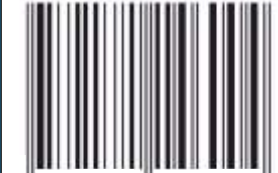




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**INVERSE PROBLEM FOR INTEGRO-DIFFERENTIAL HEAT EQUATION WITH A
VARIABLE COEFFICIENT OF THERMAL CONDUCTIVITY**

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Abstract:

Background. The inverse problem of finding a multidimensional memory kernel of a time convolution integral depending on a time variable t and $(n - 1)$ -dimensional spatial variable. 2-dimensional heat equation with a time-dependent coefficient of thermal conductivity is studied.

Methods. The article is used Cauchy problems for the heat equation, resolvent methods for Volterra type integral equation and contraction mapping principle.

Results. 1) The direct problem is the Cauchy problem for heat equation. The integral term has the time convolution form of kernel and an elliptic operator of direct problem solution.

2) As additional information, the solution of the direct problem on the hyperplane $y = 0$ is given. The problem reduces to an auxiliary problem which is more convenient for further consideration. Then the auxiliary problem is replaced by an equivalent system of Volterra-type integral equations with respect to unknown functions.

Conclusion. Applying the method of contraction mappings to this system in the Hölder class of functions, it is proved the main result of the paper representing a local existence and uniqueness theorem.

The article is organized as follows. In Section 2, we reduce the problem (1)-(3) into an auxiliary problem where the additional condition contains the unknown k outside integral. In Section 3, we replace auxiliary problem by an equivalent system of integral equations with respect to unknown functions. In Section 4, we prove the main result which states the existence and uniqueness of solution of problem by a fixed point argument.

Keywords: Heat equation, memory kernel, Hölder space, convolution integral, contraction mapping.

Introduction. Setting up problem. Inverse problems for parabolic and hyperbolic PDEs arise naturally in geophysics, oil prospecting, in the design of optical devices, in many others areas where the interior of an object is to be imaged by measuring field in available domains. Problems of identification of memory kernels in such equations have been intensively studied starting at the end of the last century (see [2],[4],[7],[10]).

Nowadays the study of inverse problems for parabolic integro-differential equations is the subject of many studies, of which we mention works [2][5],[6],[8],[9] as being closest to the topic of this work.

We consider the of determining functions $u(x, y, t)$, $k(x, t)$, $(x, y, t) \in \mathbb{R}_T^2$, $t > 0$ from the following equations:

$$u_t - a(t)\Delta u = \int_0^t k(x, t - \tau)a(\tau)\Delta u(x, y, \tau)d\tau, \quad (1)$$

$$u|_{t=0} = \varphi(x, y) \quad (2)$$

$$u|_{y=0} = f(x, t), \quad f(x, 0) = \varphi(x, 0), \quad (3)$$

where $\Delta = (\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2})$ is the Laplace operator with respect to spatial variables (x, y) ;

$\mathbb{R}_T^2 = \{(x, y, t) \in \mathbb{R}^2, 0 < t < T\}$ is a strip with thickness T , $T > 0$ is an arbitrary fixed number; $a(t) \in C^2[0, T]$, $0 < a_0 \leq a(t) \leq a_1 < \infty$, a_0 and a_1 are given numbers.

Our investigations generalize the result of works [17], [18] to the case of the integro-differential heat equation with a variable coefficient of thermal conductivity and special convolution integral.

In the sequel, we will use the Hölder space H with exponent α for functions depending only on spatial variables and for functions depending on both spatial and time variables - Hölder space $H^{\alpha, \alpha/2}$ with exponents α and $\alpha/2$, α is non-negative integer. Throughout this paper we will assume that $\varphi(x, y) \in H^{l+8}(\mathbb{R}^2)$, $\varphi(x, y) \geq \varphi_0 = \text{const} > 0$, $f(x, t) \in H^{l+6, (l+6)/2}(\bar{\mathbb{R}}_T)$. Spaces $H^l(Q)$, $H^{l, l/2}(Q_T)$ and norms in them are defined in [20, p. 16-27]. In what follows, for norm of functions in the space $H^{l, l/2}(Q_T)$ (in concrete cases $Q_T = \mathbb{R}_T^n$ or $Q_T = \mathbb{R}_T^{n-1}$) depending on spatial and time variables will be used notation $|\cdot|_T^{l, l/2}$, while for functions depending only on spatial variables we use $|\cdot|^l$ (in this case $Q = \mathbb{R}^n$ or $Q = \mathbb{R}^{n-1}$).

Preliminaries. Auxiliary problem. We give the following assertion which will be used in obtaining the auxiliary problem.

lemma 1. If $\{k(t), r(t)\} \in C[0, T]$ for a fixed $T > 0$ and $k(t), r(t)$ are connected by the integral equation

$$r(t) = k(t) + \int_0^t k(t - \tau)r(\tau)d\tau, \quad t \in [0, T],$$

then the solution of the integral equation

$$\varphi(t) = \int_0^t k(t - \tau)\varphi(\tau)d\tau + f(t), \quad f(t) \in C[0, T]$$

is expressed by formula

$$\varphi(t) = \int_0^t r(t - \tau)f(\tau)d\tau + f(t).$$

Proof The proof of Lemma follows from the general theory of Volterra -type integral equations (see, for example [21]).

Rewriting the equation (1) in the form of Volterra integral equation with respect to $a(t) \Delta u$

$$a(t)\Delta u = \int_0^t k(x, t - \tau)a(\tau)\Delta u(x, y, \tau)d\tau + u_t \tag{4}$$

and at any fixed $(x, y) \in \mathbb{R}^2$ applying Lemma to (4), we have

$$u_t - a(t)\Delta u = - \int_0^t r(x, t - \tau)u_\tau(x, y, \tau)d\tau. \tag{5}$$

In (5) $r(x, t)$ is the resolvent of the kernel $k(x, t)$ and it satisfies the integral equation

$$r(x, t) = k(x, t) + \int_0^t k(x, t - \tau)r(x, \tau)d\tau, \quad (x, y, t) \in \mathbb{R}_T^2. \tag{6}$$

In the sequel we investigate the problem of determining the functions $u(x, y, t)$, $r(x, t)$ satisfying the equations (5), (2), (3). Then after solving this problem, $k(x, t)$ can be found from (6).

We introduce new function $\vartheta^{(1)}(x, y, t)$ by formula $\vartheta^{(1)}(x, y, t) = u_{yy}(x, y, t)$. Then the straightaway differentiation of equations (5), (2) with respect to y twice leads us to the following relations for $\vartheta^{(1)}(x, y, t)$:

$$\vartheta_t^{(1)} - a(t)\Delta\vartheta^{(1)} = - \int_0^t r(x, t - \tau)\vartheta_\tau^{(1)}(x, y, \tau)d\tau, \tag{7}$$

$$\vartheta^{(1)}|_{t=0} = \varphi_{yy}(x, y). \tag{8}$$

The overdetermination condition can be transformed as follows. We allocate the term $a(t)u_{yy}$ in the expression $a(t)\Delta u$ of (5) and set $y = 0$. Then in view of $a(t)u_{yy} = a(t)\vartheta^{(1)}$ and using (2), we obtain

$$\vartheta^{(1)}|_{y=0} = \frac{1}{a(t)}f_t(x, t) - f_{xx}(x, t) + \frac{1}{a(t)}\int_0^t r(x, t - \tau)f_\tau(x, \tau)d\tau. \quad (9)$$

Requiring the continuity of the function $\vartheta^{(1)}(x, y, t)$ for $y = t = 0, x \in \mathbb{R}$, from (8) and (9) it follows the matching condition

$$\varphi_{yy}(x, 0) = \frac{1}{a(0)}f_t(x, 0) - f_{xx}(x, 0). \quad (10)$$

Here in after, the values of functions $a(t), f(x, t)$ and their derivatives at $t = 0$ we will understand as the limit for $t \rightarrow +0$.

We carry out the next converting of problem. Denoting for this purpose the derivative of $\vartheta^{(1)}(x, y, t)$ with respect to t by $\vartheta^{(2)}(x, y, t)$, i.e. $\vartheta^{(2)}(x, y, t) := \vartheta_t^{(1)}(x, y, t)$ and $h(x, t) := r_t(x, t)$, from (7)-(9) we get

$$\vartheta_t^{(2)} - a(t)\Delta\vartheta^{(2)} = a'(t)\Delta\vartheta^{(1)} - r(x, 0)\vartheta^{(2)} - \int_0^t h(x, t - \tau)\vartheta^{(2)}(x, y, \tau)d\tau, \quad (11)$$

$$\vartheta^{(2)}|_{t=0} = a(0)\Delta\varphi_{yy}(x, y), \quad (12)$$

$$\begin{aligned} \vartheta^{(2)}|_{y=0} = & \frac{a'(t)}{a^2(t)}f_t(x, t) + \frac{1}{a(t)}f_{tt}(x, t) - f_{txx}(x, t) - \\ & - \frac{a'(t)}{a^2(t)}\int_0^t r(x, t - \tau)f_\tau(x, \tau)d\tau + \frac{1}{a(t)}\int_0^t h(x, \tau)f_\tau(x, t - \tau)d\tau + \frac{1}{a(t)}r(x, 0)f_t(x, t). \end{aligned} \quad (13)$$

Here the initial condition (11) is derived from (7) by setting $t = 0$ and using (8). The equations (11) and (13) also include the unknown function $r(x, 0)$. We can determine this function by following approach. Same as when getting the equality (10), we require the continuity of the function $\vartheta^{(2)}(x, y, t)$ for $y = t = 0, x \in \mathbb{R}$. Then, from (12) and (13) we have some equation the solving of which with respect to $r(x, 0)$ yields

$$r(x, 0) = \frac{1}{f_t(x, 0)}[a^2(0)\Delta\varphi_{yy}(x, 0) - \frac{a'(0)}{a(0)}f_t(x, 0) - f_{tt}(x, 0) + a(0)f_{txx}(x, 0)] \quad (14)$$

Further the function $r(x, 0)$ is assumed as known one.

Introducing also function $\vartheta(x, y, t)$ as $\vartheta(x, y, t) := \vartheta_t^{(2)}(x, y, t)$, in this way, we obtain the final problem of determining $\vartheta(x, y, t)$ and $h(x, t)$ satisfying the equations

$$\begin{aligned} \vartheta_t - a(t)\Delta\vartheta = & 2a'(t)\Delta\vartheta^{(2)} + a''(t)\Delta\vartheta^{(1)} - r(x, 0)\vartheta - h(x, t)a(0)\Delta\varphi_{yy}(x, y) - \\ & - \int_0^t h(x, \tau)\vartheta(x, y, t - \tau)d\tau, \end{aligned} \quad (15)$$

$$\vartheta|_{t=0} = \Psi(x, y), \quad (16)$$

$$\begin{aligned} \vartheta|_{y=0} = & F(x, t) + \left(2\frac{(a'(t))^2}{a^3(t)} - \frac{a''(t)}{a^2(t)}\right)\int_0^t r(x, t - \tau)f_\tau(x, \tau)d\tau - \\ & - 2\frac{a'(t)}{a^2(t)}\int_0^t h(x, \tau)f_\tau(x, t - \tau)d\tau - \frac{1}{a(t)}\int_0^t h(x, \tau)f_{tt}(x, t - \tau)d\tau + \frac{1}{a(t)}h(x, t)f_t(x, 0), \end{aligned} \quad (17)$$

where $\Psi(x, y) = a^2(0)\Delta^2\varphi_{yy}(x, y) + a'(0)\Delta\varphi_{yy}(x, y) - r(x, 0)a(0)\Delta\varphi_{yy}(x, y)$,

and through $F(x, t)$ in (17) is denoted the known function:

$$\begin{aligned} F(x, t) = & \left(\frac{a''(t)}{a^2(t)} - \frac{(a'(t))^2}{a^3(t)}\right)f_t(x, t) + \frac{1}{a(t)}f_{ttt}(x, t) - f_{ttxx}(x, t) - \\ & - 2\frac{a'(t)}{a^2(t)}r(x, 0)f_t(x, t) + \frac{1}{a(t)}r(x, 0)f_{tt}(x, t). \end{aligned}$$

The equation (15) includes the expression $2a'(t)\Delta\vartheta^{(2)} + a''(t)\Delta\vartheta^{(1)}$ on the right side. Taking into account $\vartheta_t^{(1)} = \vartheta^{(2)}$ and using (7) we represent it through $\vartheta^{(2)}$:

$$a''(t)\Delta\vartheta^{(1)} = \frac{a''(t)}{a(t)}\vartheta^{(2)} + \frac{a''(t)}{a(t)} \int_0^t r(x, t - \tau)\vartheta^{(2)}(x, y, \tau)d\tau. \quad (18)$$

In similar way from (7) and (11), we obtain $2a'(t)\Delta\vartheta^{(2)} = 2(\ln a(t))'[\vartheta - (\ln a(t))'(\vartheta^{(2)} + \int_0^t r(x, t - \tau)\vartheta^{(2)}(x, y, \tau)d\tau) - r(x, 0)\vartheta^{(2)} - \int_0^t h(x, t - \tau)\vartheta^{(2)}(x, y, \tau)d\tau]$.

In the future, we assume that in equation (15) the expression $2a'(t)\Delta\vartheta^{(2)} + a''(t)\Delta\vartheta^{(1)}$ is excluded with the help of (18) and (19).

At fulfilling the matching condition (10) and relation (14) it is not difficult carrying out the inverse transforms to derive from (11), (12) and (15)-(17) the equations (1)-(3) [17]. Thus the inverse problem (1)-(3) is equivalent to problem (11), (12) and (15)-(17) of determining the functions $\vartheta^{(2)}(x, y, t), \vartheta(x, y, t), h(x, t), r(x, t)$.

Reduction of the Auxiliary problem

Lemma 2 The auxiliary problems (11)-(12), (15)-(16) and the equality $h(x, t) := r_t(x, t)$, is equivalent to the problem of determination functions $\vartheta^{(2)}(x, y, t), \vartheta(x, y, t), h(x, t), r(x, t)$ from the following system of integral equations:

Proof $\vartheta^{(2)}(x, y, t) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} a(0)\Delta\varphi_{\eta\eta}(\xi)G(x - \xi, y - \eta, \theta(t))d\xi d\eta +$
 $\int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \int_0^{\theta^{-1}(\tau)} [(\ln a(\theta^{-1}(\tau)))'\vartheta^{(2)}(\xi, \eta, \theta^{-1}(\tau)) +$
 $(\ln a(\theta^{-1}(\tau)))' \int_0^{\theta^{-1}(\tau)} r(\xi, \theta^{-1}(\tau) - \alpha)\vartheta^{(2)}(\xi, \eta, \alpha)d\alpha - r(\xi, 0)\vartheta^{(2)}(\xi, \eta, \alpha) -$
 $\int_0^{\theta^{-1}(\tau)} h(\xi, \theta^{-1}(\tau) - \alpha)\vartheta^{(2)}(\xi, \eta, \alpha)d\alpha]G(x - \xi, y - \eta, \theta(t) - \tau)d\alpha d\xi d\eta \quad (20)$

$$\vartheta(x, y, t) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \Psi(\xi, \eta)G(x - \xi, y - \eta, \theta(t))d\xi d\eta +$$

$$+ \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \int_0^{\theta^{-1}(\tau)} [\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} - 2((\ln a(\theta^{-1}(\tau)))')^2] \vartheta^{(2)}(\xi, \eta, \theta^{-1}(\tau)) +$$

$$+ [2(\ln a(\theta^{-1}(\tau)))' - r(\xi, 0)]\vartheta(\xi, \eta, \theta^{-1}(\tau)) - \int_0^{\theta^{-1}(\tau)} h(\xi, \alpha)\vartheta(\xi, \eta, \theta^{-1}(\tau) - \alpha)d\alpha +$$

$$+ [\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} + 2(\ln a(\theta^{-1}(\tau)))' - 2((\ln a(\theta^{-1}(\tau)))')^2] \int_0^{\theta^{-1}(\tau)} r(\xi, \theta^{-1}(\tau) - \alpha)\vartheta^{(2)}(\xi, \eta, \alpha)d\alpha$$

$$+ 2(\ln a(\theta^{-1}(\tau)))' \int_0^{\theta^{-1}(\tau)} h(\xi, \theta^{-1}(\tau) - \alpha)\vartheta^{(2)}(\xi, \eta, \alpha)d\alpha -$$

$$- h(\xi, \theta^{-1}(\tau))a(0)\Delta\varphi_{\eta\eta}(\xi, \eta)]G(x - \xi, y - \eta, \theta(t) - \tau)d\alpha d\xi d\eta \quad (21)$$

$$\begin{aligned}
 h(x, t) = & \frac{a(t)}{f_t(x, 0)} \left[\int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \Psi(\xi, \eta) G(x - \xi, \eta, \theta(t)) d\xi d\eta - F(x, t) \right] + \\
 + & \frac{a(t)}{f_t(x, 0)} \left[\int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \int_0^{\theta^{-1}(\tau)} \left[\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} - 2((\ln a(\theta^{-1}(\tau)))')^2 \right] \vartheta^{(2)}(\xi, \eta, \theta^{-1}(\tau)) + \right. \\
 & + [2(\ln a(\theta^{-1}(\tau)))' - r(\xi, 0)] \vartheta(\xi, \eta, \theta^{-1}(\tau)) - \int_0^{\theta^{-1}(\tau)} h(\xi, \alpha) \vartheta(\xi, \eta, \theta^{-1}(\tau) - \alpha) d\alpha + \\
 & + \left. \left[\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} + 2(\ln a(\theta^{-1}(\tau)))' - 2((\ln a(\theta^{-1}(\tau)))')^2 \right] \int_0^{\theta^{-1}(\tau)} r(\xi, \tau - \alpha) \vartheta^{(2)}(\xi, \eta, \alpha) d\alpha + \right. \\
 & + 2(\ln a(\theta^{-1}(\tau)))' \int_0^{\theta^{-1}(\tau)} h(\xi, \theta^{-1}(\tau) - \alpha) \vartheta^{(2)}(\xi, \eta, \alpha) d\alpha - \\
 & - h(\xi, \theta^{-1}(\tau)) a(0) \Delta \varphi_{\eta\eta}(\xi, \eta)] G(x - \xi, \eta, \theta(t) - \tau) d\alpha d\xi d\eta] - \\
 & - f_t(x, 0) (2((\ln(a(t)))')^2 - \frac{a''(t)}{a(t)}) \int_0^t r(x, t - \tau) f_\tau(x, \tau) d\tau + \\
 & + 2f_t(x, 0) (\ln(a(t)))' \int_0^t h(x, \tau) f_\tau(x, t - \tau) d\tau + f_t(x, 0) \int_0^t h(x, \tau) f_{tt}(x, t - \tau) d\tau. \quad (22)
 \end{aligned}$$

$$r(x, t) = r(x, 0) + \int_0^t h(x, \tau) d\tau \quad (23)$$

For **proof** Lemma we use the formula $p(x, t) = \int_{\mathbb{R}^n} \varphi(\xi) G(x - \xi; \theta(t)) d\xi + \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \times$

$$\times \int_{\mathbb{R}^n} F(\xi, \theta^{-1}(\tau)) G(x - \xi; \theta(t) - \tau) d\xi, \quad (24)$$

which provides the solution of the following Cauchy problem for the heat equation with time-variable coefficient of thermal conductivity:

$$\begin{aligned}
 p_t - a(t) \Delta p &= F(x, t), x \in \mathbb{R}^n, t > 0, \\
 p(x, 0) &= \varphi(x), x \in \mathbb{R}.
 \end{aligned}$$

In (24) $\theta(t) = \int_0^t a(\tau) d\tau$ and $\theta^{-1}(t)$ is the inverse function to $\theta(t)$; $G(x - \xi; \theta(t) - \tau) = \frac{1}{(2\sqrt{\pi(\theta(t) - \tau)})^n} e^{-\frac{|x - \xi|^2}{4(\theta(t) - \tau)}}$, $\xi = (\xi_1, \dots, \xi_n)$, $d\xi = d\xi_1 \dots d\xi_n$, $|x|^2 = x_1^2 + \dots + x_n^2$.

The equations (20) and (21) follow from the Cauchy problems (11), (12) and (15), (16) on bases of (24), respectively. In (21) we set $y = 0$ and use the additional condition (17). Then we obtain the equation (22). The equality (23) is obvious.

We join to the equations (20)-(23) the integral equation with respect to the solution of the direct problem (1), (2), i.e. $u(x, y, t)$. It can be obtained from equalities (5) and (2). At first, we integrate by parts in the integral on the right-hand side of (5), then use the formula (24). As a result, one gets

$$\begin{aligned}
 u(x, y, t) = & \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \varphi(\xi, \eta) G(x - \xi; y - \eta; \theta(t)) d\xi d\eta \\
 & + \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [r(\xi, \theta^{-1}(\tau))\varphi(\xi, \eta) - \\
 & - r(\xi, 0)u(\xi, \eta, \theta^{-1}(\tau)) - \int_0^{\theta^{-1}(\tau)} h(\xi, \theta^{-1}(\tau) - \alpha)u(\xi, \eta, \alpha) d\alpha] G(x - \xi; y - \eta; \theta(t) \\
 & - \tau) d\xi d\eta. \tag{25}
 \end{aligned}$$

Existence and uniqueness. In this section we prove the existence and uniqueness theorem for the system of the integral equations (20)-(23), (25). Then, from this result will be followed the existence unique solution of inverse problem (1)-(3). Here we use the contraction mapping principle [22, pp. 87-97]. The idea is to write the integral equations for unknown functions $\vartheta^{(2)}(x, y, t)$, $\vartheta(x, y, t)$, $h(x, t)$, $r(x, t)$ as a system with a nonlinear operator, and prove that this operator is a contraction mapping operator. The existence and uniqueness then follows immediately.

Now we bring the main result of this work:

Theorem. Suppose that all conditions of Section 1 with respect to the given functions $a(t)$, $\varphi(x, y)$, $f(x, t)$ and the matching conditions of (3) and (10) are satisfied. Besides $|f_t(x, 0)| > f_0 = \text{const} > 0$, f_0 is a given number.

Then there exists sufficiently small number $T > 0$ that the unique solution to the inverse problem (1)-(3) exists in the class of functions $u(x, y, t) \in H^{l+2, (l+2)/2}(\mathbb{R}_T^2)$, $k(x, t) \in H^{l, l/2}(\mathbb{R}_T)$.

Proof: The system of equations (20)–(23), (25) are closed system for the unknown functions $\vartheta^{(2)}(x, t)$, $\vartheta(x, y, t)$, $h(x, t)$, $r(x, t)$, $u(x, y, t)$ in the domain \mathbb{R}_T^2 . It can be rewritten in a nonlinear operator equation

$$\psi = A\psi, \tag{26}$$

where $\psi = (\psi_1, \psi_2, \psi_3, \psi_4)^* = (\vartheta^{(2)}(x, y, t), \vartheta(x, y, t), h(x, t), r(x, t))^*$, $*$ is the symbol of transposition, and according to the equations (20), (21), (22) are operator $A\psi = [(A\psi)_1, (A\psi)_2, (A\psi)_3, (A\psi)_4]$ has form

$$\begin{aligned}
 (A\psi)_1 = & \psi_{01}(x, y, t) + \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [(\ln a(\theta^{-1}(\tau)))'(\psi_1(\xi, \eta, \theta^{-1}(\tau)) + \\
 & + \int_0^{\theta^{-1}(\tau)} \psi_4(\xi, \theta^{-1}(\tau) - \alpha)\psi_1(\xi, \eta, \alpha) d\alpha - r(\xi, 0)\psi_1(\xi, \eta, \alpha) - \\
 & - \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \theta^{-1}(\tau) - \alpha)\psi_1(\xi, \eta, \alpha) d\alpha] G(x - \xi, y - \eta, \theta(t) - \tau) d\xi d\eta, \tag{27} \\
 (A\psi)_2 = & \psi_{02}(x, y, t) + \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \left[\left(\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} - 2((\ln a(\theta^{-1}(\tau)))')^2 \right) \times \right. \\
 & \times \psi_1(\xi, \eta, \theta^{-1}(\tau)) + [2(\ln a(\theta^{-1}(\tau)))' - r(\xi, 0)]\psi_2(\xi, \eta, \theta^{-1}(\tau)) - \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \alpha) \times \\
 & \times \psi_2(\xi, \eta, \theta^{-1}(\tau) - \alpha) d\alpha + \left. \left[\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} + 2(\ln a(\theta^{-1}(\tau)))' - 2((\ln a(\theta^{-1}(\tau)))')^2 \right] \times \right.
 \end{aligned}$$

$$\begin{aligned} & \times \int_0^{\theta^{-1}(\tau)} \psi_4(\xi, \theta^{-1}(\tau) - \alpha) \psi_1(\xi, \eta, \alpha) d\alpha + 2(\ln a(\theta^{-1}(\tau)))' \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \theta^{-1}(\tau) - \alpha) \times \\ & \times \psi_1(\xi, \eta, \alpha) d\alpha - \psi_3(\xi, \theta^{-1}(\tau)) a(0) \Delta \varphi_{\eta\eta}(\xi, \eta) G(x - \xi, y - \eta, \theta(t) - \tau) d\xi d\eta, \end{aligned} \quad (28)$$

$$\begin{aligned} (A\psi)_3 = & \psi_{03}(x, t) + \frac{a(t)}{f_t(x, 0)} \left[\int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \left(\left[\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} - \right. \right. \right. \\ & - 2((\ln a(\theta^{-1}(\tau)))')^2] \psi_1(\xi, \eta, \theta^{-1}(\tau)) + [2(\ln a(\theta^{-1}(\tau)))' - r(\xi, 0)] \psi_2(\xi, \eta, \theta^{-1}(\tau)) - \\ & - \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \alpha) \psi_2(\xi, \eta, \theta^{-1}(\tau) - \alpha) d\alpha + \left[\frac{a''(\theta^{-1}(\tau))}{a(\theta^{-1}(\tau))} + 2(\ln a(\theta^{-1}(\tau)))' - \right. \\ & - 2((\ln a(\theta^{-1}(\tau)))')^2] \int_0^{\theta^{-1}(\tau)} \psi_1(\xi, \theta^{-1}(\tau) - \alpha) \psi_1(\xi, \eta, \alpha) d\alpha + 2(\ln a(\theta^{-1}(\tau)))' \times \\ & \times \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \theta^{-1}(\tau) - \alpha) \psi_1(\xi, \eta, \alpha) d\alpha - \psi_3(\xi, \theta^{-1}(\tau)) a(0) \Delta \varphi_{\eta\eta}(\xi, \eta) \times \\ & \times G(x - \xi, \eta, \theta(t) - \tau) d\xi d\eta] - f_t(x, 0) (2((\ln(a(t)))')^2 - \frac{a''(t)}{a(t)}) \int_0^t \psi_4(x, t - \tau) f_\tau(x, \tau) d\tau + \\ & + 2f_t(x, 0) (\ln(a(t)))' \int_0^t \psi_3(x, \tau) f_\tau(x, t - \tau) d\tau + f_t(x, 0) \int_0^t \psi_3(x, \tau) f_{tt}(x, t - \tau) d\tau, \end{aligned} \quad (29)$$

$$(A\psi)_4 = \psi_{04}(x, t) + \int_0^t \psi_3(x, \tau) d\tau, \quad (30)$$

$$\begin{aligned} (A\psi)_5 = & \psi_{05}(x, y, t) + \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [\psi_4(\xi, \theta^{-1}(\tau)) \varphi(\xi, \eta) - \\ & - r(\xi, 0) \psi_5(\xi, \eta, \theta^{-1}(\tau)) - \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \theta^{-1}(\tau) - \alpha) \psi_5(\xi, \eta, \alpha) d\alpha] G(x - \xi; y - \eta; \theta(t) \\ & - \tau) d\xi d\eta. \end{aligned} \quad (31)$$

In (27)–(31) we introduced notations:

$$\begin{aligned} \psi_{01}(x, y, t) &= \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} a(0) \Delta \varphi_{\eta\eta}(\xi, \eta) G(x - \xi, y - \eta, \theta(t)) d\xi d\eta, \\ \psi_{02}(x, y, t) &= \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \Psi(\xi, y) G(x - \xi, y - \eta, \theta(t)) d\xi d\eta, \\ \psi_{03}(x, t) &= \frac{a(t)}{f_t(x, 0)} \left[\int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \Psi(\xi, \eta) G(x - \xi, \eta, \theta(t)) d\xi d\eta - F(x, t) \right], \end{aligned}$$

$$\psi_{04}(x, t) = r(x, 0), \quad \psi_{05}(x, y, t) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \varphi(\xi, y) G(x - \xi; y - \eta; \theta(t)) d\xi d\eta.$$

Denote $|\psi|_T^l = \max(|\psi_1|_{T_0}^l, |\psi_2|_{T_0}^l, |\psi_3|_{T_0}^l, |\psi_4|_{T_0}^l, |\psi_5|_{T_0}^l)$, $T < T_0$ and consider in the space $H^{l, l/2}(\mathbb{R}_T^2)$ the set $S(T)$ of functions $\psi(x, y, t)$, which obey the inequality

$$|\psi - \psi_0|_T^l \leq |\psi_0|_{T_0}^l, \tag{32}$$

where $\psi_0 = (\psi_{01}, \psi_{02}, \psi_{03}, \psi_{04}, \psi_{05})$ and

$$|\psi_0|_{T_0}^l = \max(|\psi_{01}|_{T_0}^l, |\psi_{02}|_{T_0}^l, |\psi_{03}|_{T_0}^l, |\psi_{04}|_{T_0}^l, |\psi_{05}|_{T_0}^l).$$

It can be demonstrated that sufficiently small T the operator A is contraction mapping operator in $S(T)$. The theorem of existence and uniqueness then follows immediately from the contraction mapping principle.

First it is shown that A has the first property of a contraction mapping operator. Let $\psi \in S(T), T < T_0$. The from the inequality (32), we have

$$|\psi_i|_T^l \leq 2|\psi_0|_{T_0}^l, i = 1,2,3,4,5.$$

Let us introduce the notations:

$$\begin{aligned} a_1 &:= \|a(t)\|_{C^2[0,T]}, & a_2 &:= |(\ln a(t))'|_T, & a_3 &:= |a(0)| \\ r_1 &:= |r(x, 0)|^l, & f_1 &:= |f(x, t - \tau)|^{l+6, (l+6)/2}, & \varphi_1 &:= |\varphi(x, y)|^{l+6}. \end{aligned}$$

It is easy to see that

$$\begin{aligned} |(A\psi)_1 - \psi_{01}|_T^l &= \left| \int_0^{\theta(t)} \frac{d\tau}{a(\theta^{-1}(\tau))} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [(\ln a(\theta^{-1}(\tau)))'(\psi_1(\xi, \eta, \theta^{-1}(\tau))) + \right. \\ &+ \int_0^{\theta^{-1}(\tau)} \psi_4(\xi, \theta^{-1}(\tau) - \alpha)\psi_1(\xi, \eta, \alpha)d\alpha - r(\xi, 0)\psi_1(\xi, \eta, \alpha) - \int_0^{\theta^{-1}(\tau)} \psi_3(\xi, \theta^{-1}(\tau) - \alpha) \times \\ &\quad \left. \times \psi_1(\xi, \eta, \alpha)d\alpha]G(x - \xi, y - \eta, \theta(t) - \tau)d\xi d\eta \right|_T^l \\ &\leq \int_0^{\theta(t)} \frac{d\tau}{|a(\theta^{-1}(\tau))|_T} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [|(\ln a(\theta^{-1}(\tau)))'|_T \times \\ &\quad \times (\psi_1(\xi, \eta, \theta^{-1}(\tau)))|_T^l + \int_0^{\theta^{-1}(\tau)} |\psi_4(\xi, \theta^{-1}(\tau) - \alpha)|_T^l |\psi_1(\xi, \eta, \alpha)|_T^l d\alpha + |r(\xi, 0)|^l |\psi_1(\xi, \eta, \alpha)|_T^l + \\ &\quad + \int_0^{\theta^{-1}(\tau)} |\psi_3(\xi, \theta^{-1}(\tau) - \alpha)|_T^l |\psi_1(\xi, \eta, \alpha)|_T^l d\alpha]G(x - \xi, y - \eta, \theta(t) - \tau)d\xi d\eta \leq \\ &\leq |\psi_0|_{T_0}^l 2T^2 a_0 (a_2 + 2T a_2 |\psi_0|_{T_0}^l + r_1 + 2T |\psi_0|_{T_0}^l) := |\psi_0|_{T_0}^l \beta_1, \end{aligned}$$

In similar way we obtain

$$\begin{aligned} |(A\psi)_2 - \psi_{02}|_T^l &\leq |\psi_0|_{T_0}^l [2T^2 a_0 (a_0 a_1 + 2a_2^2 + 2a_2 + r_1 + 2T |\psi_0|_{T_0}^l) + \\ &\quad + 2T |\psi_0|_{T_0}^l (a_0 a_2 + 2a_2 + 2a_2^2) + 4T a_2 |\psi_0|_{T_0}^l + a_3 \varphi_1] := |\psi_0|_{T_0}^l \beta_2, \\ |(A\psi)_3 - \psi_{03}|_T^l &\leq |\psi_0|_{T_0}^l (2 \frac{T^2}{f_1} [a_0 a_1 + 2a_2^2 + 2a_2 + r_1 + 2T |\psi_0|_{T_0}^l + 2T |\psi_0|_{T_0}^l (a_0 a_1 + 2a_2 + \\ &\quad + 2a_2^2) + 4T |\psi_0|_{T_0}^l a_2 + a_3 \varphi_1] + T f_1^2 (a_0 a_1 + 2a_2^2 + 2a_2 + 1)) := |\psi_0|_{T_0}^l \beta_3 \\ |(A\psi)_4 - \psi_{04}|_T^l &\leq 2T |\psi_0|_{T_0}^l := |\psi_0|_{T_0}^l \beta_4, \\ |(A\psi)_5 - \psi_{05}|_T^l &\leq |\psi_0|_{T_0}^l \cdot 2T^2 a_0 (\varphi_1 + r_1 + 2T |\psi_0|_{T_0}^l) := |\psi_0|_{T_0}^l \beta_5, \end{aligned}$$

where $\beta_i(T) \rightarrow 0$ at $T \rightarrow 0, i = 1,2,3,4,5$. Therefore, if we choose T ($T < T_0$) so that the following inequality should be satisfied

$$\beta := \max\{\beta_1, \beta_2, \beta_3, \beta_4, \beta_5\} < 1,$$

then the operator A has the first property of a contraction mapping operator, i.e., $A\psi \in S(T)$.

Consider next the second property of a contraction mapping operator for A . Let $\psi^{(1)} = (\psi_1^{(1)}, \psi_2^{(1)}, \psi_3^{(1)}, \psi_4^{(1)}, \psi_5^{(1)}) \in S(T), \psi^{(2)} = (\psi_1^{(2)}, \psi_2^{(2)}, \psi_3^{(2)}, \psi_4^{(2)}, \psi_5^{(2)}) \in S(T)$. In view of inequalities

$$|\psi_2^{(1)} \psi_1^{(1)} - \psi_2^{(2)} \psi_1^{(2)}|_T^l = |(\psi_2^{(1)} - \psi_2^{(2)})\psi_1^{(1)} + \psi_2^{(2)}(\psi_1^{(1)} - \psi_1^{(2)})|_T^l \leq$$

$$\leq 2|\psi^{(1)} - \psi^{(2)}|_T^l \max(|\psi_1^{(1)}|_T^l, |\psi_2^{(2)}|_T^l) \leq 4|\varphi_0|_T^l |\psi^{(1)} - \psi^{(2)}|_T^l,$$

we estimate the difference

$$\begin{aligned} & |((A\psi)^{(1)} - A\psi)^{(2)}|_1|_T^l \leq \\ & |((A\psi)^{(1)} - A\psi)^{(2)}|_1|_T^l \leq \int_0^{\theta(t)} \frac{d\tau}{|\alpha(\theta^{-1}(\tau))|_T} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [|(\ln a(\theta^{-1}(\tau)))'|_T |((\psi_1^{(1)}(\xi, \eta, \theta^{-1}(\tau)) - \\ & - \psi_1^{(2)}(\xi, \eta, \theta^{-1}(\tau)))|_T^l + \int_0^{\theta^{-1}(\tau)} |[\psi_4^{(1)}(\xi, \theta^{-1}(\tau) - \alpha)\psi_1^{(1)}(\xi, \eta, \alpha) - \\ & - \psi_4^{(2)}(\xi, \theta^{-1}(\tau) - \alpha)\psi_1^{(2)}(\xi, \eta, \alpha)]|_T^l d\alpha + |\tau(\xi, 0)|^l |(\psi_1^{(1)}(\xi, \eta, \alpha) - \psi_1^{(2)}(\alpha))|_T^l + \\ & + \int_0^{\theta^{-1}(\tau)} |[\psi_3^{(1)}(\xi, \theta^{-1}(\tau) - \alpha)\psi_1^{(1)}(\xi, \eta, \alpha) - \psi_3^{(2)}(\xi, \theta^{-1}(\tau) - \\ & - \alpha)\psi_1^{(2)}(\xi, \eta, \alpha)]|_T^l d\alpha] G(x - \xi, y - \eta, \theta(t) - \tau) d\xi d\eta \leq \\ & \leq |\psi^{(1)} - \psi^{(2)}|_{T_0}^l 2T^2 a_0 (a_2 + 4Ta_2 |\psi_0|_{T_0}^l + r_1 + 4T|\psi_0|_{T_0}^l) =: |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \mu_1. \end{aligned}$$

For other differences by similar way, we obtain

$$|((A\psi)^{(1)} - A\psi)^{(2)}|_2|_T^l \leq |\psi^{(1)} - \psi^{(2)}|_{T_0}^l (T^2 a_0 (a_0 a_1 + 2a_2^2 + 2a_2 + r_1 + 4T|\psi_0|_{T_0}^l) + 4T|\psi_0|_{T_0}^l (a_0 a_1 + 2a_2 + 2a_2^2) + 8Ta_2 |\psi_0|_{T_0}^l + a_3 \varphi_1) =: |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \mu_2$$

$$\begin{aligned} |((A\psi)^{(1)} - A\psi)^{(2)}|_3|_T^l & \leq |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \left(\frac{T^2}{f_1} [a_0 a_1 + 2a_2^2 + 2a_2 + r_1 + 4T|\psi_0|_{T_0}^l + \right. \\ & \left. + 4T|\psi_0|_{T_0}^l (a_0 a_1 + 2a_2 + 2a_2^2) + 8T|\psi_0|_{T_0}^l a_2 + a_3 \varphi_1] + \right. \\ & \left. + T f_1^2 (a_0 a_1 + 2a_2^2 + 2a_2 + 1) \right) =: |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \mu_3 \end{aligned}$$

$$|((A\psi)^{(1)} - A\psi)^{(2)}|_4|_T^l \leq |\psi^{(1)} - \psi^{(2)}|_{T_0}^l T =: |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \mu_4$$

$$|((A\psi)^{(1)} - A\psi)^{(2)}|_5|_T^l \leq |\psi^{(1)} - \psi^{(2)}|_{T_0}^l T^2 a_0 (\varphi_1 + r_1 + 4T|\psi_0|_{T_0}^l) =: |\psi^{(1)} - \psi^{(2)}|_{T_0}^l \mu_5$$

Hence, $|(A\psi^{(1)} - A\psi^{(2)})|_T^l < \mu |\psi^{(1)} - \psi^{(2)}|_T^l$, if T satisfies the condition

$$\mu = \max \{ \mu_1, \mu_2, \mu_3, \mu_4, \mu_5 \} < 1.$$

It is not difficult to see if we choose T_0 as $T_0 = \min(\beta, \mu)$, then for $T \in (0, T_0)$ the operator A satisfies both the properties of a contraction mapping operator, i.e., A realizes contracted mapping of the set $S(T)$ onto itself. Hence, according to Banach theorem (see, for instance, [22, pp. 87-97]), in the set $S(T)$ there exists only one fixed point of transformations, i.e. there exists only one solution of (26).

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LARGE VALUES OF THE TRANSVERSE MAGNETIC RESISTANCE OF SINGLE CRYSTAL NICKEL FILMS

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Abstract:

Background. The anisotropy of the transverse magnetoresistance of single-crystal nickel films was studied in this work. The measurements were carried out on samples whose surface plane coincided with the [001] plane. Studies of the magnetoresistance in a single-crystal nickel film have shown the effect of tensile stresses acting on it from the side of magnesium oxide. The modification

of the anisotropy of magnetoreflexion of a film on a substrate as compared to a free sample is apparently associated with a change in the shape of the Fermi surface of carriers.

In accordance with the technology the films were grown at a substrate temperature of 1000°C. The thermal expansion coefficient of nickel, α_{Ni} , exceeds the corresponding coefficient α_{MgO} for magnesium oxide. For example, at room temperature $\alpha_{Ni} = 12,5 \cdot 10^{-6}$, $\alpha_{MgO} = 11,2 \cdot 10^{-6} \text{ deg}^{-1}$. Consequently, upon cooling, the film, being bonded to the substrate, is subjected to in-plane tensile stress, which leads to tetragonal deformation of the crystal lattice. This conclusion was confirmed by comparing the crystal lattice parameters measured by X-ray diffraction at room temperature T_k and $T = 77 \text{ K}$.

Methods. The magnetoresistance was measured by an unbalanced double Thomson bridge with an accuracy of the order of 10^{-6} Ohm . The magnetoresistance measurements were carried out in the longitudinal and transverse directions of the external magnetic field, as well as depending on the angle φ (between the [100] axis and the direction of the external field). In all measurements the current passed through the samples remained constant $5 \times 10^{-4} \text{ A}$. When measuring the longitudinal and transverse magnetoresistance the external magnetic field varied from 0 to 21000 Oe. The effect measurements in our experiments were carried out with an accuracy of 2-4% on average.

The measurement of the magnetoresistance as a function of the angle φ was carried out at $[100] \parallel i \parallel r \wedge H = \varphi$.

Findings. Oxidation of nickel films occurs through the transfer of electrons, nickel cations and oxygen anions through the film. Annealing controls the oxidation process and film morphology.

According to the results of the analysis of this study we find that Ni films 50 nm thick are almost completely oxidized at an annealing temperature of 700 ° C. It is assumed that tensile density stresses transform the Ni/MgO film into a “strong” ferromagnet, characterized by a high magnitude of magnetoresistance (up to 0.25% at low temperatures). In this work the anisotropy of the transverse magnetoresistance of single-crystal nickel films was studied. The measurements were carried out on samples whose surface plane coincided with the [001] plane. We used samples with a thickness of $d = 5.0 \pm 0.5 \mu\text{m}$ with a ratio $\eta = 10^3$.

Conclusions. The modification of the anisotropy of the magnetoresistance of a film on a substrate as compared to a free sample is apparently associated with a change in the shape of the Fermi surface of carriers. In this case, the volume occupied by carriers in momentum space does not change that is indicated by the existence of a general universal dependence for the magnetoresistance of films on a substrate and films separated from it.

The magnetoresistance in both longitudinal and transverse magnetic fields for all investigated film thicknesses has a different course of curves: in the first case- with a positive value, in the second-with a negative value of the effect magnitude.

