. (2002). *Protection of natural environment. Laws and normative documents*. Tashkent "Adolat".
2. Nazarov, M., Mirzajonov, K., Ibragimov, O., & Isaev, C. (2014). *"Thrifty technologies of agriculture"*. (p.51). Tashkent.
3. Akhmedova D., Nazarov M., Umarov U., (2014). Ecological factors of cotton plant morpho-biology and its influence on crop productivity. *Uzbekistan's agriculture journal "Agro Ilm"* Supplement#2, pp. 17-19.
4. Yuldashev, C. Kh., Nazarov, M., & Umarov, U. (1976). *"Influence of environmental factors on structure of cotton and its productivity."* Tashkent: "Fan".
5. Zokirov, T.C. (1991). *"Ecology of cotton field"*. Tashkent.
6. Ibrahimov, O. (1992). *"Cotton fructification and its control factors"*. Tashkent.
7. Akhmedova, D., & Nazarov, M. (2019). *Influence of environmental factors on bio-ecological features and its productivity"*. Ferghana.
8. Nazarov, M., Akhmedova, D., & Pulatov, C. (2016). "Bio-ecology of strategically experimenting cotton types in Ferghana region" *"Agro Ilm"*, Supplement# 42, pp. 7-8.
9. Akhmedova, D., Nazarov, M., & Valiyev, M. (2013). *"Influence of various ecological factors on cotton growth". Uzbekistan's agriculture journal "Agro Ilm"*, Supplement#2, pp. 14-15.
10. Nazarov, M., Akhmedova, D., & Obidov, M. (2015). "Influence of feeding area on the process of cotton's metabolism". *Uzbekistan's agriculture journal "Agro Ilm"*, Supplement# 5, pp. 11-12.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 26.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Anvar Jumag'ulov
unemployed
Independent researcher
Tashkent, Republic of Uzbekistan
ozodbek.radjabov.1994@mail.ru

FIELD RESEARCH METHODS IN ARCHEOLOGY AND ETHNOLOGY

Abstract: *This article discusses the field research method, one of the research methods related to archeology and ethnology, which is one of the ancillary fields of historical science. The scientific novelty of the article lies in the effective use of information from new local and foreign literature.*

Key words: *Archeology, ethnology, science methods, research methods, field research method, field records.*

Language: *English*

Citation: Jumag'ulov, A. (2020). Field research methods in archeology and ethnology. *ISJ Theoretical & Applied Science, 08 (88),* 77-79.

Soi: http://s-o-i.org/1.1/TAS-08-88-18 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.18

Scopus ASCC: *1204.*

Introduction

The emergence of new trends in ethnology in the last quarter of the twentieth century has led to a radical change in the research in this field, both radically and in content. It was from this period that researchers began to focus more on the study of modern societies rather than the specific exogamous cultures of distant lands that have taken on a traditional appearance. As a result, a number of new theories and schools emerged. Researchers have begun to work on new areas of ethnology. In particular, social ethnology, legal ethnology, political ethnology, religious ethnology, economic ethnology have been formed and are developing in Western European science[1].

In general, those who are currently conducting research in the field of ethnology or are interested in this science:

♦ How does humanity perceive its surroundings?

♦ What do the objects in the material world mean to people, and how do these views change?

♦ Intercultural relations are intertwined with traditional and modern cultures day effect?

♦ What does the ethnic landscape of the world reflect, and by what mechanisms does this landscape change?

♦ What are the criteria for how a culture adapts to the changes that take place and, in turn, adapts to the society in which it lives?

♦ What is the role and place of ethnocultural cultures in modern industrial society?

♦ In any case, what does not change in the minds of ethnic groups, or what can be completely forgotten or changed, and how does this process go?

♦ How do cross-cultural interactions occur?

Is there a solid part of ethnic culture that holds the whole system together and protects it in the process of change in society? seeks the right answer to a series of questions[2].

Undoubtedly, many of these problems have attracted the attention of ethnologists in the last decade and have become a problem of scientific research. In this regard, especially in Western countries, in recent decades, the science of ethnology has been based on the philosophy of 'post modernism', with the study of inter-ethnic processes directly between social groups being one of the main objectives. Also local and research by scientists in the study of global processes the issue of choice is gaining attention. In the life of society not all processes, but ethnos and culture based on their characteristics, only the views that are considered the most important are explored. In other words, the research focuses on problem-based selection rather than a global description of the stages of human development, from its inception to the present day. After all, most of the research in the field of ethnology in developed countries is carried out in the context of social

problems that are recognized as important and relevant in society[9].

In our country, during the period of independence, the ethnology of various historical and ethnographic regions of the Republic, including the Fergana Valley, South Uzbekistan, Bukhara and Khorezm, and the local characteristics of the population of these regions, transformation in material and spiritual culture, interethnic processes, ethnology of various diasporas * and irredents * living in the territory of our country, traditional and modern ethnocultural processes, in a modern urban environment research is being conducted on a wide range of topics, such as the preservation of traditional national values and modern ethnic processes. In short, the subject of ethnological research is constantly expanding, which in a sense limits the possibility of a perfect definition of science[3].

Each subject will focus on the study of a specific object of research, involving the necessary knowledge and using it effectively. However, the specificity of the object of knowledge in each discipline requires researchers to have complete and accurate information about the object of study. A variety of materials for scientific analysis in modern ethnology: the results of research and the various fields of ethnographic scholars notes, travelogues, observations, folklore samples and literary texts, ethnosociological and ethnopsychological materials, journalistic texts, official documents, historical and socio-political literature are used[10]. Except these the process of direct communication with the representatives of the ethnos under study in their attitudes to different situations, debates and The opinions and arguments expressed in the conversations are logical. Ways of interpreting the various views of the environment and The results of monitoring personal behavior also play an important role plays. Obviously, the collection of such data is research. Requires the child to master certain techniques. Current unique research methods in modern ethnology in the period a set of field studies, written study of sources, collection of samples of folklore, includes analysis of statistical materials[4].

Direct in the formation of ethnology as an independent science in the language of the study of the life of the people or in the language of ethnology field research is important. Field research formation of the method of colonial economies, social. Learn more about structures, beliefs, and customs formed due to the need to have At that time closely related to the interests of colonial policy required it. Because the colonialists are their own colonies and on a regular basis to manage the population in that area those who need such information[6].

The method of field research is applied to the researcher long-term exposure to the environment and direct exposure to the environment requires practice. It is worth noting that the researcher for the duration of operation, which is usually stationary at the existing facility should not be less than one ethnic year. For the ethnologist-researcher the first 2-3 months of getting acquainted and getting acquainted with the new environment is calculated. What follows is that it is an ethnic community or part of it monitors the lifestyle from a scientific point of view throughout the year[7]. Legitimacy and effectiveness of field research far among the ethnoses studied by the researcher term requires residence. This is what the American scientist L.G. Morgan said and a vivid example of the research of Russian ethnographer Miklukho Maclaycan be cited as. Morgan of the Indians in America Miklukho Maclay, who lived in the Iroquois tribe for a long time Living among the Papuans of New Guinea, very rich ethnographically is a scientist who has collected materials[5]. Stationary field the unique advantage of research methods is that ethnologists folk participant a become Nowadays in ethnology this method seasonal or emergency used. In this method, the researcher a predetermined plan for the population living in the ethnographic area based on. This method is convenient for the researcher period. But do research in this case to study the way of life of the ethnos in all seasons does not allow[8]. Field research methods are material for ethnologists and access to information about spiritual culture will give. Materiality, spirituality in photographs, drawings, diagrams objects: tools of labor of the ethnos, houses, houses equipment, clothing, and similar material culture patterns are reflected. By means of modern technology (digital camcorder and digital camera, audio recordings) and traditional objects and views of the spiritual life of the people (traditions, ceremonies, rituals, folk songs etc.). Sometimes in the field research some material and spiritual material for the museum collection samples of intent are collected.

References:

1. Ashirov, A., & Atadjanov, Sh. (2008). *Ethnology* (Textbook). Tashkent: "Economics and Finance".
2. Doniyorov, A., Ashirov, A., & Buriyev, O. (2011). *Ethnography, ethnogenesis and ethnic history of the peoples of Central Asia*. Tashkent: "New edition".

3. Jabborov, I. (2008). *Fundamentals of world ethnology*. Tashkent: Teacher.
4. (2007). *Fundamentals of archeology*: Textbook / Edited by prof. V.V. Pimenov. Moscow: Moscow, Publishing house of Moscow State University.
5. (2014). *Archeology* (Textbook for bachelors. Ed. V.A. Kozmina, V.S. Buzin). Moscow: Publishing house Yurayt.
6. Karimov, I.A. (1996). *"The homeland is as sacred as a shrine*. Tashkent: Uzbekistan.
7. Artsikovsky, A. V. (1974). *"Fundamentals of Archeology"*. Tashkent: "Teacher".
8. Akhmedov, B. (1991). *"Sources of history of the peoples of Uzbekistan"*. Tashkent: "Teacher".
9. Nabiev, A. (1996). *"Historical local lore"*. Tashkent: "Teacher".
10. Egamberdiyeva, U. (2009). *Archeology*. Tashkent.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 08 **Volume:** 88

Published: 26.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Sardorbek Ismail o'g'li Quranboyev
National University of Uzbekistan
Master's student
Tashkent, Republic of Uzbekistan
ozodbek.radjabov.1994@mail.ru

INITIAL AMENDMENTS AND ADDITIONS TO THE CONSTITUTION OF THE REPUBLIC OF UZBEKISTAN AND THEIR ESSENCE

Abstract: *This article discusses the initial amendments and additions to the Constitution of the Republic of Uzbekistan, their essence, their role in improving and democratizing public administration.*

Key words: *Constitution of the Republic of Uzbekistan, Oliy Majlis of the Republic of Uzbekistan, President of the Republic of Uzbekistan, Cabinet of Ministers of the Republic of Uzbekistan.*

Language: *English*

Citation: Quranboyev, S. I. (2020). Initial amendments and additions to the constitution of the republic of Uzbekistan and their essence. *ISJ Theoretical & Applied Science, 08 (88),* 80-82.

Soi: http://s-o-i.org/1.1/TAS-08-88-19 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.19

Scopus ASCC: *3300.*

Introduction

The first Constitution of independent Uzbekistan forms and strengthens reliable legal guarantees of the new society. This Basic Law will be adopted in a democratic way after a comprehensive and well-thought-out public discussion. Without a common idea, it is impossible to create a strong spiritual space in our multi-ethnic country. The Constitution reveals to us how to build a democratic, legal and just state that represents a set of human rights, freedom, stability and development [1, p.85].

As a result of regular legal reforms in our country, changes and additions are being made to many normative legal acts.

In particular, the Constitution of the Republic of Uzbekistan has been amended several times so far. Over the past period, on the basis of the Constitution of the Republic of Uzbekistan, the country has undergone consistent democratic reforms in the field of state and society building: a bicameral parliament is formed, some powers of the President have been transferred to the Senate.

The term and status of the President will be changed, changes and reforms will be made in the legal relations between the Oliy Majlis of the Republic of Uzbekistan, the President of the Republic of Uzbekistan and the Cabinet of Ministers of the Republic of Uzbekistan, in particular the Prime Minister. Undoubtedly, the Constitution of the Republic of Uzbekistan serves as the main legal source for these consistent reforms.

As social relations develop in any society, there is a need to make significant changes in the life of the state and society[8].

On December 28, 1993, the Constitution was amended for the first time. According to the Law "On Amendments and Addenda to the Constitution of the Republic of Uzbekistan", Article 77, Part 1 of the Constitution of the Republic of Uzbekistan (150 deputies of the Oliy Majlis of the Republic of Uzbekistan) was replaced by the word "deputies" [2].

In accordance with Article 83 of the Constitution of the Republic of Uzbekistan, the President of the Republic of Uzbekistan, using the right of legislative initiative, on May 25, 2000 at the second session of the Oliy Majlis proposed to move to a permanent bicameral parliament and to establish a bicameral parliament in 2004. The first discussion of this issue was held at the next eighth session of the Oliy Majlis, and on April 4, 2002, the Constitutional Law "On the Results of the Referendum and the Basic Principles of the Organization of State Power" was adopted.

On the basis of this Law, in accordance with the Law of April 24, 2003 "On amendments and additions

to the Constitution of the Republic of Uzbekistan", amendments and additions were made to Chapters XVIII, XIX, XX, XXIII of the Constitution.

Chapter XVIII of the Constitution, formerly known as the Oliy Majlis of the Republic of Uzbekistan, was previously devoted to a unicameral parliament, but now to a bicameral parliament - the Legislative Chamber (lower house) and the Senate (upper house). In accordance with the amendments and additions, Article 76 of the Constitution states that "The Oliy Majlis of the Republic of Uzbekistan shall be the supreme state representative body and exercise legislative power.

The term of office of the Oliy Majlis of the Republic of Uzbekistan, consisting of two chambers - the Legislative Chamber (lower house) and the Senate - five years, has been strengthened. Chapter XIX of the Constitution, dedicated to the President of the Republic of Uzbekistan, has also been amended. In accordance with the amendments, the provision "The President of the Republic of Uzbekistan is the Chairman of the Cabinet of Ministers" was removed from Article 89 of the Constitution.

Some powers of the President of the Republic of Uzbekistan have been transferred to the Senate of the upper chamber of the Oliy Majlis of the Republic of Uzbekistan. In particular, according to Article 93, paragraph 6, the President of the Republic of Uzbekistan nominates candidates to the Senate of the Oliy Majlis of the Republic of Uzbekistan for the appointment of diplomatic and other representatives of the Republic of Uzbekistan abroad, and Article 23, paragraph 6, provides for the adoption of amnesty documents. It is scheduled to submit a proposal to the Senate. Earlier, the appointment of diplomatic and other representatives of the Republic of Uzbekistan abroad and the adoption of amnesty documents was directly within the competence of the President[6].