The magnitude of the magnetoresistance at a saturation field of 5800 Oe depending on the angle φ between the [100] axis and the direction of the magnetic field H shifts towards a negative effect with decreasing film thickness and reaches zero at φ equal to 1450 and 1350 for films with a thickness of 600 Å.

On films with a thickness of 500 Å the magnitude of the magnetoresistance in the entire range of angle variation has a negative sign of the magnitude of the effect.

With a decrease in temperature following the transition of the Ni/MgO film to the “strongly magnetic” state a structural phase transition occurs in it.

Keywords: magnetoresistance, magnetoresistive element, singlecrystal films, transverse effect, magnetic field orientation, film planes, relative magnetization.

Introduction. Thin films and structures based on them have a number of unique physical and chemical properties not found in bulk materials [1–7], which makes them relevant the object of experimental and theoretical research for more than a decade.

A special place in these studies is occupied by films of ferromagnetic 3 – d metals (FM) iron (Fe), nickel (Ni) and cobalt (Co) - due to the possibility of their use in devices of solid-state electronics (devices for processing and storing information, band-stop filters and phase shifters), as

growth catalysts carbon nanotubes, orienting coatings for the growth of graphene films, films of various metals, dielectrics and semiconductors, promising for use in devices of solid-state micro- and nanoelectronics on the principles magnonics and spintronics. Along with this, ferromagnetic films and multilayer structures on their basis, they provide qualitatively new opportunities for optimization and miniaturization of the component base of solid-state microelectronics and development of sensors magnetic field, microwave current generators, spin transistors and other solid-state devices based on spin transport.

However, each of the above potential areas of application of thin ferromagnetic films imposes certain restrictions on the properties that they must have.

According to the structure of the crystal structure, films can be divided into 4 classes: amorphous films, polycrystalline films, textured films (i.e. polycrystalline films with a predominant crystallographic grain orientation in the selected direction) and epitaxial films.

Films of magnetically ordered substances (Ni, Fe, Co and magnetic alloys) occupy a special place in the physics of films. This is due to the fact that they allow solving a number of fundamental problems for "two-dimensional magnetism" as well as the fact that they have a number of specific magnetic properties: a specific domain structure and the associated magnetic anisotropy, "ripple of magnetization", etc. [8, 9] Recently, the phenomenon of giant magnetoresistance (GMR) has been added to them that has attracted especially great attention to magnetic films and is now the subject of comprehensive research.

The study of the properties of magnetic films is of particular importance due to their wide use in modern microelectronics [10-12].

The choice of Ni films as objects of study was due to a number of reasons. First, Ni is an excellent candidate for magnetic properties versus thickness because has the lowest Curie point ($T_c = 631$ K) in the series of ferromagnetic metals (Fe, Co); over the entire range of thicknesses and temperatures, Ni, in contrast to Fe and Co, does not have polymorphic transitions, retaining the fcc lattice responsible for ferromagnetism. With an increase in the film thickness nickel demonstrates both the dependence of the T_c on the thickness and the transition from two-dimensional "Ising" magnets to three-dimensional "Heisenberg" ones [13, 14]. Second, Ni films, both in the bulk state and in the film state [15], are the simplest, sort of "model," for studying their properties; moreover, to date, the electrical and, in particular, the galvanomagnetic properties of films have been little studied.

The effect of the substrate and the dependence on the angle φ between the [100] axis of single-crystal thin nickel films on the change in the electrical resistance of the films under the influence of a magnetic field or magnetization (magnetoresistance) has not been studied by anyone.

Recently [9] reported on the technology of growing thick monocrystalline films by chemical transport on a magnesium oxide substrate. The method makes it possible to obtain films with a thickness of $2 \mu\text{m} \leq d \leq 15 \mu\text{m}$, and they are characterized by a relatively high ratio of residual resistance $\eta = \rho_{300\text{K}}/\rho_{4,2\text{K}}$, reaching a value of 10^3 .

In accordance with the technology the films were grown at a substrate temperature of 1000°C . The thermal expansion coefficient of nickel, α_{Ni} , exceeds the corresponding coefficient α_{MgO} for magnesium oxide. For example, at room temperature $\alpha_{\text{Ni}} = 12,5 \cdot 10^{-6}$, $\alpha_{\text{MgO}} = 11,2 \cdot 10^{-6} \text{ deg}^{-1}$. Consequently, upon cooling, the film, being bonded to the substrate, is subjected to in-plane tensile stress, which leads to tetragonal deformation of the crystal lattice. This conclusion was confirmed by comparing the crystal lattice parameters measured by X-ray diffraction at room temperature T_k and $T = 77$ K.

The aim of this work is to study the magnetoresistance and angular dependence as well as the effect of the substrate and the dependence on the angle φ between the [100] axis on thin single-crystal films 500-600 Å thick at 295 K in magnetic fields up to 21 kOe.

Methods for measuring magnetoresistance. The magnetoresistance was measured by an unbalanced double Thomson bridge with an accuracy of the order of 10^{-6} Ohm. The magnetoresistance measurements were carried out in the longitudinal and transverse directions of the external magnetic field, as well as depending on the angle φ (between the [100] axis and the

direction of the external field). In all measurements the current passed through the samples remained constant 5×10^{-4} A. When measuring the longitudinal and transverse magnetoresistance the external magnetic field varied from 0 to 21000 Oe. The effect measurements in our experiments were carried out with an accuracy of 2-4 % on average.

When the magnetoresistance was measured, depending on the angle φ , the saturation field was equal to 5800 Oe. The directions of measurements of r , electric current i , external magnetic field H with respect to the [100] axis had the following orientations: for the transverse effect, when $[100] \parallel r \perp H$; for longitudinal $[100] \parallel i \parallel r \parallel H$.

The measurement of the magnetoresistance as a function of the angle φ was carried out at $[100] \parallel i \parallel r \wedge H = \varphi$.

The experimental part was carried out on thin single-crystal films obtained in vacuum (10^{-4} mm Hg) at a substrate temperature of 520 K for MgO. The film thickness was 5 μm ; the film was obtained by the method of chemical transport reactions. The samples were annealed at temperatures of 300, 325, 350, 400, and 700° C in air. The deposition rate was maintained at 0.1 nm/s, and the thickness of the Ni films was measured by piezoelectric microweighing (quartz microbalance).

Thermal oxidation was carried out at a heating rate of 2° C /min. Once the desired maximum temperature was reached, it was maintained for 3 hours to allow oxidation and free diffusion of Ni atoms on the surface. The cooling rate was set at 2.5° C / min.

It was assumed that the change in $\Delta\rho/\rho$ with a change in the shape of the film is associated with the Hall potential difference [16]. The [001] plane of thin nickel films was checked in the electron diffraction pattern.

Lead wires were fastened with a special solder consisting of pure elements (57% Ga + 23% In + 20 % Sn parts by weight), having a low melting point and ensuring contact reliability [17].

Results and discussion. A possible oxidation mechanism of a nickel film is schematically shown in Figure. 1.

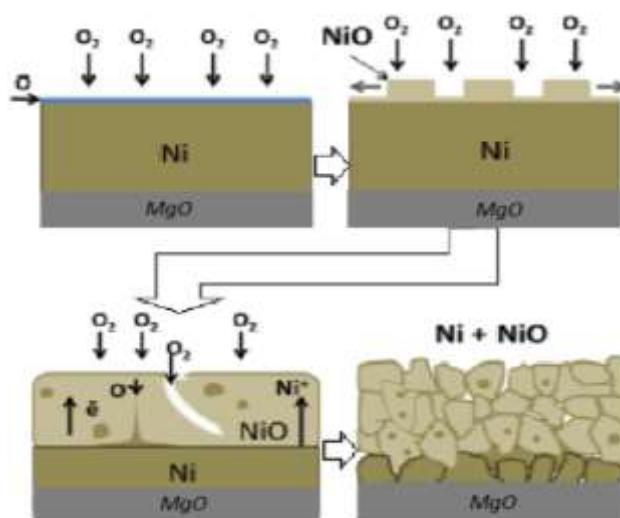


Figure 1. Schematic representation of the thermal oxidation process of a nickel film

Oxidation of nickel films occurs through the transfer of electrons, nickel cations and oxygen anions through the film. Annealing controls the oxidation process and film morphology.

Photographs of Ni films on MgO substrates after annealing at 300, 325, 350, 400, and 700° C are shown in Figure 2.

According to the results of the analysis of this study we find that Ni films 50 nm thick are almost completely oxidized at an annealing temperature of 700 ° C.

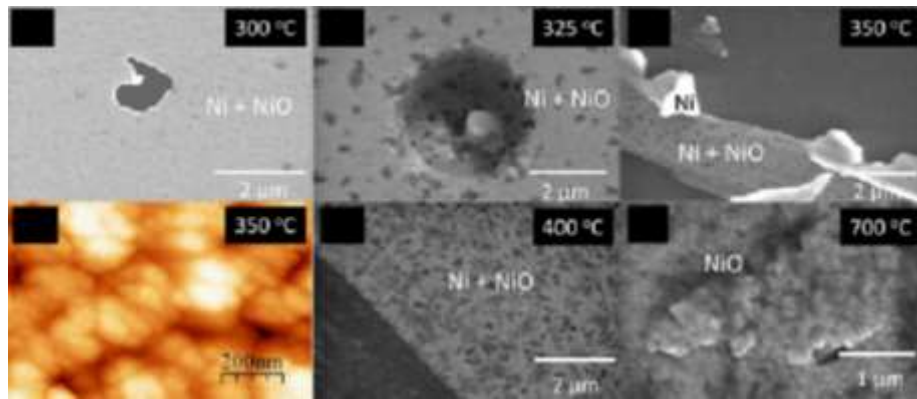


Figure 2 Micrographs of nickel films on Si/SiO₂ substrates at different annealing temperatures

The results obtained for the longitudinal and transverse magnetoresistance as well as the dependence of the magnetoresistance on the angle φ for single-crystal thin films of various thicknesses, are shown in Figure 3, 4 and 5. In figure 3 shows the graphs of the dependence $(\Delta\rho/\rho)$ on H of films obtained during the same technological cycle on a MgO substrate. The direction of the current during measurements was parallel to $[100]$, the direction H was perpendicular, the streamline was either in the plane of the film $(\Delta\rho/\rho)_{\perp}$, or along its normal $(\Delta\rho/\rho)_{\top}$.

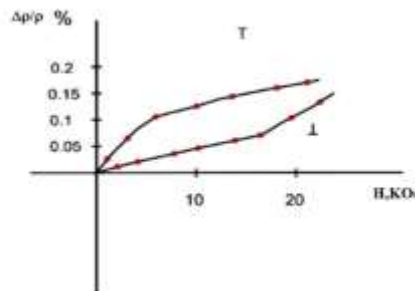


Figure 3. Graph of the field dependence $(\Delta\rho/\rho)_{\perp}$ and $(\Delta\rho/\rho)_{\top}$ of a nickel film on a MgO substrate. Film thickness 500 Å

Films on a MgO substrate experience thermoelastic stresses of different sign which is obviously associated with different dependences of their transverse magnetoresistance on the field H . For a Ni / MgO film in a field of 20 kOe $(\Delta\rho/\rho)_{\top}$ reaches a value of 0.17 %, and $(\Delta\rho/\rho)_{\perp}$ - values of 0.1 %.

It is assumed that tensile density stresses transform the Ni/MgO film into a “strong” (according to Campbell, see Figure 4) ferromagnet, characterized by a high magnitude of magnetoresistance (up to 0.25% at low temperatures). A well-known method of transferring nickel to the state of a “strong” ferromagnet is the introduction of impurities (Fe, Co, Cu, etc.) into it. The fact that large values of $\Delta\rho/\rho$ in Ni/MgO films are caused by mechanical stresses is evidenced by the fact that these values decrease with repeated heating-cooling cycles [18].

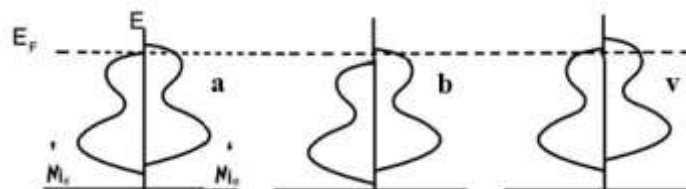


Figure 4. Diagrams of the density of states of the d band of nickel (a), “strong” (b) and “weak” (c) ferromagnets

When measuring the magnetoresistance, depending on the angle φ , a shift towards the negative effect is observed with decreasing film thickness (Figure 5).

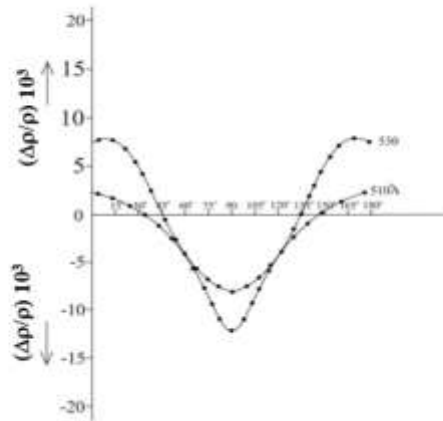


Figure 5. Dependence of the magnetoresistance $\Delta\rho/\rho$ on the angle $\varphi = [010] \parallel i \parallel r \wedge H$ in the field $H = 5800$ Oe

The method makes it possible to obtain films with a thickness of $2 \mu\text{m} \leq d \leq 15 \mu\text{m}$, and they are characterized by a relatively high ratio of residual resistance $\eta = \rho_{300 \text{ K}}/\rho_{4,2 \text{ K}}$, reaching a value of 10^3 .

In this work the anisotropy of the transverse magnetoresistance of single-crystal nickel films was studied. The measurements were carried out on samples whose surface plane coincided with the [001] plane. We used samples with a thickness of $d = 5.0 \pm 0.5 \mu\text{m}$ with a ratio $\eta = 10^3$.

Figure 6 shows the angular dependences of the transverse magnetoresistance $(\Delta\rho/\rho)(\varphi)$ of such films at $T = 4.2$ K and the direction of the current along [110]. Here $\Delta\rho = \rho_H - \rho$, where ρ_H, ρ are the resistivity of the sample in an external field H and in the absence of a field ($H = 0$). The angle φ determines the direction H relative to the normal to the film plane (at $\varphi = 90^\circ H \parallel n$). Curves 1, 2 show the dependences $(\Delta\rho/\rho)(\varphi)$ for a film connected to a substrate and, therefore, under the action of tensile stresses, at $H = 14$ (1) and 21 kOe (2). Note that repeated cooling and heating of the film on the substrate from T_c to $T = 4.2$ K did not change the $(\Delta\rho/\rho)(\varphi)$ dependence. Curve 3 is a graph of $(\Delta\rho/\rho)(\varphi)$ at $H = 21$ kOe on the same film, but separated from the MgO substrate.

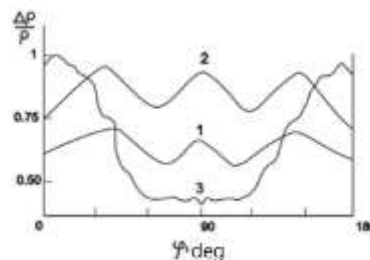


Figure 6. Angular dependences of the transverse magnetoresistance $(\Delta\rho/\rho)(\varphi)$ of films at $T=4.2$ K and the direction of the current along [110]

After removing the film from the substrate the ratio decreased to ~ 870 . As can be seen from a comparison of curves 2 and 3 stress relief leads to a noticeable change in the angular dependence of the transverse magnetoresistance of nickel films. It should be noted that at $T = T_c$ and $T = 77$ K the curves $(\Delta\rho/\rho)(\varphi)$ obtained by us coincide with the known (3) results for the anisotropy of the magnetoresistance of bulk samples. Moreover, as it turned out, the separation of the film from the substrate does not change the dependence $(\Delta\rho/\rho)(\varphi)$ at the indicated temperature values.

The angular dependence of the magnetoresistance of the film removed from the substrate at $T=4.2$ K (Figure 6 (3)) generally corresponds to the graph $(\Delta\rho/\rho)(\varphi)$ of the transverse magnetoresistance of a single-crystal nickel rod with $\eta = 2700$ [11]. In this work the anisotropy of the magnetoresistance was associated with the shape of the Fermi surface of nickel. In contrast to

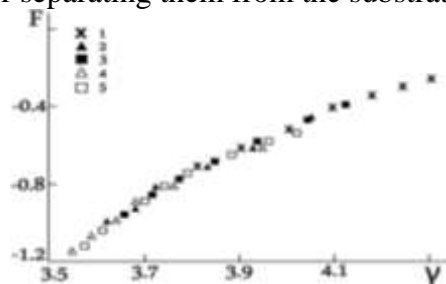
[9], the curve obtained by us does not have sharp minima for the H directions coinciding with the crystallographic axes of the [111] type and the minima for H [100] do not reach the value noted by the authors [11]. Such differences, in our opinion, are associated with the scattering of electrons at the boundaries of the sample. In the magnetic field used to measure the magnetoresistance of nickel films the cyclotron radius of conduction electrons is $r \geq d$. Note that our data are closer to the curve $(\Delta\rho/\rho)(\varphi)$ given in the work of Fossett and Reed than the results of [12] where measurements were carried out on a massive sample with $\eta = 1000$. As is known, the static resistance of films in a magnetic the field is determined by the electron mean free path l_{eff} into which the carrier scattering on the film surface contributes. At the same time, the samples contain electrons that do not collide with the surface and have a mean free path $l > l_{\text{eff}}$. Under the condition $l \gg r$, such electrons can contribute to the film magnetoresistance determined by the shape of the Fermi surface, that is observed experimentally.

Thus, the study of the anisotropy of the magnetoresistance of a nickel film on an MgO substrate makes it possible to conclude that the shape of the Fermi surface of conduction electrons is changed due to the tetragonal deformation of the crystal lattice of the deposited material. As far as we know, such significant changes in $\Delta\rho/\rho$ under the action of external stresses in nickel have not been observed previously [19].

It is noteworthy that the value of $\Delta\rho/\rho$ in the film on the substrate at $H \parallel n$ ($\varphi = 90^\circ$) is greater than at H in the plane of the sample, despite the lower value of the induction B in the first case. Indeed, in a ferromagnetic film sample, magnetized to saturation, at $H \parallel n$, the demagnetizing field is $H_{\text{rasm}} = -4\pi M$, as a result, $B \approx H$. At H in the film plane, $B = H + 4\pi M$. It is obvious that a decrease in induction cannot explain the minimum in the dependence $(\Delta\rho/\rho)(\varphi)$ on a film removed from a substrate at $\varphi = 90^\circ$.

When the current is directed along [100] (in this case, when H is in the film plane and when $H \parallel n$, the magnetic field is applied along equivalent crystallographic directions) the study of the dependence of $\Delta\rho/\rho$ on H showed that in fields greater than the saturation field the same values of $\Delta\rho/\rho$ for the above-mentioned mutually perpendicular directions of the field we obtain for H differing by 6 kOe. This is approximately equal to $4\pi M$ in nickel. The dependence of $\Delta\rho/\rho$ on the magnitude of the magnetic field in the region $H < 21$ kOe for any φ is a monotonically increasing function of H. kE. The exit of M in the direction n is facilitated by the induced perpendicular anisotropy caused by the action of tensile stresses on the film.

As is known, in a number of cases, for example, when plotting the Kolerov curves [7] it is required to know the resistance of a ferromagnet at $B = 0$. Due to the fact noted above that at $M \parallel n$ the magnetic induction of the film is $B \approx H$ the value of its resistance at $B = 0$ is by a simple extrapolation of the dependence $\rho(H)$ obtained in the region of magnetic saturation of the sample at $H \parallel n$ to the value at $H = 0$. Using this procedure we obtained the dependences $(\delta\rho/\rho_0)(H)$ at H in the film plane and the measuring current directed along [100]. Here $\delta\rho = \rho_B - \rho_0$, where ρ_B - the value of the resistance of the sample with an induction field in it equal to B; ρ_0 is the resistance at $B = 0$. The measurements were carried out on three samples on an MgO substrate differing in the value of η and in thickness. Two samples with $d = 9 \mu\text{m}$ had $\eta = 800$ (sample No. 1) and $\eta = 460$ (sample No. 2), respectively. Sample no. 3 with $d = 5 \mu\text{m}$ had $\eta = 380$. Measurements $(\delta\rho/\rho_0)(H)$ on samples no. 2, 3 were repeated after separating them from the substrate.



**Figure 7. Dependences of $F = \log(\delta\rho/\rho)$ on $\gamma = \log(Bqd^*/d)$ of single-crystal nickel films
1-3 - films on a substrate; 4, 5 - films separated from the substrate
 d (μm), η : 1 - 9.800; 2 - 380; 3 - 9.460; 4 - 5.250; 5 - 9.380**

Figure 7 shows the universal dependence, $\delta\rho/\rho = f(B\eta d^*/d)$ which obeys the magnetoresistance of the studied samples; here $d^* = 9 \mu\text{m}$. The possibility of representing the magnetoresistance as a universal curve depending on the thickness of the sample indicates the presence of a size effect the existence of which was assumed when discussing the results of studies of the anisotropy of magnetoresistance.

Thus, we have demonstrated the effect of tensile stresses acting on it from the side of magnesium oxide on the transverse magnetoresistance of a single-crystal nickel film.

Conclusions. The modification of the anisotropy of the magnetoresistance of a film on a substrate as compared to a free sample is apparently associated with a change in the shape of the Fermi surface of carriers. In this case, the volume occupied by carriers in momentum space does not change that is indicated by the existence of a general universal dependence for the magnetoresistance of films on a substrate and films separated from it.

The magnetoresistance in both longitudinal and transverse magnetic fields for all investigated film thicknesses has a different course of curves: in the first case- with a positive value, in the second-with a negative value of the effect magnitude.

The magnitude of the magnetoresistance at a saturation field of 5800 Oe depending on the angle φ between the [100] axis and the direction of the magnetic field H shifts towards a negative effect with decreasing film thickness and reaches zero at φ equal to 1450 and 1350 for films with a thickness of 600 Å.

On films with a thickness of 500 Å the magnitude of the magnetoresistance in the entire range of angle variation has a negative sign of the magnitude of the effect.

With a decrease in temperature following the transition of the Ni/MgO film to the “strongly magnetic” state a structural phase transition occurs in it.

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OPTICAL SYSTEM AND FLOW CELL FOR STUDYING THE POLARIZATION SPECTRA OF SELF-ASSEMBLED MOLECULES

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Abstract:

Background. The authors developed, patented and applied a flow-through optical cuvette that allows recording the polarization spectra of self-aggregates of vitamins and food dyes. Equipment polarimeters and dyregrov flow-through cuvettes allows you to take spectra of linear or circular dichroism. These spectra allow us to determine the fine details of optical transitions. And also detect the hiding of a band of self-aggregated molecules, as in the case of γ -formylmesoporphyrin, Riboflavin. They allow you to get information of a diverse nature. The structure of self-assembled molecules is needle-like and they have optical activity in the hydrodynamic flow.

The article reveals the relevance of the research and justifies the purpose of the work which is to develop optical systems and cuvettes that allow increasing the sensitivity of optical devices as a result of which conditions are manifested to register the weak polarization characteristic of molecules.

Methods. The experimental method shows an optical system in the form of a double Fresnel parallelepiped that increases the sensitivity of the optical device by two orders of magnitude and also shows the optical devices used to remove the absorption and fluorescence spectrum. The use of solvents in the study of vitamin preparations and certain food dyes is justified.

Results. The principle of operation that allows an optical cell of constant thickness to register linear dichroism of weakly oriented molecules in a hydrodynamic flow is given. This section also presents the spectra of negrotropic rotation of the polarization plane of the associates of γ -formylmesoporphyrin and Riboflavin in a laminar hydrodynamic flow.

Results and discussion the results of studies on self-aggregation of vitamin B2 in a binary mixture of water+dioxane solvents are presented. To remove the linear dichroism spectra of self-aggregated molecules, γ -formylmesoporphyrin, and vitamin B2, a constant-thickness flow cell was used.

Conclusion. Thus, it is shown that polarimeters and dichrographs are equipped with a double Fresnel parallelepiped that is installed in front of the pokkels cell with a KDP (KN2 PO4) crystal and allow recording the spectrum of linear dichroism of weakly oriented molecules of food pigments and vitamins. In this case, the sensitivity of the device increases by about two orders of magnitude. The developed optical system is used to measure the linear dichroism spectra on the polarimeter spectrum when the films are oriented with the axis of its extension at an angle of 40° as the polarization vectors of the incident light. It is shown that the structure of self-assembled molecules is needle-like and they have optical activity in a hydrodynamic flow.

Keywords: Riboflavin, self-aggregation, intermolecular interaction, hypochromic effect, vitamins, food dyes, γ -formylmesoporphyrin, flow cell, electronic spectrum, linear dichroism.

1. Introduction. The processes of intermolecular interaction (MMB) in solutions of dyes and vitamins have proved to be so complex that polarizing spectra should be used to interpret these interactions. Polarization spectra provide information about the orientation of solute molecules, and these spectra are more informative in relation to electronic spectra. The need to use polarization spectra increases when only a drop in absorption and luminescence occurs in their electronic spectra (hypochromic effect). In these cases, the spectrum of circular and linear dichroism reveals the main bands of self-aggregates of the molecules of the studied compounds [1]. The nature of the hypochromic effect is still unclear. To solve this problem and the accompanying physical processes occurring in BAS solutions, it is necessary to use more subtle polarization research methods. In the conditions of practical application of vitamins and food dyes in medicine and pharmaceuticals, it is necessary to study the molecules of vitamins and food dyes in organic solvents, primarily in organic solvents, using polarization spectra [2]. In these solvents, the molecules of vitamins and food dyes can be in various molecular forms. Each molecular form has its own electronic spectra [3]. In addition, various intermolecular interactions (MMV) can occur in multicomponent mixtures. These interactions lead to changes in the spectral-luminescent characteristics of the compounds under study. These parameters are the defining characteristics of vitamins and food dyes, which determine the working life of the studied pigments.

Photophysical and photochemical properties and processes occurring in solutions of vitamin preparations and food dyes were studied in [2-5]. It should be noted that in the production of various medicines based on biological active substances, first of all, they are stabilized by thermal action. However, when these effects occur, significant deformations of the spectral spectra of food dyes and vitamin preparations are observed [6].

Food colorants and vitamin preparations also have characteristics that determine their photostability and thermal stability, and these characteristics are a guarantee of their use in pharmaceuticals and medicine. In [7-9], the results of a study of photochemical processes occurring in solutions of vitamins and dyes are summarized. However, there are practically no works in the literature devoted to elucidating the nature of photodestruction of food dyes and vitamin preparations depending on the nature of the environment and developing methods for stabilizing these widely used vitamin preparations. Also relevant is the effect of the pH of the medium on the optical properties of food dyes and vitamin preparations. To solve these problems, changes in the spectral and luminescent characteristics of food dyes and vitamin preparations are presented, depending on the influence of the acidity of the medium.

Some of the food colorants and vitamin preparations are aqueous solutions, which makes it possible to prepare various medications used in pharmaceuticals on their basis [10] in the form of their concentrated aqueous solutions. At the same time, depending on the concentration, temperature, and nature of the solvent, a significant deformation of their electronic spectra is observed in the form of a hypochromic effect [11]. Food dyes and vitamin preparations are also involved in the redox reaction of the body by transferring electrons to other biologically active molecules. In addition, their photostability depends significantly on the nature of the solvent. In [12,13], it is shown that as the value of the polarity of solvents increases, the photostability of medical preparations deteriorates. The use of high concentrations in solutions is also accompanied by a process of self-aggregation by self-Assembly [14].

The creation of new medicines based on food coloring and vitamin preparations requires further research on their self-Assembly. Identification of the conditions for the formation of self-discharge molecules is one of the urgent problems of pharmaceuticals, as a result of which it is possible to test drugs [15]. Determination of the structure of self-assembled molecules of food dyes and vitamin preparations makes it possible to purposefully use them not only in medicine, but also in various other fields of science and technology [16].

These studies reveal the relationship between anisotropic optical spectra and the structure of self-aggregates. These research methods are highly sensitive to detect fine details of optical transitions.

2. Methods and experiment. The paper uses a powder of Riboflavin γ -formylmesoporphyrin of the "HC" brand. Electronic absorption spectra were measured using a Specord 50 SA spectrophotometer (Analytik jena, Germany) that allows measurements of optical density in the range of 190-1100 nm. Measurement of fluorescence spectra was performed on a device assembled on the basis of two monochromators of the MDR-76 type with photoelectronic signal registration. The optical rotation dispersion and linear dichroism spectra were taken on a Jasco-20 dichrograph from the optical prefix of a double Fresnel parallelepiped used in the visible and UV part of the spectral region.

Distilled water, ethanol, and binary mixtures of water+dioxane, water+acetone, purified according to known methods, were used as solvents [17]. Binary mixtures were prepared in such a way that the concentration of the test compound remained constant, and the ratio of the binary solvent mixture changed. In the second case, the composition of the binary solvent mixture remained constant, and the concentration of Riboflavin changed.

3. The optical system. Linear and circular dichroism spectra were obtained using Spectropol-1 and Jasco-20 spectropolarimeters. The Spektropol-1 spectrum polarimeter, which uses a compensatory method for measuring the optical rotation of the plane of light polarization, has a sensitivity of $2 \cdot 10^{-3} - 8 \cdot 10^{-2}$ angular degrees [18].

Another method for measuring the linear dichroism of weakly oriented systems is implemented in serial circular dichrographs. The principal possibility of measuring linear dichroism using serial dichrographs using the electro-optical method for measuring circular dichroism was predicted in a number of papers. One of these features can be implemented on the Jasco-20 using an optical prefix-a double Fresnel parallelepiped designed for the visible and near ultraviolet spectral region [19].

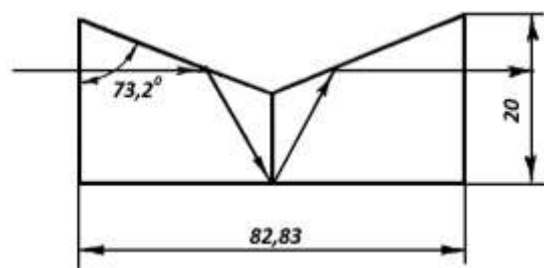


Fig. 1. Double Fresnel parallelepiped

Fig. 1 shows an optical diagram of a double Fresnel parallelepiped, a device that plays the role of an achromatic quarter-wave plate in our measurements, and the zero lines of the dichrographs we use to measure the linear dichroism of weakly oriented anisotropic and gyro-anisotropic systems.

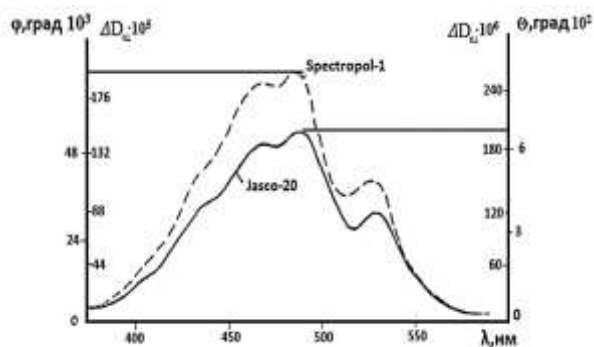


Fig. 2. The spectra of linear dichroism of polymer films

Figure 2 shows data on measuring the linear dichroism of the same linear-dichroic sample using Spektropol - 1 Spectro polarimeters and the Jasko-20 circular dichrograph using the methods described above. As an anisotropic linear-dichroic object, a polymer film made of polymethylmethacrylate containing rhodamine 6J and its base, stretched uniaxially by 4 times, was chosen. Both dyes in the polymer film are in an aggregated state and are easily oriented when it is stretched. Curves 1 and 2 were registered on Spektropol - 1 and Jasko-20 spectropolarimeters, respectively, at the scales of these devices: φ and θ . Next to the vertical axes are marked, the scale of linear dichroism, recalculated according to the above formulas.

The linear dichroism spectra were measured using a spectropolarimeter when the film was oriented with its stretching axis at an angle of 45^0 to the polarization vector of the light incident on it. The linear dichroism spectra were measured on a circular dichrograph when the film was oriented by its extension axis at an angle of 0^0 to the linear polarization vector transformed by a double Fresnel parallelepiped from a circular one. The positions of the films in both cases corresponded to the maximum amplitudes of the bands of the recorded curves. At the same time, both linear dichroism spectra correspond well to each other.

Thus, at the maximum of both curves with $\lambda_{\max}^{\varphi} = 490\text{nm}$, the amplitudes recorded on Spektropol-1 and Jasko-20 are equal to $2,03 \cdot 10^{-3}$ and $2,04 \cdot 10^{-3}$ units of difference optical density, respectively.

As an electro-optical element in the serial Jasko-20 dichrograph, a Pockels cell with a KDP (KN2 PO4) crystal is used [20].

In practice, the measure of circular dichroism is the value of ellipticity, determined by the ratio of the small and large axes of the ellipse and equal for small ones θ ;

$$\text{tg } \theta \cong \theta = \text{tg } \frac{\pi}{2} \times (X_L - X_R) \times l \cong 33 \times C \times l (\varepsilon_L - \varepsilon_R)$$

where $X_L, X_R, \varepsilon_L, \varepsilon_R$ - are the coefficients of absorption and molar extinction coefficients of the substance for light of wavelength λ polarized in a circle to the left (L) and right (R); C-concentration of optically active substance; l -thickness of the sample.

It is known that

$$\Delta\varepsilon = \varepsilon_L - \varepsilon_R = \frac{1}{Cl} \times \log_{10} \frac{I_R}{I_L}$$

where I_R, I_L - are the intensities of the light transmitted through the sample, polarized in a circle to the right and left.

Because of this

$$\theta = 33 \times \log_{10} \frac{I_R}{I_L} = 33 \times \log_{10} \frac{1 + \frac{I_2}{2I_1}}{1 - \frac{I_2}{2I_1}} \text{ where } I_1 = \frac{1}{2}(I_R + I_L) \text{ By definition, } I_2 = I_R - I_L.$$

Since for small values of optical activity we have

$$\frac{I_R - I_L}{I_R + I_L} = \frac{I_2}{2I_1} \ll 1$$

then

$$\log_{10} \frac{1 + \frac{I_2}{2I_1}}{1 - \frac{I_2}{2I_1}} \cong \log_{10} \frac{e^{\frac{I_2}{2I_1}}}{e^{-\frac{I_2}{2I_1}}} = \frac{I_2}{I_1} \log_{10} e$$

consequently

$$\theta = 33 \times \frac{I_2}{I_1} \log_{10} e$$

those, the magnitude of the ellipticity (in degrees) is proportional to the intensity ratio I_R and I_L , which are recorded by the photoelectric system of the circular dichrograph. In the transition from circular (CD) to linear dichroism (LD), it is convenient to use the formula for q in another form:

$$\theta_{\hat{E}\hat{A}} = 28,6 \times \frac{I_R - I_L}{I_R + I_L}$$

where I_I, I_{II} are the intensities of linearly polarized light transmitted through the sample and incident on the dichrograph photodetector:

$$\frac{I_{\perp} - I_{II}}{I_{\perp} + I_{II}} = \frac{10^{-D_{\perp}} - 10^{-D_{II}}}{10^{-D_{\perp}} + 10^{-D_{II}}} = \frac{e^{-D_{\perp} \log_e 10} - e^{-D_{II} \log_e 10}}{e^{-D_{\perp} \log_e 10} + e^{-D_{II} \log_e 10}} = th[(D_{\perp} - D_{II}) \log_e 10 / 2] \approx \frac{(D_{\perp} - D_{II}) \cdot \log_e 10}{2}$$

(for small values of the argument). Thus, the dichroism measured by the dichrograph is

$$\Delta D_{\perp, II} = D_{\perp} - D_{II} = \frac{\theta_{\hat{E}\hat{A}}}{32,38}$$

at the maximum sensitivity of the dichrograph

$$\theta_{KII} = 10^{-3} \text{ zpad.cm}^{-1}$$

corresponds to its linear dichroism sensitivity

$$\Delta D_{\perp, II} \cong 3 \cdot 10^{-5}$$

values of the difference optical density.

The Spektropol-1 spectropolarimeter allows measurements in the spectral range of 200-610 nm, and the Jasko-20 dichrograph-in the spectral range of 200-700 nm. The zero line of the polarimeter spectrum (by air) is perfectly straight, while the zero line of the linear dichrograph based on Jasko-20 is not quite perfect: The deviation of this line from the straight line in the spectral regions 200-320 and 640-700 nm is apparently due to the imperfection of the Pockels cell of the dichrograph, which gives values in these spectral regions as in the circular polarization of light. As a result, after the light passes through a double Fresnel parallelepiped, it acquires a polarization close to linear, with a very large ellipticity. Thus, if a linear-dichroic sample has a small linear birefringence, it is preferable to measure linear dichroism using a Spektropol-1 spectrum polarimeter. In all other cases, especially when the gyro sample is anisotropic and has significant optical activity, it is convenient to use Jasko-20.

4. Results and discussion. 1. Study of self-Assembly of vitamins and food dyes. First of all, the concentration dependence of the absorption and fluorescence spectra of Riboflavin solution in water was studied. At the same time, it was found that the absorption and fluorescence spectrum in the concentration range of 10^{-5} - 10^{-6} M remain constant, which indicates that at such a concentration range, Riboflavin molecules remain a monomer. In the absorption spectra of an aqueous Riboflavin solution, four maxima appear with $\lambda_{\max}=220$ nm, $\lambda_{\max}=265$ nm, $\lambda_{\max}=370$ nm, and $\lambda_{\max}=445$ nm. An aqueous solution of Riboflavin has an intense fluorescence band with $\lambda = 525$ nm. However, studies of the selected molecules show that in binary mixtures of solvents, water+dioxane ($5 \cdot 10^{-5}$ M) and changes in the ratio of the binary mixture, significant deformations of the electronic spectra are observed. As an example in Fig.1 shows the absorption spectra of Riboflavin. As seen in Fig.3 when $C=\text{const}$ and the proportion of added dioxane increases in the absorption spectra, there is a drop in the integral bands with the same form of the absorption spectrum (hypochromic effect Fig.3).

Similar changes in the electronic absorption and fluorescence spectra are observed with a constant ratio of the binary mixture and an increase in the Riboflavin concentration.

Deformation of the electron absorption and fluorescence spectra was also observed in concentrated aqueous solutions. these deformations were attributed to the process of formation of Riboflavin molecules self-aggregates [21]. In this case, changes in the absorption and fluorescence spectra are also associated with the manifestation of Riboflavin self-aggregation.

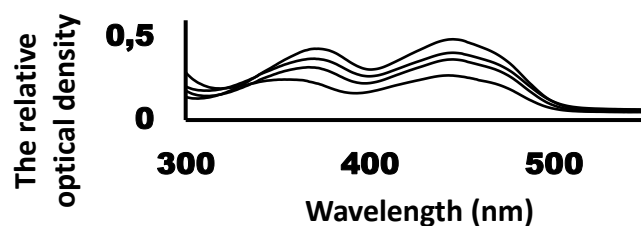


Fig. 3. Riboflavin absorption Spectrum in water ($C=5=10^{-5}M$) depending on the addition of dioxane: 1-0; 2-20; 3-40; 4-90; dioxane.

Self-aggregation in a binary mixture of water+dioxane for Riboflavin molecules can be explained by the following considerations. When Riboflavin is dissolved in water, each Riboflavin molecule will be surrounded by a solvate shell of this solvent. This excludes intermolecular interactions (MMV) directly between the molecules of the compound under study, since in this case they are in a Monomeric state. With the addition of the second component (dioxane), in which Riboflavin is insoluble, MV is manifested, the solvate envelope around the solute weakens. An increase in the proportion of the second component of the binary solvent mixture leads to a further weakening of the solvate envelope around each Riboflavin molecule. In these cases, the molecules of the compound under study are displaced from the solvate shell, resulting in the possibility of interaction between the molecules of the dissolved compound themselves.

The process of self-aggregation of the studied compounds in a binary mixture of solvents by temperature studies. It was found that heating such a solution leads to the dissolution of the precipitate and an increase in the intensity of the absorption band monomers is observed. At a temperature of 343 K, it almost coincides with the absorption and fluorescence spectrum of the dilute solution. The binding energy of Riboflavin aggregates was determined from temperature experiments. In these cases, the absorption band of the self-aggregates of the studied compounds does not appear in the absorption spectra (Fig.3).

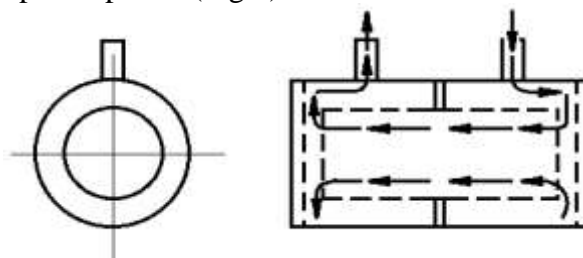


Fig. 4. Flow cell of constant thickness, longitudinal version

Equipping polarimeters and dichrographs with these optical cuvettes makes it possible to conduct research on a variety of objects, which is very relevant and extremely necessary for obtaining information of a diverse nature. These cuvettes can also be used to measure other optical-spectral characteristics of various substances.

Figure 4 shows the second flow cell №2 [22], which allows to study the polarization characteristics of these forms of pigments in a direction parallel to the hydrodynamic flow velocity vector [23].

The cuvette contains external and internal side coaxial cylindrical walls, two perpendicular optical Windows that cover the gap between the cylindrical walls, and two holes with pipes in the external side wall. There is a gap between the ends of the inner side cylindrical wall and the optical Windows. Both walls are held together by an annular partition in the center of the cell parallel to the optical window.

The orientation of anisometric particles can be dramatically increased by filling the space of the internal coaxial cylinder with thin capillary tubes glued together in a bundle and installed parallel to the cylinder's forming surface. To eliminate reflections and glare that reduce the accuracy of measurements, the inner walls of capillary tubes are mounted and blackened. The length of the

capillary beam corresponds to the length of the coaxial cylinder. As an example of using a cuvette, the results of the study of aggregated colloidal particles of γ - formylmesoporphyrin, which are needle-like microcrystallines with linear dichroism and birefringence, are presented. At the same time, depending on their orientation in the local regions of the colloidal solution, through which the measuring linearly polarized light beam of the polarimeter passes, the latter registers a different size and sign of the non-gyrotropic rotation of the polarization plane [24].

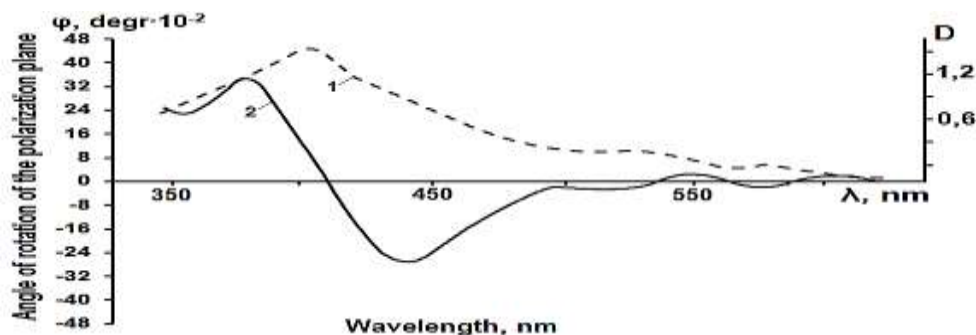


Fig. 5. Absorption spectra (1) and non - gyrotropic rotation of the polarization plane (2) of stable colloidal solutions of γ – formilmezoporphyrina associates in an aqueous-acetone (0.9:1) mixture after turning a cylindrical cell with a solution around a measuring light beam by 45° . $C_{ove}=2 \cdot 10^{-6}$

Needle anisometry associates these molecules, is confirmed by the extreme ease of their orientation in a laminar hydrodynamic flow of the colloidal solution, when it is pumping through the measuring flow cell with the working cavity in the form of a rectangular parallelepiped, the optical thickness of which is equal to 10^{-3} m, and holchester microcrystals source of dry powders rutin, and γ formylmethionine, which was used to obtain the studied solutions. Over time, partial relaxation occurs in the colloidal solution, so that the dispersion curve of the non-gyrotropic rotation of the polarization plane becomes close to the zero line. This is due to the fact that the dipole moments of transitions responsible for the non-gyrotropic rotation bands of the polarization plane (similar to the linear dichroism bands), parallel to the long axes of aggregated colloidal pigment particles, are oriented at an angle of $0 \pm 90^\circ$ to the polarization vector of the measuring light beam [24].

The maximum rotation of the polarized light plane is achieved when the dipole transition moment responsible for a specific absorption band is oriented at an angle of $\pm 45^\circ$ to the polarization vector [24-25], which is observed in our experiment.

As a third example, see Fig.6 shows the absorption and linear dichroism spectra of an aggregated colloidal Riboflavin solution flowing through a 1-millimeter flow cell at a speed of 2mm / s. the velocity Vector of the laminar hydrodynamic flow is oriented at an angle close to 45° , to the polarization vector of the linearly polarized light incident on the cell. It is experimentally established that when a solution of self-assembled molecules is pumped through a flow cell, they become optically active.

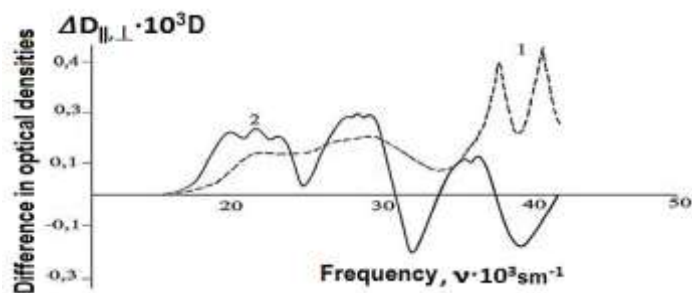


Fig. 6. Spectrum of linear dichroism of Riboflavin molecule aggregates in a laminar (1) hydrodynamic (2) flow

In [1-4, 6] we have shown that the optical activity of Riboflavin aggregates is manifested when their structure is needle-like. Only in this case, the dichrograph registers a curve of the linear dichroism spectrum that is different from the zero line (Fig.6). In this case, the laminarity of the hydrodynamic flow through the flowing optical cuvette was achieved by a certain value of the flow rate of the Riboflavin solution. The energy parameters of aggregated Riboflavin molecules that differed from their monomers were determined from the analysis of linear dichroism spectra and translated them in the frequency scale.

Table 1

Energy parameters and the difference of the optical density according to the linear dichroism of aggregates of molecules of Riboflavin

| Lane designations (ν_c) | ν_{\max} sm^{-1} | σ_c $\pm 100\text{sm}^{-1}$ | $\Delta D_{\perp} \times 10^3$ | |
|-------------------------------|----------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| | | | $\langle\langle + \rangle\rangle$ | $\langle\langle - \rangle\rangle$ |
| $\nu_{\bar{n}_1}$ | 21700 | 1700 | 0.26 | |
| $\nu_{\bar{n}_2}$ | 27800 | 2000 | 0.32 | |
| $\nu_{\bar{n}_3}$ | 31000 | 2000 | | 0.22 |
| $\nu_{\bar{n}_4}$ | 35000 | 3400 | 0.18 | |
| $\nu_{\bar{n}_5}$ | 38500 | 3400 | | 0.16 |
| $\nu_{\bar{n}_6}$ | 47800 | 3800 | 0.03 | |

where ν_c is the numbering of the electronic bands, ν_{\max} is the frequency corresponding to the maximum for concentrated Riboflavin solutions; σ_c is the half-width of the band and ΔD_{\perp} , ΔD_{\parallel} is the difference in the optical density of perpendicular and parallel polarized rays, respectively.

Conclusion. Thus, it is shown that polarimeters and dichrographs equipped with a double Fresnel parallelepiped that is installed in front of the pokkels cell with a KDP crystal (KN2 PO4) allow registering the spectrum of linear dichroism of weakly oriented molecules of food pigments and vitamins. In this case, the sensitivity of the device increases by about two orders of magnitude.

The developed optical system is used to measure the linear dichroism spectra on the polarimeter spectrum when the films are oriented with the axis of its extension at an angle of 40° as the polarization vectors of the incident light. In these cases, good correspondence of the linear dichroism spectra of the images on the Spektropol-1 and Jasko-20 spectropolarimeter was observed. It is also shown that equipping polarimeters and dichrographs with flow cells of constant thickness allows us to remove the spectra of linear and circular dichroism of self-assembled molecules. On the basis of these spectra, fine details of optical transitions are revealed, as well as the obtained hidden spectra of self-assembled vitamin molecules. It is shown that the structure of self-assembled molecules is needle-like and they have optical activity in a hydrodynamic flow.

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UDC: 621.315.592

BEHAVIOR OF ATOMS OF GOLD IMPURITY IN SILICON

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TUIT named after Muhammad al-Khorazmiy,**Kaipnazarov Srazhatdin Gayratdinovich**basic doctoral student of the Research Institute of Semiconductor Physics and
Microelectronics at the NUUZ named after MirzoUlugbek***Abstract:**

Background. *In this article brings the review of literature on spreading gold elements in the nature, its chemical characteristics, interaction with other elements and formation of stable gold complexes; diffusion mechanism, anomalous type of concentrated gold distribution in silicon and deep level of gold in silicon alloyed under diffusion and also in the process of monocrystal growing. Possible mechanism of formation gold deep levels in silicon is suggested.*

Methods. *The gold elements introduced as an introduction to the semiconductor, as well as the silicon semiconductor monocrystalline, were discussed and a literature review was developed considering the objectives of their use (for donor and acceptor levels). The Silicon sample was used taking into account this purpose.*

Results. *The purpose of using gold it has been proven that in the process of introducing gold into Silicon, donor and acceptor levels are formed. To add atoms of another element to the silicon required an electron and a size adaptation, the addition of atoms of gold to the silicon is also considered suitable in terms of two adaptations. The compatibility of atoms of some elements with silicon atoms (electronic or dimensional) may not be correct, i.e. the valence or size of atoms of another element with silicon atoms may differ significantly.*

Conclusion. *Silicon can be included as an introduction to the atoms of gold, since there is an compatibility between the atoms of silicon and gold (electronic and dimensional). Organization in accordance with the purpose of introducing gold atoms into the Silicon monocrystalline increases their functional significance, which means it can greatly help in the creation of conductive devices.*

Keywords: *gold spreading, chemical characteristics, stable complexes, silicon, diffusion coefficient, impurity, alloying, deep levels.*

Introduction. To examine the electrophysical properties of semiconductors alloyed by the introduction atoms in the world today and the identification (recording) of the deep layers formed by the introduction, to the process of formation of thermal and radiation defects of introductory atoms in Silicon investigation of the effect of the interaction of defects with introductory atoms, as well as study the stabilization of the working parameters of semiconductor devices en it is one of the important functions. A few techniques for research on the state of entrances in Silicon are used: including DLTS (Deep Level Transient Spectroscopy), NAA (Neutron Activation Analysis), IR-spectroscopy, isothermal relaxation capacity and etc. Next year semiconductor primary non-charge for the purpose of increasing the speed of working the instruments it was found that the introduction of deep-surface entrances in silicon to reduce the life span of carriers would give a good result.

Potential scientific articles indicate the amphoteric nature of gold impurities in silicon, associated with the presence of both deep donor ($E_v + 0,35$ eV) and acceptor ($E_c - 0,54$ eV) levels. Ignoring the crystallochemical inconsistency with the new lattice, the extended mechanism of the formation of an acceptor level in the upper part of the band gap of silicon.

Materials and methods. There are two general types of Silicon (n - Si <Au> and p - Si <Au>) and we will focus on two types in terms of their importance for our research.

The following four tasks are associated with the use of two different types of Silicon [2; 8]:

I. take n-type or p-type Silicon

II. Forming a deep surface

III. Creating an akseptor and donor surface in Silicon

The IV. Creating an electronic and size adaptation in Silicon

Results and discussion. For the practical application of the above - discussed theory, we analyzed the formation of levels of akseptor $E_c - 0,54$ eV and donor $E_v + 0,35$ eV for Silicon.

Electrophysic interpretation of acceptor and donor levels:

When we introduce atoms of gold into the Silicon [2] below the conductivity zone 0,54 eV, the acceptor surface is formed, donor levels above the valence zone 0,35 eV.

Conclusion. In Uzbekistan, the physics of semiconductors is developing, the solution of a number of interrelated problems in this period is reflected in the creation and improvement of future semiconductor devices. Separately, the introduction of atoms of gold into the Silicon monocrystalline is considered very significant.

Main part. First of all, we will give some information about the distribution of the element gold in nature, chemical properties, interaction with other elements, the formation of stable complexes of monovalent and trivalent gold [1].

Gold is widely distributed in nature in a free state, as well as in the form of sulfides and arsenides. Gold is refined electrolytically. The melting point of gold is 1063⁰C. By its chemical properties, gold is inert and does not interact with either oxygen or sulfur. Halogens react easily with gold; solutions in which halogens are formed, for example aqua regia, react especially easily. Gold dissolves in cyanide solutions in the presence of air or hydrogen peroxide to form $[Au(CN)_2]$.

Monovalent gold has one s-electron over the filled d-shell and has a face-centered cubic lattice Au^1 , d^{10} . Gold in solutions always forms complex ions, usually of the anionic type, for example $[AuCl_3OH]^-$ - [1]. Simple cations do not exist in aqueous solutions. The monovalent gold ion in Au^+ is present only in a very low concentration, and even $AuCl$ is decomposed by water with the formation of gold and products of hydrolysis of gold compounds. Therefore, the chemistry of aqueous solutions of Au^1 is mainly the chemistry of complex anions such as $AuCl_2^-$ or $Au(CH_3)_2^-$.

Several complexes of monovalent gold are known that are stable in aqueous solution; the most important of them are $Au(CN)_2^-$, $AuCl_2^-$. The cyanide complex is highly stable; it is formed by the interaction of $AuCN$ with an excess of cyanide or, more often, by the dissolution of gold in alkali metal cyanide in air or in the presence of hydrogen peroxide. Crystalline compounds of the $Au(CN)_2$ type can be obtained, and the free acid $H[Au(CN)_2]$ can be isolated by evaporation from solutions. There are also many complexes of Au^1 with substituted phosphines, arsines, and sulfides, as well as with carbon monoxide.

Thermal decomposition of trivalent gold chloride Au_2Cl_3 at 185° leads to the formation of gold chloride in the form of a light yellow powder. This compound is thermally unstable and decomposes with water, but in the presence of alkali metal chlorides it turns into chlorine complexes.

The electronic configuration of the gold atom - 79 elements in the periodic table is $5d^{10}6s^1$ and it is an element of group 1. The ionic and covalent radii, as well as the equilibrium distribution coefficient of gold in silicon, are, respectively, 1.37 \AA , 1.50 \AA and 2.5×10^{-5} . The covalent radius of the Au impurity atom is larger than the covalent radius of silicon 1.17 \AA and is difficult to dissolve in silicon, the solubility of gold in silicon is no more than $1.1 \times 10^{17} \text{ cm}^{-3}$.

The diffusion of gold impurity atoms in silicon has been studied in a large number of works [2, 3, 4].

In [2], the diffusion of gold was investigated both with the use of a radioactive indicator and by the pn transition method on samples of electronic silicon. The results obtained showed that the concentration distribution of gold impurity atoms in silicon is not described by the erfc function, but consists of two sections. The first, near-surface region, is characterized by a sharp decrease in concentration by two to three orders of magnitude, the second - by an almost uniform distribution of gold atoms in the bulk of the silicon sample. In this case, in the investigated temperature range, the concentration distribution in the near-surface region is almost independent of the annealing temperature. The uniform concentration level in the bulk of the sample increases with the time and temperature of diffusion annealing.

The anomalous form of the concentration distribution of gold in silicon and the rise in the concentration level in the bulk with the doping time can be explained within the framework of the dissociative diffusion mechanism. In particular, an increase in the concentration level in the near-surface region is associated with the filling of a vacancy in silicon with gold atoms, the rapid transport of which occurs through interstices, and the influx of new vacancies from the crystal surface and sources in the bulk, until the concentration of the substituting impurity and vacancies reaches their equilibrium values.

The existence of a concentration distribution on the near-surface region is due to the strong enrichment of this region of the crystal with vacancies, which are traps for gold atoms.

The diffusion coefficient of gold in silicon in the temperature range $1200 \div 1370^\circ \text{ C}$ according to [2] is in the range of $4 \times 10^{-7} \div 4 \times 10^{-6} \text{ cm}^2 / \text{ sec}$. The value of the diffusion coefficient, measured at 900 and 1088° C , turned out to be 5×10^{-10} and $4 \times 10^{-8} \text{ cm}^2 / \text{ sec}$, respectively.

It should be noted that there is a very large scatter of experimental data beyond the limits of possible errors caused by the influence of structural imperfections of the crystal (Fig. 1).

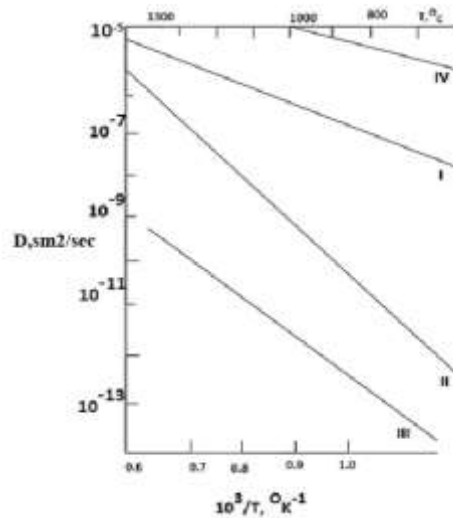


Fig. 1. Temperature dependence of the diffusion coefficients of gold in silicon. I - according to the data of [5], II - [2], III, IV - calculated data [3].

The results of [2] coincide with the results obtained in [6], although they are somewhat underestimated. The authors of later works on gold diffusion [6] showed that this process can be satisfactorily explained within the framework of the dissociative mechanism. Based on these concepts and analysis of data from various works, they calculated the diffusion coefficients of interstitial atoms D_i and substitution D_s for gold into silicon:

$$D_i = 2.44 \times 10^{-4} \exp(-0.3/kT) \text{ cm}^2/\text{сек.} \quad (1)$$

$$D_s = 2.75 \times 10^{-3} \exp(-2.0/kT) \text{ cm}^2/\text{сек.} \quad (2)$$

The temperature dependences obtained in other works, for example, on the saturation of samples or from the analysis of the distribution, give the values of the activation energy lying within the limits given by expressions (1) and (2). Figure 1 shows the temperature dependences of the diffusion coefficients obtained by various authors. Using the data on the rise in the saturation level of silicon samples with gold, it was possible to calculate the values of the constant reactions of the transition of a gold atom from interstitial sites to sites and vice versa. They turned out to be equal to $K_1 = 10^5 \text{ sec}^{-1}$ and $K_2 = 10^{-5} \text{ sec}^{-1}$. [7]. The calculation results show that the probability of finding gold atoms in a vacant site of the silicon crystal lattice is much higher than in an interstitial site.

Some information about the behavior of gold in silicon is given in the work [2]. Gold in silicon creates two deep levels: $E_c - 0.54 \text{ eV}$ and $E_v + 0.35 \text{ eV}$. The observation of the acceptor level of gold is associated with the possible presence of gold atoms in the nodes of the silicon crystal lattice.

In the case when gold atoms are in interstices, they do not participate in the formation of a chemical bond and can donate an external s-electron. In this case, they are positively charged and are donors.

The amphoteric character of gold impurities, associated with the presence of both deep donor and acceptor levels, makes it possible to obtain high-resistance compensated silicon by doping the initial material as n- and p-type. However, due to the relatively different arrangement of gold levels in the silicon band gap, a change in the type of conductivity occurs only when a gold impurity is introduced into the initial electronic material.

In [8], deep levels of gold in silicon doped under diffusion conditions and in the process of growing a single crystal were studied in sufficient detail.

The study of the spectrum of deep levels of gold in silicon doped under diffusion conditions in the temperature range of $850 \div 1100 \text{ }^\circ\text{C}$ was carried out by the method of non-stationary deep-level spectroscopy DLTS.

Figure 2 shows DLTS spectra in the structures n - Si <Au> (a) p - Si <Au> (b).

It is observed that the amplitude of the signal from the $E_c - 0,54$ eV level in p - Si <Au> is significantly less than in n - Si <Au>, although gold was introduced under the same diffusion conditions. This is explained by the fact that the level $E_c - 0,54$ eV is located closer to the middle of the band gap and has a smaller cross section for thermal ionization of electrons (σ). By comparing the concentrations of charge carriers in n- and p-Si, the statement is made that the level $E_c - 0,54$ eV is an acceptor, and the level $E_v + 0,35$ eV is a donor.

The results of measurements of the DLTS spectrum of silicon doped with gold at different diffusion temperatures show that in all samples the concentration of the donor center $E_v + 0,35$ eV is higher than the concentration of the acceptor center $E_c - 0,54$ eV.

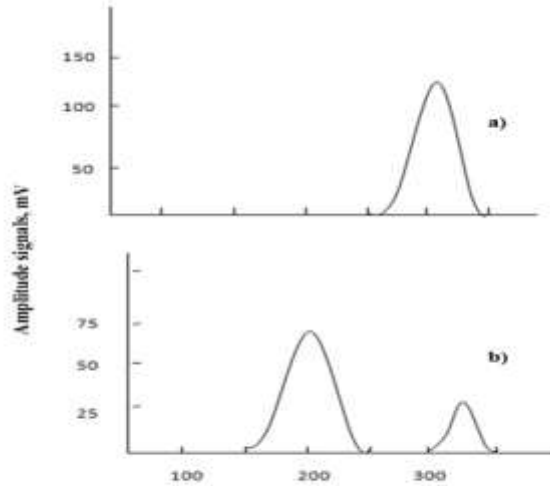


Fig.2. Spectra DLTS of diodes n-Si<Au> (a), p-Si<Au> (b)

Investigation of the spectrum of deep levels in silicon doped during growth was carried out in p-Si with a total concentration of electrically active gold $\sim 8 \times 10^{13} \text{ cm}^{-3}$. From measurements of the DLTS spectrum, it was found that in the samples of non-heat treated silicon, only the level $E_c - 0,54$ eV is observed. The donor level $E_v + 0,35$ eV in silicon doped during the growth process could not be determined.

From the results of measurements of the DLTS spectrum, in silicon that underwent high-temperature treatment in the temperature range of 700 - 1200 °C, it was established that, in addition to the main levels $E_c - 0,54$ eV (acceptor) and $E_v + 0,35$ eV (donor), there is one more additional acceptor level with an ionization energy $E_c - 0,58$ eV. High-temperature treatment of silicon ($T \geq 1000^\circ\text{C}$) doped during growth leads to the transformation of the acceptor level of gold $E_c - 0,58$ eV into an electrically neutral state. It is shown that the acceptor levels $E_c - 0,54$ eV and $E_c - 0,58$ eV do not belong to the same state of gold atoms.

For the first time, the methods of labeled atoms, autoradiography, isothermal relaxation of capacitance and current, measurements of conductivity and the Hall effect [10] were an attempt to study the issue of gettering gold in silicon.

Alloying with gold was carried out by diffusion in air for two hours at a temperature of $T = 1200^\circ\text{C}$. We used samples of n-silicon with a resistivity of 15 Ohm·cm. The isotopes ^{198}Au , ^{153}Sm , and ^{159}Gd were used as a diffusion source.

In the first series, layers up to 150 μm thick were removed in samples pre-alloyed with gold, metal layers of samarium or gadolinium were deposited, and then annealed.

In the second series, first gold was deposited on the silicon surface, and then samarium or gadolinium. After successive etching of the near-surface layers, the carrier concentration profile was measured by measuring the conductivity, as well as by the Hall method.

Figure 3 shows the distribution of the concentration of charge carriers $n(x)$ over the thickness of the samples after removing a layer with a thickness of about 150 μm in silicon samples Si <Au>, after repeated annealing at $T = 1200^\circ\text{C}$, in samples Si <Sm + Au> with subsequent annealing at $T = 1200^\circ\text{C}$, in Si <Gd + Au> samples with subsequent annealing at $T = 1200^\circ\text{C}$, as well as in samples with joint diffusion of gold with samarium or gadolinium.

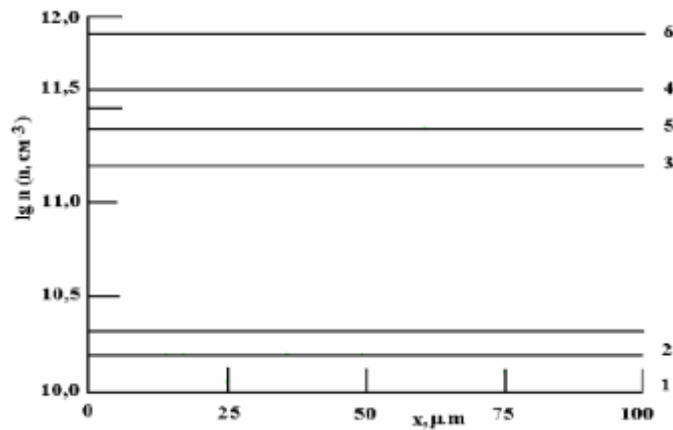


Fig. 3. Distribution of the concentration of charge carriers $n(x)$ over the thickness of the samples (after removing the layer $\sim 150 \mu\text{m}$): 1 - in the samples Si <Au>; 2 - charge carriers in the control samples Si <Au> (without a layer of Sm and Gd) after removing the layer - 150 μm ; repeated annealing at $T = 1200^\circ\text{C}$, $t = 2$ hours; 3 - samples Si <Sm + Au> after repeated annealing at $T = 1200^\circ\text{C}$, $t = 2$ hours, with a layer of samarium (sequential diffusion with preliminary removal of the layer ~ 150 microns after diffusion of gold); 4 - in Si <Gd + Au> samples after repeated annealing at $T = 1200^\circ\text{C}$, $t = 2$ h with a gadolinium layer (sequential diffusion with preliminary removal of a layer of $\sim 150 \mu\text{m}$ after gold diffusion); 5 - in samples Si <Sm + Au> (joint diffusion); 6 - in samples - Si <Gd + Au> (joint diffusion)

The measurement results show that after repeated annealing at $T = 1200^\circ\text{C}$ in Si <Au> samples, the degree of compensation of n-silicon decreases due to partial annealing of the electrically active part of gold. With a significantly low diffusion coefficient of samarium and gadolinium ($D \sim 10^{-13} \text{ cm}^2\text{s}^{-1}$), the atoms of diffusing samarium or gadolinium are mainly contained in the near-surface region of silicon $\sim 1 \mu\text{m}$. Therefore, the main gettered gold atoms should accumulate in the near-surface layer up to one micron thick, and in the depth up to 100 μm , the distribution of gold atoms cannot be strictly linear.

The observed difference in the efficiency of gettering gold atoms with samarium and gadolinium (about 2.5%) is explained by the difference in their near-surface concentration on the silicon surface. In the process of diffusion of samarium or gadolinium at $T = 1200^\circ\text{C}$ for 2 hours, the near-surface region of silicon with a thickness of about 3 microns is saturated with atoms of the indicated impurities with an average concentration of 10^{18} cm^{-3} and 10^{19} cm^{-3} , respectively. In the process of gettering, gold atoms emerge onto a near-surface layer about 3 μm thick, which should have been observed on the concentration distribution profiles of labeled gold atoms in silicon. This drawback is explained by the error in the sequential removal of the layers and the insufficient measurement accuracy of the response of the labeled gold atoms.

For an affirmative confirmation of the role of inclusions of the second phase, silicide formations, in the gettering of gold atoms, it is necessary to conduct a thorough study of the X-ray reflection spectrum.

Conclusion. In [2, 8], it is argued that gold in diffusion-doped silicon creates two deep-lying levels: $E_c - 0,54 \text{ eV}$ and $E_v + 0,35 \text{ eV}$, which are not associated with a single state of the gold atom. [2] observation of the acceptor level $E_c - 0,54 \text{ eV}$ of gold is associated with the possible presence of gold atoms in the nodes of the crystal lattice of silicon, and the donor level $E_v + 0,35 \text{ eV}$ with an interstitial state in the crystal lattice. In [8], the mechanism of origin of the acceptor level of gold in diffusion doped silicon is not discussed. It should be noted that gold is an element of the first group and has a 1s electron in its outer shell. A well-known approach used to understand the state of impurity atoms in semiconductors is crystal chemistry. In this case, one proceeds from the crystal-chemical correspondence of impurity atoms and those locations in which they may be in the crystal. As is known [9], the principle of crystal-chemical correspondence implies consideration in the aggregate of dimensional and electronic correspondence.

The dimensional mismatch of gold with the silicon crystal lattice is due to the ionic and covalent radii of 1.37 Å, 1.50 Å compared to the covalent radius of silicon 1.17 Å. Therefore, gold in silicon is unlikely to be located in the nodes of the crystal lattice. Electronic correspondence implies the possibility of the formation of a stable chemical bond between the impurity atom and the surrounding atoms at the sites of the crystal lattice. For the electronic correspondence of gold with a node of the crystal lattice of silicon, 3 electrons are not enough. Therefore, gold atoms cannot be located in the nodes of the silicon crystal lattice because of the dimensional and electronic mismatch with the silicon crystal lattice. On the other hand, if gold impurity atoms are found in the nodes of the silicon crystal lattice, the charge carriers of the impurity gold ion should have an effective mass density in the state of the corresponding band, that is, the acceptor level should be bound to the top of the valence band, and the donor level with the bottom of the conduction band ... In the cited works [2, 7], the acceptor level $E_c - 0,54$ eV is observed in the upper half of the band gap of silicon, and the donor level $E_v + 0,35$ eV in the lower half of the band gap. Here it is appropriate to assert [1] that several complexes of monovalent gold are known that are stable in aqueous solution; the most important of them are $Au(CN)_2^-$, $AuCl_2^-$. The cyanide complex is highly stable; it is formed by the interaction of AuCN with an excess of cyanide or, more often, by the dissolution of gold in alkali metal cyanide in air or in the presence of hydrogen peroxide. Crystalline compounds of the $Au(CN)_2$ type can be obtained. The nature of gold tends to form complexes of gold with carbon-based compounds such as $Au(CN)_2$. It can be assumed that the nature of the acceptor level of gold in silicon with a level of $E_c - 0,54$ eV is associated with the formation of a spatially separated vapor of gold with a carbon complex such as CO, CO₂, or others.

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CATALYTIC SYNTHESIS OF PYRIDINES BASED ON THE CROTON FRACTION

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Abstract:

Background. *The presence in the molecule of pyridine bases of nitrogen atoms having the properties of the bases determines the specificity of the products of this class and gives ample opportunities for their use in various industries. . The chemistry of pyridine bases is associated with such general theoretical issues as the electronic structure of the cycle, aromaticity, the effect of substituents on the reactivity of heterocycles in nucleophilic substitution reactions, and*

tautomerism. At the same time, systematic data on the reactions of alkylation with dihalo-alkanes, acylation under low-temperature poly-condensation, and complexation were not available to create a complete picture of the reactivity of pyridine bases.

Materials and methods. *The aim of the work is to develop cheap and convenient methods for the preparation of pyridine bases, to search for effective and selective process catalysts, and to determine the degree of anticorrosion protection of metals of the obtained products.*

Results and discussions. *The catalytic synthesis of nitrogen heterocyclic compounds using the croton fraction and ammonia was studied. New multifunctional catalysts based on iron, zinc, cadmium and chromium oxides were proposed, the selectivity for the yield of pyridine bases was determined from 58.0 - 88.0 %, while the conversion of the croton fraction was 98 %.*

Conclusion. *The obtained pyridine bases were tested as corrosion inhibitors; it was determined that with an increase in the amount of methyl pyridine in the mixture, the degree of protection increases. Nowadays, methods have been developed for the technical synthesis of alkyl-pyridines from various organic compounds. All alkyl-pyridine production plants in the world use only carbonyl compounds and ammonia as raw materials.*

Keywords: *pyridine, pyridine bases, hetero-cyclization, catalyst, catalysis, selectivity, conversion, croton fraction, ammonia, corrosion inhibitor, degree of protection*

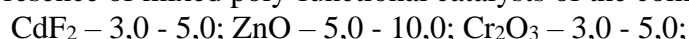
Introduction. The great interest currently shown in the chemistry of heterocyclic compounds and, in particular, derivatives of pyridine and pyridine bases is associated with the peculiar structure and properties of these amino-azoles. The chemistry of pyridine bases is associated with such general theoretical issues as the electronic structure of the cycle, aromaticity, the effect of substituents on the reactivity of heterocycles in nucleophilic substitution reactions, and tautomerism. At the same time, systematic data on the reactions of alkylation with dihalo-alkanes, acylation under low-temperature poly-condensation, and complexation were not available to create a complete picture of the reactivity of pyridine bases. Therefore, the study of the synthesis and structure of pyridine bases is important both for the development of heterocycle chemistry and for the theory of organic chemistry [1-3].

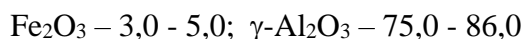
The presence of basic nitrogen in alkyl pyridines gives this class of compounds a specific ability, as a result of which they are widely used in various industries. The main consumers of alkyl pyridines are the chemical, including polymer, and pharmaceutical industries.

2 - and 4-methylpyridines and 2-methyl-5-ethylpyridine are used as raw materials for the production of 2 - and 4-vinylpyridines and 2-methyl-5-vinylpyridine, which are used to make latexes for impregnation of soft cord, ion exchange resins, film photographic materials, etc. Many physiologically active drugs used in agriculture and healthcare are produced on the basis of pyridine and methyl pyridines. Derivatives of 3-and 4-methylpyridines are effective agents for the treatment of tuberculosis. Due to the ever-increasing demand for alkyl pyridines and their limited production in the coke-chemical industry, many industrialized countries have developed and implemented the production of synthetic alkyl pyridines. The resources of alkyl pyridines extracted from coal tar are very limited. In addition, coal tar contains more than 70 pyridine isomers in its composition, and the isolation of individual bases in pure form is a very time-consuming process. In addition, coal tar contains mainly pyridine and 2-methyl pyridine in its composition.

Method of research. The paper uses chromium-mass spectroscopy: Agilent Technology GC 6890/MS 5973N chromat-mass spectrometer using a 30m×0.25 mm capillary column with 5 % phenyl-methyl-siloxane in dimethyl-siloxane, carrier gas-hydrogen, injector temperature-280°C, source temperature-230°C, quadrupole temperature MS - 180°C, when programming the temperature of the column thermostat from 100 to 280°C, the temperature rise rate of 10°C min, the sample size of 1 µl., in the mode without flow division, in addition, standardized test methods were studied to determine the physical, mechanical and technological properties, etc.

Experimental part. The reaction of hetero-cyclization of the Croton fraction with aniline and o-aminophenol in the presence of mixed poly-functional catalysts of the composition, % wt:





The catalysts were prepared by suspension, molding, washing, drying, and calcination. Aluminum hydratoxide was used as a carrier, (PPP-33%). 3 - 5% solutions of hydrofluoric and acetic acids were used as a peptirating agent. The textural characteristics of the developed catalysts were determined (table 1).

Table 1

Physical, chemical and operational characteristics of the developed catalysts

| № | Composition, % by weight. | Specific surface area mg / h | Mechanical strength, MPa | Service life before regeneration, hour | Productivity, g / kg-kat-hour |
|----|--|------------------------------|--------------------------|--|-------------------------------|
| 1. | CdF ₂ - 3,0; ZnO - 5,0; Cr ₂ O ₃ - 5,0; Al ₂ O ₃ - 87,0 | 225 | 6,8 | 68,0 | 81,0 |
| 2. | CdF ₂ - 3,0; ZnO - 7,0; Fe ₂ O ₃ - 5,0; Al ₂ O ₃ - 83,0 | 168 | 7,1 | 76,0 | 92,0 |
| 3. | CdF ₂ - 5,0; ZnO - 5,0; Cr ₂ O ₃ - 3,0; Fe ₂ O ₃ - 3,0; Al ₂ O ₃ - 84,0 | 240 | 7,8 | 96,0 | 101,0 |
| 4. | CdF ₂ - 5,0; ZnO - 5,0; Cr ₂ O ₃ - 5,0; Fe ₂ O ₃ - 3,0; Al ₂ O ₃ - 82,0 | 225 | 7,3 | 72,0 | 98,0 |
| 5. | CdF ₂ - 5,0; ZnO - 10,0; Cr ₂ O ₃ - 3,0; Fe ₂ O ₃ - 5,0 | 196 | 8,0 | 120 | 122 |
| 6. | CdF ₂ - 5,0; ZnO - 5,0; Cr ₂ O ₃ - 5,0; Fe ₂ O ₃ - 5,0; Al ₂ O ₃ - 80,0 | 184 | 8,2 | 184 | 130 |

The condensation reaction of the croton fraction with ammonia and amines was carried out under flow conditions in a stainless steel reactor of size $d \times l = 25 \times 1000$ mm with external electric heating and a 100 cm³ bulk volume of the catalyst.

The reaction of the croton fraction with ammonia in the presence of catalyst № 6 was studied at temperatures of 360-420 °C. It was found that the main reaction products are a mixture of 2 - and 4-methylpyridine (up to 50 %), 2-methyl-5-ethylpyridine (up to 26%). As by - products, acetonitrile, a mixture of di-and tri-methyl-pyridine, resin, and water are formed.

Research results and discussions. Methods for the synthesis of pyridines and alkyl-pyridines are very diverse. Thus, in [4], methodological aspects of the synthesis of pyridine bases by the reaction of cross-metathesis of olefins are proposed, which provides a fast and efficient method in which the initial raw material uses α , β -unsaturated derivatives of 1,5-dicarbonyl.

Chinese scientists [5] propose a method for producing aryl-pyridines by the interaction of acetophenones and 1,3-diaminopropane, which is catalyzed by copper.

It is proposed to synthesize [6] a pharmacologically significant 2,4,5-tri-substituted pyridine by region-selective hydro-amination of alkynes using N-silylamine using a bis-(amidate)-bis-(amido) precatalyst)- titanium (IV), adding α , β -unsaturated carbonyls to the crude mixture, followed by oxidation. This method synthesized 47 examples of pyridines with a good yield containing variable structure substitution.

S.I. Sherbinina and others [7] proposed a photoredox combination of α,α -difluoro- β -iodocetones with silyl esters, catalyzed by iridium salts under irradiation with a blue led followed by condensation in a single vessel with ammonium acetate, with the formation of various substituted 3-fluoropyridines.

The reaction of vinylazides with monocyclic cyclopropanols produces pyridines in the presence of Mn salts, whereas reactions with bicyclic cyclopropanols lead to the formation of 2-azabicyclo [3.3.1] non-2-EN-1-ol derivatives using Mn catalytic agents [8].

In [9], the reaction of 2-allyl-2H-azyryns promoted by DBU was studied, in which 1-azatrienes are formed, then electrocyclicized to pyridines with very good yields. The reaction demonstrates a wide volume of substrate and transfers various substituents. In addition, the synthesis of pyridines from oximes in one vessel was obtained by the formation of 2H-azyryns.

The catalytic production of mixtures of pyridine bases, vapor-phase catalytic condensation of acetylene with ammonia, or a mixture of acetylene with methanol was considered very promising. Depending on the starting products, mixtures of only pyridine and 3-methylpyridine or only 2 - and

4-methylpyridine are obtained. Various catalysts were proposed for the process: oxides of heavy metals-molybdenum, cadmium, tungsten, vanadium, chromium, zinc, iron, thorium, and aluminum. Some authors used various heavy metal salts for cyclization of acetylene with ammonia: chromate, molybdate, tungstate, and cadmium vanadate on acid clay, as well as cadmium phosphate on fuller soil [10,11].

The reaction of synthesis of pyridine and isomeric methylpyridines from acetylene and ammonia (methanol) in the presence of a cadmium calcium phosphate catalyst by acetylene hydration was studied [12,13]. It was found that when a mixture of acetylene and ammonia is passed in the ratio $C_2H_2: NH_3 = 1: 2$ mol at a temperature of 420-440 °C with a total volume rate of 100 hour⁻¹, a catalysate is formed that contains 2-methyl-pyridine-56.3 %, 4-methyl-pyridine-31.4 %.

Carrying out the process in the presence of methanol leads to the formation of a mixture of pyridine and isomeric methyl-pyridines. In this case, the content of pyridine reaches 27.0 %; 2-methylpyridine-22.0 %; 3-methylpyridine-22.0 %, a cadmium-calcium-phosphate catalyst with constant activity works for up to 22 hours, after which it requires regeneration. Its total service life does not exceed 100 hours.

Nowadays, methods have been developed for the technical synthesis of alkyl-pyridines from various organic compounds. All alkyl-pyridine production plants in the world use only carbonyl compounds and ammonia as raw materials.

The process of producing a mixture of pyridine and 3-methyl-pyridine from carbonyl compounds and ammonia is a well-studied process. "Navoiyazot" JSC has established production of acetaldehyde with a capacity of 20 thousand tons per year and formaldehyde – 7 thousand tons per year. In this regard, it was interesting to study the process of co-production of pyridine and 3-methylpyridine from acetaldehyde, formaldehyde and ammonia.

The reaction of hetero-cyclization of carbonyl compounds with ammonia (and amines) refers to complex parallel-sequential reactions, including reactions of nucleophilic addition of ammonia to the triple bond of isomerization, dehydro-cyclization, etc. The combination of all these processes is possible in the vapor phase in the presence of catalysts with poly-functional properties. Based on this, the selection of the composition of the catalysts took into account the role of each component in the reaction of formation of pyridine and methyl-pyridines.

Elements with extremely filled d^{10} -(Cu^{+1} , Ag^{+1} , Au^{+2} , Hg^{+2} , Zn^{+2} , Cd^{+2} , Pt^{+2} , Ni^0 , etc.) are able to organize π -complexes with acetylene compounds, i.e., if these activation elements are present in the catalyst, the acetylene component is characterized, on the one hand, by its deformation due to partial displacement of a pair of π - electrons of acetylene to the free s-orbits of the ion and, on the other hand, by the formation of a so-called dative or a donor π bond consisting in the transition of electrons from the d-orbit of an ion to the loosening orbit of acetylene. The transfer of electrons from the π ligands to the metal and from the metal to the π ligand can lead to a noticeable polarization of the unsaturated molecule. The formation of a metal-carbonyl group donor-acceptor bond leads to a decrease in the electron density on carbon atoms $-C = O$ bond. This increases the electro-philicity of the multiple bond and its ability to interact with nucleophilic reagents.

Indeed, the elements and molecules of d^{10} -orbitals proved to be effective catalysts in the reactions of acetylene transformations. The use of zinc oxide and chromium is due to the fact that they are widely used in the synthesis and dehydrogenation of methanol and dehydro-cyclization processes.

Since iron oxides are used as a contact in the synthesis of ammonia, we assumed that the presence of the latter in the catalyst composition should contribute to the adsorption and activation of ammonia during the synthesis of pyridine bases.

We have studied the influence of temperature, volume velocity, ratio of initial reagents, height of the catalyst layer, etc. output of target products and conversion of the croton fraction:



The study of flow rate on yields of products, conversion of crotonic fraction and the selectivity of the process showed that with the increase in flow rate of ammonia from 150 to 300 hr⁻¹, crotonic fraction from 0.1 to 0.7 hr⁻¹ and gradually decreases the yield of pyridines. This shows that the process takes place in the internal diffusion region.

The influence of temperature was studied in the range of 360-430 °C (table 2).

Table 2

Effect of temperature on the yield of target products.

Croton fraction: ammonia = 1 : 2; V_{total} = 200 hr⁻¹, catalyst № 6

| Temperature, °C | Content in the catalyst, % | | | Σ of by-products | Conversion of croton fraction |
|-----------------|----------------------------|-------------------|---------------------------|------------------|-------------------------------|
| | 2-methylpyridine- | 4-methylpyridine- | 2-methyl-5-ethylpyridine- | | |
| 360 | 14,0 | 8,0 | 8,0 | 12,0 | 45,0 |
| 370 | 18,0 | 12,0 | 11,0 | 14,0 | 56,0 |
| 380 | 22,0 | 16,0 | 14,0 | 18,0 | 64,0 |
| 390 | 32,0 | 22,0 | 20,0 | 26,0 | 85,0 |
| 400 | 38,0 | 25,0 | 25,0 | 12,0 | 95,0 |
| 410 | 36,0 | 24,0 | 26,0 | 14,0 | 97,0 |
| 420 | 37,0 | 23,0 | 25,0 | 15,0 | 97,0 |
| 430 | 33,0 | 22,0 | 20,0 | 25,0 | 98,0 |

As can be seen from the table data, the reaction does not go below 360 °C. As the temperature increases from 360 °C to 400 °C, the yield of the target products gradually increases, reaching a maximum at 400 °C. A further increase in temperature leads to a decrease in the yield of target products due to the occurrence of side reactions – tarring, polymerization, decomposition, etc.