According to the amendments and additions to Chapter XX of the Constitution of the Republic of Uzbekistan, Article 98 of the Constitution provides that "the Cabinet of Ministers shall be formed by the President of the Republic of Uzbekistan and approved by the Oliy Majlis." The composition of the Cabinet of Ministers is formed by the President of the Republic of Uzbekistan. The candidate for the Prime Minister of the Republic of Uzbekistan shall be considered and approved by the chambers of the Oliy Majlis of the Republic of Uzbekistan upon nomination by the President of the Republic of Uzbekistan. The members of the Cabinet of Ministers shall be approved by the President of the Republic of Uzbekistan upon nomination by the Prime Minister of the Republic of Uzbekistan. The Constitution also expands the powers of the Prime Minister of the Republic of Uzbekistan, Article 98, Part 5 states[5]:

In accordance with these amendments and additions, the Prime Minister of the Republic of Uzbekistan was authorized to "submit to the President of the Republic of Uzbekistan for approval members of the Cabinet of Ministers." Chapter XXIII of the Constitution, also known as the electoral system, will be amended accordingly. As an example, the timing of the elections was clearly defined[10].

Further democratization of public administration, increasing the role and responsibility of the legislative, executive branches of government, the government and local authorities in the exercise of their constitutional powers, clearly defining the responsibilities of the President and limiting them to legal norms, as well as In order to strengthen the role and influence of political parties in the implementation of reforms, renewal and modernization of the country, on April 11, 2007 "On Amendments to Some Articles of the Constitution of the Republic of Uzbekistan The law was passed. This Law came into force on January 1, 2008. According to the amendments, Article 89 of the Constitution of the Republic of Uzbekistan reads as follows: "The President of the Republic of Uzbekistan is the head of state and ensures the coordinated functioning and cooperation of public authorities." Article 93, paragraph 15 "appoints and dismisses governors of regions and Tashkent city Part 2 of Article 102 reads as follows: "The khokim of the region and the city of Tashkent shall be appointed and dismissed by the President of the Republic of Uzbekistan in accordance with the law[7,p.120]".

The Law of the Republic of Uzbekistan "On Amendments and Addenda to Certain Laws of the Republic of Uzbekistan in connection with the Improvement of Electoral Legislation" of 25 December 2008 provides for the first part of Article 77 of the Constitution of the Republic of Uzbekistan consisting of deputies). This Law came into force on July 1, 2009. According to him, the first part of the article reads as follows: "The Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan consists of one hundred and fifty deputies elected in accordance with the law."

References:

1. Karimov, I.A. (1996). *Uzbekistan: national independence, economy, politics, ideology*. T.1.- Tashkent: Uzbekistan.
2. (1994). *Bulletin of the Supreme Council of the Republic of Uzbekistan*. №1, Article 5.
3. (2002). *Bulletin of the Supreme Council of the Republic of Uzbekistan*, 4-5, Article 60.
4. (2018). *The Constitution of the Republic of Uzbekistan.*
5. Karimov, I.A. (1996). *May we have a free and prosperous homeland.* T.2. Tashkent: Uzbekistan.
6. Karimov, I.A. (1996). *Uzbekistan: national independence, economy, politics, ideology*.T.1.- Tashkent: Uzbekistan.
7. Mirziyoyev, S. M. (2017). *We will resolutely continue our path of national development and raise it to a new level*. Tashkent: NMIU "Uzbekistan".
8. Sherman, H. J. (1994). “Rise and Fall of the Soviet Union.” *International Journal of Political Economy*, vol. 24, no. 1.
9. Maddock, C. S., & Kazimierz, G. (1969). “Law and Communist Reality in the Soviet Union.” *American Bar Association Journal*, vol. 55, no. 10.
10. (n.d.). Retrieved from www.lex.uz.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 26.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Ibrohim Haqqulov
Institute of Uzbek Language, Literature and Folklore of Academy of Sciences of the Republic of Uzbekistan
Doctor of Philological Sciences, Senior researcher

MYSTICISM AND POETRY OF MAKHTUMQULI

Abstract: *This article analyzes the mystical aspects of the poetry of the famous poet Makhtumkuli, who has a special place in the literature of the Turkic nations. It reveals the deep mystical content embedded in a number of poetic lines written by the poet in a simple and sincere way. The sources of Makhtumkuli's work, including the influence of the poetry of Sufi writers such as Khoja Ahmad Yassavi and Suleiman Baqirgani, have been studied, as well as the reasons for the popularity of his poems.*

Key words: *Makhtumkuli, mystic, poet, poetry, poetics, artistic image, emblem, symbol, national spirit, artist, Islam, source, gnosis.*

Language: *English*

Citation: Haqqulov, I. (2020). Mysticism and poetry of Makhtumquli. *ISJ Theoretical & Applied Science, 08 (88),* 83-86.

Soi: http://s-o-i.org/1.1/TAS-08-88-20 ***Doi***: https://dx.doi.org/10.15863/TAS.2020.08.88.20

Scopus ASCC: *1208.*

Introduction

There have been many poets in history who bravely rode in Turkish poetry. However, very few of them have risen to the status of the hardworking son of the Turkmen nation, the unique poet Makhtumkuli, the artist of the century and eternity.

The great poet wrote:

Maxtumquli yuragimda bir o't bor,
Hech bir dilda buning kabi o't yonmas, z
(*Definition:* Makhtumkuli has a fire in his heart,
No heart burns like this, -)

And how right he was. “I took this world with my word” he said so sincerely. It is only natural that the interest in Makhtumkuli Firogi's unique personality and extraordinarily attractive poetry has become a cultural and literary event not only among the Turkic peoples, but also on the scale of humanity. So, if you say nation - in nationality, if you say courage - in courage, if you say loyalty to the people - in true devotion, there is no one who can repeat Makhtumkuli. After all, greatness and perseverance are intertwined in creation, and someone else's position is not an event. The fate and future of a true poet is decided not by his prestige in society, material opportunities, applause and awards, but by the artistic text created by the blood of the heart, the anguish of the soul. The success of the penman, who did not manage to create a unique artistic text, is invaluable. When studying and interpreting Makhtumkuli's poems, it is necessary to observe that the word, spirit, tone of sadness, color and expression of Makhtumkuli Firogi are the only basis of the poetic text when discussing their history and meaning, virtue. This is when the vital, moral, religious, political, philosophical and mystical scenes of the poet's poems shine by themselves.

Now, if we talk directly about mysticism, the culture and thinking of mysticism is an integral part of the spirituality of Islam Religion. The purpose of mysticism is to live in the valley of Truth and Reality, love and enlightenment, rising above the beliefs of race, nation and sect. True mysticism saves man from any limited thought, from immoral calamities. According to the general consensus of the Sufis, mysticism turns the wise into the ruler, and the ignorant into the path of enlightenment. Indeed, it is able to raise the ignorant, the lowly, and the petty to the level of a whole person who is ashamed of his cowardice and inferiority, and who loves love and wisdom above all else. To be sure of this, one must listen to the heart of Makhtumkuli's poetry. It is no coincidence that the poet Arif lamented, “On this

holiday, head is foot, foot is the head, no one knows which is good and which is bad".

The living connection with mysticism is an easily understood situation in Makhtumkuli's poetry. Even an ordinary reader will have no difficulty in knowing the poet's attitude to Yassavi, Kubrovi, and Naqshbandi. In addition, the deep mastery of the philosophy of prophethood added to the interest of Makhtumkuli's hymns, praises, prayers, as well as the poems of gnosis.

The legacy of Khoja Ahmad Yassavi, the founder of the first sect and mystical literature in the history of the Turkic peoples, served as a religious-mystical source for the poetry of Makhtumkuli Firogi.