Table 3

Determination of the inhibitory properties of the obtained mixtures by gravimetric method depending on the concentration

(T = 70 °C, solution-1% NaCl + 1% H₂SO₄, pH of the medium = 5.3)

| Inhibitors | Inhibitor Concentration % | Experiment time | | | | | |
|-------------------|---------------------------|---------------------------|-------|-------|---------------------------|--------|-------|
| | | 15 days | | | 30 days | | |
| | | K, g/m ² ·days | γ | E, % | K, g/m ² ·days | γ | E, % |
| Without inhibitor | - | 398,86 | - | - | 354,04 | - | - |
| mixture №1 | 0,1 | 74,93 | 6,92 | 82,21 | 58,96 | 7,88 | 83,41 |
| mixture №2 | | 81,41 | 18,11 | 80,82 | 77,31 | 20,09 | 81,82 |
| mixture №3 | | 101,25 | 41,25 | 75,43 | 87,33 | 48,35 | 79,84 |
| mixture №4 | | 55,44 | 9,84 | 87,85 | 51,32 | 11,48 | 90,73 |
| mixture №5 | | 6,24 | 60,81 | 99,65 | 4,25 | 102,41 | 99,75 |
| mixture №6 | | 8,19 | 58,84 | 98,80 | 6,09 | 97,69 | 99,03 |
| mixture №7 | | 27,68 | 12,45 | 93,37 | 25,05 | 14,43 | 95,46 |
| mixture №8 | | 78,66 | 20,13 | 81,06 | 75,58 | 24,32 | 83,25 |
| Without inhibitor | - | 398,81 | - | - | 355,01 | - | - |
| mixture №1 | 1,0 | 72,43 | 8,84 | 85,32 | 70,45 | 9,63 | 86,41 |
| mixture №2 | | 75,38 | 20,15 | 82,93 | 73,18 | 21,48 | 83,09 |
| mixture №3 | | 88,46 | 43,85 | 80,64 | 85,95 | 50,51 | 82,55 |
| mixture №4 | | 58,53 | 12,81 | 91,36 | 61,58 | 12,83 | 92,64 |
| mixture №5 | | 4,03 | 68,74 | 99,81 | 3,35 | 104,52 | 98,89 |
| mixture №6 | | 8,04 | 61,43 | 98,92 | 5,89 | 98,08 | 98,02 |
| mixture №7 | | 26,03 | 15,05 | 95,88 | 16,03 | 15,81 | 86,44 |
| mixture №8 | | 73,04 | 23,48 | 85,47 | 28,41 | 26,44 | 87,03 |

In order to find ways of application, the obtained products were tested as corrosion inhibitors in hydrochloric acid (tables 3 and 4).

As can be seen from these tables, the degree of corrosion protection of the mixture №5, №6 and №7 in an acidic environment (H_2SO_4) at a temperature equal to $50\text{ }^\circ\text{C}$, at a concentration of 0.1 % becomes in the range of $86.2 \div 92.4\%$. When the concentration is increased to 1.0 % and the temperature is up to $70\text{ }^\circ\text{C}$, the degree of corrosion protection is $99.4 \div 91.4\%$ in the aisles.

Table 4

**Determination of the inhibitory properties of the obtained mixtures
by the gravimetric method depending on the temperature
(inhibitor concentration 1.0 %, solution-3 % Na_2S + 3 % H_2SO_4 , medium pH = 6.1)**

| Inhibitors | Temperature, $^\circ\text{C}$ | Experiment time | | | | | |
|-------------------|-------------------------------|-----------------------|----------|-------|-----------------------|----------|-------|
| | | 15 days | | | 15 days | | |
| | | K, $g/m^2 \cdot days$ | γ | E, % | K, $g/m^2 \cdot days$ | γ | E, % |
| Without inhibitor | 50 | 142,37 | - | - | 101,75 | - | - |
| mixture №1 | | 39,79 | 6,18 | 83,85 | 36,95 | 6,85 | 84,58 |
| mixture №2 | | 43,56 | 18,93 | 80,54 | 40,81 | 17,18 | 83,45 |
| mixture №3 | | 44,05 | 19,02 | 80,63 | 42,34 | 5,64 | 81,39 |
| mixture №4 | | 6,29 | 39,98 | 97,51 | 5,18 | 58,41 | 98,15 |
| mixture №5 | | 2,89 | 95,13 | 99,82 | 1,93 | 168,44 | 99,89 |
| mixture №6 | | 3,58 | 78,25 | 98,91 | 2,83 | 105,35 | 99,05 |
| mixture №7 | | 19,25 | 13,96 | 93,44 | 17,52 | 21,14 | 95,51 |
| mixture №8 | | 9,58 | 25,65 | 96,82 | 8,14 | 39,59 | 97,08 |
| Without inhibitor | 70 | 264,34 | - | - | 238,27 | - | - |
| mixture №1 | | 44,02 | 8,84 | 80,36 | 43,89 | 9,04 | 80,41 |
| mixture №2 | | 44,28 | 19,05 | 80,48 | 43,85 | 18,59 | 80,54 |
| mixture №3 | | 45,01 | 20,01 | 80,09 | 49,59 | 21,08 | 79,42 |
| mixture №4 | | 39,97 | 17,45 | 83,49 | 40,79 | 17,69 | 83,09 |
| mixture №5 | | 3,51 | 79,01 | 98,43 | 2,72 | 105,35 | 99,35 |
| mixture №6 | | 2,84 | 95,38 | 99,81 | 1,93 | 169,58 | 99,18 |
| mixture №7 | | 19,52 | 12,89 | 93,82 | 17,58 | 10,93 | 95,28 |
| mixture №8 | | 44,08 | 18,06 | 80,09 | 48,81 | 19,08 | 79,24 |
| Etalon-Nalco | 60 | 38,93 | 6,99 | 85,71 | 30,27 | 8,05 | 87,58 |

The value of the corrosion potential in relation to the potential of a normal electrode in a background solution of $50\text{ }^\circ\text{C}$ is -0.585 V (in an acidic environment), and in the H_2S environment it is -0.600 V . If mixture №7 is placed in an acidic environment, the corrosion potential reaches -0.505 V , for mixture №5 this indicator is -0.285 V , so there is a shift in the polarization curves. When the mixture №5 is introduced into the solution, the value of the electrode potential changes in the positive direction, which indicates a slowdown in the anode reaction. This condition indicates that a thin protective film is formed on the metal surface with fragments of inhibitors present in the composition. With a change in the potential, the value of the corrosion current simultaneously changes, this indicates the effect of a mixed mechanism on the process of metal corrosion of the inhibitor.

Conclusion. The catalytic reaction for the production of pyridine and pyridine bases using croton aldehyde (croton fraction) and ammonia as feedstock was studied. New poly-functional catalysts for the synthesis of pyridine and pyridine bases have been developed. It is shown that catalysts containing iron, zinc, aluminum, cadmium, and chromium oxides are poly-functional and provide 58.0 - 88.0 % pyridine selectivity, while the conversion of the Croton fraction and ammonia reaches 98 %. It was found that the use of extraction phosphoric acid as a peptizing component increases the mechanical strength of the catalyst by an order of magnitude.

The resulting mixtures of pyridine bases were tested as corrosion inhibitors. It was found that an increase in the amount of methyl-pyridines positively affects the protective properties of the inhibitor and at a concentration of 1.0% is more than 99.0 %.

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FORMALIZATION OF THE PROCESS OF SWITCHING PULSE ELEMENTS IN THE STUDY OF COMPLEX DISCRETE SYSTEMS

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Abstract:

Background. This article discusses the issues of a formalized description of the modes of operation of pulsed elements in the study of complex discrete systems that include several pulse elements with different characteristics and work asynchronously and out of phase, as well as being the basis of automated control systems for technological processes. Processes in one-dimensional and multidimensional systems containing several impulse elements operating in asynchronous and out-of-phase order are compared. There are providing basic concepts in the study of automation of control systems, such as a pulse element, parameters of real pulses, complex systems, discretization, the value of a pulse element.

The materials and methods deals with the formation of switching processes and the calculation of transient functions in one-dimensional and multidimensional pulse systems, revealing difficulties in various discrete systems are shown. Also in this part, the most general case of modulation of the first kind is considered, and the possibility of applying and extending this approach to modulations of other kinds is shown.

Results. In order to formalize various processes, a scheme is proposed, according to which a multidimensional system is considered, which contains impulse elements of various types, operating asynchronously and not in phase. An algorithm for the formation of the switching process of impulse elements in the study of complex discrete systems, based on the event-driven modeling method, is also proposed.

Conclusion. it was concluded that the proposed switching matrix is, as it were, a dispatcher of the computational process, monitoring the change in states in the system under study and initiating, if necessary, certain parts (modules) of the computational program (software package).

Keywords: *automation, complex discrete system, modeling, switching process formation, algorithm, one-dimensional and multidimensional systems, first-order modulation, input and output signals.*

Introduction. Currently, the study of complex discrete systems that reflect the functioning of various objects, such as automated control systems for technological processes, information and computing systems, network complexes and others, is an urgent task for the scientific community.

Considering the priority and level of development of the sphere of information and communication technologies, in particular, the protection of critical information infrastructures and automatic control systems, much attention has recently been paid to the study of the stability of discrete automatic control systems. All over the world, in the CIS countries and in Uzbekistan, this direction is also considered not fully understood.

Studies to ensure the stability of complex discrete, multi-discrete systems under normal operating conditions (where the parameters of a multi-speed, multidimensional system, a dynamic graph, an impulse element are considered in the future with a proposal for an algorithm for determining stability) [1], optimization of the quality of control systems (where the issues of optimization of systems in various industries) [2], the development of designs with pulse-width modulations for power converters (modulation methods, power converters in power supply) [3], stability and control of complex systems with stochastic switching, etc. were carried out by world scientists, and today, too, survey work on the development of automated control systems using various tools, models of different levels of automation continues.

It is known that the automation of control generally provides for an increase in the efficiency of using the potential capabilities of the control object. In order to achieve this goal, it is necessary to implement a number of the following sub-goals, such as providing relevant data to the decision maker, speeding up the process of performing individual operations for collecting and processing data, reducing the number of decisions made by the decision maker, increasing the level of control and execution. discipline, increasing the efficiency of management, reducing costs for persons making a decision to perform auxiliary processes and increasing the degree of validity of decisions [4].

As we know, a complex system [5-7] is a system that can be divided into subsystems, the study of each of which separately, taking into account the influence of other subsystems within the framework of the task, has a meaningful character; functioning under conditions of significant uncertainty and the impact of the external environment on it, causing the random nature of changes in its parameters or structure; making a purposeful choice of their behavior.

Complex systems in which a change in the state of an object occurs instantly in time are called a complex discrete system [5-7]. It is known that systems in which there is at least one impulse element (IE), which converts a continuous signal into a sequence of modulated impulses, are called impulse systems (IS), in which information is contained in the magnitude of the impulses. The main parameters of the sequence of pulses are: A – height, or amplitude of the pulses; γT - width, or duration, of pulses; T is the distance between pulses, or the repetition period; $S(t)$ – pulse shape (Fig. 1) [8]. It is worth noting here about impulsive random processes, i.e. such processes in which a clear sequence of single pulses is reflected, the parameters of which randomly change from pulse to pulse. When determining the parameters of real pulses, there is usually no way to unambiguously divide the pulse into characteristic sections, therefore, in these cases, the parameters of the pulses are determined based on certain agreements.

The output value of an impulse element, the shape function of which is a unit δ -function, is a sequence of δ -functions modulated on the “area” and which has no real physical meaning, being a mathematical abstraction. Also, depending on the type and kind of pulse modulation, pulse elements are divided into amplitude, latitude and time. The dependence of the value of the modulated parameter of the output sequence on the corresponding discrete values of the input value is called the characteristic of the pulse element.

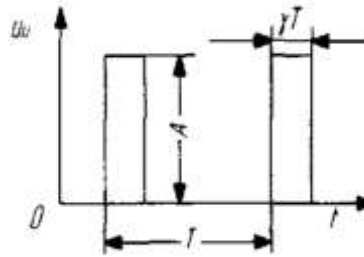


Fig. 1. Basic parameters of impulses

Speaking about the processes that occur in IS, we can say that they arise due to changes in either internal coordinates or external influences, in the calculation of which it is required to solve the difference equation describing the dynamics of these systems, the general solution for which is described in the form $y(k) = y_c(k) + y_g(k)$ (1)

where is the $y_c(k)$ - free component due to nonzero initial conditions, and $y_g(k)$ - is the forced component due to external influences.

Materials and methods. When solving this problem, in this work, methods of systematic analysis and design of algorithms were used - the method of step-by-step refinement (improvement). At first, the problem was considered as a whole, concerning impulsive systems in general terms. Further, a separate task is highlighted - the task of forming switching processes for a specific system, taking into account one-dimensionality or multidimensionality. The flowchart indicating the order in which these parts are executed is described in a structured form for the overall process. Then they moved from the general structure to the description of individual parts, i.e. taking into account the calculation step, measure number and types of matrices. Thus, the development of the algorithm in this work consists of a sequence of steps towards the refinement of the algorithm.

If the control system contains IE with the same key closure periods and the same pulse durations at the output of the latches, the problem of calculating a multidimensional system does not fundamentally differ from the problem of calculating a one-dimensional system [9,10].

In the course of studying one-dimensional systems, the behavior of the forming links related to the continuous part of a discrete system, which consist of one or more IE and continuous parts, is usually taken into account, the study of this problem is not considered in this article.

In the case of considering the system, when it is divided into N-subsystems, and when each of them has an integrated output signal y_n and an integrated input signal x_n , the relationship between them is represented in the form of the following functional dependence [11]:

$$F_n : X_n \rightarrow Y_n, n = 1, 2, \dots, N \quad (2)$$

and the ratio of the i -th element of the system takes the form:

$$y_i(t) = F_i[x_n(t)], i = 1, 2, \dots, N \quad (3)$$

Usually, the processes of calculating transient functions in various discrete systems are carried out either analytically (by decomposing the image $Y(z)$ into elementary terms and using correspondence tables of z -images and originals, as well as decomposing $Y(z)$ into a Laurent series), or by computer simulation, (for example in Matlab).

When considering impulsive systems, their accuracy and correction are important, and in these cases, both for impulsive and continuous systems, definitions of static error, astatism, error rates, errors under harmonic action, as well as root-mean-square error are introduced [12]

If the accuracy of the pulse systems is determined by such factors as steady-state errors, error rates, errors of pulse systems under harmonic action, statistical accuracy, then the correction is determined by the factors of continuous correction and pulse correction using digital correction filters.

Digital correcting filters are implemented using a digital computer [13, 14]. In this case, the input signal of the filter x is converted in an analog-to-digital converter, and then the solution of the difference equation on a digital computer u is output to the continuous part of the pulse system through a digital-to-analog converter.

Currently, digital systems are very popular and are more widespread, in which microprocessors and computers act as the implementer of the computing device function. As a result of the need to choose a digital equalizing filter, it was necessary to carry out the synthesis of digital systems. With the sequential inclusion of a filter with a continuous part of the system, which, in fairly common situations, including a control object, a regulator, an actuator, a power amplifier and a sensor, contributes to obtaining a system with the desired characteristics. Desired characteristics are usually understood as analog equivalents [15]: impulse functions, transient functions and frequency characteristics. These characteristics, with a sufficiently high clock frequency of the digital calculator and a large bit of converters, are more justified.

Difficulties in calculations appear in the case when IEs have different response periods, durations of different pulses in each quantization cycle and differ from channel to channel, which can be caused by IE with modulation of various kinds, as well as relay elements. Moreover, the static characteristic of the relay elements, acting as the main one, having the dependence of the output quantity y on the input x , has an influence. In such cases, it should be noted that the static characteristics of most relays are characterized by the presence of a hysteresis relay loop, which is explained by the ambiguity of the characteristics with increasing and decreasing the input signal [16].

The above reasons play a special role in the formation of switching processes, since, being the main switching devices, these devices act as an automatic switch of electrical circuits by a control signal. Figure 2. the time diagram of the operation of the relay element is shown, which is obtained as a result of the addition of different time intervals.

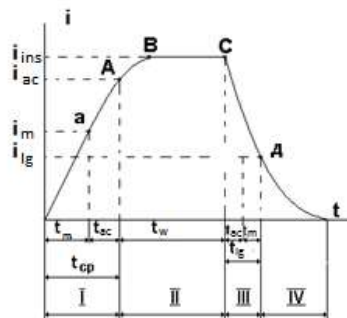


Fig. 2. Visual demonstration of the timing diagram of the relay elements

The general picture consists of four zones, where the first zone depicts the actuation stage, which is from the result of the addition of two time intervals and is determined as $t_{ac} = t_r + t_m$. Here t_r and t_m are the response time and movement time of the armature, respectively. The second zone reflects the stage of operation of the relay and occurs from point A to point B, where, after triggering, the current continues to increase until a steady-state value is reached, to ensure reliable attraction of the armature to the core, excluding the vibration armature, and in the B-C section, the current value remains unchanged. The third zone depicts the return stage, which also includes two sections: the section for releasing the C-D (t_g), the section for returning to the initial state (t_{ret}) [17].

When carrying out the calculation manually, it is possible to build a time schedule for the operation of each impulse element, and for each individual IE, the next fragment of the graph can be built only after the calculation has been carried out in the previous cycle.

Which, in turn, is explained by the fact that the parameters of the next or series of pulses (their duration, repetition period, the number of pulses, the interval between pulses, etc.) of the IE are functions of the values of the system state variables (in the simplest case, of the signal

magnitude on output) at the beginning of each quantization bar. Here, a recurrent calculation procedure takes place, when, on the basis of the results obtained at the present time, the parameters of the next pulse or their series for the next period are determined, which have a certain value in the structure of the IE time schedule.

The difficulty in formalization lies in the need for a cumulative consideration of all IEs in a multidimensional system, since due to the presence of cross-links, all channels influence each other.

Such a problem, although rare, is also observed in practice, where it is immediately possible to single out one or another type of connections, called cross-links, to eliminate which it is necessary to rearrange and transfer adders and nodes [18], for example, it is required to transfer a node through a link in the direction of signal propagation (Fig. 3).

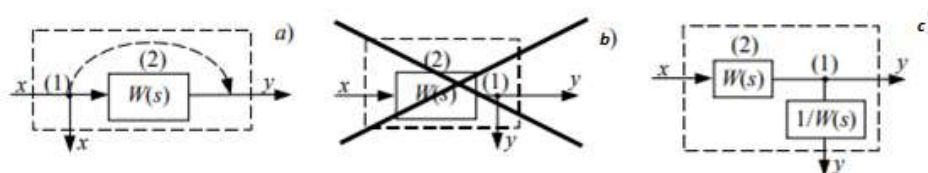


Fig. 3. Scheme of transferring a node through a link: a - before transformation; b - wrong transformation; c - after transformation

It can be seen from the figure that a simple transfer leads to a circuit, (Fig. 3.b), which does not correspond to the original one due to the absence of an output signal $x(t)$, but the presence of two signals $y(t)$, and $y(s) = x(s) \cdot W(s)$, from which it follows that to bring the circuit to the original one, it is necessary to side branch at the output $y(t)$, turn on the link with the transfer function $\frac{1}{W(s)}$. After the above steps, as a result, it will be possible to obtain a scheme that corresponds to the original (Fig. 3.c).

To formalize the process of switching IEs in complex discrete systems, it is advisable to consider the general case of modulation, for which the time schedule of the operation of all IEs is idealized.

Let the IE be characterized, in the general case, by the following set of parameters of a train of pulses issued by it in each i -th cycle:

T – repetition period

n – number of pulses

$A(j); j = \overline{1, n}$ - pulse amplitudes;

$D(j) = \{D(1), D(2), \dots, D(n)\}$ – a set of pulse durations;

$R = \{R(1), R(2), \dots, R(n+1)\}$ – the aggregate of the interval between pulses.

Thus, the most general case of modulation of the first kind is considered, and without loss of generality, this approach can be extended to modulations of other kinds [19].

With this consideration of the impulse element, the time schedule of its operation looks like a sequence of impulses of different duration and amplitude. At each moment of time, which is a multiple of the response period of the impulse element, all parameters that characterize the train of pulses in the i -th cycle become known.

Consider a one-dimensional system that includes IEs of the same type as described above. It is clear that systems of this kind are closed only at times $T(i) (i = 0, 1, \dots, n)$. In the intervals between $T(i)$ and $T(i+1)$, the system can be considered as open, that is, as a linear part, to which certain, known from the $T(i)$ moment of time, impulses of a certain amplitude and a certain duration are supplied [20].

So, for the pulse element described above, in the interval $T(i) < t < T(i) + R(1)$, a zero is supplied to the input of the linear part in the interval $T(i) + R(1) < t < T(i) + R(1) + D(1)$, a step with

a $A(1)$ height is supplied, in the interval $T(i) + R(1) + D(1) < t < T(i) + R(1) + D(1) + R(2)$, zero again follows, and so on.

Let us now consider a multidimensional system that includes impulse elements of various types, operating asynchronously and not in phase.

It is known that in multichannel systems, typical objects in the form of aperiodic links with a delay in measurements of equivalent disturbances in control channels can be carried out by dividing in time the control processes of measuring the object's response to a disturbance, a necessary condition for which is the condition for the end of control processes in a finite time. Such multidimensional systems of regulation and control of multiple pulse systems with asynchronous and out-of-phase switching periods [21].

Results. It is clear that in order to carry out the calculation according to the recurrent scheme, it is necessary to formalize the procedure for identifying the closest moment in time to the present, at which the output signal of any IE changes. It should be noted that such a moment in time can be conditionally called an event, which consists in a change in the state of IE [22, 23].

In order to formalize the switching process of impulse elements in the study of complex discrete systems, as well as to solve the problem, the authors propose the following scheme:

Let the parameters of the pulse series for all IE of complex discrete systems be determined at the initial moment of time. Usually, this is how it happens, since the zero element of time is, in a way, the ideal point when all IEs are simultaneously triggered [24].

Taking into account the above, we will form for this moment in time two matrices describing the train of pulses of all IEs. The first matrix is called the switching matrix, and the second is called the amplitude matrix. Each matrix has N rows: the i -th row of the switching matrix and the i -th row of the amplitude matrix describe the pulse train of the i -th pulse element [25, 26]. So, the row of the switching matrix has the form:

$$Ri(1), Ri(1) + Di(1), Ri(1) + Di(1) + Ri(2) + Di(2), \\ Ri(1) + Di(1) + Ri(2) + Di(2), \dots, Ti + Ri(n + 1),$$

for all times within the sampling period, when:

- supply of the next impulse;
- another pause begins.

The conjugate to this row, the i -th row of the amplitude matrix will have the form:

$$0, Ai(1), 0, Ai(2), \dots, Ai(n), 0.$$

After all the rows of the switching matrix and the amplitude matrix have been formed, you can select the value of the next step of calculations and directly calculation. This process is carried out as follows:

1. Of all the elements of the switching matrix, the smallest positive element Si is selected. This will be the next step in the calculation.
2. From all elements of the switching matrix, the one determined at the previous i step is subtracted.
3. The indices of the smallest non-negative elements of each row K are determined.
4. According to the amplitude matrix, in accordance with the indices found in clause 3, the values of the output actions of the impulse elements during the i time interval are determined, taken as the values of the input actions acting on the continuous part of the system.
5. The bipartite dynamic graph is used to calculate the processes in the system for an interval i .
6. The current time value is increased by an amount i .
7. The end of the sampling period of each IE is monitored. The conclusion about the end of the sampling period of the i -th IE is made based on the fulfillment of the condition:

$$K = 2n + 1$$
8. If condition (3) is met, the parameters of the next pulse series of the i -th IE are calculated.
9. Go to item 1.

It should be noted that as an element of the rows of the switching matrix and, accordingly, the amplitude matrix, one can use the moments of change in the values of the input influences acting on the system from the outside, the moments of the change in the structure and parameters of the system, the moments of the state change of relay elements determined after each state change from the solution of transcendental equations.

Conclusion. Thus, from the analysis of the use of the switching matrix, it can be concluded that it is, as it were, a dispatcher of the computational process, monitoring the change in states in the system under study and initiating, if necessary, certain parts (modules) of the computational program (software package).

It should also be noted that the mathematical representation of the formation of switching processes using a given algorithm proposed by the authors makes it possible to significantly simplify the procedure for analyzing system modes, especially to form the results of operator solutions in the form of functions, functionals, operators, both for analog and discrete linear and nonlinear processes.

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USING AUTOPLAY MEDIA STUDIO TO CREATE ELECTRONIC-LEARNING TOOLS

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Abstract:

Background. *The increase in the flow of information every year makes it impossible in some cases to solve various problems without the use of computer technology. Therefore, one of the tasks of improving education is to equip students with knowledge and skills in using modern computing technology. At the same time, it is necessary to give all students not just knowledge about the use of modern computing technology and the prospects for its development, but the ability to competently use it to effectively solve a wide variety of problems.*

Methods. *The transfer of the experience accumulated by humanity to the new generation is carried out through education. Education is the side of upbringing, which includes a system of scientific and cultural values accumulated by previous generations. One of the modern teaching aids at the present time is electronic textbooks, which can be created using special software. Program AutoPlay Media Studio is a powerful tool for creating multimedia electronic editions for various purposes: presentations, electronic books, multimedia applications.*

Results. *The properties and capabilities of the AutoPlay Media Studio program are considered. When creating an experimental electronic textbook, the AutoPlay Media Studio program was used, with which you can create electronic textbooks, covers for CD/DVD, presentations, simple games, electronic photo albums, collections of video files with easy viewing, simple audio and video players. AutoPlay Media Studio has a large number of ready-made templates: to design a menu with various buttons for launching programs, playing sounds, printing files, opening Internet sites.*

Conclusion. *Electronic tutorials are a promising area of informatization of education, and their importance in the future will only increase. Software tools for creating electronic tutorials are endless possibilities and one of them is the AutoPlay Media Studio program.*

Keywords: *computer, education, e-tutorial, software AutoPlay Media Studio, presentations, electronic books, multimedia applications, audio, video, graphics and text, of flash-animation, animated objects.*

Introduction. Our modern world can no longer be imagined without a computer, which has penetrated all areas of the educational process. The widespread use of modern computers, which are characterized by versatility and ease of use, makes it possible to use their capabilities to solve the widest range of diverse tasks in all areas of human activity.

The increase in the flow of information every year makes it impossible in some cases to solve various problems without the use of computer technology. Therefore, one of the tasks of improving education is to equip students with knowledge and skills in the use of modern computing technology. At the same time, it is necessary to give all students not just knowledge about the use of modern computing technology and the prospects for its development, but the ability to competently use it to effectively solve a wide variety of problems. A much deeper process is being built over computerization - informational, covering all aspects of social life. This is due to the direct introduction of modern computers in almost all spheres of science, technology, and economics [1].

Since any human activity begins with learning, the computer is rightfully invading this area too.

Therefore, the most important function of upbringing - this is the transfer of the experience accumulated by mankind to the new generation - is carried out through education. Education is that side of upbringing that includes a system of scientific and cultural values accumulated by previous generations [2].

The first steps in the field of informatization of education were made in our country in 2005, when an extremely important government decision was made "On the creation of a public educational information network of the Republic of Uzbekistan" dated 28.09.2005.

The planned results should, first of all, ensure the readiness of the future teacher for practical activity, which is determined by the formation of professional skills, including methodological skills.

Compiling such lists in a methodological course is a rather difficult task, since ethodological training is determined not only by knowledge and skills specific to a given academic subject, but is also closely related to the didactic, psychological and mathematical training of a future specialist. Therefore, in any methodological course, two tasks should be set.

The first is the arming of didactic skills related to planning, conducting and analyzing a lesson.

The second is equipping future teachers with methodological techniques that will allow them to manage the activities of students in the study of specific issues of content.

The acceleration of scientific and technological progress in all spheres of human activity is inextricably linked with the informatics industry.

Methods. The educational information environment consists of many interacting components. These are systems for automating the educational process, distance learning systems, and information and reference systems. The content basis of the educational environment is electronic educational resources and services provided by various educational institutions.

It is the effective use of new didactic and informational opportunities that ensures the required quality of the resource. First of all, we are talking about the implementation of branched and multilevel navigation through the materials of the resource and a rich reference apparatus. The correct implementation of these two components, along with, of course, the quality of presentation of the material itself and the relevance of the topic, will determine the degree of its use in the educational process [1].

Electronic textbooks are currently one of the modern teaching aids [3]. Electronic teaching aids are classified as audiovisual teaching aids and can partially or completely replace or supplement existing textbooks [4]. Electronic teaching aids, being one of the forms of computer training systems, can be classified as automated training systems [5].

The capabilities of the electronic textbook significantly affect the development of the student's personality, equip a person with the skills to use information and communication technologies and contribute to the activation of students' independent activity in the lesson.

Sometimes, an electronic tool is understood as a collection of data in digital form, used for use in the educational process. But according to this definition, any scanned textbook could be called an electronic textbook. If we compare the benefits of using this kind of digital resources with the harm caused to health, immediately there is doubt about the appropriateness of their use. An e-book is a more appropriate name for such a resource,

The computer today is not a monologue tool, but rather a partner in dialogue, a pleasant interlocutor who helps in learning. For a computer to become such, an electronic teaching aid should be understood not just a set of digitized data, but something else.

An electronic teaching aid is a training complex designed for use on a computer, containing educational material in various forms, a search system, interactive feedback tools and allowing a student, independently or with the help of a teacher, to master the training course or its section. [6]

The main purpose of using digital resources in learning is to communicate information, form and consolidate knowledge, form and improve skills and abilities, increase interest in learning, control the assimilation of knowledge and others.

An electronic study guide must meet the requirements that distinguish it from a traditional printed textbook:

- All structural components must have a consistent style that is well understood by the PC user.
- There should be a well thought out and convenient navigation system.
- The theoretical material should be presented in various forms, including multimedia elements.
- The presence of interactive fragments to ensure dialogue with the learner.
- Availability of information retrieval system.
- The possibility of supplementing or changing the educational material when such a need arises, which is very important for such a dynamically changing discipline as "Informatics".

The e-tutorial you create can either build on an existing printed tutorial (or textbook) or be created from scratch.

It becomes clear that a creative teacher who actively uses information and communication technologies in the classroom and in extracurricular subject activities should be able to independently create the necessary electronic textbook. In the educational environment, there is an opinion that an electronic textbook is the lot of programmers, therefore, commercial products are most often used to prepare for educational activities.

Results. However, there is a tool that allows you to quickly and efficiently create educational projects that are not inferior in functionality to the products of professionals.

This program is AutoPlay Media Studio - a software solution that provides the creation of various complex projects: from disc menus to a complex shell of multimedia textbooks. You can easily design an electronic study guide using any content - audio, video, graphics, text, flash-animation.

AutoPlay Media Studio is a powerful tool for creating multimedia electronic publications for various purposes: presentations, electronic textbooks, multimedia applications.

AutoPlay Media Studio is a program for visually creating skins for autoplay discs. A disk autorun shell is understood as a small program with a set of functions for viewing and working with the contents of the disk. This is certainly too narrow a definition of the capabilities of Autoplay Media Studio . With it, you can create electronic textbooks, CD / DVD business cards, presentations, simple games, electronic photo albums, collections of video files with convenient viewing and much more. And all this is virtually without knowledge of programming languages. In the Autoplay Media Studio extensive collection of visual tools and settings that allow you to create programs "quickly and easily."

Areas of application for Autoplay Media Studio :

- Autorun menu for discs (for games, software products, etc.);
- Reporting (annual financial statements, etc.);
- EBooks;
- Digital magazines;
- Interactive presentations, slide shows;
- Software development;
- Tutorials;
- Custom web browsers;
- Multimedia business cards;
- Prez - releases;
- Business planning;
- Virtual photo albums;
- And much more. [7]

Let's look at a number of areas where you can apply AutoPlay Media Studio.

CD-ROM AutoRun Menu. This is where it all started. AutoPlay Media Studio is actually an industrial standard for creating professional menus for optical applications carriers. In a matter of minutes, you can create a menu for viewing documents, reviewing disk contents, go to an Internet resource, send an e-mail and much more.

Multimedia business cards. Making original multimedia applications isn't big complexity in the environment of this tool. As a basis, you can take the existing standard delivery templates and examples.

Own WEB-browsers. An example of the original browser is among the ready-made templates. Little improving it, you can create a fully functional tool for working with network resources.

Educational interactive applications. Integration of various formats of information presentation (text, audio, video) using navigation tools makes it possible to create convenient, quality training courses.

Own audio players. It's easy enough to create your own player with the original interface, support for playlists and navigation.

Slide show. The ability to create colorful slideshows from photos with musical accompaniment and navigation will not be difficult if you use AutoPlay Media Studio.

Interactive presentations. Create interactive presentations with video inserts, audio support, links to network resources - a matter of a few minutes. Can use both ready-made templates and create presentations from scratch.

Catalogs. The latest versions of the program have tools for working with databases. Therefore, developers have the opportunity to create illustrated catalogs with search and sort functions.

Advertising discs and business cards. Using the built-in programming language, as well as complementing the flash product animation, you can create bright advertising brochures and business cards on optical media.

Resumes, electronic portfolios. The electronic portfolios created by using AutoPlay Media Studio. For implementation, digital photos, videos and description text associated with navigation elements.

Naturally, the list can be continued indefinitely. The above are just a few thematically grouped areas.

AutoPlay Media Studio - does not require programming knowledge and is very quickly mastered, in addition, the delivery includes ready-made templates for decorating the menu with a variety of buttons for launching programs, playing sounds, printing files, opening Internet sites, and so on, allowing you to easily make a CD interface most friendly and beautiful.

Discussion. Program AutoPlay Media Studio is designed to create multimedia projects. With AutoPlay Media Studio, you can create electronic textbooks, CD/DVD covers, presentations, simple games, electronic photo albums, collections of video files with easy viewing, simple audio and video players. AutoPlay Media Studio has a large number of ready-made templates: to design a menu with various buttons for launching programs, playing sounds, printing files, opening Internet sites. The project can be decorated with music, video, flash- animation, text. The project can include graphic, video, audio and animation objects prepared using specialized software. The capabilities of this program significantly increase with the skills of working with the programming languages C, C ++, Java, Visual Basic. Any object of the project can be assigned a specific action. The program provides a wide variety of different actions that can be associated with objects. It is possible to create free-form autorun windows using transparency masks. Such a mask can be graphic files in the formats .jpg, .bmp, .png. An application created with AutoPlay Media Studio is presented as an object model at the final stage. This model consists of a group of separate pages on which you can place any objects (graphics, text, video, Flash, HTML, etc).

The capabilities of AutoPlay Media Studio can be extended using additional plug-in modules. With their help, you can automate some frequently performed tasks. The finished project can be

presented in the form of a self-extracting archive, saved in a separate folder on the hard disk, or burned to CD/DVD/BLu-Ray directly from the program. The program creates a graphical disk shell and all the necessary files for its autorun. At the same time, you do not need to have AutoPlay Media Studio installed on your computer to run the project.

The main advantage of AutoPlay Media Studio is its ease of use. The user-friendly interface allows you to create the simplest application in the first a few minutes of acquaintance with the program. Drag and Drop technology combined with built-in programming language does not restrict the developer in writing projects of any orientation and level of complexity.

In addition to the capabilities of the program itself, the developer has applications a lot of plugins that can be downloaded from both the official site programs and from third-party developers.

The creation of a project in the program is done entirely on a visual basis, drag and drop images, text, music and videos, dropdowns and web content directly into the development environment with the mouse. Built in library over 250 actions add interactivity to your projects.

INTERFACE OF THE PROGRAM. The AutoPlay Media Studio 8.0 window (Fig. 1) includes a menu bar, toolbars, project explorer, object properties panel, work area and project size scale. Menu bar Toolbars Workspace Project explorer Object properties panel Project size scale Fig. Menu bar The menu bar contains menu titles: File, Edit, Align, Page, Dialog, Object, Project, Publish, View, Tools, Help.

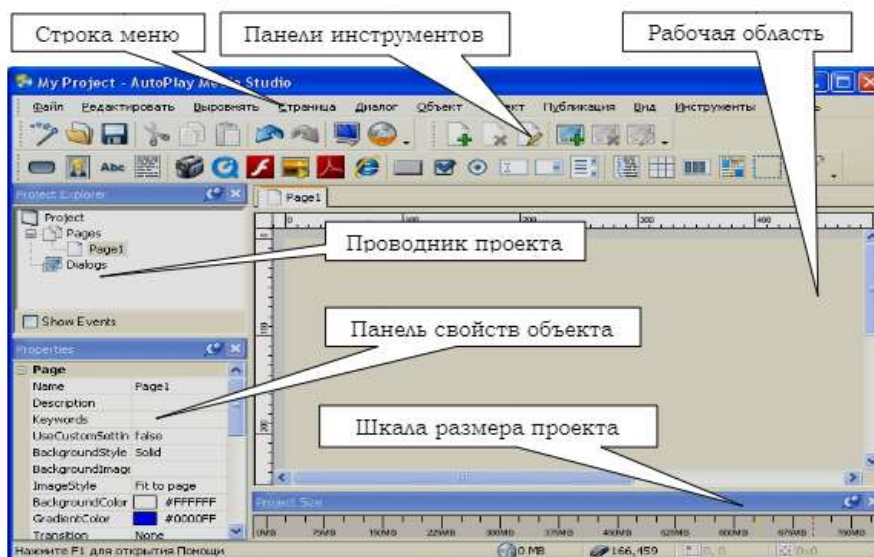


Fig. 1. Window Program AutoPlay Media Studio 8.0

1 - the working field of the program. This is where we place the objects of our application: text, graphics, video, objects for working with sound, tables and others.

2 - the main menu of the program, which, like most software products has a nested hierarchical structure. To access menu items you need to click once with the left mouse button on the name of the menu and in the opened select the desired item in the list by single-clicking the left mouse button.

3 - a set of the most frequently used operations, presented in the form graphic elements. To activate any of the items, you need to click on him once with the left mouse button. For each of the items opens the corresponding dialog box. When you hover over any of the items a pop-up hint about the purpose of this item appears.

4 - (Project Explorer) - project explorer. Designed to work with objects who participate in the project, that is, with those objects that are present in the working field (1) of the project. With this window we can group objects, do what - then the objects are temporarily hidden, eg. With this window we can change properties of several objects (pre-selected).

5 - (Properties) - properties. the properties window of the selected object. With this window we can change any parameters of the selected object: width, height, color, lettering, location on the work field and much more.

6 - (Project Size) - project size. In this block, we can observe such project parameter, as the size in Mb. Needed in order to navigate: fit our project on the selected medium (CD / DVD) or not. Using the View menu item, you can supplement the program interface additional toolbars.

You can hide unnecessary ones. It is possible to drag windows across the working to build up programs for the purpose of individual arrangement of instruments. For this left by clicking the mouse grab the window by the title bar (blue area) and without releasing the left drag the mouse buttons.

Work in the AutoPlay Media Studio environment.

1. Start AutoPlay Media Studio by double-clicking the left mouse button on the icon (Fig. 2).



Fig. 2. AutoPlay Media Studio icon

2. In the Welcome to AutoPlay Media Studio dialog box, select Create a new project and left-click.

3. In the New Project Creation dialog box that opens (Fig. 3), enter the name of the project, for example, Graduation work in the Your Project Name: text box. Fig. 3 Select the Blank Project template by double-clicking the left mouse button and in the Confirm Overwrite window answer Yes. The Page1 page of the new Final work project will open in the AutoPlay Media Studio working window. Fig. 3.

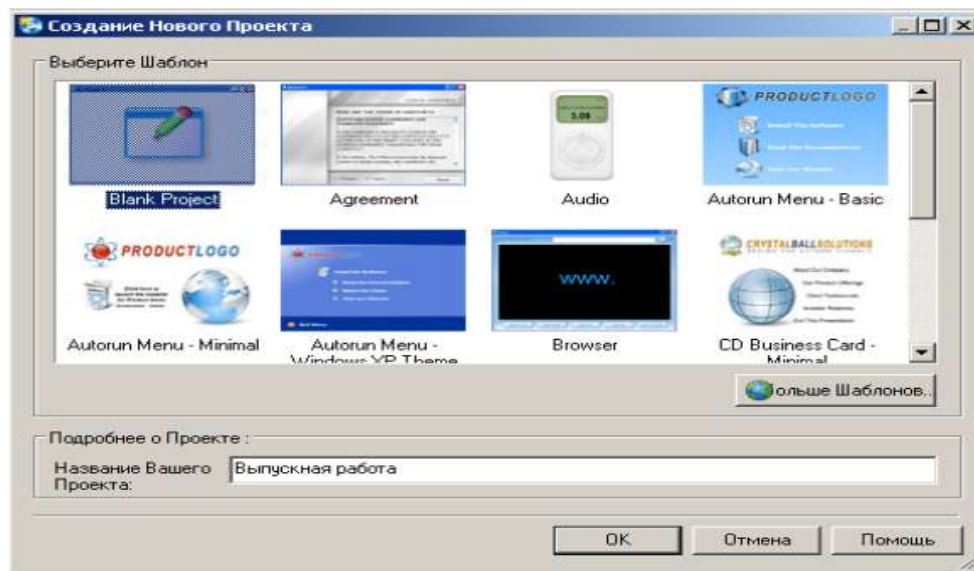


Fig. 3. Dialogue window - Create a New Project

Note. The window AutoPlay Media Studio by default should be set toolbar: Pages (Pages), Standard (Standard), Objects (Objects). If these panels are not installed, install them using the commands: View> Toolbars>. The default edit window should be set to Large. If a different size of the editing window is set, then using the command: Project> Settings open the Project Settings dialog window. In the Window Size drop-down list, find the Large size and left-click. Click button OK.

Here's a quick guide to getting started with AutoPlay Media Studio. A more detailed description of work in the program, readers can find at the site address <https://docplayer.ru/30039772-Sozdanie-multimediynyh-prilozheniy-v-srede-autoplay-media-studio.html>.

Answers to questions about Autoplay media studio

"Is it possible with this wonderful program to burn to DVD discs for ordinary players to watch videos on your home TV?"

By and large, no. Autoplay media studio creates programs with the EXE extension. This file type is not supported by conventional DVD players. You can try to create an Autoplay media studio project and place the AUDIO_TS and VIDEO_TS (movie) folders in the project root. Then, perhaps, it will turn out that the DVD player will "see" and play the contents of the folders "AUDIO_TS" and "VIDEO_TS", and in Windows the EXE file of your program will be launched.

"When adding a file to an action button (open document function), an error appears"

The following validation error has occurred: The document to open could not be found "- Like the file was not found. But the file (presentation) is in the project folder and opens fine. What do you advise?".

The file name may be too long. Or try renaming it using only English letters, numbers, and dashes or underscores.

"I insert a" New PDF object ", set the path to the PDF file (the file contains text and hyperlinks to open a web page). I launch the program, the text is displayed correctly, but nothing happens when I click on the links. "

Try in the Adobe Reader settings in the Trust Manager section, click on the Change settings button and in the window that appears, select Allow PDF files to access all sites.

"Is it possible to make it so that after the end of the video, it seems to itself come out of full screen mode and return the menu? As, for example, on purchased DVDs after the end of the movie, it goes back to the menu."

Try on the Script tab and place the below code on the On Finish tab for the video object.

```
Video.SetFullScreen("Video1", false);
```

"Tell me how to make the window of the finished project can be dragged across the screen."

In the project settings, on the Appearance tab, enable the Movable option.

"Why don't thumbnails appear in the Select File window when I select buttons?"

In this window, change the display mode, the Views button in the upper right corner, to Thumbnails.

"How to organize the download of files through the disc menu? Those. I created a disc menu, placed an inscription in one of the sections. I need to start downloading the file (archive) to the user's computer when clicking on this inscription, like downloading from the Internet. "

In the properties of the caption on the Quick Action tab, select View Website, in the Web site field, enter the address for the file you want to download.

How long does it take to create a program?

A fully functional program can be created in minutes, for example, based on a template. It all depends on what exactly you want to do. But, in any case, the development of a software product of a similar complexity in Autoplay media studio will be faster than in Visual C ++, Delphi or Visual Basic. I also want to add that, provided that the program is at a sufficient level, 60-80% of the time is spent on creating content (video, audio, text, images, and so on) and developing a design (working in a raster or vector editor). It should also be taken into account that the design (idea) of a software product can take a very long period in comparison with the development. On average, it takes me about 3-6 hours of continuous work to create such programs, provided that all the content is already ready and there is a plan of what specifically I want to do. At this time, the design development in Photoshop (or Illustrator), the direct creation of the first version of the program in Autoplay media studio 8.2 and several cycles of testing-fixing / changing the created program are included.

Who is already using Autoplay media studio?

This software product is used by everyone, from individual developers to large companies.

Do I need to pay for created programs?

No. After purchasing a license for Autoplay media studio, you do not have to pay anything else.

Can you distribute created programs by email?

Yes. Autoplay media studio can export your created program to a self-extracting archive. You can attach it as an attachment to the letter. If the file is too large, you can upload it to the cloud storage and mail the download link.

Does Autoplay Media Studio recognize mouse clicks and movements?

Yes. Recognized by pressing the left and right mouse buttons, movement, hovering over an object and loss of focus from the object. You can assign a reaction to all these actions. You can assign the program's reaction even when the user just moves the mouse.

Can AutoPlay Media Studio read and write registry values and XML files?

Yes. In addition, it is possible to determine whether the user account under which the program you have created has read and write permissions to the registry.

Can I add my own data to the properties of the executable file of the generated program?

Yes.

Conclusion. Based on the foregoing, it can be concluded that an electronic textbook is a comprehensive-purpose educational software system that ensures the continuity and completeness of the didactic cycle of the learning process: providing theoretical material, providing training educational activities and control of the level of knowledge, as well as information retrieval activity, mathematical and simulation with computer visualization and service functions subject to interactive feedback. An electronic textbook, being a multifunctional tool, is able to replace some of the traditional teaching aids.

Electrons tutorials are a promising area of informatization of education, and their importance in the future will only increase. Software tools for creating electronic tutorials are endless possibilities and one of them is the AutoPlay Media Studio program.

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THE INVERSE PROBLEM FOR SYSTEMS FIRST ORDER INTEGRO - DIFFERENTIAL EQUATIONS WITH MEMORY

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Abstract:

Background. Many physical processes are represented by a system of equations of the hyperbolic type of the first order. For example, a system of acoustic equations, electromagnetic vibrations, dynamic equations of the theory of elasticity, and others. It is well known that second-order equations are derived from them by a number of additional constraints. Solving inverse problems directly leads to solving these systems. Systematic research in this area were conducted in

the 1970s by L.P. Nijnik, S.P. Belinskiy, V.G. Romanov and L.I. Slinyuchev began in the work of scientists.

Methods. In this work we will use the differential equations, functional analysis, algebraic methods and also the principle of contraction mappings.

Results. The article is checked inverse problem for the hyperbolic systems of n first-order integro-differential equations with an integral term of convolution type. The direct problem is the initial-boundary problem for this system on the finite segment $[0, H]$. At full filling some data agreement conditions the inverse problem is reduced to solving the system Volterra - type integral equations with respect to unknowns. Besides, it is proved the theorem of local unique solvability of a problem for sufficiently small H .

Conclusion. To sum up, we look the kernel is $n \times n$ dimensional diagonal matrix that depends on time. To define that function, we put initial-boundary conditions on characteristic lines. Proved the theorem of unique solvability. We get the following results, firstly consider the inverse problem of the determination kernel in hyperbolic system of n number first-order integro-differential equations, which is of the form of $n \times n$ matrices depending on variable t , next obtain the theorem of exists unique solution, finally proved local theorem in a small interval.

Keywords: Hyperbolic system, diagonal and inverse quadratic matrices, vector functions, convolution kernel, integral equations of Volterra type, principle of contraction mappings.

Introduction. A memory effect occurs in a system in which only the current and previous state of the system and all its states are taken into account. In other words, the memory effect depends on the previous state of the system history. Systematic research in this area were conducted in the 1970s by L.P. Nijnik[1], S.P. Belinskiy[2], V.G. Romanov and L.I. Slinyuchev[3] began in the work of scientists. For example, deformation of an adhesive elastic medium can be obtained. This is because of the deformation of the adhesive elastic medium depends not only on the force acting on it, but also on the state of the previous deformation. Such environments are called memory or post-exposure environments [4]. In addition, the propagation of electromagnetic waves in a dispersed medium [5] and population systems of various species of animals and plants in mathematical biology [6] are examples. Such processes are represented by a system of first-order integro-differential hyperbolic equations with a time-dependent integral type. In the inverse problems, the determination of the integral kernel is important. So far, the problem of determining the kernel from the second-order integral differential equation has been considered [7] - [14].

This paper examines the inverse problem of definition of the kernel from a system of first-order integro-differential hyperbolic equations. Here, the kernel is $n \times n$ dimensional diagonal matrix that depends on time.

Setting up the problem. We consider the following systems of equations with respect to the function in the domain $D = \{(x, t) : 0 < x < H, t > 0\}$

$$\frac{\partial u}{\partial t} + A \frac{\partial u}{\partial x} + B(x)u(x, t) = \int_0^t K(\tau)u(x, t - \tau) d\tau + f(x, t), \quad (1)$$

where A, B and K are the quadratic matrices of dimensionality $n \times n$

$$A = \begin{pmatrix} \lambda_1 & 0 & \dots & 0 \\ 0 & \lambda_2 & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & \lambda_n \end{pmatrix}, B(x) = \begin{pmatrix} b_{11}(x) & b_{12}(x) & \dots & b_{1n}(x) \\ b_{21}(x) & b_{22}(x) & \dots & b_{2n}(x) \\ \vdots & \vdots & \ddots & \vdots \\ b_{n1}(x) & b_{n2}(x) & \dots & b_{nn}(x) \end{pmatrix}, K(t) = \begin{pmatrix} K_1(t) & 0 & \dots & 0 \\ 0 & K_2(t) & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & K_n(t) \end{pmatrix},$$

$f(x, t)$ is a vector with the components $f_1(x, t), f_2(x, t), \dots, f_n(x, t)$.

Let, for the sake of definiteness, retain the sign in the domain D and

$$\lambda_k > 0, k = 1, 2, \dots, s; \lambda_k < 0, k = s + 1, s + 2, \dots, n; 0 \leq s \leq n. \quad (2)$$

In order to define one of the system solutions, one must set the initial condition

$$u(x, 0) = \varphi(x), \quad 0 \leq x \leq H, \quad (3)$$

and the boundary condition,

$$u_i(0, t) = g_i(t), \quad i = 1, 2, \dots, s; \quad u_i(H, t) = g_i(t), \quad i = s + 1, s + 2, \dots, n. \quad (4)$$

In this case on the left boundary $x = 0$

$$u_i(0, t) = h_i(t), \quad i = s + 1, s + 2, \dots, n. \quad (5)$$

one can set (5) boundary, conditions that must be solved with respect from $s + 1$ to n .

In one analogous way, on the right - hand boundary $x = H$

$$u_i(H, t) = h_i(t), \quad i = 1, 2, \dots, s \quad (5')$$

the boundary conditions can be set in the following way in the above $h_i(t), i = \overline{1, n}$ are known (5') function.

Note 1. In books [16, pp. 164-171] and [17, pp. 76-86], the inverse problem of determining the matrix function $B(x)$ from the hyperbolic system of equations

$$\frac{\partial u}{\partial t} + A \frac{\partial u}{\partial x} + B(x) u(x, t) = f(x, t)$$

according to data (5), (5') is investigated. A theorem for the local unique solvability of the problem is obtained.

Note 2. System (1) is hyperbolic according to I.G. In Petrovsky's [18]. There are specific substitutions that lead to the system in the form (1) [19].

Direct problem. Consider the characteristics of system (1) which are the lines along which the following equalities hold:

$$\frac{dx}{dt} = \lambda_i, \quad i = \overline{1, n}.$$

Under the suppositions it is assumed they are the straight lines L_i on the plane of variables

$$(\xi, \tau) \quad \xi = x + \lambda_i(\tau - t). \quad (6)$$

Now describe it in detail, beginning with denoting the domain D boundary though Γ . Let (x, t) be an arbitrary point of the domain D . Draw the characteristic L_i corresponding to λ_i through point (x, t) on the plane of the variables ξ and τ , and then continue it up to the crossing with the boundary Γ in the domain $\tau \leq t$, the point of crossing denoted through (x_0^i, t_0^i) . In this case $x_0^i = x_0^i(x, t)$, $t_0^i = t_0^i(x, t)$. Integrate the component of equality (1) along the characteristic L_i from (x_0^i, t_0^i) to the point (x, t) . In this case one gets

$$u_i(x, t) = u_i(x_0^i, t_0^i) + \int_{t_0^i}^t \left\{ \int_0^\tau K_i(\eta) u_i(\xi, \tau - \eta) d\eta - \sum_{j=1}^n b_{ij}(\xi) u_j(\xi, \tau) \right\}_{\xi=x+\lambda_i(\tau-t)} d\tau + \int_{t_0^i}^t f_i(\xi, \tau)_{\xi=x+\lambda_i(\tau-t)} d\tau, \quad i = 1, 2, \dots, n. \quad (7)$$

where

$$t_0^i(x, t) = \begin{cases} t - \frac{x}{\lambda_i}, & t \geq \frac{x}{\lambda_i}, \\ 0, & 0 < t < \frac{x}{\lambda_i}, \quad i = 1, 2, \dots, s; \end{cases}$$

$$t_0^i(x,t) = \begin{cases} t + \frac{H-x}{\lambda_i}, & t \geq \frac{x-H}{\lambda_i}, \\ 0, & 0 < t < \frac{x-H}{\lambda_i}, \quad i = s+1, \dots, n. \end{cases} \quad (8)$$

Then, from equations (6)

$$x_0^i(x,t) = \begin{cases} 0, & t \geq \frac{x}{\lambda_i}, \\ x - \lambda_i t, & 0 < t < \frac{x}{\lambda_i}, \quad i = 1, 2, \dots, s; \end{cases}$$

$$x_0^i(x,t) = \begin{cases} H, & t \geq \frac{x-H}{\lambda_i}, \\ x - \lambda_i t, & 0 < t < \frac{x-H}{\lambda_i}, \quad i = s+1, \dots, n. \end{cases} \quad (9)$$

(7) is determined by the free terms of the integral equation and the initial and boundary conditions, and they are as follows (3) va (4)

For satisfying the pair equation, we find the following

$$u_i(x_0^i, t_0^i) = \begin{cases} g(t - \frac{x}{\lambda_i}), & t \geq \frac{x}{\lambda_i}, \\ \varphi(x - \lambda_i t), & 0 \leq t < \frac{x}{\lambda_i}, \quad i = 1, 2, \dots, s; \end{cases}$$

$$u_i(x_0^i, t_0^i) = \begin{cases} g(t + \frac{H-x}{\lambda_i}), & t \geq \frac{H-x}{\lambda_i}, \\ \varphi(x - \lambda_i t), & 0 \leq t < \frac{H-x}{\lambda_i}, \quad i = s+1, \dots, s. \end{cases} \quad (10)$$

Suppose the functions $u_i(x_0^i, t_0^i)$ are continuous in the domain D . To solve the inverse problem, it is necessary that the functions φ_i and g_i continuous on the segment $[0, H]$ satisfy the conditions agreement with the initial data

$$\varphi_i(0) = g_i(0), \quad i = 1, 2, \dots, s; \quad \varphi_i(H) = g_i(0), \quad i = s+1, \dots, n. \quad (11)$$

Suppose the functions $K_i(t)$ va $f_i(x,t)$ are continuous in the domain $t \geq 0, (x,t) \in D$. Though adding to the system of equalities the (3) initial and (4) boundary conditions from relations (7) a closed system of integral Volterra equations of the second kind with continuous kernels and free terms is obtained.

Let $v(x,t) = \frac{\partial}{\partial t} u(x,t)$ then we get of n systems of equations.

$$\left(E \frac{\partial}{\partial t} + A \frac{\partial}{\partial x} + B(x) \right) v = K(t)\varphi(x) + \int_0^t K(\tau)v(x,t-\tau) d\tau + \frac{\partial}{\partial t} f(x,t), \quad (12)$$

$$v(x,0) = f(x,0) + A \frac{d}{dx} \varphi(x) - B(x)\varphi(x), \quad 0 \leq x \leq H,$$

$$v_i(0,t) = \frac{d}{dt} g_i(t), \quad i = 1, 2, \dots, s; \quad v_i(H,t) = \frac{d}{dt} g_i(t), \quad i = s+1, s+2, \dots, n,$$

From (5) we obtain additional conditions to the function $v_i(x,t)$ in the following forms:

$$v_i(0,t) = \frac{d}{dt} h_i(t), \quad i = s+1, \dots, n; \quad v_i(H,t) = \frac{d}{dt} h_i(t), \quad i = 1, 2, \dots, s. \quad (13)$$

These systems have a unique solution

$$f_i(0,0) + A \frac{d}{dx} \varphi_i |_{x=0} - \sum_{j=1}^n b_{ij}(0) \varphi_j(0) = \left[\frac{d}{dt} g_i(t) \right]_{t=0}, \quad i = 1, 2, \dots, s, \quad (14)$$

$$f_i(H,0) + A \frac{d}{dx} \varphi_i |_{x=H} - \sum_{j=1}^n b_{ij}(H) \varphi_j(H) = \left[\frac{d}{dt} g_i(t) \right]_{t=0}, \quad i = s+1, \dots, n. \quad (15)$$

$$v_i(x,t) = v_i(x_0^i, t_0^i) + \int_{t_0^i}^t \left\{ K_i(\tau) \varphi_i(\xi) + \int_0^\tau K_i(\eta) v_i(\xi, \tau - \eta) d\eta \right\}_{\xi=x+\lambda_i(\tau-t)} d\tau + \int_{t_0^i}^t \left\{ -\sum_{j=1}^n b_{ij}(\xi) v_j(\xi, \tau) + \frac{\partial}{\partial t} f_i(\xi, \tau) \right\}_{\xi=x+\lambda_i(\tau-t)} d\tau, \quad i = 1, 2, \dots, n. \quad (16)$$

here

$$v_i(x_0^i, t_0^i) = \begin{cases} \frac{d}{dt} g_i(t - \frac{x}{\lambda_i}), & t \geq \frac{x}{\lambda_i}, \quad i = 1, 2, \dots, s \\ f_i(x - \lambda_i t, 0) - \lambda_i \frac{d}{dx} \varphi_i(x - \lambda_i t) - \sum_{j=1}^n b_{ij}(x - \lambda_i t) \varphi_j(x - \lambda_i t), & 0 \leq t < \frac{x}{\lambda_i}; \end{cases}$$

$$v_i(x_0^i, t_0^i) = \begin{cases} \frac{d}{dt} g_i(t + \frac{H-x}{\lambda_i}), & t \geq \frac{H-x}{\lambda_i}, \quad i = s+1, \dots, n \\ f_i(x - \lambda_i t, 0) - \lambda_i \frac{d}{dx} \varphi_i(x - \lambda_i t) - \sum_{j=1}^n b_{ij}(x - \lambda_i t) \varphi_j(x - \lambda_i t), & 0 \leq t < \frac{H-x}{\lambda_i}. \end{cases}$$

Following theorem is valid.

Theorem 1. Assume that $b_{ij}(x) \in C[0, H]$, $f(x, t) \in C^1(D_T)$, $\varphi(x) \in C^1[0, H]$ and $g(t) \in C^1[0, \infty)$ and the agreement (11), (14), (15) conditions are met. Then there exists only one classical solution of problem (1)-(3) in the domain D .

Obtaining a system of equivalent integral equations for inverse problem. Consider an arbitrary point $(x, 0) \in D$ and draw characteristic (6) through it until the lateral boundaries cross of the domain D . Integrating the i – component of equation (12) and using differentiated data (16) with respect to the variable t , find

$$v_i(x, 0) - \frac{d}{dx} h_i(t_i(x)) = \int_0^{t_i(x)} K_i(\tau) \varphi_i(x + \lambda_i \tau) d\tau + \int_0^{t_i(x)} \left\{ \int_0^\tau K_i(\eta) v_i(\xi, \tau - \eta) d\eta - \sum_{j=1}^n b_{ij}(\xi) v_j(\xi, \tau) + \frac{\partial}{\partial t} f_i(\xi, \tau) \right\}_{\xi=x+\lambda_i \tau} d\tau, \quad (17)$$

$$\text{where } t_i(x) = \frac{1}{|\lambda_i|} \begin{cases} H - x, & i = 1, 2, \dots, s; \\ x, & i = s + 1, \dots, n. \end{cases}$$

We construct the integral equation, then we write the equation (17) as follows:

$$\int_0^{t_i(x)} K_i(\tau) \varphi_i(x + \lambda_i \tau) d\tau + \int_0^{t_i(x)} \int_0^\tau K_i(\eta) v_i(x + \lambda_i \tau, \tau - \eta) d\eta d\tau - \int_0^{t_i(x)} \sum_{j=1}^n b_{ij}(x + \lambda_i \tau) v_j(x + \lambda_i \tau, \tau) d\tau =$$

$$= f_i(x, 0) - \lambda_i \frac{d}{dx} \varphi_i(x) - \sum_{j=1}^n b_{ij}(x) \varphi_j(x) - \frac{d}{dt} h_i(t_i(x)) - \int_0^{t_i(x)} \frac{\partial}{\partial t} f_i(x + \lambda_i \tau, \tau) d\tau$$

Differentiating this equation by variable $t_i(x)$, we get

$$-\frac{1}{\lambda_i} K_i(t_i(x)) \varphi_i(x + \lambda_i t_i(x)) + \int_0^{t_i(x)} K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i \tau) d\tau -$$

$$\begin{aligned}
 & -\frac{1}{\lambda_i} \int_0^{t_i(x)} K_i(\tau) v_i(x + \lambda_i t_i(x), t_i(x) - \tau) d\tau + \int_0^{t_i(x)} \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(x + \lambda_i \tau, \tau - \eta) d\eta d\tau + \\
 & \quad + \frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(x + \lambda_i t_i(x)) v_j(x + \lambda_i t_i(x), t_i(x)) - \\
 & \quad - \int_0^{t_i(x)} \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(x + \lambda_i \tau) v_j(x + \lambda_i \tau, \tau) + b_{ij}(x + \lambda_i \tau) \frac{\partial}{\partial x} v_j(x + \lambda_i \tau, \tau) \right] d\tau = \\
 & \quad = \frac{\partial}{\partial x} f_i(x, 0) - \lambda_i \frac{d^2}{dx^2} \varphi_i(x) - \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(x) \varphi_j(x) + b_{ij}(x) \frac{d}{dx} \varphi_j(x) \right] + \\
 & \quad + \frac{1}{\lambda_i} \frac{d^2}{dt dx} h_i(t_i(x)) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(x + \lambda_i t_i(x), t_i(x)) - \int_0^{t_i(x)} \frac{\partial^2}{\partial t^2} f_i(x + \lambda_i \tau, \tau) d\tau. \tag{18}
 \end{aligned}$$

In an analogous way, from (18) we obtain integral equations with respect to $K_i(\cdot)$:

$$\begin{aligned}
 & K_i\left(\frac{H-x}{\lambda_i}\right) \varphi_i(H) = F_i(x) + \lambda_i \int_0^{\frac{H-x}{\lambda_i}} K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i \tau) d\tau - \\
 & - \int_0^{\frac{H-x}{\lambda_i}} K_i(\tau) G_i\left(\frac{H-x}{\lambda_i} - \tau\right) d\tau + \lambda_i \int_0^{\frac{H-x}{\lambda_i}} \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(x + \lambda_i \tau, \tau - \eta) d\eta d\tau + \\
 & \quad + \sum_{j=1}^n b_{ij}(H) G_j\left(\frac{H-x}{\lambda_i}\right) - \\
 & - \lambda_i \int_0^{\frac{H-x}{\lambda_i}} \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(x + \lambda_i \tau) v_j(x + \lambda_i \tau, \tau) + b_{ij}(x + \lambda_i \tau) \frac{\partial}{\partial x} v_j(x + \lambda_i \tau, \tau) \right] d\tau; \\
 & K_i\left(-\frac{x}{\lambda_i}\right) \varphi_i(H) = F_i(x) + \lambda_i \int_0^{-\frac{x}{\lambda_i}} K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i \tau) d\tau - \\
 & - \int_0^{-\frac{x}{\lambda_i}} K_i(\tau) G_i\left(-\frac{x}{\lambda_i} - \tau\right) d\tau + \lambda_i \int_0^{-\frac{x}{\lambda_i}} \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(x + \lambda_i \tau, \tau - \eta) d\eta d\tau + \\
 & \quad + \sum_{j=1}^n b_{ij}(H) G_j\left(-\frac{x}{\lambda_i}\right) - \\
 & - \lambda_i \int_0^{-\frac{x}{\lambda_i}} \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(x + \lambda_i \tau) v_j(x + \lambda_i \tau, \tau) + b_{ij}(x + \lambda_i \tau) \frac{\partial}{\partial x} v_j(x + \lambda_i \tau, \tau) \right] d\tau, \tag{19}
 \end{aligned}$$

where $F_i(x)$ – (18) the right hand side of the equation, that is

$$\begin{aligned}
 F_i(x) = & \frac{\partial}{\partial x} f_i(x, 0) - \lambda_i \frac{d^2}{dx^2} \varphi_i(x) - \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(x) \varphi_j(x) + b_{ij}(x) \frac{d}{dx} \varphi_j(x) \right] + \\
 & + \frac{1}{\lambda_i} \frac{d^2}{dt dx} h_i(t_i(x)) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(x + \lambda_i t_i(x), t_i(x)) - \int_0^{t_i(x)} \frac{\partial^2}{\partial t^2} f_i(x + \lambda_i \tau, \tau) d\tau,
 \end{aligned}$$

where

$$G_i\left(\frac{H-x}{\lambda_i} - \tau\right) = \begin{cases} \frac{d}{dt} h_i\left(\frac{H-x}{\lambda_i} - \tau\right), & i = 1, 2, \dots, s, \\ \frac{d}{dt} g_i\left(\frac{H-x}{\lambda_i} - \tau\right), & i = s + 1, \dots, n. \end{cases}$$

In the last integral equation, replacing $\frac{H-x}{\lambda_i}$ to t and $-\frac{x}{\lambda_i}$ to t , we get

$$\begin{aligned}
 K_i(t)\varphi_i(H) &= F_i(H - \lambda_i t) + \lambda_i \int_0^t K_i(\tau) \frac{d}{dx} \varphi_i(H - \lambda_i(t - \tau)) d\tau - \int_0^t K_i(\tau) G_i(t - \tau) d\tau + \\
 &+ \lambda_i \int_0^t \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(H - \lambda_i(t - \tau), \tau - \eta) d\eta d\tau + \sum_{j=1}^n b_{ij}(H) G_j(t) - \\
 &- \lambda_i \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) v_j(\xi, \tau) + b_{ij}(\xi) \frac{\partial}{\partial x} v_j(\xi, \tau) \right]_{\xi=H-\lambda_i(t-\tau)} d\tau; \\
 K_i(t)\varphi_i(H) &= F_i(-\lambda_i t) + \lambda_i \int_0^t K_i(\tau) \frac{d}{dx} \varphi_i(-\lambda_i(t - \tau)) d\tau - \int_0^t K_i(\tau) G_i(t - \tau) d\tau + \\
 &+ \lambda_i \int_0^t \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(x - \lambda_i(t - \tau), \tau - \eta) d\eta d\tau + \sum_{j=1}^n b_{ij}(H) G_j(t) - \\
 -\lambda_i \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(-\lambda_i(t - \tau)) v_j(-\lambda_i(t - \tau), \tau) + b_{ij}(-\lambda_i(t - \tau)) \frac{\partial}{\partial x} v_j(-\lambda_i(t - \tau), \tau) \right] d\tau \quad (20)
 \end{aligned}$$

The following conditions to be met.

$$\Phi = \varphi(H) \neq 0, \quad i = 1, 2, \dots, s; \quad \Phi = \varphi(0) \neq 0, \quad i = s + 1, \dots, n. \quad (21)$$

From relation (20) we obtain for the system $K_i(t)$.

$$\begin{aligned}
 K_i(t) &= \frac{1}{\varphi_i(v_i)} \left[F_i(\bar{t}_i(t)) + \lambda_i \int_0^t K_i(\tau) \frac{d}{dx} \varphi_i(\bar{t}_i(t) + \lambda_i \tau) d\tau - \int_0^t K_i(\tau) G_i(t - \tau) d\tau \right] + \\
 &+ \frac{1}{\varphi_i(v_i)} \left[\lambda_i \int_0^t \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_i(\bar{t}_i(t) + \lambda_i \tau, \tau - \eta) d\eta d\tau + \sum_{j=1}^n b_{ij}(H) G_j(t) \right] - \\
 &- \frac{\lambda_i}{\varphi_i(v_i)} \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) v_j(\xi, \tau) + b_{ij}(\xi) \frac{\partial}{\partial x} v_j(\xi, \tau) \right]_{\xi=\bar{t}_i(t)+\lambda_i\tau} d\tau, \quad (22)
 \end{aligned}$$

where

$$v_i = \begin{cases} H, & i = 1, 2, \dots, s, \\ 0, & i = s + 1, \dots, n, \end{cases} \quad \bar{t}_i(t) = \begin{cases} H - \lambda_i t, & i = 1, 2, \dots, s, \\ -\lambda_i t, & i = s + 1, \dots, n. \end{cases}$$

The equation (22) involves unknown functions $\frac{\partial}{\partial x} v_j, j = 1, 2, \dots, n$. Differentiating (16)

with respect to x , we obtain the integral equation:

$$\begin{aligned}
 \frac{\partial}{\partial x} v_i(x, t) &= \frac{\partial}{\partial x} v_i(x_0^i, t_0^i) + \frac{1}{\lambda_i} K_i(t_0^i) \varphi_i(x_0^i) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(x_0^i, t_0^i) - \frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(x_0^i) v_j(x_0^i, t_0^i) + \\
 &+ \int_{t_0^i}^t K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \frac{1}{\lambda_i} \int_0^{t_0^i} K_i(\tau) v_i(x_0^i, t_0^i - \tau) d\tau + \int_{t_0^i}^t \frac{d^2}{dx^2} f_i(x + \lambda_i(\tau - t), \tau) d\tau + \\
 &+ \int_0^\tau \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_j(x + \lambda_i(\tau - t), \tau - \eta) d\tau + \\
 &- \int_{t_0^i}^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) v_j(\xi, \tau) + b_{ij}(\xi) \frac{\partial}{\partial x} v_j(\xi, \tau) \right]_{\xi=x+\lambda_i(\tau-t)} d\tau, \quad i = 1, 2, \dots, n. \quad (23)
 \end{aligned}$$

The equivalent equation to (23) for $i = 1, 2, \dots, s$ has the following form:

$$\frac{\partial}{\partial x} v_i(x, t) = -\frac{1}{\lambda_i} \frac{d^2}{dx^2} g_i(t - \frac{x}{\lambda_i}) + \frac{1}{\lambda_i} K_i(t - \frac{x}{\lambda_i}) \varphi_i(0) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(0, t - \frac{x}{\lambda_i}) -$$

$$\begin{aligned}
 & -\frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(0) \frac{d}{dt} g_i(t - \frac{x}{\lambda_i}) + \int_{t-\frac{x}{\lambda_i}}^t K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \frac{1}{\lambda_i} \int_0^{t-\frac{x}{\lambda_i}} K_i(\tau) \frac{d}{dt} g_i(t - \frac{x}{\lambda_i}) d\tau + \\
 & + \int_{t-\frac{x}{\lambda_i}}^t \frac{d^2}{dx^2} f_i(x + \lambda_i(\tau - t), \tau) d\tau + \int_{t-\frac{x}{\lambda_i}}^t \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_j(x + \lambda_i(\tau - t), \tau - \eta) d\tau - \\
 & - \int_{t-\frac{x}{\lambda_i}}^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) v_j(\xi, \tau) + b_{ij}(\xi) \frac{\partial}{\partial x} v_j(\xi, \tau) \right]_{\xi=x+\lambda_i(\tau-t)} d\tau, \quad t \geq \frac{x}{\lambda_i}; \\
 \frac{\partial}{\partial x} v_i(x, t) & = \frac{\partial}{\partial x} f_i(x - \lambda_i t, 0) - \lambda_i \frac{d^2}{dx^2} \varphi_i(x - \lambda_i t) - \sum_{j=1}^n \frac{d}{dx} [b_{ij}(x - \lambda_i t) \varphi_i(x - \lambda_i t)] \\
 & + \int_0^t K_i(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \int_0^t \frac{d^2}{dx^2} f_i(x + \lambda_i(\tau - t), \tau) d\tau + \\
 & + \int_0^t \int_0^\tau K_i(\eta) \frac{\partial}{\partial x} v_j(x + \lambda_i(\tau - t), \tau - \eta) d\tau - \\
 & - \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) v_j(\xi, \tau) + b_{ij}(\xi) \frac{\partial}{\partial x} v_j(\xi, \tau) \right]_{\xi=x+\lambda_i(\tau-t)} d\tau, \quad 0 \leq t < \frac{x}{\lambda_i}. \quad (24)
 \end{aligned}$$

Suppose the following agreement conditions of compromises are met:

$$\begin{aligned}
 & -\frac{1}{\lambda_i} \frac{d^2}{dx^2} g_i(0) + \frac{1}{\lambda_i} K_i(0) \varphi_i(0) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(0, 0) - \frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(0) \frac{d}{dt} g_i(0) = \\
 & = \frac{\partial}{\partial x} f_i(0, 0) - \lambda_i \frac{d^2}{dx^2} \varphi_i(0) - \sum_{j=1}^n \frac{d}{dx} [b_{ij}(0) \varphi_i(0)] \quad (25)
 \end{aligned}$$

$\frac{\partial v_i}{\partial x}$

Function $\frac{\partial v_i}{\partial x}$ in domain D , $i=1, 2, \dots, s$ define a solution of equation (23). For

$i = s + 1, \dots, n$ we define functions $\frac{\partial v_i}{\partial x}$ continuously in domain D like the above method

$$\begin{aligned}
 & -\frac{1}{\lambda_i} \frac{d^2}{dx^2} g_i(0) + \frac{1}{\lambda_i} K_i(0) \varphi_i(H) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(H, 0) - \frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(H) \frac{d}{dt} g_i(0) = \\
 & = \frac{\partial}{\partial x} f_i(H, 0) - \lambda_i \frac{d^2}{dx^2} \varphi_i(H) - \sum_{j=1}^n \frac{d}{dx} [b_{ij}(H) \varphi_i(H)]. \quad (26)
 \end{aligned}$$

The main result and its proof. The main result of this work is given in the following theorem.

Theorem 2. Assume that, $b_{ij}(x) \in C^1[0, H]$, $f(x, t) \in C^1(D_T)$, $\varphi(x) \in C^1[0, H]$, $g_i(t) \in C^2[0, \infty)$, $h_i(t) \in C^2[0, \infty)$, the agreement conditions (21) and (25), (26) are met

$\left[0, \frac{H}{\mu}\right]$, ($\mu = \min_{1 \leq i \leq n} |\lambda_i|$). In this case, the inverse problem has unique solution for

sufficiently small $H > 0$, $K(t) \in C\left[0, \frac{H}{\mu}\right]$.

Proof. Equations (16), (22) and (24), which satisfy the initial and boundary conditions in equation (12), represent a system of closed equations related to the unknowns' functions $v_i(x, t)$,

$$K_i(t), \frac{\partial}{\partial x} v_i(x, t)$$

Let $D(\mu) := \left\{ (x, t) : 0 \leq x \leq H, 0 \leq t \leq \frac{H}{\mu} \right\}$.

The equations (16), (22) and (24) are closed system of integral Volterra equations of the second kind according to $v_i(x, t)$, $K_i(t)$, $v_{ix}(x, t)$.

We represent system of equations (16), (22) and (24) in the form of operator equations:

$$\psi = U\psi, \tag{27}$$

where

$$\begin{aligned} \psi_i^1(x, t) &= v_i(x, t), \quad \psi_i^2(x, t) = \psi_i^2(t) = K_i(t), \\ \psi_i^3(x, t) &= \frac{\partial}{\partial x} v_i(x, t) + K_i(t_0^i) \varphi_i(x_0^i) \frac{\partial}{\partial x} t_0^i. \end{aligned}$$

are vector functions with the components $\psi_i^{10}(x, t)$, $\psi_i^{20}(x, t)$, $\psi_i^{30}(x, t)$ and the operator U is defined on the set of functions $\psi_i \in C(D)$ and in accordance with Eqs. (16), (22) and (24) have the form $U = (U_i^1, U_i^2, U_i^3)_{i=1}^n$:

$$\begin{aligned} U_i^1 \psi &= \psi_i^{10}(x, t) + \int_{t_0^i}^t \psi_i^2(\tau) \varphi_i(x + \lambda_i(\tau - t)) d\tau + \int_{t_0^i}^t \int_0^\tau \psi_i^2(\eta) \psi_i^1(x + \lambda_i(\tau - t), \tau - \eta) d\eta d\tau - \\ &\quad - \int_{t_0^i}^t \sum_{j=1}^n b_{ij} (x + \lambda_i(\tau - t)) \psi_j^1(x + \lambda_i(\tau - t), \tau) d\tau, \end{aligned} \tag{28}$$

$$\begin{aligned} U_i^2 \psi &= \psi_i^{20}(x, t) + \frac{1}{\varphi_i(v_i)} \left[\lambda_i \int_0^t \psi_i^2(\tau) \frac{d}{dx} \varphi_i(\bar{t}_i(t) + \lambda_i \tau) d\tau - \int_0^t \psi_i^2(\tau) G_i(t - \tau) d\tau \right] + \\ &\quad + \frac{\lambda_i}{\varphi_i(v_i)} \left[\int_0^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(\bar{t}_i(t) + \lambda_i \tau, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau \right] - \\ &\quad - \frac{\lambda_i}{\varphi_i(v_i)} \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) \psi_j^1(\xi, \tau) + b_{ij}(\xi) [\psi_i^3(\xi, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] \right]_{\xi=\bar{t}_i(t)+\lambda_i \tau} d\tau, \end{aligned} \tag{29}$$

$$\begin{aligned} U_i^3 \psi &= \psi_i^{30}(x, t) + \int_{t_0^i}^t \psi_i^2(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \frac{1}{\lambda_i} \int_{t_0^i}^t \psi_i^2(\tau) \psi_i^1(x_0^i, t_0^i - \tau) d\tau \\ &\quad + \int_{t_0^i}^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(x + \lambda_i(\tau - t), \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau - \\ &\quad - \int_{t_0^i}^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) \psi_j^1(\xi, \tau) + b_{ij}(\xi) [\psi_i^3(\xi, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] \right]_{\xi=x+\lambda_i(\tau-t)} d\tau, \end{aligned} \tag{30}$$

where we introduce the notation $\psi_i^{10}(x, t)$, $\psi_i^{20}(x, t)$ and $\psi_i^{30}(x, t)$

$$\psi_i^{10}(x, t) = v_i(x_0^i, t_0^i) + \int_{t_0^i}^t \frac{\partial}{\partial t} f_i(x + \lambda_i(\tau - t), \tau) d\tau, \setminus$$

$$\psi_i^{20}(t) = \frac{1}{\varphi_i(v_i)} \left[F_i(\bar{t}_i(t)) + \sum_{j=1}^n b_{ij}(H) G_j(t) \right], \tag{31}$$

$$\psi_i^{30}(x, t) = \frac{\partial}{\partial x} v_i(x_0^i, t_0^i) + \frac{1}{\lambda_i} \frac{\partial}{\partial t} f_i(x_0^i, t_0^i) - \frac{1}{\lambda_i} \sum_{j=1}^n b_{ij}(x_0^i) v_j(x_0^i, t_0^i) + \int_{t_0^i}^t \frac{d^2}{dx^2} f_i(x + \lambda_i(\tau - t), \tau) d\tau.$$

Let $C(D(\mu))$ be the Banach space of continuous functions induced by the family of ordinary

$$\text{norms } \|\psi\| \quad \|\psi\| = \max_{i,s} \sup_{(x,t) \in D(\mu)} |\psi_i^s(x, t)|, \quad i = 1, 2, \dots, n, \quad s = 1, 2, 3.$$

In the space $C(D(\mu))$ we introduce the ball $S(\psi^0, \rho) := \{\psi : \|\psi - \psi^0\| \leq \rho\}$ of radius ρ centered at the point ψ^0 , where the function ψ^0 is defined as (31). Obviously, the estimate

$$\|\psi\| \leq \|\psi^0\| + \rho =: R$$

holds for a function $\psi \in S(\psi^0, \rho)$. Let $\psi \in S(\psi^0, \rho)$. We prove that the operator U is contracting on the set $S(\psi^0, \rho)$. We first show that the operator U translates a ball into the same ball, i.e., $U\psi \in S(\psi^0, \rho)$. Let, we introduce the following sings

$$\begin{aligned} \varphi_0 &= \max_{1 \leq i \leq n} \|\varphi_i\|_{C^2[0, H]}, \quad g_0 = \max_{1 \leq i \leq n} \|g_i\|_{C^2[0, \frac{H}{\mu}]}, \quad f_0 = \max_{1 \leq i \leq n} \|f_i\|_{C^2[D(\mu)]}, \quad \lambda_0 = \max_{1 \leq i \leq n} |\lambda_i|, \\ h_0 &= \max_{1 \leq i \leq n} \|h_i\|_{C^2[0, \frac{H}{\mu}]}, \quad \Gamma_0 = \max\{g_0, f_0\}, \quad \Phi_0 = \min|\varphi(0), \varphi(H)|, \quad b_0 = \max_{1 \leq i, j \leq n} \|b_{ij}\|_{C^1[0, H]}. \end{aligned}$$

Indeed, using relations (28)–(30) for the norm of the differences, for $(x, t) \in D(\mu)$, we obtain $\psi \in S(\psi^0, \rho)$.

$$\begin{aligned} |U_i^1 \psi - \psi_i^{10}| &= \left| \int_{t_0^i}^t \psi_i^2(\tau) \varphi_i(x + \lambda_i(\tau - t)) d\tau - \int_{t_0^i}^t \sum_{j=1}^n b_{ij}(x + \lambda_i(\tau - t)) \psi_j^1(x + \lambda_i(\tau - t), \tau) d\tau + \right. \\ &\quad \left. + \int_{t_0^i}^t \int_0^\tau \psi_i^2(\eta) \psi_i^1(x + \lambda_i(\tau - t), \tau - \eta) d\eta d\tau \right| \leq \int_0^t (R(\varphi_0 + nb_0) + R^2 \tau) d\tau \leq \\ &\leq \left(\frac{\varphi_0 + nb_0}{\mu} + \frac{HR}{2\mu^2} \right) HR := \beta_1, \end{aligned}$$

$$\begin{aligned} |U_i^2 \psi - \psi_i^{20}| &= \left| \frac{1}{\varphi_i(v_i)} \left[\lambda_i \int_0^t \psi_i^2(\tau) \frac{d}{dx} \varphi_i(\bar{t}_i(t) + \lambda_i \tau) d\tau - \int_0^t \psi_i^2(\tau) G_i(t - \tau) d\tau \right] - \right. \\ &\quad \left. - \frac{\lambda_i}{\varphi_i(v_i)} \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) \psi_j^1(\xi, \tau) + b_{ij}(\xi) [\psi_i^3(\xi, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] \right]_{\xi=\bar{t}_i(t)+\lambda_i \tau} d\tau + \right. \\ &\quad \left. + \frac{\lambda_i}{\varphi_i(v_i)} \left[\int_0^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(\bar{t}_i(t) + \lambda_i \tau, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau \right] \right| \leq \\ &\leq \frac{1}{\Phi_0} \int_0^t (R(\Gamma_0 + \lambda_0 \varphi_0 + nb_0 \varphi_0 + 2n\lambda_0 b_0) + R^2(\lambda_0 + \varphi_0) \tau) d\tau \leq \\ &\leq \frac{1}{\Phi_0} \left(\frac{\Gamma_0 + \lambda_0 \varphi_0 + nb_0 \varphi_0 + 2n\lambda_0 b_0}{\mu} + \frac{HR(\lambda_0 + \varphi_0)}{2\mu^2} \right) HR := \frac{1}{\Phi_0} \beta_2, \end{aligned}$$

$$\begin{aligned} |U_i^3 \psi - \psi_i^{30}(x, t)| &= \left| \int_{t_0^i}^t \psi_i^2(\tau) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \frac{1}{\lambda_i} \int_{t_0^i}^t \psi_i^2(\tau) \psi_i^1(x_0^i, t_0^i - \tau) d\tau - \right. \\ &\quad \left. - \int_{t_0^i}^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) \psi_j^1(\xi, \tau) + b_{ij}(\xi) [\psi_i^3(\xi, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] \right]_{\xi=x+\lambda_i(\tau-t)} d\tau + \right. \\ &\quad \left. + \int_{t_0^i}^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(x + \lambda_i(\tau - t), \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau \right| \leq \\ &\leq \int_0^t \left(\frac{R}{\mu} (\lambda_0 \varphi_0 + R + n\varphi_0 b_0 + 2\lambda_0 n b_0) + \frac{(\lambda_0 + \varphi_0) R^2}{\mu} \tau \right) d\tau \leq \\ &\leq \frac{1}{\mu} \left(\frac{R + n\varphi_0 b_0 + \lambda_0 \varphi_0 + 2n\lambda_0 b_0}{\mu} + \frac{HR(\lambda_0 + \varphi_0)}{2\mu^2} \right) HR := \frac{1}{\mu} \beta_3. \end{aligned}$$

which follows from (28) – (31)

$$\|U\psi - \psi^0\| = \max \left\{ \max_{1 \leq i \leq n} \sup_{(x,t) \in D(\mu)} |U_i^1 \psi - \psi_i^{10}|, \max_{1 \leq i \leq n} \sup_{t \in [0, \frac{H}{\mu}]} |U_i^2 \psi - \psi_i^{20}|, \right. \\ \left. \max_{1 \leq i \leq n} \sup_{(x,t) \in D(\mu)} |U_i^3 \psi - \psi_i^{30}| \right\} \leq \max \left(1, \frac{1}{\Phi_0}, \frac{1}{\mu} \right) \beta_0,$$

Let $\beta_0 := \max(\beta_1, \beta_2, \beta_3)$, where $\rho = \beta_0 \max \left(1, \frac{1}{\Phi_0}, \frac{1}{\mu} \right)$,

$H \leq H_1$ for $\|U\psi - \psi^0\| \leq \rho$, Then the operator U translates a ball to the same ball, i.e., $U\psi \in S(\psi^0, \rho)$.