Qildi anga Haq rahmat,
Nuri tajalliy qudrat.
Xirqa kiygan Xoja Ahmad,
Sayramdadir, Sayramda.

(Definition: Allah,who is very kind, helped him. Khoja Ahmad ,in rags, is in Sayram now.)

He also said, "*O Ahmad Yassavi, did not you see the owner of the climate, my beauty (the words like "the owner of the climate" and "beauty" mean Allah)*?" verses like this explain without explanation how much Firogi relied on Yassavi, how close he felt to him.

The meaning, istiloh, talmeh and tamsil (poetry genres) used in the "Devoni Hikmat" inspired Makhtumkuli and he also used them in his works:

For example, if Yassavi claims about the temptation and says:

Nafsim meni yo'ldin urib xor ayladi,
Termultirib xalqqa meni zor ayladi,
Yotsam, tursam shayton bilan yor ayladi.

(Definition: My temptation misleaded me, I am in need for people, it made me to be friend with the devil when I go to sleep and I get up)

Makhtumkuli not only says, "I passed away with sorrow, I was amazed, I was violated by the temptation and the devil", but also puts forward the generalized idea that "the son of man does not know himself, does nothing else but followinghis lust". Yassavi's warning, "A four-legged wooden horse will one day reach you", is expressed in Makhtumkuli as "One day you travel with a wooden horse", and so on. It should be noted that the shiny breath of Yassavi's wisdom flashed in Makhtumkuli's heart and mind. Such a follow-up did not even befall the writers who considered themselves representatives of the Yassavi school.

The emergence of small-form epic specimens in our mystical literature is an unprecedented experience. Such works were first written by Suleiman Bagirgani, who was honored as the second Yassavi, such as "The Discussion of the Soul and the temptation", "The Book of Bibi Maryam", and "The Book of the End of the world".

One of the Sufis that Makhtumquli enjoyed the experience of religious and enlightenment creation was undoubtedly Suleiman Bagirgani. In Makhtumkuli's poems there are dozens of proofs, various confessions confirming this fact. We would like to remind you that Makhtumkuli continued to write (as Bagirgani did) epics dedicated to Hazrat Yusuf, Hazrat Ali, and the king of Khotan.

After the fifteenth century, almost all of the great writers who wrote in Persian and Turkish considered it a great honor to belong to the Naqshbandi sect, whose history was described as the highest in the Muslim world. Naqshbandi is the way of love and charm, peace and progress, poverty and courage. Makhtumkuli, who studied in Bukhara Sharif, studied the teachings of Naqshband and filled his heart with passion for divinity in Bukhara, could not remain indifferent to the path of enlightenment and perfection chosen by Alisher Navoi and Abdurahmon Jami. Poems such as "King Naqshband", "He brought a loaf of bread" are an artistic expression of faith and affection for Naqshband. In one of these poems we read:

Bir kecha yotardim, shoh Naqshbandiy-
Bahouddin degan devona keldi.
Buxorodan kelmish hassasin sudrab,
Haq ishqida mastu mastona keldi.

Yonida bir necha do'st – yor turdilar,
Majlis tashkil etib xalqa qurdilar.
Na'ralar chekdilar, samo' urdilar
Ohu fig'onlardan jon jona keldi...

(Definition: One day while I was sleeping a mad man called Naqshbandi came. He came from Bukhara, he fell in love with Allah.

Around him were some friends, they sit, made a circle and cried)

No matter how intoxicated the Sufi charm and happiness, Makhtumkuli is, first of all, a poet of life, a creator who has never strayed from reality. His soul was constantly burning with the grief of the people, the pain of his Motherland.

In order not to leave the dunya, not to distance himself from its tolerance and murders, the poet calls it to a face-to-face battle and harshly criticizes the dunya

Dunyo yolg'onchidir, hirsu havasdir,
Yolg'onchiga bel bog'lamoq abasdir...

(Definition: The Dunya is a liar and lust, it is useless to believe it...)

Ordinary people thought, whoever chose Sufism, it means that he has attained the status of a lover of the God, and whoever has entered the path of Darwishism, it means that his heart is frozen in the abyss of gnosis. But it was not like this. Among the claimants of Arif, Darwish, Abdol, Sufi, and the poor, there are many hypocrites and liars, swindlers and cheaters. The so-called Azrak Sufis, on the other hand, disguised themselves as Sufis and, in the pursuit of

wealth, sustenance, and prestige, pushed themselves for anything and did not shy away from any villainy. Makhtumquli's:

So'fiylar nafs uchun malla to'n kiyar,
Shubhali taomni halol deb yeyar,
Shayton fe'li bilan karomat deyar.

(Definition: Sufis wear pale robe for their greedy,

Eat the food that is not halal, and follow the evil (evil behavior)

Or:

Bir guruh so'fiylar "so'fiman" deydi,
So'ramay zolimlar taomin yeydi,
"Bizni yaxshi kishi desinlar" deydi,
Har eshikda halqa qura boshlashadi.

(Definition: A group of Sufis calls themselves "Sufi", Eat the food that is not allowed without asking,

They say: "Call us good people", They gather at every door of people.)

words are aimed at exposing the dervishes who are false Sufis, lazy and greedy slaves. In fact, it was considered necessary for the dervish to set an example as a divine possessor of pure love, free from the lusts of the world and material interests, from the satisfaction of his will, from the patience of his satisfaction. The image of a dervish created by Makhtumkuli is characterized by tireless struggle. The root reason for this is this: whatever hinders or harms the motherland, the unity, solidarity and prospects of the working people, the true poet will surely rise up against them.

Whoever is zealous for the beliefs of the people, which are the only national profession, which strengthens them, the words of the true poet will surely turn into a weapon. The same is true of Makhtumkuli. Makhtumkuli uses the state of *tavhid* (monotheism) and *vahdat* (unity) in mysticism to unite his humiliated and oppressed, deceived and lost compatriots around a single idea, a hopeful dream. Unity means getting rid of the feelings of plurality and relying on unity, the power of the divine will. The aims of the mystics from the word will differ from its known and popular meaning. According to them, the desire of the temptation to start doing something ordinary and to be determined is the desire of the temptation. The will, on the other hand, is a close state that occupies the heart in love and knowledge. According to Imam Qushayri, "The journey of the will is just the beginning. The name of the first destination reached by those who seek the beauty of Allah is the will..." In order to act in accordance with the will of the divine will, the dervish must abandon his human will. Then in his biography there will be a fire that burns all kinds of fears, dangers, and weakness. The grief of the dervishes, for the same reason, breaks the weaknesses in the human body and frees the prisoners of the world from captivity. This is not something that should be taken for granted. Based on the privilege of that divine will, Makhtumkuli said:

Qator bo'lib xavf soladi tulkilar,
Orli yo'lbars, o'lar bo'lsang o'l endi.

(Definition: A number of foxes pose a threat, A proud tiger, if you want to die, die now.)

Uzbek and Turkmen are a nation whose language is similar to their language, soul is similar to their soul. At the same time, they are a close-knit, destined people whose lives, dreams, joys and sorrows are mutually exclusive. Just as the political strife and ideological chaos that engulfed the Uzbeks did not bypass the Turkmen, the tragedies and insults that plagued the Turkmen fortune and life crushed the Uzbeks. The wars of aggression, the obstacles on the path of great hope, and the blows of helplessness were the common sorrows of these two fraternal peoples. That is why Makhtumkuli's priceless poems have inspired the Uzbek people and called them to the struggle for honor and religion.