Now let ψ and ψ be two arbitrary elements in $S(\psi^0, \rho)$. Using the obvious inequality

$$|\psi_i^k \psi_i^s - \psi_i^k \psi_i^s| \leq |\psi_i^k - \psi_i^k| |\psi_i^s| + |\psi_i^k| |\psi_i^s - \psi_i^s| \leq 2R \|\psi - \psi\|.$$

after some easy estimations, we find that for $(x, t) \in D(\mu)$,

$$\begin{aligned} |U_i^1 \psi - \psi_i^{10}| &= \left| \int_{t_0^i}^t (\psi_i^2(\tau) - \psi_i^2(\tau)) \varphi_i(x + \lambda_i(\tau - t)) d\tau - \right. \\ &\quad \left. - \int_{t_0^i}^t \sum_{j=1}^n b_{ij}(x + \lambda_i(\tau - t)) [\psi_j^1(x + \lambda_i(\tau - t), \tau) - \psi_j^1(x + \lambda_i(\tau - t), \tau)] d\tau + \right. \\ &\quad \left. + \int_{t_0^i}^t \int_0^\tau [\psi_i^2(\eta) \psi_i^1(x + \lambda_i(\tau - t), \tau - \eta) - \psi_i^2(\eta) \psi_i^1(x + \lambda_i(\tau - t), \tau - \eta)] d\eta d\tau \right| \leq \\ &\leq \|\psi - \psi\| \int_0^t (R(\varphi_0 + nb_0) + R^2\tau) d\tau \leq \left(\frac{\varphi_0 + nb_0}{\mu} + \frac{HR}{2\mu^2} \right) HR \|\psi - \psi\| := \gamma_1 \|\psi - \psi\|, \\ |U_i^2 \psi - \psi_i^{20}| &= \left| \frac{1}{\varphi_i(v_i)} \left[\lambda_i \int_0^t (\psi_i^2(\tau) - \psi_i^2(\tau)) \frac{d}{dx} \varphi_i(\bar{t}_i(t) + \lambda_i\tau) d\tau - \right. \right. \\ &\quad \left. - \int_0^t (\psi_i^2(\tau) - \psi_i^2(\tau)) G_i(t - \tau) d\tau \right] - \frac{\lambda_i}{\varphi_i(v_i)} \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) (\psi_j^1(\xi, \tau) - \psi_j^1(\xi, \tau)) \right. \\ &\quad \left. + b_{ij}(\xi) [(\psi_i^3(\xi, \tau - \eta) - \psi_i^3(\xi, \tau - \eta)) + \frac{1}{\lambda_i} (\psi_i^2(t_0^i) - \psi_i^2(t_0^i)) \varphi_i(t_0^i)] \right]_{\xi = \bar{t}_i(t) + \lambda_i\tau} d\tau + \\ &\quad + \frac{\lambda_i}{\varphi_i(v_i)} \left[\int_0^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(\bar{t}_i(t) + \lambda_i\tau, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau - \right. \\ &\quad \left. - \int_0^t \int_0^\tau \psi_i^2(\eta) [\psi_i^3(\bar{t}_i(t) + \lambda_i\tau, \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i)] d\eta d\tau \right] \leq \\ &\leq \frac{1}{\Phi_0} \|\psi - \psi\| \int_0^t (R(\Gamma_0 + \lambda_{02}\varphi_0 + nb_0\varphi_0 + 2n\lambda_{02}b_0) + 2R^2(\lambda_{02} + \varphi_0)\tau) d\tau \leq \\ &\leq \frac{1}{\Phi_0} \left(\frac{\Gamma_0 + \lambda_0\varphi_0 + nb_0\varphi_0 + 2n\lambda_0b_0}{\mu} + \frac{HR(\lambda_0 + \varphi_0)}{\mu^2} \right) HR \|\psi - \psi\| := \frac{1}{\Phi_0} \gamma_2 \|\psi - \psi\|, \\ |U_i^3 \psi - \psi_i^{30}(x, t)| &= \left| \int_{t_0^i}^t (\psi_i^2(\tau) - \psi_i^2(\tau)) \frac{d}{dx} \varphi_i(x + \lambda_i(\tau - t)) d\tau + \right. \end{aligned}$$

$$\begin{aligned} & \frac{1}{\lambda_i} \int_0^{t_0^i} \left(\psi_i^2(\tau) \psi_i^1(x_0^i, t_0^i - \tau) - \psi_i^2(\tau) \psi_i^1(x_0^i, t_0^i - \tau) \right) d\tau - \int_0^t \sum_{j=1}^n \left[\frac{d}{dx} b_{ij}(\xi) \left(\psi_j^1(\xi, \tau) - \psi_j^1(\xi, \tau) \right) + \right. \\ & \left. + b_{ij}(\xi) \left(\left(\psi_i^3(\xi, \tau - \eta) - \psi_i^3(\xi, \tau - \eta) \right) + \frac{1}{\lambda_i} \left(\psi_i^2(t_0^i) - \psi_i^2(t_0^i) \right) \varphi_i(t_0^i) \right) \right]_{\xi=x+\lambda_i(\tau-t)} d\tau + \\ & + \int_0^t \int_0^\tau \left[\psi_i^2(\eta) \left[\psi_i^3(x + \lambda_i(\tau - t), \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i) \right] - \right. \\ & \left. - \psi_i^2(\eta) \left[\psi_i^3(x + \lambda_i(\tau - t), \tau - \eta) + \frac{1}{\lambda_i} \psi_i^2(t_0^i) \varphi_i(t_0^i) \right] \right] d\eta d\tau \leq \\ & \leq \|\psi - \psi\| \int_0^t \left(\frac{R}{\mu} (\lambda_0 \varphi_0 + R + n\varphi_0 b_0 + 2\lambda_0 n b_0) + \frac{2(\lambda_0 + \varphi_0) R^2}{\mu} \tau \right) d\tau \leq \\ & \leq \frac{1}{\mu} \left(\frac{R + n\varphi_0 b_0 + \lambda_0 \varphi_0 + 2n\lambda_0 b_0}{\mu} + \frac{HR(\lambda_0 + \varphi_0)}{\mu^2} \right) HR \|\psi - \psi\| := \frac{1}{\mu} \gamma_3 \|\psi - \psi\|. \end{aligned}$$

where we have the following

$$\begin{aligned} & \|U\psi - U\psi\| = \\ & = \max \left\{ \max_{1 \leq i \leq n} \sup_{(x,t) \in D(\mu)} |U_i^1 \psi - U_i^1 \psi|, \max_{1 \leq i \leq n} \sup_{t \in \left[0, \frac{H}{\mu}\right]} |U_i^2 \psi - U_i^2 \psi|, \max_{1 \leq i \leq n} \sup_{(x,t) \in D(\mu)} |U_i^3 \psi - U_i^3 \psi| \right\} \leq \\ & \leq \max \left(1, \frac{1}{\Phi_0}, \frac{1}{\mu} \right) \beta_{00} \|\psi - \psi\|, \end{aligned}$$

where $\beta_{00} := \max(\gamma_1, \gamma_2, \gamma_3)$. Besides, H_2 is the root of the following equation (comparatively H):

$$\max \left(1, \frac{1}{\Phi_0}, \frac{1}{\mu} \right) \beta_{00} = 1,$$

Let β_{00} be obtained from β_0 by replacing ρ with R in all expressions in the argument of the function min. Based on estimates analogous to those obtained above, we find that if we choose $H \leq H^* = \min\{H_1, H_2\}$, then the operator U is contracting on $S(\psi^0, \rho)$. By the Banach fixed-point theorem [20, p. 87-97], Eq. (27) is then solvable and has a unique solution in $S(\psi^0, \rho)$ for any fixed $H > 0$. Theorem 2 is proved.

Conclusion. To sum up, we look the kernel is $n \times n$ dimensional diagonal matrix that depends on time. To define that function, we put initial-boundary conditions on characteristic lines. We proved the theorem of unique solvability.

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OPPORTUNITIES FOR DEVELOPING COOPERATION BETWEEN TECHNICAL UNIVERSITIES AND INDUSTRIAL ENTERPRISES

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Abstract:

Background. This article examines the possibilities of students to take their place in the labor market through the cooperation of higher educational institutions and industrial enterprises. The article presents current issues in the activities of higher educational institutions for training personnel in accordance with the requirements of employers. There is a discrepancy between the requirements of employers for graduates and the practical skills of higher education students and their solutions.

Methods. The article used survey, differential-semantic, observation and comparison methods to determine the opportunities of students to occupy a place in the labor market through cooperation between higher education institutions and manufacturing enterprises.

Results. 1. Great attention should be paid to the formation of competencies in the training of graduates in the field of technical education.

2. In improving the content of education in the preparation of competitive graduates, it is necessary to eliminate shortcomings through surveys of employers.

3. In order to prepare graduates in accordance with the requirements of the labor market, based on the requirements of employers, it is necessary to organize classes using laboratories and classrooms on the basis of manufacturing enterprises.

4. The role of the manufacturing enterprise is important for graduates to develop themselves through intellectual qualities such as high flexibility, creativity, curiosity, and eventually reach the level of professional staff.

Conclusion. The participation of professional communities in the development of educational standards, and the strengthening of business participation in the recognition of qualification programs is one of the phenomena that meets the existing challenges from the employer. It is obvious that business participation in the development of educational standards involves the risk of excessive regulation that blocks the development of the relevant professional sphere. Excessive

standardization is fraught with a significant decrease in the dynamism of development, especially since the employer is not competent in the field of educational technologies.

Keywords: *practical skills, student, labor market, employer, standard of education, higher education, knowledge.*

Introduction. In the resolution of the Cabinet of Ministers of the Republic of Uzbekistan" on measures to organize the activities of the national system of professional skills, knowledge and skills development in the Republic of Uzbekistan " on May 15, 2020, the following priority tasks were considered:

- create conditions for the working people to fully utilize their labor activity, improve the quality of the workforce, expand the system of professional training, retraining and professional development of persons in need of employment on the basis of international experience;

- formation of a single platform of the National Qualifications Framework for the acquisition of professional qualifications and skills corresponding to the requirements of the labor market, ensuring growth and competitiveness in the position;

The main objectives of the organization and implementation of vocational training will be as follows:

- to ensure that the knowledge, qualifications and skills of students comply with the established professional standards for the types of relevant professional activities (professions, specialties) ;

- to strengthen the acquired theoretical knowledge with practical skills and to ensure the formation of the necessary competences in the types of relevant professional activity (professions) in the students;

- to assess the level of knowledge and practical skills of students.

In the implementation of these tasks, a lot of positive work is carried out by educational institutions. It is permissible to emphasize the place of production education in the formation of practical skills in students in cooperation with production enterprises. Development of knowledge, skills and skills in students through production training is the most effective way.

The following are the objectives of production training. The main purpose of industrial education is the formation of practical skills in a particular profession, sphere in the educational sphere. In production training, the main goal is achieved in stages.

Effective interaction between higher education institutions and employers is a necessary condition for the full development of the higher education system and labor relations in Uzbekistan. Stimulating this interaction implies the coordination of actions of all interested parties, therefore, the presence of mutual understanding between them and the desire to develop a common vision of the situation.

The personnel issue is a stable third place among the problems faced by enterprises – this is the opinion of the majority of employers. In importance, this problem is second only to two others that directly determine the economic situation of the enterprise – investment and sales of products. The conducted research shows that this position on the degree of significance of the personnel problem persists for enterprises of various types of ownership and does not change depending on the economic situation of the enterprise.

The urgency of the problem is increasing due to the pandemic, which not only imposes new requirements and challenges on the education system, but also radically changes the priorities of the personnel policy of employers.

The regional labor market, being a part of the national labor market, can simultaneously be considered as a relatively independent complex socio-economic system. The labor market as a system of economic mechanisms, norms and institutions that ensure the reproduction of labor and its use is an integral part of the market system.

Methods. The article used survey, differential-semantic, observation and comparison methods to determine the opportunities of students to occupy a place in the labor market through cooperation between higher education institutions and manufacturing enterprises.

Results. 1. Great attention should be paid to the formation of competencies in the training of graduates in the field of technical education.

2. In improving the content of education in the preparation of competitive graduates, it is necessary to eliminate shortcomings through surveys of employers.

3. In order to prepare graduates in accordance with the requirements of the labor market, based on the requirements of employers, it is necessary to organize classes using laboratories and classrooms on the basis of manufacturing enterprises.

4. The role of the manufacturing enterprise is important for graduates to develop themselves through intellectual qualities such as high flexibility, creativity, curiosity, and eventually reach the level of professional staff.

Discussion. As part of the study of the theoretical aspect of specifying the requirements of the employer to the employee's competencies, technical training areas for various types of activities were considered. research projects. These research projects contain a comprehensive study of the views of stakeholders on the problems and trends of interaction between employers and higher education institutions. Within the framework of this project, a comprehensive system for collecting, processing and presenting systematic information on the economic behavior of participants in the educational services market is being formed and implemented. International experience and the results of many other domestic studies were studied.

An expert survey was conducted, the purpose of which was to identify the main problems of vocational education from the point of view of employers. The experts were heads of enterprises and organizations representing small, medium and large businesses (the main share of the sample was made up of representatives of medium-sized businesses).

This survey showed that employers rate the effectiveness of vocational education extremely low. The quality of training of graduates of primary vocational education institutions, as well as the practical component of training of graduates of higher educational institutions, is particularly problematic. This is a common problem: the vast majority of graduates of educational institutions lack practical skills and necessary competencies. Its reason, from the point of view of employers, lies in the inability (personnel, economic, technological, content) of educational institutions and the education system as a whole to respond flexibly to the demands of the labor market.

It is noted that most higher education institutions are characterized by isolation and self-sufficiency. The result of the closed higher education institutions and their low activity in interaction with employers is a weak orientation of higher education institutions to the formation of the most relevant competencies of graduates. The modern approach to human resource management suggests that the main unit of competence analysis is knowledge and skills, quality, and employee behavior. Each position in the organization is supposed to have its own set of mandatory competencies, which should become a tool for forming requirements for the content of higher education institutions of training and be used to establish a dialogue between business and higher education institutions.

They share General (widely applicable – for example, knowledge of foreign languages, the ability to build and apply mathematical models) and specific (applicable in a particular organization, at a particular workplace – for example, the ability to use special software used in a given company) competencies.

Despite the fact that in the modern world higher education is aimed at the formation of General competencies, it is their pronounced deficit among graduates of higher education institutions that many experts note. This includes the inability to prepare documents and speak publicly, the inability to apply their knowledge to solve practical problems, and poor language skills.

The reason for this state of Affairs can be considered the technology of education, which is often inadequate to the modern needs of the economy: higher education institutions do not form an orientation towards independent search for information and work with it, or team work skills. At the same time, the existing higher education does not provide special knowledge and skills that are adequate for modern tasks.

Many independent experts believe that in the modern economy, training for higher education institutions focused on the needs of a specific employer is impossible. The task of higher education institutions is to form the graduate's competencies that will allow him to adapt as quickly as possible to any subsequent job.

The Soviet model of higher education was largely focused on fixed links between the education system and the sphere of work. The system of mandatory distribution of graduates secured human resources and allowed us to interpret higher education as preparation for a subsequent, relatively rigid, career. The labor market, especially in its current stage of development, involves a much greater dynamism of professional movements, which means a shift in emphasis from the level of the economic system as a whole, which maximizes the return on its available human resources, to the level of the individual, who maximizes the return on their human capital and is responsible for their employment. Such changes encourage the revision of educational standards in favor of introducing a much greater level of flexibility, providing more opportunities to choose an individual training profile.

According to the developers, the new generation of standards represent the agreed requirements for education imposed by the family, society and the state. The involvement of professional communities in the development of educational standards, and the strengthening of business participation in the recognition of qualification programs is another new phenomenon for higher education. This step is explained, on the one hand, by the search for new ways for the education system to get recognition for its work, and on the other – by an attempt to determine the potential term and build a kind of "order" system for training personnel. The uncertainty of the requirements for the work of the education system is one of the common reproaches to the business community from higher education institutions.

At the same time, it is almost impossible to implement such a public demand for forecasting the need for personnel in a market economy, with its significant fluctuations in demand and flexibility in the supply of labor. Obviously, the roots of such expectations lie in the orientation to the Soviet model of "ordering" and planning demand for personnel.

Traditionally, two models of training coexist in the higher education system: "University" - focused on General training that expands the horizons and is not tied to any specific subsequent professional activity, and "applied", which allows you to get the necessary qualifications to enter a certain professional environment. These models differ in many parameters: the type of human capital being formed (more attention to General or specific knowledge, skills), monitoring, evaluation of higher education institutions by the research or professional community. These models usually exist in parallel, but periodically begin to compete with each other.

Business participation in the development of educational standards carries the risk of excessive regulation that blocks the development of the relevant professional sphere. Excessive standardization is fraught with a significant decrease in the dynamism of development. If we consider human resources as the main engine of the modern economy, it is important to determine the ratio of General and specific in their preparation.

A study conducted by the career planning laboratory showed that in the overall assessment of the level of training of graduates of higher educational institutions, employers do not go beyond the established ideas about the "pros" and "cons" of specialists. Graduates are usually carriers of modern theoretical knowledge, developed market personal qualities. But the weak point in their training is still the practical component of professional competence.

Concern about the lack of practical work experience among graduates of higher education institutions was also expressed in the responses of employers to the open question about which skills and abilities should be given more attention.

Among the relevant ones, they included:

- ability to search, analyze and summarize information;
- computer literacy;
- self-organization, self-learning, self-presentation skills;
- ability to make independent decisions;

- ability to work in a team.

In the structure of personal characteristics that are most effective in terms of adaptation in the workplace, the main share is taken by business qualities. In their totality, there is a different orientation of employers-on the one hand, the type of employee Executive, responsible, organized, on the other hand – initiative, mobile, flexible, independent. But in any case, the #1 quality in demand is sociability, the ability to contact. In this need, one of the main foundations of any social and economic practices is fixed – it is personal and group interaction.

Of interest is a set of intellectual qualities that are presented to employers as components of high adaptability of specialists. It is symptomatic that among such qualities as creativity, curiosity, the ability to quickly understand the essence of the matter, the adequacy of self-esteem, the main place is occupied by the ability and willingness to learn, the desire for self-education. Actually, this is the "Foundation" of adaptability not only to the workplace and professional framework, but also to dynamic, constantly changing working conditions. The importance of forming the need to learn throughout life has long been recognized by higher education and is implemented in the practice of educational and educational work.

An equally important reference point for educational activities should be the development of motivation that reflects the attitude to business and work. According to employers, such motivation should show the desire to become a professional, work for an idea, focus on results, and interest in work.

The following are the most important directions in creating and improving organizations:

- focus the company's activities on strategic results and ensuring compliance with human resource management;
 - the most important factor in achieving competitive advantages is the transition from periodic professional development of personnel to continuous training;
 - transition to "learning organizations" from private training;
 - shifting the focus to compliant training programs from standard ones.

The significance of these areas can be judged by the results of interviewing American managers on improvements in human resource management in the twenty-first century. According to the research, it can be concluded that the development of personnel management will occur in accordance with the following trends:

- human resource planning will be an integral part of the Corporation's overall strategy;
- promotion on the career ladder will be carried out for the breadth of professional qualifications, achievement of certain results, business ethics;
- one of the main purposes of the human resource management function will be to implement values, goals and organizational culture.

According to those who conducted this study, the presence of key competencies of the new generation of employers is associated with the intellectual and volitional qualities of a person. The important qualities included in the second group included the following:

- significant work experience and a high degree of professionalism;
- careful calculation, balance;
- achieving success in business negotiations;
- willingness to take a reasonable risk;
- motivation of subordinates;
- organization in a team of mutual assistance and a climate conducive to productive work.

These competencies are interrelated and, in general, tell us about the development of business skills.

Less than 50 % of the respondents were interested in the qualities that were later attributed to the last group of importance (minor):

- be able to interact with governing structures;
- the ability, if necessary, to bypass legal norms;
- comply with business ethics.

The first two qualities of this group received the least attention due to the fact that the respondents found certain questions sensitive, so they answered them with restraint.

In the course of this study, respondents generally believe that they have the necessary qualities rather than their absence. A survey of employers showed that, in general, they are ready to take responsibility for making important decisions. The ability to organize work in a team, the willingness to take reasonable risks, the ability to create a climate in the team for productive work are assessed less optimistically.

The following qualities received more pessimistic assessments:

- the level of innovative thinking;
- the ability to implement the decisions taken;
- the ability to motivate subordinates and conduct business negotiations.

The lowest marks were received for such qualities as the level of professionalism and the ability to get along with the management structures.

The requirements for workers in working specialties from employers are significantly limited by certain technical skills. Nothing special will be required from employees if narrowly professional technical competencies suit the employer. The same situation, when the requirements are limited to technical skills, is inherent in the regions.

The requirements of employers are becoming more varied when it comes to hiring line personnel. The following “core competencies” are required of such specialists in the labor market:

- higher education;
- confident PC user;
- knowledge of a foreign language;
- work experience in the field of a particular specialty.

Training programs inevitably lag behind current practice, therefore, in addition to certain knowledge, the following requirements are imposed on a candidate for a workplace:

- ability to work in a team;
- solving non-standard tasks;
- be responsible for the decisions made;
- desire and ability to learn;
- ability to work.

Conceptual skills are of significant importance for line-level employees, the ability to perceive the company as a whole and at the same time be able to analyze the relationship of individual parts is valued. The professional qualities of top management are not subject to such requirements as a thorough knowledge of all the functions of the enterprise, because the tasks of top management do not include coordination of production processes.

The most important competencies include the following:

- planning;
- analysis;
- the ability to use information correctly;
- ability to work in a team;
- manage relationships;
- to orient subordinates to the result;
- the ability to manage conflicts.

Top management personnel, as a rule, experience a shortage of specialists, the demand for them is much higher than the supply. The requirements for employers have changed with the increase in the activity of financial and industrial groups: it is necessary to have a good economic education, as well as a certain set of knowledge, yet the main professional quality is work experience in large enterprises.

Modernization of education with the necessary information about the state of the education economy: assessments of the scale and structure of educational services markets, characteristics of the economic behavior of the population and employers in this area, economic strategies of educational institutions. The lack of up-to-date, systematized and comprehensive information about

the field of education has led to the need for targeted actions to create an integrated information system on the economics of education.

Monitoring is built as a multi-level system based on information flows from households, students, teachers, heads of educational institutions and employers. Based on the data obtained, analytical studies are carried out in various areas: the markets of educational services at the federal and regional levels, the behavior of families in these markets, economic processes in the field of education, the state and development of the material, technical and information base, the human resources of educational institutions, the relationship between professional education and the labor market, which allow for predictive calculations of financial flows in education.

To motivate universities to train students in accordance with the needs of employers, it is necessary to focus on the quality of education, as well as on the end result of the work of the university.

For the subsequent successful improvement of the quality of higher education, it is necessary to ensure a direct link between the desired competencies of the labor market and personnel training. This can be achieved by applying the experience of countries that have achieved some success in this matter.

Of the most effective forms of interaction between employers and the vocational education system, one can single out the filing by an enterprise of an application to educational institutions for specialists of a certain profile, passing an internship at the enterprise, including pre-diploma internships. The use of the practice of presenting lectures and master classes for existing employees of enterprises, since they can present students with much more relevant and applied information than university teachers. Events such as job fairs and professional forums that allow young people thinking about a professional career to get information about jobs of interest to them are seen as effective. It is possible that one of the options for effective interaction can be familiarization of representatives of educational institutions with the production activities of the enterprise in order to further adjust the existing training courses.

Conclusions. The participation of professional communities in the development of educational standards, and the strengthening of business participation in the recognition of qualification programs is one of the phenomena that meets the existing challenges from the employer. It is obvious that business participation in the development of educational standards involves the risk of excessive regulation that blocks the development of the relevant professional sphere. Excessive standardization is fraught with a significant decrease in the dynamism of development, especially since the employer is not competent in the field of educational technologies.

Based on the above, we can draw the following conclusion that for a fruitful joint work of higher education institutions and organizations offering jobs, it is necessary to conduct a number of actions that are aimed at eliminating any discrepancies between the actual demand for qualified specialists and the opinions of the College of teachers on this issue.

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DAVLAT TILIGA E'TIBOR – MUSTAQILLIKKA SADOQAT RAMZI

*Qahhorov Otabek Siddiqovich**BuxDU ilmiy ishlar va innovatsiyalar bo'yicha prorektor,**Yo'ldosheva Dilorom Ne'matovna**BuxDU o'zbek tilshunosligi kafedrasida dotsenti,**Toirova Guli Ibragimovna**BuxDU o'zbek tilshunosligi kafedrasida dotsenti**Ey ona til, aziz qadrdonim,**Iltifoti ruhim, Rahmonim.**Tug'dig'im kundan aylading ulfat,**O'lguncha ayilma, ey jonim.**Menga ilm-u adab san o'rgatding,**Chin adib, muallim, shonim.**Millatning ruhini ko'targuchisan,**Ey muqaddas karamli sultonim.**Abdulla Avloniy*

To'g'ri so'zlamok va bexato yoza olmoq ziyolilikning eng ibtido belgisidir. Insonda tafakkur tili, odatda, ona tili bo'ladi. Kishi ona tilida o'ylaydi, ona tilida fikrlaydi, ona tilida dilidagini tiliga, nutqiga ko'chiradi. Ilk so'zi ham, so'nggi kalomi ham ona tili bilan bog'liq. Yillar o'tib milliy liboslarimiz o'zgarar, balki bizning milliy ko'rinishimiz yevropalashar, yashash tarzimiz almashar...

Yorug' olamda o'zgaras narsaning, tushunchaning yoki birlikning o'zi yo'q. Biroq biz o'zgartirishga haqsiz bo'lgan (faqat va faqat avaylab asrashga, rivojlantirishga, tandagi jonimiz, jondan aziz nomusimiz qadar saqlashga loyiq bo'lgan) yagona qadriyat–Yaratganning in'omi bor. Bu–ona tilimiz. Kim ona tilini unutadi? Kim ona tilida so'zlashdan uyaladi? Kim ona tilini past baholaydi va kamsitadi? Albatta, milliy qiyofasi, milliy g'ururi, o'zligi bo'lmaganlar. Yurt, xalq, millat taqdiri xavf ostida qolsa, bilingki, tilfurushlar birinchilardan bo'lib xiyonat yo'liga kiradilar. Zero, Avloniy ustoz to'g'ri ta'kidlaganlaridek: “Milliy tilni yo'qotmak millatning ruhini yo'qotmakdur” [3].

XXI asrning ikkinchi o'n yilligiga kelib har birimiz dunyoga chiqishga intilyapmiz. Bil'aks, tushunib yetdikki, bu yorug' olamda o'z qobig'imizga o'ralib yashab ham, ishlab ham, rivojlanib ham bo'lmas ekan. Taraqqiyot nafaqat o'z-o'zimizdan yoki bir-birimizdan, balki dunyodan, dunyoning rivojlangan mamlakatlari mutaxassislaridan o'rganishni, tajriba almashishni, “chet eldagi ilg'or tajribalardan foydalanish, tarbiyada esa milliy an'ana va qadriyatlarga suyanish”ni taqozo etyapti. Bularning barcha-barchasi uchun, albatta, dunyo tillaridan birini yoki bir nechasini bilishimiz zarur.

“Til bilgan – el biladi”, deydi dono xalqimiz. Chet tillarini o'rganishga keksa-yu yosh, o'qituvchi-yu muhandis, qo'yingki, barchamiz teng barobar bel bog'laganmiz. Bu – inkor etib bo'lmaydigan a'lo darajadagi ish.

XX asrning boshlaridayoq Abdulla Avloniy “Hifzi lison”larida kuyinib yozgan edilar: “Tilimizning yarmiga arabiy, forsiy ulangani kamlik qilub, bir chetiga rus tilini ham yopishdurmakdadurmiz. Durust, bizlarga hukumatimiz bo'lg'on rus lisonini bilmak hayot va saodatimiz uchun osh va non kabi keraklik narsadur. Lekin o'z yerinda ishlatmak va so'zlamak lozimdur”. Bizningcha, shu –“(chet) lisonini bilmak hayot va saodatimiz uchun osh va non kabi keraklik narsadur. Lekin o'z yerinda ishlatmak va so'zlamak lozimdur”– mantiq bugun ham o'z kuchini yo'qotgani yo'q, bundan keyin ham shunday bo'lib qolaveradi. Demak, o'zga tillarni o'rganmoq o'z ona tilimiz hisobiga bo'lmasligi shart.

Statistika ma'lumotiga ko'ra, shu kecha-kunduzda dunyoda taxminan 5621ta til va sheva ro'yxatga olingan. Ularning o'rganilgani 500ga yaqin. Demak, o'rganilganidan o'rganilmagani

ko'proq va yana har uch tildan bittasining yozuvi yo'q. Yozuvi bo'lmagan tillarning aksariyati faqat og'zaki nutq shakliga ega, xolos.

Mutaxassislar (o'rganilgan tillar nuqtayi nazaridan yondashuv asosida) dunyo tillaridan faqat 40tasigina og'zaki va yozma jihatdan mukammal shakllanganligini e'tirof etishadi. Faxrlansak arziydiki, o'sha 40ta tilning orasida o'zbek tili ham bor.

Manbalarda lug'at boyligi jihatidan ro'yxatlarning old qatoridan uch yarim milliondan ortiq leksik birligi bilan arab tili, ikki yarim milliondan oshiq so'zi bilan ingliz tili o'rin egallaydi. O'zbek mutaxassislarining hisob-kitoblariga ko'ra, adabiy tilimizga so'z tanlashda "xasis"lik qilmaslikni inglizlardan o'rgansak (inglizlarning lug'atlaridan mahalliy sheva so'zlari ham deyarli to'liq o'rin egallagan), o'zbek tilining so'z va iboralari (sheva va adabiy til, kasb-hunar so'zlari va atamalar, eskirgan va yangi paydo bo'lgan so'zlar) zamon-u makon nuqtayi nazaridan cheklanmay yig'lsa, dunyoda eng ko'p so'zli lug'atlardan ham kattaroq lug'at tuzishimiz mumkin ekan. O'zbek tilining boshqa til qoliplariga tushmaydigan, o'ziga xos rivojlanish yo'llari mavjudki, bu uning har kuni (ba'zan har soat-u daqiqada) boyib borishini ta'minlaydi.

Jumladan, shu kecha-kunduzda, bozorda yoki do'konda biror yangi (aytaylik, chetdan keltirilgan) mahsulot rastaga yoki peshtaxtaga chiqsa (tabiiyki, o'sha mahsulotning nomi ham tilimizga kirib keladi, o'zlashadi), oradan hech qancha vaqt o'tmay xalq o'sha yangi mahsulot yoki tushunchaning nomi bilan bog'liq yangi so'zlarni tilida yasab nutqida ishlataveradi:

global (o'zlashgan so'z) – *globallashgan, globallashuv* (yasalgan so'zlar);

skaner (o'zlashgan so'z) – *skanerli (xona), skanersiz (nuxxalash), skanerlamoq, beskaner (ishlamoq), skaner qilmoq* (yasalgan so'zlar);

kardigan (ayollarning yengsiz ust kiyimi; o'zlashgan so'z) – *kardiganli, kardigansiz, becardigan, kardiganbop* (yasalgan so'zlar);

internet (o'zlashgan so'z) – *internetli, internetsiz, internetbop (video), internetchi, internetsoz* (yasalgan so'zlar);

xotdog (o'zlashgan so'z) – *xotdogchi, xotdogfurush, xotdogpaz, xotdogli (dasturxon), xotdogsiz (tushlik), xotdogxo'r* (yasalgan yoki yasalayotgan so'zlar) va h.

Livon tili haqida eshitganmisiz? Latviyada livon tili bo'lib, unda jami 200ga yaqin kishi muloqot qilishi aniqlangan. Yoki Gvineyaning mahalliy tillaridan birining nomi *taki* bo'lib, mutaxassislar bu tilni dunyoning eng kambag'al tili deb hisoblashadi. Chunki uning lug'at boyligi 400ta so'zga ham yetmaydi.

Demak, faxrlansak arziydigan, boy tilimiz bor. Tilshunos olim Alibek Rustamov "So'z xususida so'z" (Toshkent, 2009) risolalarida: "... bilishimiz zarurki, g'arb texnikada ilg'or, ammo ma'naviyat, ma'rifat, san'at va tilda sharqqa nisbatan ancha orqada", deb haq gapni yozadilar.

Inson zoti borki, har sohada, har jabhada, har o'rinda go'zallikka intiladi. Inson qachonki go'zallikka intilmas ekan, uning tabiati hayvonlashadi. O'zbek tilida tiriklikka xos jamiki go'zalliklarni badiiy ifodalash imkoniyati nihoyatda keng va rang-barang. Shu bois biz o'zbeklar nutqimizda so'zlar tizmasidan shunchaki foydalanmaymiz.

E'tibor bering-a?!

1. "Xotinning yuragiga yo'l topsang, bolalaringni tug'adi, erim deb ardoqlaydi-da." (Ayolga nisbatan aytilgan chapani gap.) Aynan shu jumlaning Farida Afro'z bunday ifodalaydi:

Ayolni sev,

ayolga yolbor.

Ming bir kecha ertaklaring ayt,

Alpomishlar tug'ib beradi.

Ayolni sev,

ostonasin o'p.

Qasr qurma, ko'nglini so'ra.

Balo kelsa, turib beradi.

Ayolni sev,

O'laman degil.

Ishq yaratgan parvardigordan,

Senga umr so'rab beradi.

2. “Buncha esing past bo‘lmasa?! Hech o‘qiysanmi?! O‘qi axir!” Qo‘pol jumla. Shunday emasmi?!

Aynan shu gapni Abdulqodir Bedil hazratlari bunday ifodalaydi:

*Fikrsiz aqlning zangi bo‘ladi,
Ilm-la egovla, yangi bo‘ladi.
Oynadan ibrat ol, bir kun artmasang,
Ustida bir enlik changi bo‘ladi.*

3. “Dunyoda kir qidiruvchi bo‘lsang, xudodan topasan!” Ayovsiz, ammo aniq mantiq. Bu mantiqni ustoz Sadridin Salim Buxoriy shunday ifodalaydi:

*Illat izlaganga illatdur dunyo,
G‘urbat izlaganga g‘urbatdur dunyo.
Kim neni izlasa, topar begumon,
Hikmat izlaganga hikmatdur dunyo.*

4. “Taqdirda yozilgani bo‘ladi!” Ba‘zan bu jumladan etimiz uvishadi... Xalqimiz buni o‘z latifalarida “qog‘ozga o‘rab” kulib aytadi:

Bir kuni Afandining oldiga Azroil keldi va dedi:

– *Sening navbating keldi. Joningni olaman!*

– *Qani, ro‘yxatingni ko‘rsat-chi,–deydi Afandi.*

Ro‘yxatni ko‘rsa, haqiqatan ham, navbati kelgan ekan.

– *Bir piyola choy ichib tur, Azroiljon. Men yuvinib poklanib olay,– deb choyga uyqu dori solib beribdi Afandi.*

Azroil uxlagach, ro‘yxatdan nomini o‘chirib, oxirgi qatorga yozib qo‘yibdi.

Azroil uyg‘onib:

– *E Afandi, maza qilib dam oldim. Yaxshiliging uchun ro‘yxatni oxirgi qatordan boshlayman,– debdi.*

5. Ba‘zan bir romanda berish mumkin bo‘lgan mantiqni bizning tilimizda juda qisqa tarzda ifodalash ham mumkin:

*Siz menga keraksiz,
Men sizga keraksiz...*

(R.Parfi)

Bu kabi misollarni ko‘plab keltirishimiz mumkin.

Ona tilimizning sofligini saqlash, talaffuz me‘yorlaridagi chalkashliklarga barham berish va ta‘limi borasida bajarishimiz zarur bo‘lgan ishlar, egallashimiz zarur bo‘lgan bilim, malaka, ko‘nikmalar bisyor. Ona tilimizga e‘tibor uchun har birimiz mas‘ulmiz, uning ta‘limi zamirida ham shu mas‘uliyatni kuchaytirish vazifasi turadi. “Davlat tili to‘g‘risida”gi Qonunning qabul qilinganligiga 31 yil to‘ldi. Mutaxassislarimiz o‘tgan yillar davomida tilimizning maqomini orttirish uchun kam harakat qildik, deyishyapti; bu boradagi kamchiliklarni sanab o‘tishyapti; o‘zbek tilining maqomini oshirish uchun qilinishi lozim bo‘lgan ishlarni taklif qilishyapti. Bu yaxshi. Ammo statistik tahlil shuni ko‘rsatadi: o‘zbek tili shu davr ichida maqomini tikladi. Qonun o‘z vazifasini bajardi. Qonunni mukammallashtirish vaqti keldi. Qonunni qayta ishlash jarayonida davlat tilini qo‘llashga qat‘iy talab qo‘yish, uni boshqa davlatlarning davlat tili haqidagi qonuni bilan solishtirish, ijobiy tomonlaridan namuna olish vaqti yetdi. Bugun o‘zbek tilining davlat tili maqomini yanada kuchaytirish haqida bosh qotirishimiz, bu yo‘lda sobitqadamlik bilan amaliy ishlar qilishimiz kerak.

Ta‘kidlash joizki, Prezidentimiz 2019-yil 21-oktabr kuni O‘zbekiston Respublikasining “Davlat tili haqida” Qonuni qabul qilinganligining o‘ttiz yilligiga bag‘ishlangan tantanali marosimdagi nutqida: “Biz xalqimizning taqdiri, ertangi kuni haqida o‘ylar ekanmiz, eng avvalo, millatimizning asl fazilatlarini, go‘zal urf-odatlarimiz, betakror san‘atimiz va adabiyotimizni, ona tilimizni ko‘z qorachig‘iday saqlashimiz zarur.... har birimiz davlat tiliga bo‘lgan e‘tiborni mustaqillikka bo‘lgan e‘tibor deb, davlat tiliga ehtirom va sadoqatni ona Vatanga ehtirom va sadoqat deb bilishimiz, shunday qarashni hayotimiz qoidasiga aylantirishimiz lozim”ligini alohida ta‘kidladi.

Yurt rahbarining: “Davlat tilini rivojlantirishga qaratilgan ishlarimizning mantiqiy davomi sifatida bugun mamlakatimizda yana bir muhim qadam qo‘ydik. Men bugun “O‘zbek tilining davlat tili sifatidagi nufuzi va mavqeyini tubdan oshirish chora-tadbirlari to‘g‘risida”gi farmonga imzo chekdim. Unga binoan “Davlat tili haqida”gi qonun qabul qilingan kunning ulkan tarixiy o‘rni va ahamiyatidan kelib chiqqan holda, 21-oktabr sanasi yurtimizda “O‘zbek tili bayrami kuni” deb belgilandi” [1] deya e‘lon qilishi alohida voqelik bo‘ldi.

Demak, yurtimizda milliy yuksalish davri talablaridan kelib chiqib, ona tilimizning jamiyatdagi o‘rni va nufuzini yuksaltirish bo‘yicha keng ko‘lamli ishlarni amalga oshirish uchun rasmiy dadil qadam tashlandi [2]. O‘ylaymizki, bu istiqbolimizning ma‘naviy asoslarini mustahkamlash, milliy qadriyatlarimizni asrash borasida xalqimiz, ajdodlarimiz ulug‘lagan yo‘lni og‘ishmay davom ettirishimizda huquqiy asos bo‘ladi.

Shu o‘rinda bir rivoyatni keltirib o‘tmoqni joiz deb bildik.

“O‘rmonda bolta paydo bo‘lib daraxtlarni kesa boshlabdi. O‘rmon ahli – daraxtlar unga chora topolmay donishmand Eman huzuriga boribdilar va bo‘layotgan voqeani so‘zlab beribdilar.

– Bolta deganlarning nimadan ishlangan? – so‘rabdi donishmand Eman.

– Bolta temirdan ishlangan, – javob qilishibdi yig‘ilganlar.

– Dastasi-chi? U ham temirdan ishlanganmi? – tashvishlanib so‘rabdi keksa Eman.

– Yo‘q, dastasi temirdan emas, yog‘ochdan, – jo‘r bo‘lishibdi daraxtlar.

– Ha, attang, attang-a! Dastasi o‘zimizdan ekan, endi boltani to‘xtatishning hech qanday iloji yo‘q, – degan ekan donishmand Eman.”

Ko‘chadagi do‘konlar, maishiy muassasalar, xususiy tashkilotlar peshtoqidagi quyidagi nomlar (“Pet-Line”, “Energo Radikal”, “Galeon Plyus”, “Rotor”, “Almaz”, “Alligator Plyus”, “Evviva Lusso”, “Asilis Best”, “Diamond-Art”, “Grocery Paradise”, “East Explore”, “Emir Trayel”, “Shturiy”, “Area Info”, “Juventus-Turin”, “Azia Global Team”, “Authentic Travel”, “New Leo Den”, “Anetto Plyus”, “New Star Spring”, “Injiniring Klimat Kontrol”, “Kavsar Plaza”, “Ekspress Axborot Servis”, “Media Music Star”, “Gold Star Konsalting”, “Atlantic Technics”, “Ikea”...)ga biz o‘rganib qoldik. Mazkur ro‘yxatni yana uzoq davom ettirishimiz mumkin: “Elegant”, “Jasmina”, “Baver”, “Bagira”, “Masha i medved”, “Meri”, “Lavetta”, “Procab Buxara”, “Le Uat De Bukara”...

Nomlar tarkibidagi so‘zlar “temir bolta” bo‘lgani barobarida “boltaning dastasi” o‘zimizniki ekanligi kishini tashvishlantiradi.

Zero, bugun biz qalban, ma‘nan, ruhan, siyratu suratan o‘zbek degan nomga munosib bo‘lib yashashga to‘la haqlimiz.

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EXPRESSION OF CONNOTATIVE MEANING IN ONOMATOPOEIA

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Abstract:

Introduction. *There are various means of expressing emotional expressiveness in language, one of which is onomatopoeia. Onomatopoeia refers to the sound or phonetic imitation of what is being described. In onomatopoeia, words express natural sounds and have different connotative meanings.*

Main part. *Sound production in speech acquires the character of artistic expression and performs a certain methodological function. One or another element of the sound system of the language used in prose or poetic text (vowels and consonants, stressed and unstressed syllables, pauses, different intonations, syntactic techniques, repetition of words).*

Results and discussion. *Sound plays an important role in poetry. A poetic work has a melody, some lines, phrases and combinations have equal sizes between lines, emotionality and different characteristics, which are to some extent related to the phonetic side of the language of the work. In poetic speech, sounds perform different expressive functions with different characteristics, the nature of sound in poetry as a whole differs from the nature of speech sounds in other forms. In addition, other phonetic means of language are unique in poetry - intonation and stress, which differ in the breadth of their function. Because poetry is a separate type of speech with a unique expression system that differs significantly from both ordinary speech and fiction.*

Conclusions. *Thus, the nature of sounds arises on the basis of the national mentality, since the Uzbek tradition, customs, incompatibility with the English tradition, customs can have different meanings.*

Keywords: *sound, imitation, acoustic character, denotation, connotation, onomatopoeia, emotional-expressive, symbolism of sound, portable meaning.*

Introduction. There are various means of providing emotional expressiveness in language, one of which is onomatopoeia.

The importance of onomatopoeia in ensuring emotional expressiveness in the literary text is very high, "Onomatopoeia is a method of artistic imitation of sound phenomena in poetry or prose in poetic speech" [11, 215].

Onomatopoeia Greek "onomatopedia" - to create a name, "onoma" - a name, "peico" - I make, I do. Animal, bird sounds, and natural sounds have been described as word-formation [12, 64].

Onomatopoeia refers to the sound or phonetic imitation of what is being described. For example: The imitation of animals in sound is expressed by the following words: "wow-wow" - in dogs, "meow-meow" - in cats, "mo-mo" - in cows.

Main part. The formation of sound in speech acquires the character of artistic expression and performs a certain stylistic function. One or another element in the sound system of language is used in the prose or poetic text (vowels and consonants, accented and unaccented syllables, pauses, different intonations, syntactic devices, word repetition) [6, 101].

In her research, G. Yakhshieva, a linguist, spoke about the phonographic methods used in Uzbek vowels and consonants. [9, 16]. In her view, the different pronunciations of speech sounds represent different connotative meanings.

In his research, A. Haydarov argued that speech sounds perform emotional-expressive and appealing functions in addition to their primary function. [10, 15].

M. Mirtojiev, a linguist, in his book "Meaning in sounds" notes that sounds also have meaning, which in a sense creates imagery. [5, 24].

According to I. Larikova's analysis of the role of speech sounds in the literary text, "a" means excellent degree, infinite width, depth and height, and "i", "e", "u" mean softness, pleasantness, propensity to cry. [3, 1].

In the study of speech sounds, sound imitation words, i.e. onomatopoeia, play an important role.

Therefore, I.R. Galperin studies onomatopoeia in two groups: self-contained and portable [1, 124].

Words in onomatopoeia in their own sense express natural sounds and express connotative meanings to varying degrees. Including words that mimic the sounds of animals and birds: to buzz, to mew.

These words are metaphorical, they enrich human speech, and in fiction, they perform a certain methodological function. Onomatopoeias in their own sense are words that show a natural

imitation of sounds. For example, **ding-dong, buzz, bang, cuckoo, tintinnabulation, mew, ping-pong, roar.**

The metaphors quoted above represent emotional-expressiveness. In particular, ding-dong represents the continuous ringing of a bell.

The following poems by Edgar Allan Poe are an example of this:

Hear the **loud alarum bells** –
 Brazen bells!
 What tale of terror, now, their turbulence tells!
 In the startled ear of night,
 How they scream out their affright!
 Too much horrified to speak,
 They can only **shriek, shriek,**
 Out of tune ...
 How they **clang** and **clash** and **roar!**
 What a horror they outpour
 On the bosom of the palpitating air!
 Yet the ear it fully knows,
 By the **twanging** and the **clanging,**
 How the danger ebbs and flows. (“The Bells” by Edgar Allan Poe)

The poem uses many onomatopoeic units, depicting four different bells: **“loud alarum bells”, “silver bells”, “mellow golden bells”, “iron bells”**. In each verse of the poem, the poet makes appropriate use of the various onomatopoeic words that express the sound of these bells, and through this means increases the expressiveness of the poem.

For example, the words **“jungle”** and **“tinkle”** are used to refer to **“silver bells”** which represent slightly pleasurable sounds. **“Mellow wedding bell”** is expressed by the phrase “gush of euphony”. Words such as **“shriek, clang, roar, twanging, clanging”** in the verses of the poem were used by the poet to express an anxious, restless situation.

In the use of any onomatopoeic speech in speech, their phonetic side combines with other means of producing art and plays an important role in the formation of content. Therefore, G.V. Gorbanaevskaya divides imitation words into three groups according to the sound source:

- 1) Words related to wind, rain, storm from natural phenomena: **thunder;**
- 2) Sounds made by various objects, cars, various devices: **crackling, screaming, squeaking;**
- 3) Sounds produced by humans and animals: **whisper, murmur, hiss.** [2, 73-78]

In poetic works, the phonetic side of imitation words is combined with the content to represent different situations.

In the poems of comedian Roy Crane, it can be seen that he used metaphors to create humorous and satirical situations. For example,

Ker – splash and lickety –wop

The famous English writer W. Shakespeare also used metaphors in order to increase the impact of his works. For example:

Ariel:
 Hark, hark
 Bow-vow.
 The watch-dogs bark!
 Bow-vow
 Hark, hark! I hear.
 The strain of strutting chanticleer,
 Cry, “cock-a-diddle-dow!”

In addition to direct imitation words, portable onomatopoeia also exists in language, in which imitation of sounds is performed and imitated by some means, in English this phenomenon is called “echo-writing”. For example: “And the silken, sad, uncertain rustling of each purple of rustling of curtain”.

In the above passage, the words based on the repetition of the “s” sound are reminiscent of the shape of a window curtain.

Or the sounds of soldiers marching across Africa can be seen in the following example:

We are foot –slog –slog –slog –slogging,
Foot –foot –foot –foot –slogging over Africa.
Boots –**b**oots –**b**oots –**b**oots –
Moving up and down again. (R. Kipling)

In the following English poem, the blowing of the wind is expressed by the repeated use of the sound "w":

Whenever the moon and stars are set,
Whenever the wind is high.
All night long with dark and wet
A man goes riding by. (R.S. Stevenson)

This situation can be found in the following verses in Uzbek:

Шовқинлар шошадир чирмаб олмакка,
Сирмаб тортаверар умр шамоли.
Ҳақкадай ҳақаллаб ўтаверар вақт,
Қариб қолмоқдамиз, бирга аёлим. (А. Кутбиддин)

The formation of sound in speech acquires an artistic expressive character, performs a certain stylistic function. Speech sounds, in addition to their main function in the artistic image, have an emotional-expressive and appealing (auditory effect).

Results and discussion. Sound plays an important role in poetry. A poetic work has a melody, some lines, phrases and combinations have equal dimensions between lines, emotionality, and they have different characteristics, which are to some extent related to the phonetic side of the language of the work. In poetic speech, sounds perform different expressive functions with their different characteristics, and the nature of the sound in poetry in general is different from the nature of speech sounds in other forms. In addition, other phonetic means of language - intonation and stress - are also unique in poetry; they differ in the breadth of their function. Because poetry is a separate type of speech with a unique system of expressions that differs significantly from both ordinary speech and fiction. [4, 22].

All this creates a separate phonetics - poetic phonetics, which falls within the scope of phonetic stylistics. In poetic phonetics, the phonetic bases of the art and expressiveness of poetic speech, as well as the methods and means of expression of art are studied. [7, 53-55].

Sounds, which are the material basis of language, can also be a means of creating an image or the image itself. Therefore, the presence of a relationship between sound and situation in poetic language enhances emotionality, i.e., the connotative meaning expressed in it is strong. The emotion evoked by the sound should not contradict the excitement that gives the meaning of the poem. For this reason, the additional meaning and imagery created by the sounds does not bore the reader in reading the poem, but rather gives him pleasure.

Words that imitate sound are used effectively in Uzbek prose to create a poetic image in epics. Ergash Jumanbulbul o'g'lu's epic "Ravshan" created a poetic image with the help of sounds. [8, 24]

Example:

Ҳасанхоннинг бир оти,
Келди печкандай бўлду.
Бир найзага Ҳасанхон
Жузду чачқандай бўлду
Қорахон шони чироғи
Шу кун ўчгандай бўлду
Гиркўктунг шу кун туёғи
Калла жанчандай бўлду,

Ҳасанхоннинг кўнглида
Кўшун қочқандай бўлду.

In this verse, the sounds **ў**, and **у** are repeated many times, and **ў**, **у** is followed by the words, that is, repeated the sounds of which are acoustic.

Apparently, for poetic language, the relationship between sound and state increases the power of emotional impact, i.e., in the above passage, Hasankhan's position on the battlefield is reflected in the harmony of sounds.

A similar situation can be seen in the following verses of the epic:

Айрилдим кулба хонамдан
Жони чиққан ул танамдан.
Дуогўй пушту панамдан
Бошимдаги парвонамнан
Кеча-кундуз ғамхонамнан
Мен жониман ул танамнан
Чидамасам шўр энамнан
Мийрвоннан жудо бўлдум.

In the given poetic example, too, the repeated **m**, in terms of its acoustic character, **expresses grief, sorrow, weeping**.

The repetition of this sound is connected with the content of this poetic passage. The young hero being taken to the gallows conveys to the listener the state of mind, even the groaning.

It is observed that, in many parts of the epic words are used to imitate the sound.

От кўяди эгилип,
От जोлиға тикилип.
Шиппа-шип қамчи торгги,
Қор ёмғирдай тўкулду.

The pronunciation of the word **шиппа-шип** in the example becomes an echo of the sound coming from the foot of a galloping horse, creating a number of connotative meanings in the reader, such as delight, excitement, wonder, and uplift.

Conclusion. Thus, the nature of sounds arises on the basis of the national mentality, because the Uzbek tradition, customs, incompatibility with the English tradition, customs may have a different meaning.

The glare of sounds is understood depending on the context and context of the text. Sound words in English and Uzbek have a unique character.

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METAPHOR - THE CONCEPTUAL BASIS OF TERMINOLOGY AND TERMS

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Abstract:

Introduction. *Terms, metaphors, and terms in the Uzbek language have a special cognitive dimension. Metaphors are a unique tool of scientific knowledge and are one of the main and productive factors in the formation of terminological systems of various disciplines. The purpose of the article is to identify the source of the formation of terms-metaphors between terms in the Uzbek language and determine their meaning in the worldview. The study of the mechanisms of cognitive activity, heuristic and nominative possibilities, as well as linguistic and communicative features of metaphors in the semantic processes of formation and development of the rich terminology of the Uzbek language largely contributes to the rapid development of Uzbek anthropocentric linguistics.*

Methods. *Conceptual and semantic analysis, based on the comparison method, the cross-linguistic universal nature of metaphorical nominations related to this terminology is investigated, and the corresponding conclusions are made.*

Results. *It turns out that the term is a multi-valued, homonymous connection between metaphors-the product of conscious use of human memory resources. Metaphor terms are a way to convey the essence of a scientific concept in a simple and understandable way, so that metaphor terms are an example of conveying an idea in a concise and simple way. In the end, metaphorical nominations that convey the idea in a concise, simple form confirm this. The article also points out that metaphorical comparison is motivated to identify similarities between objects of different types or different classifications, just as metaphorical terms in a scientific text are formed by randomly determining the similarity between subjects without random selection. Based on the collected materials, it turned out that metaphorical terms are formed mainly on the basis of their attributive nature: on the basis of comparisons with everyday objects and objects related to nature. The close connection of the terminological picture of the world with the conceptual metaphor involved in the formation of the national worldview is shown.*

Discussion. *Using the metaphorical method when forming terms means that a term created using the tool is quickly and easily accepted by the linguistic community, and the scope of meaning is somewhat clearer and easier to understand than artificially created terms. Although terms that specialize in a particular field have a General meaning, as opposed to General, commonly used words and terms, their use in scientific discourse does not restrict the participation of metaphor, but rather pure terms (primitive terms) rely on metaphorical interpretation to fully Express their meaning. The scientific metaphor is not limited to the nominative task: in scientific discourse, the metaphor serves as a means of reconciling two opposing realities. The range of interrelated transformative knowledge allows us to distinguish the anthropocentric features of the metaphor.*

Conclusion. *Metaphors are a unique tool of scientific knowledge and are one of the main and productive factors in the formation of terminological systems of various disciplines. At the same time, the study of the mechanisms of cognitive activity, heuristic and nominative possibilities of metaphors, as well as linguistic and communicative features contributes to the rapid development of Uzbek anthropocentric linguistics.*

Keywords: *metaphor terms in the Uzbek language, metaphor is a unique tool of scientific knowledge.*

Introduction. *Term-metaphors, and terms in the Uzbek language have a special cognitive dimension. In this case, the types of reference links between the source field and the target field differ. Of course, the factor to which the terms and terms that arise together with the metaphorical factor belong also has a special meaning. In particular, according to Viliija Celiešienė and Saulutė*

Juzelënienëx, in technical terminology, the external similarity between objects is used as the basis for metaphorical construction, with a slight emphasis on functional similarity [11]. In terms of IT, which have a metaphorical construction in the Uzbek language, there is no evidence of this point of view.

Method of research. The conceptual and semantic analysis used in the study also touched upon the problem of polysemous connection of terms and metaphors in the Uzbek language based on the comparison method, which simultaneously causes the need to clarify lexical polysemicity and related situations.

In particular, metaphorical comparison is the motivation to notice similarities between objects of different types or different classifications. Similarly, metaphorical terms in a scientific text are formed by randomly selecting similar aspects between subjects without random selection.

Obtained result. Based on the collected materials, it is clear that metaphorical terms are formed mainly on the basis of their attributive nature: on the basis of comparisons with everyday objects and objects related to nature. For example, the Uzbek “кучукча” (@) ¹indicates the email address of the user, and the word is also used in the Russian language like a “собачка”. In exchange for socialization in the linguistic community, the word should be considered as a term. After all, the “собачка” is formed under the influence of metaphorical migration based on its own layer of the Russian language. The reason we consider this word as a term is that the word “собачка” serves to denote a certain noun from a certain noun in exchange for a metaphor. Given that the word was translated from Russian into other languages by calculus method, “кучукча (собачка)” it proves that the term in Russian is also a term in Uzbek. The same can be said about the word “гул”, which means plant, and the word “гул”, which means measles in the local language. That is, the word “гул”, which belongs to a separate layer of the Persian-Tajik language, figuratively formed the name of the “гул” disease. The historical brotherhood of the Uzbek and Tajik peoples and their close connection served as the basis for the introduction of both words into the Uzbek language. Therefore, the words for “гул”, (plant) and “гул”, (disease) in Tajik should be considered as terms for Tajik and Uzbek. These features can also be traced in the cross-linguistic universality of terms-metaphors used in it. Naturally, these metaphorically justified terms are formed as a result of calculus and the predominance of connotative semantics on their semantic basis is clearly manifested (table 1).

Table 1

The linguistic nature of the terminology-metaphors used in IT

| The meaning of the term | Uzbek language | Russian language | English language |
|---|--------------------------------------|--------------------------|--------------------|
| Access to the network or service by an unregistered user | <i>меҳмон</i> | <i>гость</i> | <i>a guest</i> |
| Digital code used to encrypt text for security purposes | <i>калит</i> | <i>ключ</i> | <i>key</i> |
| Template used when moving decoration (design) to an object | <i>ниқоб</i> | <i>маска</i> | <i>Mask</i> |
| Display equipment attached to the computer | <i>сичқон/ сичқонча манипулятори</i> | <i>мышь</i> | <i>Mouse</i> |
| The main devices of a personal computer are a multi-layer sealing board on which fast memory, hard disk and other devices are installed. The same mother board connects and manages devices that differ from each other | <i>она платаси</i> | <i>Материнская плата</i> | <i>motherboard</i> |
| Allows you to save and restore deleted, deleted data on the computer | <i>саватча</i> | <i>корзинка</i> | <i>bag</i> |

¹ the symbol " @ "is a sign of the commercial status"at". The symbol is a dog that has become a pita in form, and in linguistic terms means a combination of English dog barking, which symbolizes the buzzing of the dog. The companion dog, which was also considered an assistant to the player in a computer game known as the first "Adventure" , also had the same "@" shape. This symbol was first introduced into consumption by the Florentine merchant in 1536 as a unit of measurement, meaning "amphora", as a sign in the typewriter developed in 1885, and then by the American engineer Ray Tomlinson in 1971 for the purpose of sending e-mails. In America and Finland, this sign is attributed to a cat, a mouse in China, a monkey in Germany, an elephant in Sweden and Denmark, a worm and a pig's tail in Venice and Norvegia, a sweet in Spain, and a snail in esperanto.

Note that among most other layer words in the table, only the “она платаси” can be considered a term. Words such as “*меҳмон, калит, саватча, сичқонча*” make a clear noun from a clear noun on the basis of their own layer of cultures, and also these words are already considered socialized words in many cultures. But the word “*плата*” means French “plat” – flat, and it is not a word that belongs to Russian and English. So, considering that the word “*плата*” is an unpopular word, it becomes known that it is not a designation, but a term. It is noteworthy that the designations/terms listed in this place are not accepted into the imposed stratum of evasion, but are formed by the transfer of a metaphorical name, even in the Uzbek language. This determines the possibility of the transition from a terminological feature of neologisms to a term - the creation of a definite horse in exchange for a metaphorical name change of a specific horse belonging to the mastered layer. Hence, non-socialized words - terms formed from the naming of abstract horses under the influence of migration of a definite noun belonging to one's own and mastered stratum - terms, socialized words formed from the naming of definite nouns under a metaphorical migration from a definite noun belonging to a mastered stratum.

Metaphors occupy a leading place in the formation of linguistic terms, and this condition is also observed in terms created at the beginning of the XX century [10]. Linguist I. R. Ermatov pays special attention to the place of metaphor in the formation of terms and notes that a group of languages whose similarity in linguistics is explained by the common basis of origin also belongs to the term "family of languages", depending on the fact that the word "family" means the concept of "a group of people with one common origin". Science-related: one-component linguistic terms such as *боғловчи, бўгин, кўмакчи, савод, тартиб, тасниф, тўлдирувчи, тўхтам, ўрам, шахс* and two-component linguistic terms such as *, бобо тил, эски сўз, ҳисоб сўзлар, кириш сўз, сўз уяси, товушлар занжир* are also formed using metaphors [10].

Discussion. The observations and conceptual analysis carried out in the course of the study indicate the need to improve the scientific methodology in this area. In particular, broad semantic terms have only one meaning in the terminological system and do not express an expressive-emotional connotation. According to M. V. Antonova, V. Leychik, such terms cover "the deep essence of thought". It can be noted that the ambiguity in the structure of such terms is manifested in a hidden form [2].

Although homonymy is not an acceptable condition for assigning terms, inter-term homonymy is allowed. Ex., atmosphere (ancient Greek. ἀτμός - "steam" and σφαῖρα - "sphere") is a layer of gas held by celestial bodies under the influence of gravity. In Economics, the term "atmosphere" refers to a print or broadcast media environment suitable for advertising. According to O. S. Akhmedov, this situation leads to ambiguity of the semantic meaning of the homonymic term in translation. Because the level of activity of different homonyms is more common in the communication process [3]. However, in our opinion, such homonyms are extremely common not only in everyday communication, but also in scientific discourse. Ex., *М., олий мактаб таълим функцияси, публицистика тили функцияси, иш юритиши тили функцияси; ассимиляция* (cultural A; linguistic A; ethnic A); *ички фактор, ташқи фактор; коррекция* (editing, speech therapist, defectology, etc.), *графика* (speech, visual arts, IT); *маркер; таҳлил* (analysis); *калька; идиом, роль, ўрин, гештальт* (in psychology; in linguistics; in Economics: a set of basic characteristics in relation to the brand); *депрессия* (lat. deprimō - "down, oppression») - in psychology: reduced self-awareness, depression; in the economy: a state of economic stagnation, low prices, weak demand for goods, mass unemployment, etc.); *донор; бўгин* (segment); *пенальти* (payments for breach of contract, penalties in football), the property of homonymy is literally expressed.

Let us now consider a situation different from the state of interterminological homonymy. Consider the dichotomy of L1– L2 (language1– language2). In fact, the *тил* lexeme is a homonymic term. However, in the conceptual interpretation of L1: "language 1" first learned language - "origin", "language of wide use" (function), "most popular language" (competence), "ethnic, national, social, etc." language "(identity) [7]. In this case, the direction in the correct interpretation of terms in the science of sociolinguistics is based on the fact that the semantic scale

of the word is set in the syntactic apparatus. Consequently, , *жаҳон тиллари, ҳудудий тиллар, туб миллий тил, кичик этник гуруҳ тили* are polysemous terms, not homonyms.

O.S. Akhmedov, who studied the tax and customs terms in Uzbek and English in an anthropocentric direction, metaphorically formed TC terms: *brainpower* (calculus method – "brainpower", it is as a system term "higher level of intelligence" (in terms of improving the tax rate)); *brainstorming* (as a system term means "collective discussion of the problem of the sphere"); also a) house animals; b) wild animals , which is attached to the LSG *bull* (bull-economy, as a system term a person who influences the way they play); *cash-cow* (milky cow – a profitable pet, does not require special spending for advertising, profitable business); b) *bear* (Bear-1) speculator, (speculative); 2) *broker* – a person who affects the price drop. *Bear market* – a bear market, a market in which the price of a currency exchange rate falls; *covered bear* - a protected bear-speculative (speculative), which brings terms such as an action seller (cash)) [3]. Linguistics of the English and Uzbek TC terminological units notes the legalization of terms through, taking into account the integral and differential features of the terms inherent in two languages in the translation, emphasizing that it is preferable to translate the terms that have an integral feature in the calculus method, and the terms that have a differential feature in different transformation methods: 1) conjugation; 2) composition; 3) conversion; 4) acronyms and abbreviations [3].

Among the mastered solid units belonging to market terminology, there are also terms with metaphorical justification. In particular, let's look into the terminology of the word *авария*

It is known that even from Arabs who actively participated in international transit and maritime trade, the term "*авария*" among many invasions to the peoples of the world has moved. "*Авария*" Arabic "*al-Avarat*" ('awâr), Italian *avaria*, French *avarie*," damage, "meaning destruction," has given the concept of "getting rid of excess cargo to save the ship and its crew when a natural disaster occurs while traveling in the sea[4]. But today the term/term "*авария*" is interpreted in several meanings: 1. Legal protection and compensation case [4]; 2. It is a kind of emergency, dangerous for human and animal life and health, environmental safety, expressed in the form of destruction of structures and technical devices, uncontrolled explosion and release of hazardous substances.

The use of the metaphorical method in the formation of terms leads to the fact that the term generated by the tool is quickly and easily accepted by the linguistic community, the scope of meaning is somewhat clearer and easier to understand than artificially created terms. For comparison: 1. Terms are also come to the world time and space and live their lives, some are absorbed into nothingness, others survive or give way to a new one [4]; 2. From the point of view of geoeconomics, among the megapolicies in the near future will be born "technopolises" and "industrial agglomerations" based on completely new techniques and technologies, the position of transnational companies and corporations will increase, the role of a country in the world market. remains to specialize in a particular link or segment of production [4]. Also, the linguist ... points to clarity as one of the most important requirements for legal language. In order to meet this requirement, he enumerates many socio-political, legal, as well as terms from different spheres of life and concludes that they are close to the terms. In particular, *жазони энгиллаштирмоқ, айбни оғирлаштирмоқ, айбини бўйнига олмоқ, айбини бўйнига қўймоқ, жиноят иши қўзгатмоқ, ишни очиқ кўрмоқ* are among them [4].

It seems that although terms specialized in a particular field have a common meaning, as opposed to general, common words and terms, their use in scientific discourse alone does not limit the participation of metaphor, but pure terms (primitive terms) are also used in metaphorical interpretation. This aspect is a leading sign in the emergence of metaphorically generated economic terms. For example, *агрессив қимматли қогозлар* (aggressive securities) that allow capital to grow rapidly [4].

The involvement of metaphor in the "creation" of terms can often lead to semantically related (poly-semantic) or homonymous terms. For example, *амортизация* "amortization" is the gradual transfer of the value of fixed assets to the products or services produced by them, the accumulation of funds on a targeted basis and their subsequent use to replace obsolete fixed assets [4]. Also

амортизация available in other sources 1. In the economy: a gradual decrease in the value of property due to obsolescence; 2. In physics: a blow using special tools means to soften the force of vibration during movement.

Scientific metaphor is not limited to the nominative task: in scientific discourse, metaphor serves as a means of reconciling two opposing realities. The scope of inter-referentable transformational knowledge makes it possible to distinguish anthropocentric features of metaphor [1]. The reality of the universe in the eyes of the expert consists of the reality that he realizes. It is this anthropocentric essence that makes it possible to transform the unstable concepts of the universe into stable ones in exchange for terms. Among the terms available in the world of computer technology can be traced to *ўлим мовий экрани* of error in the operation of Windows NT (blue screen death in Russian). Similarly, in the field of ecology, the concepts of the surrounding world are combined with existing knowledge on the human cognitive scale [8]: *она табиат, биологик соат, қора тўйнуқ*. The anthropometric meaning in environmental terms shifts to real reality names in the following cases:

1. Moves to the names of concepts and phenomena related to man and his life, life and health: *магнит бўрони, тирик табиат*.

2. Comparison to human behavior: reptiles, creeping plants, the whims of nature.

3. Comparison of concepts related to the inner world of man.

4. According to the similarity of external signs: ocean and sea basin.

5. Color similarity *экологик мозаика, яшил сайёра, яшил инқилоб, яшил патруль, яшиллар партияси* (Ecological party of Uzbekistan)

Here nature-morphic adjectives also play a role in the formation of economic terms. For example, abbreviations and combinations such *Экобозор, яшил бозор, яшил дунё* are the names of Uzbek farmers' markets. At the same time, the color typical of the Uzbek land, a reference to the twelve months of the year, gave rise to this category of terms.

It should be noted that the basic metaphors are discursively functional in nature. The basic metaphor is a metaphorical model that combines semantic comparisons related to the semantic scale of “nominative meaning - figurative, portable metaphorical meaning”. This compares the frames in the source and target areas being compared and the slots attached to them. In particular, we give examples of the comparison of the existing metaphorical model on the anthropocentric basis of the basic metaphors belonging to different discourses. Take, for example, a frame analysis of anthropomorphic term-metaphors used in geographical discourse. In this case, we choose the metaphorical model "**Nature is man**". It consists of four main conceptual areas: “Biological Man”, “Anatomical Man”, “Social Man” and “Functional Man”. From these areas, the conceptual scope of "Anatomical Man" includes such frames as "Appearance", "Internal Systems", "Internal Organs", "Body Parts". Therefore, the frame "Body parts" summarizes the slots that express this anatomical stereotype, its features. In particular, it is possible to observe the compatibility of metaphorical models "nature is man" in the source and target areas, even in nominations such as *Мексика қўлтиғи, Форс қўлтиғи, Гвинея қўлтиғи, Бенгалия қўлтиғи, Аляска қўлтиғи, Игна бурни, Яшии умид бурни (Африка жанубида) Гибралтар бўғизи, Магеллан бўғизи, Беринг бўғизи, Ла-маш бўғизи, Сингапур бўғизи*. Or take the model of "Economy - a socio-economic factor in human life" in anthropomorphic metaphors used in economic discourse. Man is born, grows, develops, and is nurtured as a biological being. At this point, the term "Nappy State", which is attached to one of the slots "mother", "nurse", "care", which is attached to the frame "Education and care" of this model, conceptually refers to the characteristics of nurses such as caring and compassion. In particular, the Nappy State is the colloquial name for a state that has achieved universal prosperity, and the term originated because the state intervened and interfered in the lives of its citizens.

In addition, the term "Biosphere", "Lithosphere", "Hydrosphere", "Atmosphere" from the frames representing the conditioned biological stereotype to the frame "Atmosphere" - the term "*атмосфера, муҳит*" is used in the form of “editorial environment”, “entertainment climate” in the economy.

Conclusion. Metaphors are a unique tool of scientific knowledge and are one of the main and productive factors in the formation of terminological systems of various disciplines. It should be noted that the study of the mechanisms of cognitive activity, heuristic and nominative possibilities, as well as linguistic-communicative features of metaphors in the formation and development of rich terminology of the Uzbek language contributes to the rapid development of Uzbek anthropocentric linguistics [5].

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CLASSIFICATION OF THE STRUCTURAL GROUPS OF MEDICAL EUPHEMISMS IN THE UZBEK LANGUAGE

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Abstract:

Background. In linguistics, euphemisms are the subject of much research. The scientific literature has given different descriptions of this phenomenon, which suggests that euphemisms are multifaceted, of a changing nature. A modern linguistic approach to euphemisms used in place of words that are morally and culturally inappropriate among members of society, especially medical euphemisms in doctor-patient communication, to come to new scientific and theoretical conclusions, their lexical-semantic, methodological-functional, linguopragmatic, gender and structural It is important to explain the features. This article identifies the structural groups of medical euphemisms. We expressed them in the following order. Euphemism is characterized by a high degree of mobility. It also serves to replace the tabooed (tabulashtirilgan) word. For example: to go to the place of death; like a tumor at the site of the tumor. The use of euphemisms in language has been shaped as a historical ethnographic phenomenon associated with the taboo phenomenon. Euphemisms are associated with the development of customs, cultural levels, aesthetic tastes, and ethnic norms in nations. As language develops, so does the euphemistic layer within it. On the basis of new morals, new worldviews, new forms of it emerge. A euphemism is an occasional, individual, contextual unit that replaces a certain word or phrase with a purpose, softens the word that expresses the original essence, and “wraps it in paper” Medical euphemisms have the forms of word-euphemism, compound-euphemism (free compound and fixed compound (phrase)), speech-

euphemism, depending on the form of expression. Word-euphemism, phrase-euphemism, compound-euphemism serve to name diseases, body parts, some physiological processes (and others) in speech.

Methods. *The article uses methods of description, classification, contextual analysis.*

Results. *The occurrence of medical-related physician speech euphemisms at the language level was revealed, and structural groups of euphemisms in physician speech were classified.*

Conclusion. *Medical euphemisms have the forms of word-euphemism, compound-euphemism (free compound and fixed compound (phrase)), speech-euphemism, depending on the form of expression. Word-euphemism, phrase-euphemism, compound-euphemism serve to name diseases, body parts, some physiological processes (and others) in speech. Speech-euphemism occurs in medical speech as a component of a compound sentence (subordinate clause), in the form of a simple sentence ([WPM] device), in the participle structure (circle) and performs its function.*

Keywords: *structural group, word euphemism, compound euphemism, speech euphemism, denotation, dysphemism, speech linguistic construction pattern.*

Introduction In linguistics, euphemisms are the subject of much research. The scientific literature has given different descriptions of this phenomenon, which suggests that euphemisms are multifaceted, of a changing nature. The lexical-grammatical form of euphemism is diverse, it has the features of emotional colorlessness, methodological neutrality and variability. The linguistic encyclopedic dictionary, edited by lexicographer O.S. Akhmanova, defines euphemism as "an emotionally colorless word or phrase that seems rude, and impolite to the speaker, and can be used as a synonym."

D.N. Shmelev echoes this view, describing it as "a euphemism - an expression that seems unpleasant to the speaker in certain circumstances, extremely sharp, impolite to say, serves to express the same meaning, softened in order to avoid inappropriate words." D.E. Rosenthal complements the definition of euphemism with the comment "an object with a rough expression, a moderate meaning with a pleasant, soft expression of the name of the event".

In addition, I.R. Galperin called it "a more acceptable expression used instead of an unpleasant word or phrase", A. Katsev called it "a replacement of frightening, shameful, unpleasant names with a portable soft expression that arises on the basis of spiritual-enlightenment motive". Tyurina describes it as "a word or phrase used for some reason instead of a socially rude antecedent, soft, permissible, ameliorative, ironic, sometimes relatively convenient, forbidden and impolite to the speaker, considered morally inappropriate, or simply used in place of rude expression."

In the dictionary edited by A.A. Evgeneva, euphemism is defined as "a word or phrase used instead of an expression that is considered inappropriate or inconvenient for a specific reason." - avoidance of obscene words, softened expression) a neutral word or expression that seems rude, obscene, shameful, shameless to the speaker, synonymous with the idea he wants to express. For example, old age in place of old age; to deviate from the truth instead of lying; to be held in place of delay; flesh instead of obesity.

Euphemism is characterized by a high degree of mobility. It also serves to replace the tabooed (*tabulashtirilgan*) word. For example: to go to the place of death; like a tumor at the site of the tumor. The use of euphemisms in language has been shaped as a historical ethnographic phenomenon associated with the taboo phenomenon. Euphemisms are associated with the development of customs, cultural levels, aesthetic tastes, and ethnic norms in nations. As language develops, so does the euphemistic layer within it. On the basis of new morals, new worldviews, new forms of it emerge. A euphemism is an occasional, individual, contextual unit that replaces a certain word or phrase with a purpose, softens the word that expresses the original essence, and "wraps it in paper".

Euphemization methods. Euphemisms first appear to mask the taboo and then become a lexical unit. Some emerge in speech as an occasional expression to cover up an unpleasant, negative reality. These occasional expressions are not based on synonymy. Their goal is to "hide" the true essence. The process of euphemism is the subject of lexicography and sociolinguistics.

The Glossary of Linguistic Terms provides a similarly essential definition. Other literature notes that a certain proportion of euphemisms are associated with taboo. Many of them are used in place of words that are found to be morally, culturally uncomfortable to say. For example, *oyroma* instead of *measles* (in some districts of Samarkand region), *flower* instead of *smallpox*; *prolonged pain* at the site of *tuberculosis*; *white* instead of *leprous*; *calf* in place of *cal*; *wife, spouse, family* in place of *wife*; *to marry* instead of *marrying*; instead of giving my daughter in marriage, I give her away, I marry my daughter; as should be in place of pants.

Hence, from the above definitions, it can be said that a euphemism is a word or phrase that appears as a synonym for words and phrases that seem awkward, inappropriate, rude to apply to the speaker. They serve to avoid calling it a negative reality, to mitigate the negative effects of reality. It is used to minimize the negative impact of a secret reality that is offensive, tedious, disrespectful, unethical, or unpredictable, to hide it, to cover it up, to convey an unpleasant message in a gentle way, to express it more gently.

In speech, the use of the words *die*, turn *a blind eye*, and *die* instead of the word *death*, or the use of the words *birth and death* instead of the word *birth*, is a proof of this idea.

In times when science was not fully developed, some peoples thought that demons and ghosts could be avoided if the name of a person or object close to them was not mentioned. In ancient times, as well as in the nations that still live as a tribe, it was forbidden to touch the belongings of the head of the tribe after his death, to mention his name. They imagined that if their belongings were touched or the names of these things were mentioned, a ghost or demon would strike them, causing some harm.

It is also forbidden to name some wild, poisonous animals. It was believed that if the names of such animals were mentioned, they could reach and harm humans. Remains of taboo can still be found today. For example, among Muslim women, calling a husband by his first name is considered disrespectful to him. As a result, it became necessary to use other units to express this concept instead of forbidden words. It is also a phenomenon of euphemism to use units that are convenient in expressing their meaning instead of similar forbidden words.

For example, the use of the word *flower* instead of *measles*, the use of *donkeys* instead of *scorpions*, and the use of *horseless units* are euphemistic. In the later stages of the development of society, the use of pleasant, smoother words instead of rude, awkward words is also considered a manifestation of euphemism. For example, instead of the word *dead*, he *died*, *passed away*, *gave his life to its owner*, *died*; words or combinations such as *double, heavy, loaded (wife), pregnant* are used instead of *pregnant (wife)*. There are also euphemisms in language that arise at the request of a particular speech situation, the meaning of which is often clarified, through the text. For example, until we hand over Rano to its owner, - said my mother Nigor, - it seems that it will not be poured (A.Qodiriy) from the point of view of speech etiquette the euphemism for handing over to the owner was used instead of the phrase to give to the owner.

The term ***euphemism*** has been used since ancient times. The term is derived from Greek words such as *good rumor, dovrug* (speech). The euphemism was originally interpreted as the avoidance of rude expressive words (mainly at the time of sacrifice), the word with a positive sign, the silence denoting respect, that is, the word denoting silence. Later, the term euphemism lost its meaning of "silence, which means honor."

Social development and cultural relations have been the basis for the invention of a number of special laws and prohibitions by humanity. There are rules of etiquette or norms in all areas of personal activity (public administration, driving a car, or in daily communication). Taboo has long been formed as one of the prohibitions. Taboo is the restriction of a person from saying certain words that are present in the vocabulary due to the demands of the situation or for various reasons (not insulting the interlocutor, concepts that cause unpleasant associations).

A taboo is a sign of the existence of a particular object or event. Any taboo requires the use of euphemisms. Euphemisms are also widely used in the speech of medical professionals to name a disease (*alopecia* instead of *hair loss*) or to describe a person's physiological state (*urea / urine* instead of *urine*).

In general, although linguists have combined units used in place of forbidden words or phrases under the term euphemism, they have not come to a unanimous conclusion in developing a single principle for distinguishing a euphemistic unit from a non-euphemistic unit. However, in distinguishing a euphemistic unit from a non-euphemistic unit, the prevalence of the euphemism (whether widespread or episodic); methodological adaptation (scope); metaphorical, pleasant and pleasant of the nomination; euphemistic character; it is expedient to pay attention to such signs as the interrelation of euphemisms with linguistic phenomena. In this regard, we agree with V.P. Moscvin's opinion that euphemisms should be distinguished from other units. In particular, euphemisms should be distinguished from two completely differential units, such as the figurative expression and the "secret word" (Russian: тайноречия "taynorechiya").

Given the above description of the views of linguists on the sign of euphemism, we give the definition of a "secret word" (due to the nature of the Uzbek language, for example, slang). A language that is used only by members of a particular social group and is understandable to members of that particular group, but incomprehensible to another stratum of society that does not belong to that group, is slang ("secret word"). Such units are used in the military speech to maintain the confidentiality of information. The doctor's speech also uses a Latin alternative to medical terms in order to hide the content of the speech from the patient. Naturally, such units are not euphemisms. A.V. Osipov emphasizes the importance of taking into account the context and situation of its application in order to determine whether a unit is related to a euphemism or slang. The same word can be applied to euphemisms and slang in a doctor's speech. We compare the following two situations.

Situation 1: The doctor told the patient that he had pediculosis, the patient understood this.

Scenario 2: A physician told a colleague that the patient's diagnosis was pediculosis (in which case the doctor used the patient's misunderstanding of the term in order to conceal the diagnosis). In the first case, the physician used this unit as a euphemism to soften speech, while in the second case; it was intended to ensure the confidentiality of the information provided.

It should be noted that the classification of the phenomenon under study has not escaped the attention of Uzbek linguists. In particular, N. Ismatullaev called euphemisms: a) taboo euphemisms; b) euphemism for heresy; c) euphemisms used in place of words and phrases that have a rough meaning and are difficult to say; g) divided into groups such as slang euphemisms used for rhetorical rhetoric, arrogance, and religious purposes.

The use of euphemisms in medicine has become a tradition, as cases of illness and death have long been tabooed. In addition, in medical practice, there is also a lot of talk about events that are often uncomfortable to use in relation to human physiology or that evoke unpleasant feelings for the listener-listener (e.g., death, cancer). Usually, in medicine, the euphemism for language units occurs at the expense of assimilated words, and, more often than not, the use of the Latin name of the disease or special medical terms is observed. For example, the following method is used to name diseases: endometritis instead of inflammation of the lining of the uterus; adenoids instead of overgrowth of the pancreas and nasopharynx; meningitis instead of inflammation of the head and spinal cord, etc.

Methods. Their morphological structure is primitive (to get rid of), simple artificial word (to loosen), complex (auxiliary verb) (to loosen) and compound [noun + verb] (to see a child) and [adjective + verb] (child became). According to the form of expression of medical euphemisms, word-euphemism, compound-euphemism (free compound and fixed compound (phrase), speech-euphemism) was identified. As a component (subordinate clause) in the form of a simple ([WPM] device) clause in the participle structure (circle) and its function was proved by examples. The origin, development, spiritual groups, functions, role and significance of euphemisms in the language system have been studied in detail in world linguistics. The work of G.A. Vildanova, A.M. Katsev, L.V. Pokhronitskaya, N.M. Potapova, N.V. Pryadilnikova [2, 21] is significant in that such problems are solved. However, in the studies we have observed in world linguistics, the structural groups of euphemisms, the issues of structural structure, have not been studied. The structural structure of euphemism in Uzbek linguistics was partially studied by H. Kadyrova [9, 13],

Z. Kholmonova in her study of the lexicon "Boburnoma" expressed valuable views on the structural and morphological structure of medical terms [8, 43]. The views of scholars who have studied the lexical-semantic nature of euphemistic units on the role of the euphemism in the lexicon of a particular language are close to each other, one complementing the other. While V.P.Moskvin considers euphemisms as a unit that increases the vocabulary of the language, including enriching the existing synonymous line, forming a new synonymous series, S.I.Madjaeva considers euphemisms as a unit that enriches medical terminology [4,21].

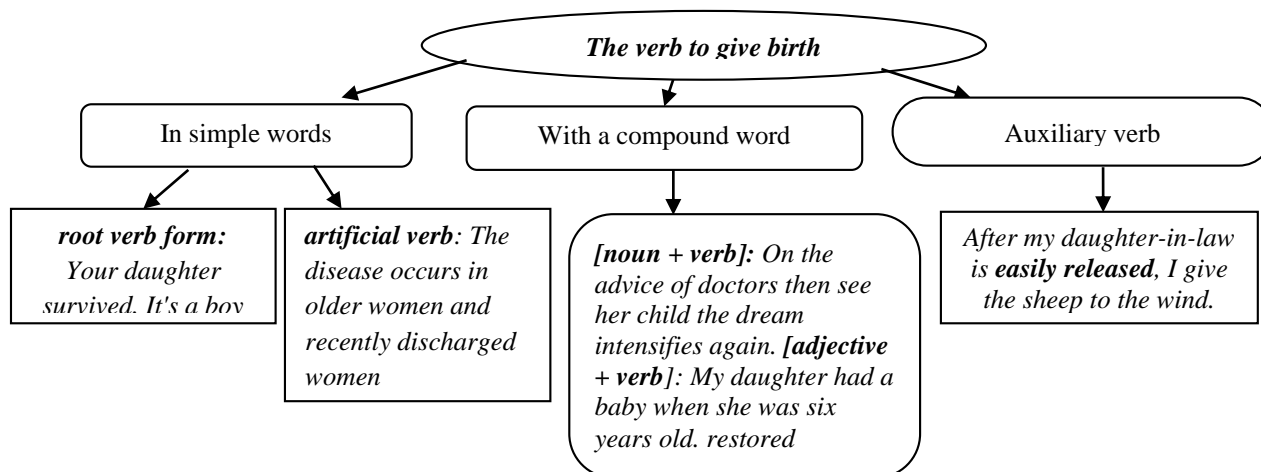
Results. Z.Kholmonova Analyzing the structural and morphological structure of medical terms found in "Boburnoma", they are:

- a) terms in the form of primitive words: *obila, mafosil, qort, dobguli, zahm, yara, qulunj, quyong, kalolat, hasba;*
- b) terms in the form of artificial words: *rezandalik, behuzurlik, isitma;*
- c) terms with complex structure:
 - a) *terms in the form of a compound word: naqohat ayyomi, qulan quyrug'i; adj. + noun: sa'b quyong; noun + noun: chupchuq, bezgak; noun + verb: fasd qil =, mag'zi chiq =;*
 - b) *terms in the form of exaggeration: the owner divides into groups such as apology.*

H. Kadyrova classifies euphemisms according to their formal structure. In particular, among the euphemistic means used in the works of Abdullah Qadiri distinguishes euphemic word (phrase), euphemistic compound, euphemic sentence:

- 1) word-euphemism: saw, rubbish, short (stupid), head of the oven (government), game (trick), wound (pain), heartless (coward), loaded (k) (pregnant), skirtless (unprincipled), speculator (abuser, swindler), hoof (child), brothel (toilet), elder (vodka), obirahmat (vodka), nomad (wife), weak (woman, helpless), dondiqcha (prostitute); euphemism);
- 2) compound-euphemism: wild expenditure (bribe), olachipor drama (useless, raw work), slippery child (homosexual), throat meeting (eating place);
- 3) sentences-euphemism [subject + verb]: his mouth is broken ("snoring"), his breath is cut (his voice is muffled), his shoulders are itchy ("don't be greedy"), our human senses could not lie still ("our senses are shaken"), the cheekbones were torn ("bothered"), large hairs were cut ("good times are gone"), and the bones were sitting ("old, emaciated").