Qo'rqa- qo'rqa tuban ahvolga tushdik,
Taqdir nima bo'lsa ko'rilsin endi…
Ey azizlar, madadkor bir Xudodir
Ali zulfiqori sug'rilsin endi.

(Definition: Fear and dread fell upon us,
Let's see what fate is now…
Dear ones, God is a helper
Let Ali Zulfiqar's sword pulled out now.)

In short, in our country studying Makhtumquli's works will continue as we have been studying, without making stops, the works of Yassawi, Navoi and Fuzuli.

Noahl bo'lsa el, borligi abas,
Davlat do'nib, navbat dushmanga galgay.

(Definition: it is useless to be a nation if it hasn't unity, enemies can get into the country.)

It is gratifying to note that the words of wisdom of the great poet are of equal importance for both Turkmen and Uzbeks today.

References:

1. (2007). *Maxtumquli*. (p.176). Toshkent: Fan.
2. (2013). *Maxtumquli*. Asarlar. To‘plovchi: Annagurban Ashirov. Turkman tilidan Ergash Ochilov tarjimasi, (p.534). Toshkent: Akademnashr.
3. Komilov, N. (2009). *Tasavvuf*. (p.446). Toshkent: Mavorounnahr-O‘zbekiston.
4. Haqqulov, I. (1991). *Tasavvuf va she’riyat*. (p.184). Toshkent: Adabiyot va san’at.
5. (2001). Qur’oni karim. *O‘zbekcha izohli tarjima. Alouddin Mansur tarjimasi*, (p.768). Bishkek.
6. Haqqul, I. (2000). *Tasavvuf saboqlari*. (p.100). Buxoro: Buxoro universiteti.
7. Yassaviy, A. (2004). *Devoni hikmat*. (p.176). Toshkent: Movarounnahr.
8. Sayyid Müstafa Resim Efendı (n.d.). *Tasavvuf luğatı* (Istılahatı insani kamil), (1286). İstanbul.
9. Sajjodiy, S.J. (n.d.). *Farhangi mustalihoti urafoi mutasavvifa va shuaro*. (p.814). Tehron, 1332 h.
10. Dehxudo, A. A. (n.d.). Lug‘*atnoma*. Jildi VIII, Tehron, 1993-1994, p.14234.
11. Navoiy, A. (2011). *To‘la asarlar to‘plami. O‘n jildlik. I-X jildlar*. Toshkent: G‘afur G‘ulom nomidagi NMIU.

Impact Factor:					
	ISRA (India) = 4.971	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 0.829	РИНЦ (Russia) = 0.126	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.997	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 5.667	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2020 **Issue:** 08 **Volume:** 88
Published: 26.08.2020 **http://T-Science.org**

QR – Issue QR – Article

Sirdaryokxon Utanova
Institute of Uzbek Language, Literature and Folklore of Academy of Sciences of the Republic of Uzbekistan
Doctor of Philological Sciences, Senior researcher

COLOR AND ARTISTIC MASTERY IN THE POEMS OF ALISHER NAVOI

Abstract*: This article examines the relationship between the colors and the poetic arts used in the ghazals of the unique poet of the 15th century Turkic poetry Alisher Navoi. It examines in detail the important role of colors as one of the means of ensuring the artistic perfection of lyrical works. The researcher proved that the texts with the participation of color and art served to expand the range of themes of the poet's poems, to deepen the idea put forward in the ghazal, and most importantly, to reveal the psyche of the lyrical hero.*

Key words*: color, Navoi, poetic art, lyrical hero, poetic skill, metaphor, symbol, red, yellow, green.*
Language*: English*
Citation: Utanova, S. (2020). Color and artistic mastery in the poems of Alisher Navoi. *ISJ Theoretical & Applied Science, 08 (88),* 87-91.
Soi: http://s-o-i.org/1.1/TAS-08-88-21 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2020.08.88.21
Scopus ASCC*: 1208.*

Introduction

Only works that are able to convey a high idea and deep content in a beautiful artistic form will take its right place in the treasury of world literature and live forever. The reason for the universality and eternal life of the works of the great artist Alisher Navoi is that he perfectly expressed the ideas of social significance.

In a literary work, both the truth and its means of expression take on an artistic character. Poetry is the result of pleasure and excitement, which influences a person's spiritual world through enjoyment. The main factor that stimulates pleasure is art [13:21]. Therefore, for hundreds of years, there have been sciences that have guided and programmed the theoretical and practical work of Eastern classical poetry, which consisted of "ilmi bade'", "ilmi aruz" and "ilmi qofiya (rhyme)". Of these, "ilmi aruz" deals with the issues of rhythm in poetry, "ilmi qofiya" deals with the problems of harmony in the last syllables of heavy verses and lines, that is, rhyme problems, "ilmi bade'" studied the artistic means and methods in poetry.

Based on the requirements of these sciences, when evaluating the work of this or that poet, this or that work of art, the essence and scope of socio-political, philosophical-ethical, enlightenment-educational problems reflected in the idea expressed by the artist, at the same time special attention was paid to such issues as the diversity of the applied poetic arts, their logical substantiation, their role and importance in revealing the content of the work. In Navoi's words, the work of a true poet is to "*ma'oniy xazoyinidan javhar termak va el fayzi uchun nazm silkiga vazn berkmak*" (give very beautiful meanings in poems and rhyming beautifully for the happiness of other people) [5:26].

There are many and varied artistic means in the poetic treasury of classical literature of the East, "the immortal work of the great poet" Khazayn ul-maoniy "is a mirror of the classical lyric poetry of the East, an exhibition of artistic means used by artists ..." [18: 218]. In Navoi's ghazals we see not only a complete set of poetic arts, but also their active role in the realization of the poet's ideological and aesthetic intentions.

It is known that in the works of Alisher Navoi there are thousands of unique examples of art, which are an important factor in the poet's art. Poetic art bytes created through colors also make up the majority. This accounts for about a quarter of the ghazals created in the poet's poetry with the

participation of the literary arts. In the science of poetry, these arts are classified as spiritual, verbal, and when both come together, they are mixed arts.

In the works of Alisher Navoi, the allegory, which is one of the spiritual arts, is relatively numerous. The following is a vivid example of the allegory of a girl wearing a beautiful red and yellow dress in the image of a "flower" to which the lyrical protagonist refers:

Sarig', qizil alvon *bila xil'atlaring****,ey gul,***

Ra'nolig' erur, ulki libosingda ayondur [7: 211].

(Definition: Oh flower (to a girl), the colors yellow and red on your dress mean that you are beautiful)

In another byte, ***an allegory*** is formed by the resemblance of red lips to a ruby, and the hair on a lip to a green inscription. In the verse, ruby lips are like Jesus who gives life to the dead, and green hairs are like Hizr, who gives a share of the wine of love and referring to people that lived in the past in a poem is creates the art of ***talmeh,*** in addition to this the beauty of the girl (be loved one) is emphasized in a special way in the combination of several arts, by complimenting (***iltifot)*** the artist that he will be without light in front of the green hair (tuk) and telling him not to touch these colors:

La'lu xattining Masihoyu Xizrdin ori bor,

Ey musavvir, sunma qo'l shingarf ila zangorg'a [6:365].

(Definition: Her red lips and hair on her lips are like Jesus and Xizr, Oh artist, don't touch these colors (more clearly: don't change their colors)

In the following verse, the lover's life-giving lips and the freshly grown grass-like hair are so well-proportioned on the face that it is as if prophet Iso (Jesus Christ) and Xizr, who live next door to each other, are referring to the poet's allegory and talmeh:

Ajab yo'q, ***sabzai xat*** *soyasida jonfizo* ***la'ling,***

Munosibturki, bo'lg'aylar Masihu Xizr hamsoya [8:542].

(Definition: There is nothing that amazing than your lips in shadow of its hair on it, they are like Iso (Jesus Christ) and Xizr live next door to each other

Bilal is a historical figure. He is an Abyssinian who was appointed by the Prophet Muhammad (peace and blessings of Allaah be upon him) as a muezzin (caller to prayer) because of his sharp and beautiful voice. The lyrical protagonist is reminiscent of Bilal, who was walking on the banks of the Kawsar spring in the gardens of paradise with the red lips of her mistress and the black (dark black) mole on her lips:

Ravzada kavsar qirog'inda hayol etmish Bilol,

Yuz aro lab, lab uza ***shabrang*** *xolingni ko'rub [6:53].*

(Definition:Your black mole on your lips, reminds me Bilol who is walking on the banks of the Kawsar spring in Paradise)

The lover's eyes became dim as he shed tears in exile. The beauty of the beloved is the sun. The sun's rays are abundant. Let me enjoy the light of your face so that I may be able to see your beauty. Here he reminds the rules of zakat [1] (***talmeh***):

Chun yuvdi ko'zlar savodin ashk, yorut yuz ochib,

Kim diramsiz elga boy el farzdur bermak zakot [3:80].

(Definition: My eyes are very tired and feel dim, come and show your face, give the light. It's duty of the rich to give zakot (alms prescribed Islam) to the poor)

The vitality and artistic value of a work is measured, first and foremost, by its ability to be a means of knowing reality, a tool for shaping human thoughts, feelings, and worldviews. As a proof of the idea expressed in the first line of the byte, Atoullah Husseini described the art of *tamsil* based on the example of a life event in the second line as follows: "... this (tamsil) is also an allegory, but the example of this allegory is whenever poet wishes, he quotes a few words that have a different meaning, and turns them into an example of a thought with a definite purpose, and expresses his opinion with that example" [16: 220].

Alisher Navoi also compares the state of the lover with the events of the daily life of our people,as if adults calm down a crying child with different interesting things in various colors, that is, the yellowing of the face, the shedding of bloody tears mean he is fall in love and make him feel relaxed:

Ko'ngulni qon yoshu gohi yuzim bila ovuturmen,

Sarig' -qizil bila andoqki, xalq tiflin ovutmish [1:182].

(Definition: I relax by shedding bloody tears, as if, people calm children down with yellow and red things (different sweets/ things)).

In the past, when our ancestors saw the new moon, they involuntarily closed their eyes in joy [15:97]. The poet's lyrical protagonist, on the other hand, opens his eyes even more with joy when he sees her *mushkin* (black) eyebrows.

Yangi oy ko'rgach xaloyiq ko'zni yummoq rasm erur,

Lekin ochildi ko'rub ***mushkin hilolingdin*** *ko'zum [3:329].*

(Definition: When a new moon appears, people enjoy and close their eyes, but I open my eyes with joy when I see your black brows)

In the verse, the art of *tazad* and *irsoli masal* (giving proverbs as examples) are used by means of

[1] Zakat - (Arabic - purification, giving alms) - alms given from property and income, good. [9: 656]

the phrases "to close one's eyes" (to die) - "to open one's eyes" (to recognize) and referring to the traditions.

Navoi's judicious use of the art of *iyhom* in the following verses, which speak of the objects of the universe, including the moon moving in the sky on a dark night, helped to clarify the content and form an attractive shape of thought, as a result of which readers of these bytes feel excitement. That is, 1) the moon is - the moon in the sky, 2) the moon- is the moon-faced girl.

Oy halokimga tutub motam kiyib tundin ***qaro****,*
Orazi sayli bila ahli azo kirdor etar [7:121].

(Definition: The moon is black than the night feeling my pain, I waant to see your face with all my body)

The transfer and diagnosis of human features to the moon has also increased sensitivity. It should also be noted that the trinity of ***lyrical hero - the moon - the lover*** in the last two verses is important in the figurative expression of the most delicate experiences of the poet's heart, giving the reader spiritual and aesthetic nourishment.

Sometimes the art of iyham is used in conjunction with the art of husni talil, tajohuli orifona. For example,

Sarig' qog'azmudurkim *so'zi hajrim ayladi taxrir,*
Va yohud shu'la tushti sahfag'a ul so'z etib ta'sir? [7:99]

(Definition: Was the paper itself yellow or my words made it turn into yellow?)

in the following verse, he puts himself in ignorance (tajahuli orifona): "Was the paper on which the words about separation and pain turned yellow, or did it turn yellow when it was affected by these words?" expresses our astonishing content. "Word" is used in both verses in two senses: word and fire, which we consider to be an example of the art of iyham.

In the art of ***iltifot*** (compliment), the poet changes the person of the speech during the narration. It gives variety to the speech, saves it from being boring, and draws the reader's or listener's attention more strongly, making it more enjoyable. Atoullah Husseini said: "The reason for the beauty of iltifot is that when a speaker conveys a word from one style to another, ... he attracts the listener more to listen to that word, increases his enthusiasm and increases the pleasure of hearing it" [16: 198]. Patterns of iltifot can be found in the works of almost all poets. Significantly, they are often derived from one of the characteristic features of a lyrical hero's lover - colors.

For example, Lutfi's lyrical protagonist turns so yellow in the hope of seeing his be loved one's magical black mole that even the straw is invisible in front of his yellow face. That is why he addresses to her, "Oh, flower" - with a flower face:

Donai xoling tamannosida, ***ey gul xirmani,***
Qil nazarkim, chexrai zardim yoshurdi kohni [11:279].

(Definition: My yellow face can even hide the straw, oh my flower, show me your black mole).

Sakkoki's lyrical protagonist, on the other hand, sees his lover's as a savior who gives the red color to his yellowed face and life back to his hopeless body, and therefore compliments (***iltifot)*** her, "Oh soul (*Ey jon*)".

Sening la'lingdan o'ftonib qizarur la'l qon ichra,
Hasad etur mening yuzim ko'rubon za'faron, e jon [14:11].

(Definition: Your red lips can even make the ruby ashamed, oh my soul, when I see you my face turns into yellow)

Navoi, on the other hand, who in every verse of a ghazal compliments ***(Iltifot)*** "soul", "body", "liver", "heart", address to the "eye". The middle of the eye is black, the perimeter is white, and there is a constant flow of fluid on one side to keep it moist. There is a logical connection with the natural structure of the eye in that it is refered to as "ey tardomani (always wet) yuzi qaro (face black)". That is to say, because of the beautiful darkness in you (refers to the eye), the "balou vahshat (bad things)" has begun to happen in the heart and in all my organs.

Ko'zga chun dermenki, ey tardomani ***yuzi qaro,***
Sendin o'lmish telba ko'nglumning balou vahshati [8:403].

(Definition: I say to that eye, oh "tardomani", face black, all my sorrows, in my soul, are because of you)

In the following verses, the art of ***hyperbola, allegory and tajohuli orifona*** *(knowing something but showing that not aware of anything)* comes together. It is a hyperbola to say that the lyrical protagonist thinks of his lover's red lips day and night and shed tears, and finally the tears turned to blood. The comparison of the lip to the ruby is an allegory. But he himself did not know: was everything red from the thought of your lips, or from my bloody eyes? This is tajohuli orifona.

Anglamon ollimdadur la'ling hayoli muttasil,
Yo oning shavqidin oqqan ***ashki ol*** *ollimdadur [1:132]*

(Definition: I can't understand I see everything in red, is it because I all the time think of your red lips or because of the bloody tears I shed thinking of your lips?)

The poet sometimes expresses his thoughts in a way that amazed and surprised. This is called **taajjub** *(surprise)*. This art was also widely used in Navoi's works. For example, the following verse is skillfully used in conjunction with a ***tashbex*** (metaphor): if the point is approached logically, when Spring comes it is time to sing for nightingale but it might seem a bit strange when nightingales sing in Autumn. So, it also might seem a bit strange when a lover sings the song of love not when he is happy but when he is in pain.

*Chehra **sorg'org'on** sari ortar ko'ngulning nolasi,*

Bor ajab voqi' xazon faslida nolon andalib [3:31].

(Definition: As my face turns into yellow, my soul sings louder, as nightingale sings in the season of fall)

Most of Alisher Navoi's ***metaphors*** *(tashbex)* are based on simple things and events that occur in life, and this feature of the poet's work, along with giving publicity and populism to the work, creates a poetic response to the reader's simple means of life and life concerns. For example, the lyrical protagonist's condition worsens when he sees his be loved one's face as bright as the sun - as if in love, he is left in "black sorrow", as if the sun (*mehr*) rises and a shadow appears.

*Yuzungga chun tavajjuh ayladim, qoldi **qaro qayg'u,***

Keyin tushgan kibi soya ko'rungach mehr o'trudin [7:363]

*(Definition: I see your beautiful face and I left in **black sorrow**, as if the shadow after the Sun)*

As the sun sets, the dawn turns red, and the sun looks more beautiful at dawn. This is similar to a flower-faced idol entering a red (*ol*) tent when it gets dark.

Tun aqshom uylakim bo'lg'ay shafaq ichra quyosh pinxon,

*Kirar har shom ul **gulchehra shodurvoni ol** ichra [1:395]*

(Definition: When it dawn, the Sun sets as my flower-faced idol enters a red tent)

Some of the artistic means in language are based on words that have a degree of commonality that affects the speaker, such as the pronunciation.

Alisher Navoi's lyrics also contain wonderful examples of this art. For example, below, the poet likens the yellow face of a lover to a garden which is in fall, and his two faces to two yellow leaves. The word "sari" is used to form a ***tajnis***, "**sari**" in the first verse is *yellow*, and "**sari**" in the second verse is used in the sense of side.

*Ko'rma **sarig'** bargu qil nazzora ruxsorim **sari,***

*Qo'y **xazon** bog'in, guzar qil za'faronzorim **sari** [3:416].*

(Definition: Don't look at yellow leaves look at my yellow faces, don't seek a garden in fall, face to my side and look at me)

In one byte, nouns gathered under a yellow sign, such as ***a yellow leaf, a yellow face, a yellow garden*** (in fall) combine to help the reader feel the pain of the difficult days of the lover with the most delicate edges.

The art of *ta'did* also emerged as a result of a series of simple nouns in the byte. These nouns are grouped by color: her mole, hair on her lips (*labi ustidagi xati),* eyes and eyebrows - all **black**.

***Qoradur** xolu xattu ko'zu qoshing,*

Magar borini kuydurmish quyoshing [3:274]

*(Definition: Your mole, hair on your lips and your eyes and eyebrows are all **black** (beautiful), however, your love is better than everything)*

In the first line of the following verse, the set of nouns used in the poor stage of mysticism - the ***ta'dids*** - are distinguished according to the color symbol in the next line, that is to say, differentiated. Here the black shawl symbolizes winter (a garment made of black beaver skin) and the ashes mean ***sinjob*** (a garment made of blue lynx skin).

*Faqr ko'yining **qora sholi** bila **gulxan kulin,***

***Topqali, billahki qilman qishu sinjob orzu** [3:397].*

(Definition: I don't wish to find a black shawl together with a bonfire and a garment made of skin)

The artistic value of Navoi's lyrics, the peculiarities of the poet's art are more clearly reflected in his range of means of expression and the ways of their use. Consequently, in Navoi's lyrics, on the one hand, we see the unprecedented development of poetic means that existed in Uzbek poetry before him, and on the other hand, we witness new methods and images that emerged only through the poet's lyrics. For example, although the following nouns (ta'dids) create a lyrical experience according to the black color of grief, curl, head, land , the black color in the next byte expresses 4 different meanings with its own and portable meaning:

***Qaro qayg'u** meni eltib **qaro zulfing** uchun har tun,*

***Qaro boshni** tutib ovuch **qaro yerga** kirib tirsak [7:235]*

*(Definition: I'm in **black sorrow**, every night, by thinking of your **black curl**, I hold my **black head** (black hair) and put my elbows on **black land**)*

That is to say, the lover is left in a difficult day in the longing of a ***black curl,*** who is more charming because of its darkness, and he holds the "black head" (a young man with black hair) in the grip of doubtful thoughts (***black sorrow***) that swirls at the beginning of the day and night, and he is left in silent holding his hands against the land (black ground).

The word ***mukarrar*** means "over and over" and "again and again". The verbal art of the same name requires the use of a pair of words in both lines of the byte. There are many examples of this art in the works of Alisher Navoi.

***Qaro- qaro** mija xanjarlarin ititmak ishing,*

*Hayot naxlini kesgan **qiyo-qiyo** boqishing [3:340].*

(Definition: Your dark black eyelashes pierce the hearts of lovers, your glance cut the hope of living)

The lashes that pierce the heart of lovers like a dagger are not ordinary, but black. It is the life-giving views of the beautiful idol that cut them off from the hope of survival. In the paired repetition of the words ***"qaro-qaro (black and black)"*** and ***"qiyo-qiyo (again and again)",*** these words have a certain spiritual load and a positive stylistic color.

In conclusion, for Navoi, poetic arts have never been merely a means of demonstrating poetry. As a true innovator, he worked tirelessly to express all his artistic skills, important socio-political ideas, noble ideas at a high artistic level.

References:

1. Navoi, A. (1990). *Badoye' ul-vasat.* V tom, (p.544). Toshkent: Fan.
2. Navoi, A. (1987). *Badoyi' ul-bidoya*. I tom, (p.724). Toshkent: Fan.
3. Navoi, A. (1988). *G'aroyib us-sig'ar.* III tom, (p.616). Toshkent: Fan.
4. Navoi, A. (1997). *Majolis un-nafois.* XIII tom.-(p.300).Toshkent: Fan.
5. Navoi, A. (1998). *Mahbub ul-qulub.* XIV tom.-(p.234).Toshkent: Fan.
6. Navoi, A. (1987). *Navodir un-nihoya.* II tom, (p.620). Toshkent: Fan.
7. Navoi, A. (1989). *Navodir ush-shabob*.IV tom.-(p.560). Toshkent: Fan.
8. Navoi, A. (1990). *Favoyid ul-kibar*. VI tom.-(p.568). Toshkent: Fan.
9. (2002). *O'zbekiston milliy ensiklopediyasi.* 3-tom. Gidrolfiya-Zebralar, (p.704). Toshkent, «O'zbekiston milliy ensiklopediyasi" Davlat ilmiy nashriyoti.
10. Ishoqov, Y. (n.d.). *Klassik adabiyot poetikasidan ma'lumotlar.* O'zbek tili va adabiyoti, 1970-1973-yil sonlari.
11. (1987). *Lutfiy. Sensan sevarim*, (p.279). Toshkent: Adabiyot va san'at.
12. Rahmonov, V. (1972). *SHe'r san'atlari*, Leninobod (Xo'jand), p.180.
13. Rustamov, A. (1979). *Navoiyning badiiy mahorati*. (p.21). Toshkent: Adabiyot va san'at.
14. (1962). *Sakkokiy. Tanlangan asarlar*. (p.11). Toshkent: O'zdavnashr.
15. Sattorov, M. (1993). *O'zbek urf-odatlari*. (p.97). Toshkent: Meros.
16. Husayniy, A. (1981). *Badoye'u-s – sanoyi*. (p.398). Toshkent: Adabiyot va san'at.
17. Shayx, A. T. (2002). *Funun ul-balog'a.* O'zbek tili va adabiyoti, 1-6-sonlari.
18. Asarlar, S. M. (1972). *Olti jildlik.* 4-jild. Ustod san'atxonasida, (p.372). Toshkent: Adabiyot va san'at.

Contents

Scientific publication

«ISJ Theoretical & Applied Science, USA» - Международный научный журнал зарегистрированный во Франции, и выходящий в электронном и печатном формате. **Препринт** журнала публикуется на сайте по мере поступления статей.

Все поданные авторами статьи в течении 1-го дня размещаются на сайте **http://T-Science.org**.

Печатный экземпляр рассылается авторам в течение 2-4 дней после 30 числа каждого месяца.

Импакт фактор журнала

Impact Factor	2013	2014	2015	2016	2017	2018	2019	2020
Impact Factor JIF		1.500						
Impact Factor ISRA (India)		1.344				3.117	4.971	
Impact Factor ISI (Dubai, UAE) based on International Citation Report (ICR)	0.307	0.829						
Impact Factor GIF (Australia)	0.356	0.453	0.564					
Impact Factor SIS (USA)	0.438	0.912						
Impact Factor РИНЦ (Russia)		0.179	0.224	0.207	0.156	0.126		
Impact Factor ESJI (KZ) based on Eurasian Citation Report (ECR)		1.042	1.950	3.860	4.102	6.015	8.716	8.997
Impact Factor SJIF (Morocco)		2.031				5.667		
Impact Factor ICV (Poland)		6.630						
Impact Factor PIF (India)		1.619	1.940					
Impact Factor IBI (India)			4.260					
Impact Factor OAJI (USA)						0.350		

INDEXING METADATA OF ARTICLES IN SCIENTOMETRIC BASES:

International Scientific Indexing ISI (Dubai, UAE)
http://isindexing.com/isi/journaldetails.php?id=327

Research Bible (Japan)
http://journalseeker.researchbib.com/?action=viewJournalDetails&issn=23084944&uid=rd1775

РИНЦ (Russia)
http://elibrary.ru/contents.asp?issueid=1246197

Turk Egitim Indeksi (Turkey)
http://www.turkegitimindeksi.com/Journals.aspx?ID=149

DOI (USA)
http://www.doi.org

Open Academic Journals Index (Russia)
http://oaji.net/journal-detail.html?number=679

Japan Link Center (Japan) https://japanlinkcenter.org

Kudos Innovations, Ltd. (USA)
https://www.growkudos.com

Cl.An. // THOMSON REUTERS, EndNote (USA)
https://www.myendnoteweb.com/EndNoteWeb.html

Scientific Object Identifier (SOI)
http://s-o-i.org/

Google Scholar (USA)
http://scholar.google.ru/scholar?q=Theoretical+t-science.org&btnG=&hl=ru&as_sdt=0%2C5

Directory of abstract indexing for Journals
http://www.daij.org/journal-detail.php?jid=94

CrossRef (USA)
http://doi.crossref.org

Collective IP (USA)
https://www.collectiveip.com/

PFTS Europe/Rebus:list (United Kingdom)
http://www.rebuslist.com

Korean Federation of Science and Technology Societies (Korea)
http://www.kofst.or.kr

AcademicKeys (Connecticut, USA)
http://sciences.academickeys.com/jour_main.php

Sherpa Romeo (United Kingdom)
http://www.sherpa.ac.uk/romeo/search.php?source=journal&sourceid=28772

Cl.An. // THOMSON REUTERS, ResearcherID (USA)
http://www.researcherid.com/rid/N-7988-2013

RedLink (Canada)
https://www.redlink.com/

Cl.An. // THOMSON REUTERS, ORCID (USA)
http://orcid.org/0000-0002-7689-4157

TDNet
Library & Information Center Solutions (USA)
http://www.tdnet.io/

Yewno (USA & UK)
http://yewno.com/

RefME (USA & UK)
https://www.refme.com

Stratified Medical Ltd. (London, United Kingdom)
http://www.stratifiedmedical.com/

THE SCIENTIFIC JOURNAL IS INDEXED IN SCIENTOMETRIC BASES:

Advanced Sciences Index (Germany)
http://journal-index.org/

SCIENTIFIC INDEXING SERVICE (USA)
http://sindexs.org/JournalList.aspx?ID=202

Global Impact Factor (Australia)
http://globalimpactfactor.com/?type=issn&s=2308-4944&submit=Submit

International Society for Research Activity (India)
http://www.israjif.org/single.php?did=2308-4944

CiteFactor (USA) Directory Indexing of International Research Journals
http://www.citefactor.org/journal/index/11362/theoretical-applied-science

JIFACTOR
http://www.jifactor.org/journal_view.php?journal_id=2073

Eurasian Scientific Journal Index (Kazakhstan)
http://esjindex.org/search.php?id=1

SJIF Impact Factor (Morocco)
http://sjifactor.inno-space.net/passport.php?id=18062

InfoBase Index (India)
http://infobaseindex.com

Электронно-библиотечная система «Издательства «Лань» (Russia)
http://e.lanbook.com/journal/

International Institute of Organized Research (India)
http://www.i2or.com/indexed-journals.html

Journal Index
http://journalindex.net/?qi=Theoretical+%26+Applied+Science

Open Access Journals
http://www.oajournals.info/

Indian citation index (India)
http://www.indiancitationindex.com/

Index Copernicus International (Warsaw, Poland)
http://journals.indexcopernicus.com/masterlist.php?q=2308-4944

Signed in print: 30.08.2020. Size 60x84 1/8

«Theoretical & Applied Science» (USA, Sweden, KZ)
Scientific publication, p.sh. 12.125. Edition of 90 copies.
http://T-Science.org E-mail: **T-Science@mail.ru**

Printed «Theoretical & Applied Science»