According to our research, the morphological structure of medical euphemisms in Uzbek linguistics, according to their structure, is in the form of simple, compound, auxiliary verbs. This can be determined by the analysis of euphemisms that express the meaning of the verb innate.



In addition, it can be added that the simple and compound words used in Khorezm dialects to express the meaning of birth, such as lambing, lightening, being pregnant, getting rid of, giving a gift, have a euphemistic character. The result of the analysis of the morphological structure of medical euphemisms is reflected in the above-mentioned considerations about their structure. However, there are certain species that are specific to their form of expression, which requires a

separate analysis. Prior to our work, in particular, in H. Kadyrova's research, euphemistic units were divided into word-euphemies, compound-euphemisms and speech-euphemisms according to their formal structure, cannot be said to be dependent.

First of all, it should be borne in mind that the syntactic structure is close to the concept of morphological structure, more precisely, they express the same content, as long as the euphemism has a certain word and sentence appearance, the syntactic structure becomes the basis. In our view, euphemisms specific to medical language and, in general, their form of expression should be taken as a starting point on the basis of their being in the form of words, phrases and sentences. It is therefore expedient to distinguish the manifestations of medical euphemisms according to the form of expression. They are:

- 1) word-euphemism;
- 2) compound euphemism:
 - a) euphemism in the form of a free compound;
 - b) a stable compound form (phrase) euphemism;
- 3) sentences-euphemism.

Whether or not medical euphemisms have such appearances is determined by analysis. Indeed, speech not only reflects the spiritual features of the euphemistic unit, but also provides more information about its forms of expression, that is, its occurrence in a particular form. With this in mind, it is necessary to observe and analyze the types and manifestations of euphemisms in medical speech according to the form of expression.

Discussions. First of all, euphemisms are expressed in the form of word-euphemisms in medical speech. For example, the compound verb to have a child [adjective + verb] is used in speech as a euphemistic substitute for the verb to give birth. Her only dream is to have children [6, 11]. It is also a verb-euphemism that means to reach puberty in speech. *It is known that girls between the ages of 16 and 17 grow taller and taller, but this does not mean that they are mature enough to be mothers* [6, 11]. In medical discourse, euphemistic units are expressed not only in the form of word-euphemisms, but also in the form of a free compound. For in language there is an opportunity to express euphemistic meaning in the form of a simple (primitive or artificial) and compound word, as well as in the form of a free compound. Although these possibilities do not fully reflect the nominative function of language and its scope, they are sufficient to define the two methods of linguistic nomenclature specific to euphemistic naming. Accordingly, in speech, euphemistic units are embodied in the form of words and free combinations, serving as a means of substituting expression, denotation on the basis of pronouns. Evidence from medical discourse is needed to make sure that euphemistic units are used in the form of a free compound. The following examples are given to prove our point:

Difficult pain. *The appearance of rabies in a dog and infecting it with a human and causing a serious illness is a catastrophe observed in the world. A man bitten, a dog bitten ...* [7, 13]. Apparently, in the language of medical professionals, rabies is named after a difficult pain combination in order to provide speech etiquette.

The first night when it is necessary to express the concept or information about sex in speech, *family intimacy, family relationship, sex life, couple relationship, sex, sexual satisfaction, sexual support, satisfaction, inclination, and reunion, enjoyment, joining,* communication there is a need for euphemistic and sometimes dysphemic derivatives in the form of words such as do, touch. Therefore, we focus on the structure of the euphemistic units that occur to express such relationships in medical discourse:

1. *Advice for sexually incompatible couples.*
2. *It should also be noted that men are also divided into 3 groups in terms of **sexual character**: strong, moderate and satisfactory.*
3. *How should men eat to be **sexually energetic**?*
4. *Stay away from random encounters. Then confidence in yourself and your **sexual partner** will also increase your **sexual potency**.*
5. *Think about connecting your hearts to each other even without **sexual intimacy**.*
6. *How do watch pads affect a boy's **sexual health**?*
7. *What is the effect of abdominal cramps, obesity, body mass index disorders on **sexual activity**?*
8. *This is one of the reasons that lust decreases and plays a leading role in **sexual***

weakness. 9. *There is a thickening of the voice and an increase in sexual desire (hypersexualism)* [7, 13-21]. The euphemisms highlighted in the examples belong to the group of euphemisms used for the expression of sexual intercourse and physio-intimate processes, especially in terms of the form of expression, which is similar in structure to the word combination.

The fixed compound (phrase) serves to form a euphemistic expression, the use of which as a euphemistic medium is frequently observed in medicine and everyday speech. According to T. Kovaleva, irony, word games, expressive methods of word formation also play an important role in the formation of phraseological euphemisms [3, 22].

In turn, euphemisms and dysphemisms play a special role in the formation of phraseological units. Phraseological units include units that do not allow cultural discourse, that are embarrassing to say and unpleasant to hear, and that convey the meaning of insult. While such units do not meet the requirements of cultural discourse, they are encountered in random, unexpected situations in everyday speech. They are also rapidly entering the language of periodicals and works of art [1, 207]. The following examples illustrate the role of phraseological units in the formation of euphemistic expression:

Mrs. Mirza was pregnant with Jahangir, and months later a son was born. If the offspring we dream of is born under your wing! We were all born into mothers. [10, 13]. *I will live my whole life bowing to the man who showed the face of the world.* [11, 14]. *I said there that my daughter-in-law's eyes would light up either today or tomorrow* [6, 14]. *Be under the supervision of a gynecologist from the day you are pregnant.* [11, 13]. *That is the condition of mankind, 'he sighed. - Habiba's grandmother handed over the deposit* [10, 13].

In addition, euphemistic units have the ability to be expressed in the form of sentences. In verbal reality, the following derivatives indicate that they are used in a sentence-structured variant, as a component of a simple or compound sentence. 1. *If there was any magic in his thin dark hands, after five or six minutes of trying, a baby's cry was suddenly heard* [6, 43]. 2. *A new guest came into the world, greeted the baby on the ground, to shake the blanket, and turned slowly and calmly* [5, 13].

In verbal derivations, the meaning of birth is understood to be expressed through euphemistic units, such as the sound of a baby's voice, the arrival of a new guest. These derivatives point to the speech occurrence of the structurally simple linguistic construction pattern of these euphemistic units - [WPm]:

Baby (**focusing**) needle (**subject**) heard (**verb**)

New (**attribute**) guest (**subject**) has arrived (**verb**)

In addition, I was not pregnant, I was not ready for motherhood, the units are not to be pregnant // infertility, barren cow units are dysphemisms in the form of words and phrases that give the same meaning. In women, there is a biological process that occurs every 21-30 (usually 28) day, i.e. euphemisms related to menstruation, which are structurally different in speech such as menstruation, menstruation, puberty, puberty, menstrual cycle, physiological process, apologetic woman alternating with appearances, creating a culturally and morally eloquent expression. If the menstrual period is a euphemism, then it is a euphemism for puberty, puberty, the beginning of the cycle, the physiological process, the excused woman, menstruation. Pain is also a sign of the onset of labor. Depending on the state of speech, it is replaced by euphemisms such as labor, pain, lightness, euphemism for pain; pain, hot, near the moon, tears.

Conclusion. In short, medical euphemisms have the forms of word-euphemism, compound-euphemism (free compound and fixed compound (phrase)), speech-euphemism, depending on the form of expression. Word-euphemism, phrase-euphemism, compound-euphemism serve to name diseases, body parts, some physiological processes (and others) in speech. Speech-euphemism occurs in medical speech as a component of a compound sentence (subordinate clause), in the form of a simple sentence ([WPm] device), in the participle structure (circle) and performs its function.

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RELIGIOUS PHRASEOLOGICAL UNITS AS AN OBJECT OF STUDY OF THEOLINGUISTICS

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Abstract:

Introduction. *The article focuses on the propensity to research language and culture using an anthropological approach that is characteristic of modern linguistics. The complex sciences that have emerged in recent years at the intersection of linguistics with other disciplines (sociolinguistics, psycholinguistics, cognitive linguistics, linguocultural studies, anthropological linguistics, ethnolinguistics, ethnopsycholinguistics, sociopsycholinguistics, linguosynergetics, linguopersonology and others.) is the science of theolinguistics, the history of its emergence, the terminological apparatus formed in world and Russian linguistics (biblical terms, phraseological units of biblical origin, religiononyms, religiolects, Koranisms, Koranic phraseological units). In addition, religious phraseology, which is one of the main content of this work, is theoretically studied as an object of study of theolinguistics.*

Methods. *The science of theolinguistics, which emerged as a result of the popularity of the issue of religion, was formed within the anthropocentric paradigm. Theological-linguistic analysis is a structural-semantic analysis of language based on the material of the religious text and provided with religious educational interpretations. In this work we use mainly the methods of theoretical description and structural-semantic analysis.*

Results. *The problem of experiments in the study and classification of religious phraseological units in the world of linguistics is covered, the theoretical basis for the study of religious phraseology is formed. Biblical and Qur'anic phraseologies, which are considered sacred books, are used to prove theoretical ideas. Phraseological units are revealed as a valuable tool that reflects the pure national-cultural characteristics of the people.*

Discussion. *Works on the study of theolinguistics and religious phraseologisms in the world and Uzbek linguistics are analyzed. Problems related to the study of religious phraseological units in Uzbek linguistics arise.*

Conclusion. *At the end of the article, the following theoretical ideas are given as a conclusion: religious lexicon is the basis of religious phraseology; it is expedient to apply the methods of hermeneutic analysis of theolinguistics in the study of the internal form of religious phraseology; religious phraseologies may differ in structure; religious phraseologies can be classified semantically; religious phraseology is a universal phenomenon for many languages*

because several peoples speaking different languages may believe in one religion; religious phraseological units are an expression of the religious imagination of the people; religious phraseological units are an important tool for reflecting the specific national and cultural characteristics of the people; religious phraseological units serve to establish communication between different cultures; intercultural communication contributes to the enrichment of the stock of religious phraseological units.

Keywords: *language, culture, value, theology, linguistics, anthropology, theolinguistics, religious vocabulary, religious phraseological units, religious concepts, the Bible, the Koran, biblicalism.*

Introduction. There is a tendency to return to the anthropological approach expressed in von Humboldt's teaching on learning language and culture in the context of modern linguistics.

According to him, language exists inseparably from human culture and is its most important component: "Language is closely linked with the spiritual development of mankind, and its local progress accompanies each stage of regression, reflecting each level of culture" [8, 27]. In this regard, a number of complex sections are emerging in modern linguistics: sociolinguistics, psycholinguistics, cognitive linguistics, linguocultural linguistics, anthropological linguistics, ethno-linguistics, ethnopsycholinguistics, sociology, linguistics, sociology, linguistics, linguistics, linguistics. b. These synthetic sciences involve the study of language from a linguistic point of view, which is inextricably linked with the main aspects of human life - human consciousness, culture and morality. In recent years, at the intersection of theology, religious anthropology and linguistics, a new synthetic science - theolinguistics - has emerged.

Due to the influence of the ideology of the existing political system, religious language as an object of study has recently entered the sphere of interest of linguists of the former Soviet Union. In Russian linguistics, this concept is also called by various synonymous epithets: the language of religious propaganda, the language of church-religion, the language of church-propaganda, the language of church-bible, the language of divine doctrine, liturgical language, sacred language, and so on.

Methods. The science of theolinguistics, which emerged as a result of the popularity of the issue of religion, was formed within the anthropocentric paradigm. The theological-linguistic analysis is a structural-semantic analysis of language based on the material of the religious text and provided with religious educational interpretations. In this work we use mainly the methods of theoretical description and structural-semantic analysis.

Results. The term "theolinguistics" first appeared in linguistic research in 1976. The founder of Theolinguistics as a Department of Linguistics is Jean-Pierre van Noppen (J.-P. van Noppen), a professor at the University of Brussels (Université Libre de Bruxelles). The later use of this term was by D. Crystal, A.D. Associated with Wagner names.

A. Wagner [30, 509] emphasizes more on the productivity and prospects of the interaction between theology and linguistics. In the field of theolinguistics, the scientist proposes to solve the following problems: the problem of religious language; religious-linguistic behavior - religious forms of communication; areas of application of religious language. According to the author, in the field of Christian theology, theolinguistics would help to solve problems related to modern systematics, ie practical-theological aspects, from the historical point of view - historical and exegetic (hermeneutic) aspects [30, 510].

In Slavic linguistics, theolinguistics began to develop in the wake of the trend of "combining theological knowledge with worldview and culture", which is more pronounced in the modern world [16, 5]. Ukrainian (A.K. Gadomsky [5]), Serbian (K. Koncharevich [13]), Russian (V.I. Postovalova [19, 20], S.I. Shamarova [25]) and others contributed to the formation of theolinguistics as a branch of linguistics. h.k. made a great contribution.

Due to the relatively recent emergence of views on theolinguistics in Slavic theology, there are several approaches to its goals and objectives. While some scholars have identified the study of the role of religious language in society as the main task [13], others recommend "studying the

concept of religious language in a narrow and broad sense” [5, 18], including moral and doctrinal theology in the narrow sense, as well as the language of rituals and personal prayers. , the language of sacred texts (the Bible), the language of religious works of art, etc. if understood, in a broad sense, a religious language is understood as a colloquial language that contains ideas about God, such as the language of religious texts in the fields of history, sociology, and psychology. Other scholars have suggested that in addition to the connection between linguistics and theology, there is an intermediate function between religion, the church and society, and the state. In recent years, a number of theological studies have been devoted to the study of the problem of the relationship between religion and language, as well as the above [1, 3, 4, 7, 12, 15, 21, 15, 21, 22, 23, 27, 28, 29].

Some scholars have also raised the issue of developing a terminological apparatus of theolinguistics, in particular, the introduction of terms such as theonema, which represent phonetic, word-forming, morphological, lexical, phraseological and syntactic means that express religious content and reflect the features of religious language [5, 19]. In our opinion, no matter how interesting it is to combine units specific to different levels, it seems more convenient to use the existing base of scientific terms in linguistics than to develop new terminology. After all, the main task of science is to ensure that research within a particular science serves to create ease for people to perceive existence, to adapt to different situations.

Given that in this work the sources of religious phraseological units as the object of theology, in particular, the theoretical basis for their study and classification, we consider it appropriate to maintain a balance between a pure linguistic approach to religious phraseology and a valuable relationship to the object of study. After all, the deep essence of the language of religion cannot be studied in detail only in language theory.

It is obvious that the phraseological structure of language is constantly expanding, so this field is always in the interest of researchers. Due to such strong attention paid by scientists, an independent branch of phraseology - phraseological etymology - emerged.

Religious phraseological units, which is the object of our study, may also be layered and mastered. Religious phraseologisms belonging to their own strata will be formed on the basis of religious perceptions of different periods and different spheres of cultural, socio-economic and material life of the people. Phraseological assimilations also play an important role in the enrichment of the religious phraseological reserve, leading to the interaction of different languages and their enrichment.

V.I. Tomashpolsky shows three types of mastery of phraseologisms in terms of adaptation to the corresponding language [28, 194]:

- 1) mastering without translation;
- 2) mastering by semi-calving;
- 3) assimilation through slaughter (killing time).

The source of mastery can be not only the languages of neighboring countries, but also the culture, mythology and religious texts of ancient times. Hence, religious phraseologisms also play an important role in enriching the stock of phraseological units in general.

The words and sentences used in the Bible, which have become the national language in world linguistics, including Russian linguistics, are called “bibleism” in the practice of studying religious vocabulary [2, 24]. In linguistic research, as well as in specialized dictionaries, phraseological units, aphorisms, and winged words derived from the Bible are traditionally understood as biblicalisms. However, it should be noted that there are also words that are not recorded in the Bible, but are directly related to Christianity, so limiting the concept of biblicalism, in our view, seems more inappropriate. They can be called words, phrases related to religious lexicon, as well as phrases containing religious words can be called as religious component phraseologies or simply religious phraseologies.

Religious phraseologisms form a very large group. Many scientists have dealt with their classification. In particular, V.G. Gak suggests dividing biblical phraseology into the following oppositions as the basis for classification [6, 55-56]:

1. Contextual / situational PhU. Contextual, or quotation, phraseological-biblicalism is directly related to the text and may be slightly modified (*метать бисер перед свиньями; кто из вас без греха, пусть первым бросит в нее камень; избрать благую часть; в огонь и воду; буква убивает, а дух животворит; брось в нее камень; возвращается ветер на круги своя; не оставит камня на камне; камень преткновения*). As for situational phraseology-biblicalism, even if the phrase is not expressed in the same form in the Bible, it can describe a situation in the book and through this content can cover several (*Ноев ковчег; в костюме Адама и Евы; в костюме Евы; в райском наряде; заблудшая овца; Вавилонское столпотворение; внести свою лепту; Фома неверующий*).

2. The presence / absence of the relevant phraseology-biblicalism in the language. There are dozens of analogous phraseological-biblicalisms in different languages. However, there are cases when the biblical situation, which is reflected in the form of a phraseological unit, the event is not recorded in another language. Moreover, almost all researchers who have studied biblical phraseological units point out that although appropriate phraseological-biblicalisms are found in many languages, they may differ in meaning, component structure, grammatical structure, internal form, and emotional coloring. For example, the full equivalent of the Russian phrase *Кто рано встает, тому Бог подает* is not only available in Uzbek, but also in English (The early bird catches the worm).

3. Primary / secondary. Primary religious phraseologies directly reflect the biblical text or situation (*все, взявшие меч, мечом погибнут*), secondary religious phraseologies are remotely related to the biblical text (*быт в духе; Гог и Магог*).

4. Direct / indirect. Direct religious phraseology is derived from the Bible (*во многой мудрости много печали*). Indirectly, there is a sign of assimilation from another language or from the works of individual authors (*а судьи кто?* - a phraseologism of biblical origin, but entered the speech through another work; *кто не работает, тот не ест* - itself biblical, but first in Lenin's works used and popular in the former Soviet Union).

5. Self-meaning / portable meaning. In self-meaning phraseologism-biblicalism, the change of biblical quotations occurs only in relation to its form, and the meaning is preserved (*манна небесная*), while in figurative meanings the content changes while preserving the form of the biblical phrase (e.g., *глас вопиющего в пустыне; зарывать талант в землю; дом, построенный на песке*).

The next classification belongs to A.V. Kunin. This classification is based on the difference between a biblical phraseologism and a prototype of this scripture. The scientist divides such phraseologisms into two groups [14, 268-269]:

1. Biblical equivalents (as in the text of the Bible, the language is used in the same form - *агнец божий; блудный сын; в ореоле славы; запретный плод*).

2. Biblical prototypes (phrases that have become phraseological in the process of changing the meaning of the Bible) – *припадать к стопам (ногам; с неба свалиться)*.

In turn, another linguist, A.G. Nazaryan, in his theoretical research, he distinguishes three groups of phraseological units related to the Bible [17, 276-277]:

1. Phraseologisms derived from the Bible (*хлеб насущный; божий дар*).

2. Phraseologisms related to biblical characters (*Хамов сын; Фома неверующий*).

3. Phraseologisms associated with religious ceremonies (*светлая седмица; обрезание Господне; отдавание пасхи*).

V.D. Ushakov [24], performing a structural-grammatical classification of phraseological units of the Qur'an, divides them into two groups - noun and verb phraseological units.

Another researcher, Dr. Alaa El Din Farahat Hassan Abou El Ela divides the phraseology, in which the word God (Господь, Боже) in Arabic and Russian is the main component, into 3 groups:

1) Phraseologisms with the component “*Бог*” expressing positive emotions;

2) Phraseologisms with a “*Бог*” component, expressing negative emotions;

3) Phraseologisms with “*Бог*” component with syntactic differences in Russian and Arabic languages [26, 224].

Jellali Mahdi, who has studied the methods of translation of Qur'anic phraseologisms, emphasizes that the following interlinguistic compatibility should be taken into account when translating phraseological units from one language into another:

1) equivalents (in full and in part) - ونبه (مد) - *дету Адама (Children of Adam)*; يف ربلا رحبلاو - *на суше и на море (on land and at sea)* محق هفناً يف أ - *совать свой нос (to interfere)* لا ياري دابي - *дальше носа своего не вижу (not to see beyond the nose)*; ي حمل رصبلا ف - *в мгновение ока (in the blink of an eye)*);

2) analogues (تأذ رؤدُصلا - *тайники души* (literally translated as “something in the chest”); ”); قَرَقُ نُبُع - *улада очей* (literally translated as “coolness in the eye بُولُقلا نَدَل رَجَانُخْلا - *душа в пятки ушла (от страха)* ((literally “heart in the throat”)

3) non-equivalent units (مُأ رُقْلَاي - *важнейший город, главное поселение* ((literally □ مَتَاخ نَبِيئَاتِلَا - *последний из пророков* (literally translated “the seal of the prophets”) [10, 46].

Because of changes in the social and political situation in our country in recent years, the opportunities for researchers to study the role of religious lexicon in the language system has expanded. N.M. Uluqov (exotic lexicon in Uzbek religious texts), one of the Uzbek scholars who studied this lexical layer from different points of view [29], M. Umarchodjaev (religious style and religious terminology) [31], [30], Sh.S. Sirojiddinov (religious and philosophical doctrine in the works of Uzbek classics) [25], Sh.T. Mahmaraimova (cognitive aspect of theomorphic metaphors) [17], Sh.M. Sultanova (category of time in sacred texts) [26], M.R.Galiyeva (mythological-religious consciousness in the linguistic landscape of the world) [7] and others scientific works can be a proof of our opinion. In particular, N.M.Uluqov, who carried out an in-depth scientific and theoretical analysis of the exotic lexicon of religious texts in the Uzbek language. Uluqov divides these lexical units into the following thematic groups: 1. Exotic words. 2. Exotic proper names. 3. Exotic phraseology.

Exotic words, in turn, are divided into the following groups: 1) exoticisms that express the meaning associated with the concept of man; 2) exoticisms denoting the names of animals; 3) exoticisms denoting the name of clothes and jewelry; 4) exoticisms expressing meaning related to religious concepts and ideas; 5) exoticisms denoting the names of trees and plants; 6) exoticisms denoting the names of food and beverages; 7) exoticisms representing the disease and related concepts; 8) exoticisms representing the concept of measurement, quantity; 9) exoticisms expressing concepts related to Muslim law; 10) exoticisms denoting religious, local taxes and various payments [29, 13-14].

Along with a detailed classification and description of religious vocabulary, N.M. Uluqov notes that “exoticisms occur in the text in the form of more words, phrases and, in rare cases, phraseological units” [29, 13]. This view is based on the study of religious texts, so it can be said that the language of religious texts is as simple as colloquial language, although it is close to the people, but has a unique style, so a variety of phraseological units specific to colloquial and artistic styles -diversity may not be observed in them. However, in addition to the phraseologies used in religious texts, many stable and some free compounds that later had a secondary meaning now make up a large number.

M.R. Galiyeva when analyzing lexical, phraseological, paremiological units as religious-mythologically marked language units, divides religious lexicon into the following groups: 1) general religious lexicon; 2) names of religions, denominations, doctrines and beliefs; 3) terminology of a style of worship; 4) vocabulary naming religious ceremonies; 5) universal abstract (unreal) lexicon; 6) religiously marked anthroponyms and toponyms [7, 19-20]. It is noteworthy that the researcher used examples from English, Russian and Uzbek in the classification of religious vocabulary. However, when analyzing religiously marked phraseological units on the principle of denotative-semantic affiliation of the base component, phraseological units in English and Russian are given [7, 21]. Thus, we can see that in this case, too, the issue of religious phraseological units in the Uzbek language has been neglected.

As for the reflection of religious phraseological units in dictionaries, a special religious phraseological dictionary has not yet been created. It can be seen that the religious phraseology

cited in the existing phraseological dictionaries of the Uzbek language does not cover the existing volume in practice. However, it is no exaggeration to say that religious phraseological units are located in the active layer of language. From the time a person wakes up to the time he goes to bed after completing his daily activities, he at least recites phrases in the form of a prayer in which the name of God (Allah) is present.

The analysis of the above works shows that the study of religious phraseological units in the Uzbek language is one of the pending problems.

Discussion. Thus, there are a number of classifications of phraseological units in different languages of the Bible and the Qur'an, the formation of specific terms in this area (biblical phrases, phraseological units of biblical origin, religions, religiolects, Koranisms, Quranic phraseological units etc.). the fact that the issue remains open indicates that this problem is extremely urgent. In this regard, one of the representatives of the Samarkand School of Phraseology B. Yuldashev noted that "there are still many problems in Uzbek phraseology that require in-depth scientific study," adding that the issue of "special study of phrases, hadiths and their relationship to phrases in the Qur'an" [12, 11] is one of the problems awaiting solution. With this in mind, we found it necessary to study the experience of scholars engaged in the study of phraseological units of different languages, in particular, the Fund of Religious Phraseologism, in order to create a theoretical basis for the study of religious phraseology.

Interestingly, the fact that phraseological units containing religious lexicon have been studied extensively in many languages, especially in some fraternal Turkic languages, especially analyzed by scholars who speak another language rather than those who speak the same language, encourages us to be a little responsible. However, linguistic phenomena studied by a linguist who knows a particular language as his mother tongue, who has absorbed it into his consciousness from birth to its subtleties, are valuable in that they reflect original ideas.

Phraseological units represent more specific aspects of identity as a valuable tool that reflects the pure national-cultural characteristics of a people. However, it is natural to encounter a different picture in the study of religious phraseological units, because usually religion is not considered a value that belongs only to one nation. One religion can be unique to many peoples and have an equal place in their value system and be reflected in language. The main part of the religious phraseology available in the phraseological fund of the peoples belonging to one religious denomination is functionally-semantically similar. However, it should be noted that the commonalities in religious phraseology are also growing due to the constant connection between the language and culture of peoples of different religions. This aspect should also be taken into account in the classification of religious phraseologisms.

Conclusion. In conclusion, we can prove convenience and effectiveness in the study of religious phraseological units; we consider it is expedient to take into account the main aspects inherent in them, to take into account certain features that are consistently formed.

Thus, based on the analysis of the theoretical basis of the existing work devoted to the study of religious phraseology, we try to optimally systematize the theoretical foundations of the study of religious phraseological units.

1. In the study of religious phraseologisms, based on the relationship between language and religion, the following should be taken into account:

- a) religious vocabulary is the basis of religious phraseologism;
- b) it is expedient to apply the methods of hermeneutic analysis of theolinguistics in the study of the internal form of religious phraseological units;
- c) religious phraseologisms may differ in structure;
- g) religious phraseological units can be classified semantically.

2. While studying religious phraseological units as a linguocultural phenomenon, the following should be taken into account:

- a) religious phraseologism can be a universal phenomenon for many languages because several peoples speaking different languages may believe in one religion;
- b) religious phraseological units express the religious imagination of the people;

- c) religious phraseological units considered to be an important tool that reflects the specific national and cultural characteristics of the people;
 g) religious phraseological units serve to establish communication between different cultures;
 d) intercultural communication contributes to the enrichment of the stock of religious phraseological units.

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PROBLEMS OF COMPARATIVE LINGUISTICS AND ETHNOLINGUISTICS

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Abstract:

Objective. *The article under discussion reveals the information that allows to trace the history of the human language structure development. Materials used for the development and research of the comparative study of the Russian and Uzbek languages contribute to the study of contrastive (comparative) linguistics. The target article consistently highlights the problems of comparative linguistics of different-system languages and ethnolinguistics, studies the characteristics of people, nation, and their reflection on the language system, which contributes to a deeper understanding of linguistic phenomena. It is essential to understand the similarities and differences in the function of the two studied languages: Russian and Uzbek. Some aspects may be presented in the function of one language and may be absent in the function of another language.*

Methods. *Descriptive and comparative research methods have been used that can be applied in the study of the languages of the Russian and Uzbek peoples, their dialects and ethnographic dialectisms (ethnographicisms).*

Results. *Several studies have been carried out that demonstrate the similarity (the same signs of a numeral, verb and gerunds) and differences (morphological classification; morphological meaning of a word expressed by an affix; word formation) of two languages (Russian and Uzbek). As a result of the study, it was revealed that ancient roots exist in the history of culture and languages of both peoples, problems and life situations in which people lives are described; both languages reflect the worldview of their peoples. The Russian and Uzbek peoples react in the same way to life situations and phenomena: love and hatred, meanness and nobility, the victory of good over evil. In linguistic analysis, it was determined which qualities of the language are general cultural and which are not. The functions of speech in the languages of nationalities are the same, language and culture are in mutual correspondence and interaction. The review includes comparative studies of the Russian and Uzbek fairy tales, speech functions, dialects and ethnographic dialectisms.*

Conclusion. *By determining the common features of the above mentioned dialects and ethnographicisms, we can say that both languages have similarities. So, in both Russian and Uzbek dialects, there is the so-called akanya and okanye. Also in both linguistic dialects there are ethnographic dialectisms used only in a certain area. The interest of this study is that we can identify the relationship and interdependence of several dialects within one language.*

Keywords: *linguistics, ethnolinguistics, grammar, interference, analysis, ethnos, ethnographic, dialect, function, adverb, speech, people.*

Introduction. An outstanding Russian linguist, academician of the Academy of Sciences of Russia, specialist in general linguistics L.V. Shcherba wrote the following on the first pages of his work "Selected Works on Linguistics and Phonetics": "One of the main tasks is the comparative study of different languages structure. It is confusing how such a comparative study can provide efficient information on the evolution of ethnic languages and their contacts with the worldview and human consciousness I think that that it is necessary to find another way to study this task". This article was published in 1958. Since then, enormous achievements have been made in the field of comparative linguistics. The interest in comparative linguistics is indicated by a large number of scientific studies and publications by linguists from all over the world. In many countries, various

projects have been developed for the comparative study of native and foreign languages. In Uzbekistan, numerous researches are also being conducted on the comparative study of Uzbek and Russian, Uzbek and English, Uzbek and other foreign languages. Why is there a great interest in comparing languages in our country? First, there is a growing interest in the Russian language as the language of interethnic communication in our multinational state. The Russian language unites two states, Russia and Uzbekistan, with developing socio-political, cultural and economic ties. Secondly, the trend of educational reform and the study of foreign languages also contribute to the study of contrastive (comparative) linguistics.

What can we do to achieve high results in this area of research? First of all, to substantiate the possibility of comparing languages, to develop a method of work and to analyze interlingual interference. To study the similarities and differences of the phonological system of the Uzbek and Russian languages, using the 12 binary distinctive oppositions established by R. Jakobson, G. M. Fant, M. Halle, which will contribute to the target work when comparing the phonemes of the Russian and Uzbek languages.

Methods. The most essential research in this field is the course of E.D. Polivanova "Russian grammar in comparison with the Uzbek language", in which the researcher characterizes such phonetic units as a syllable, indicating that they can be monosyllabic. Let's consider the composition of vowel and consonant phonemes in both languages. In Russian (a), (o), (e), (i), (s), (y), in Uzbek (a), (o), (e), (u), (y), (y '). Both languages have 6 vowel phonemes. The number of consonant phonemes: in Russian 32, and in Uzbek 24 basic consonant phonemes. In both studied languages, there are relative and non-relative consonant phonemes. In general, the author focuses our attention on the fact that in the Russian language there are many examples of the selection of various combinations of consonants with vowels that make up a syllable, and in the Uzbek language, on the contrary, there are certain norms of such combinations. Regardless of published work of Professor E.D. Polivanova in 1934, interest in the study of the target research has not been decreased to the present day. Thus, we have clarified the problems of comparative linguistics and the history of comparative language learning, the possibility of comparing languages in terms of the abstract system and the peculiarities of interlinguistic interference. This material is of high interest because it provides an opportunity to compare languages that are far away from each other in terms of their characteristics and to find common features in them, as well as to improve the skills of the Russian language, which is gaining world importance.

Let's consider one of the directions of linguistics - ethnolinguistics, i.e. the branch of linguistics that studies the relationship between the language of the ethnos and its culture, as well as the perception of the world by different ethnic groups. Science that studies the specific features of the people, nation and their reflection in the system of languages of ethnic groups has come up as a result of combining the two areas of linguistics and ethnology. This branch of linguistics gives the researcher an opportunity to study the connection between language and spiritual culture, language and folklore, and also describes the national features of a certain ethnos. The origin of the above mentioned branch of ethnolinguistics can be connected with the name of Franz Uri Boas - an ethnographer and linguist of the American origin, who studied interesting culture, languages of the American Indians' folklore. His students are many famous linguists and anthropologists who studied languages that do not have written traditions. What is the importance of ethnolinguistic research? It is important to study the language, customs, traditions, household items of people from the diachronic point of view, in order to establish the correspondence between the ethnos, the peculiarities of its culture and language, as well as to determine the role of language in the formation of the culture and creativity of a certain nation, because language must be considered as the brightest factor in the study of the ethnos. It is worth paying attention to the consideration of literary and folkloric correspondence, and what are the links between the two literatures. Can the Russian and Uzbek fairy tales, created by the people, serve as an ethnographic source about the people? Consideration of the fairy tale is a very important issue, because the language of the fairy tale is the most important tool to create a national picture of the people and its flavor, the fairy tale reflects the worldview of the Russian and Uzbek people and their view on the various phenomena

that occur in life. Let's consider the characteristics of fairytale characters, some phenomena, events and subjects and compare the results.

The author considers a fairy tale of Russian oral folk art "Morozko". This fairy tale belongs to the category of magical fairy tales, as it has a magical character that exists to help in the victory of good over evil. After the death of his wife, an old man, sympathizing his daughter Nastenka, who lacked maternal warmth, decided to get married to a widow with a daughter Marfusha. Four of them began to live including two girls - Marfusha and a stepdaughter Nastenka. An old man lived with his second wife. He had a daughter and his wife also had a daughter. Everybody knows how hard it is to live with a stepmother: no matter how hard you try, you will not please everybody. But her daughter will do anything, and she will be stroked on the head and called a smart girl. Nastenka was a hard-working, took care of domestic animals, heated the stove, wood was poked, water from the well was carried, she cooked lunch, the household was run, she became a well-known needlewoman in the whole village, but she never heard a kind word from her stepmother. She was a real beauty and she had a kind heart. The stepmother hated her stepdaughter and decided to drive her out of the house, and the old man was ordered to take the girl to the dark and cold forest for his own perdition. "Take her wherever if you want my eyes not to see her," the old woman ordered. The old man meekly carries out the old woman's command. Luckily, Nastenka meets an old man, who warmly greeted the girl. "Are you warm, girl? Is it warm for you, a beauty?" asks the lord of the forest Nastenka. Nastenka politely, with a smile and kindly answers him: "Warm, warm, father. Father Frost took pity on the kind girl and sheltered her in his winter terrace, gave her gifts of priceless value: jewelry, sable fur coats, gave a chest of dowry and engaged her to a good guy. The old man, having come back to the forest and took Nastenka despite the will of the evil old woman. Nastenka returned to her father's house alive, elegant and with a dowry! After arriving in the forest, the old man finds his daughter Nastenka cheerful, rouge, in a sable coat, but in silver and gold, and with a chest of rich dowry. The evil and jealous stepmother, having seen the good brought by Nastenka, ordered the old man to drive Marfusha to the forest. But the old woman's daughter is rude and lazy, the old Father Frost dislikes and she returns home without any salted bread.

This fairy tale reveals such negative human vices as greed, envy, and teaches that one should be industrious and kind. The stepmother's behavior as a negative hero causes censure and indignation, and the reward that the girl received from Father Frost is the triumph of justice. The stepdaughter is a positive female image, evokes respect and sympathy, she is gentle and obliging so much that despite the severe frost, Father Frost responds with a friendly response, which raises respect.

Russian folk tales abound with descriptions of household items, kitchen utensils, farm tools, jewelry, clothes, furniture, food, etc. When describing a home, the words are used: *terem, hut, huts, chambers, mansions, quarters, smithy, dungeon, hay, tower, maid, closet, cathedral*. As well as fabulous buildings, such as *the underground kingdom, Koschey's home, house on chicken legs*, describes the interior decoration of living space: *floats, benches, oven, chests with "good"*. Items of everyday life: *poker, grab, poker, box, bucket, bodywork, rocking arm, purse*. Agricultural tools and household items: *axe, scythe, plough, harrow, broom, sickle, plow*. In fairy tales we find a description of clothes and shoes: *shoes, caftan, shirt, girdle, shirt, lapti, sundress, safyanovye boots*, means of transportation in Russian folk tales: *sled, stroller, cart, wood*. The life of the Russian people is revealed through the descriptions of these items, which are necessary in life and in everyday life. Traditionally, Russian folk tales have a happy and instructive end, where good triumphs over evil.

Uzbek folk fairy tale "Zumrad and Kimmat". This fairy tale also has a magical character who helps in the victory of good over evil. Four people lived in a house on the edge of the ravine: an old man with his daughter Zumrad and an old woman with her daughter Kimmat ("Bir bor ekan, bir yo`q ekan, bir chol bor ekan. Uning Zumrad ismli qizi bor ekan. Chol bir qizi bor ayolga uylanibdi. Qizining ismi Qimmat ekan"). The old woman does not like her stepdaughter. She beat her and scolded her, made her work from morning to night. Zumrad was beautiful and friendly, and Kimmat was capricious and lazy. The old woman decided to swoop down Zumrad. The evil stepmother told

her husband to take her beloved and obedient daughter Zumrad far away to the forest and leave her there ("Agar q'izingni yo'qotmasang, sen bilan birga yashamayman! Uni o'rmonga olib borib tashla"). The father left his daughter in the woods. For a long time Zumrad wandered through a dark, terrible forest and finally came to a small house. In this house lived a good forest sorceress, who sheltered Zumrad. The girl helped the owner of the house in everything that deserved her affection and love ("Kampir sehrgar ekan. U Zumradni iliq, mehribonlik bilan kutib olibdi"). Soon Zumrad missed her home and father, as she told the old lady. The sorceress gave her a red chest and sent her home. The red chest was full of expensive things ("Sandiq qimmatbaho kiyimlar, shoyi va taginchoqlarga liq to'la emish. Zumradning butun umriga yetib, ortar emish"). A jealous old lady, seeing the jewelry and outfits, told her husband to take and leave her daughter Kimmat in the forest. The girl, having found herself in the woods, quickly found the sorceress's house. To the friendly meeting of the old lady, Kimmat did not find a single kind word for the forest owner in return. All day long Kimmat lay, ate, idled and did nothing else. One day, Kimmat cried and said that she missed her home very much. The forest owner gave her a white chest and sent her home. At home, having opened the chest, the evil stepmother and Kimmat found two large dragons in it. ("Qimmat uyiga zo'rg'a-zo'rg'a yetib kelibdi. Qo'shnilar yig'ilibdi. Qimmat onasi bilan sandiqni ochmaslik uchun ustiga o'tirib olishibdi. Kechqurun sandiqni ichkari xonaga olib kirib, eshiklarni mahkam yopishibdi-da sandiqni ochishibdi-yu, "Voy, dod, qutqaringlar! Ajdar! Yordam beringlar!" - deb baqirishga tushishibdi").

Results. Comparison of two tales. In the comparative analysis of fairy tales of Russia and Uzbekistan it is possible to trace similarity of characters, a plot and life situations. The plot of the Russian folk tale "Morozko" is similar to the plot of the Uzbek folk tale "Zumrad and Kimmat". Let's compare the behavior of girls: Nastenka and Zumrad - hardworking, kind and friendly, who received an award for their characters. Marfusha and Kimmat are lazy and rude and were punished for this reason. Let us conclude that despite the opposite cultures, labor always deserves respect, and the attitude of all nations to idlers and lazybones is only negative at all times. Russian and Uzbek fairy tales have much in common: both have ancient roots in the history of culture and languages; both languages describe problems and life situations in which people live; both languages reflect the worldview of their peoples. The Russian and Uzbek peoples equally respond to life situations and phenomena: love and hatred, meanness and nobility, the victory of good over evil. A special place in these fairy tales is occupied by the clash of reality and fiction. The structure of the fairy tale: the beginning, the end, the culmination and the conclusion are identical. The fairy tales describe the originality of national character, life, clothing. They reflect the world in which the people who created these fairy tales live, as well as ethnographic elements and terms of real life of the epos. Such elements of Russian everyday life as *stove*, *sarafan*, *shi*; Uzbek everyday life as *bolta* (axe), *osh* (pilaf), *sandiq* (chest), *taginchoqlar* (jewelry) create ethnographic reality of the studied peoples and provide an opportunity to study ethnography in Russian and Uzbek folk tales. But fairy tales are not the only source for studying the facets of speech.

Another aspect of speech that requires careful consideration is its function. It is important to know the similarities and differences in the functions of the two languages studied: Russian and Uzbek. The study of speech functions can be done in field research methods. It is necessary to look for aspects that may be present in the function of one speech, but may be absent in the function of another speech and vice versa. Although some speech functions may be universal for both Russian and Uzbek languages. Let's look at some language functions, they may be:

- expressive, i.e. by means of speech expressing emotional state of the speaker, his/her subjective attitude to the denoted subjects and phenomena of reality. Thus, in the Russian language instead of the word *beautiful*, coming to admiration from someone, we say *brilliant*, *magnificent*, *excellent*, *incomparable*, *charming*. Neutral word *I do not like*, but you can use and more eloquent words *to be impatient*, *can't stand*, *unbearable*, *hate*. In Uzbek, the neutral word *chiroyli* (beautiful) has expressive synonyms *yorqin*, *ajoyib*, *tengsiz*, *maftunkor* (bright, stunning, incomparable, charming). The word *yoqmaydi* (not like it) is synonymous with the emotional coloring of men

undan nafratlanaman (I hate him). Conclusion: In both the first and second examples, the meaning of the word is complicated by its expressiveness.

- communicative, i.e., using speech to communicate information or to induce action. The communicative qualities of speech include: accessibility, accuracy, logicity, correctness. We may hear communicative errors in imperfect speech. For example, *my grandmother's hands hurt, which are down* (Uzbek: *Buvimning qo'llari og'riyapti, ular tushgan holda bu'lmoqda*). What we observe in this sentence: (broken: correctness of speech - there was an error in the use of the omitted state (*tushgan holda*); accuracy of speech - there was a substitution of the concept; richness of speech - poor command of the word reserve; expediency of speech - using the combination of omitted state (*tushgan holda*) is ineffective, it distracts attention from the essence of the question. Conclusion: the rules of communicative use of speech have been violated in both Russian and Uzbek languages.

- poetic, i.e., aesthetic functions of language intended to express artistic creativity. Such concepts as: ethnic, ethical, ideological functions can be used in this speech criterion. For example, *I thought about it so often, but never could express my thoughts beautifully.* (Uzbek: *Men bu haqda tez-tez o'ylaganman, lekin hech qachon o'z fikrlarimni chiroyli ifoda etolmasdim*). This example indicates that both the Russian and Uzbek languages focus on the form of the message.

- meta language, i.e. the language can act simultaneously as a means of interpretation or description. For example, *look at this word in the Explanatory Dictionary.* (Uzbek: *Ushbu so'zni izohli lug'atda ko'ring*). This example points to a meta language function using a word such as "word" and special linguistic terms. Thus, due to difficulties in speech communication (when speaking to a foreigner who does not speak the language professionally or when speaking to a child), both Russian and Uzbek use meta language.

These few examples of the use of speech functions suggest that both languages (Russian and Uzbek) show signs of close communication. Therefore, in scientific research we should not limit ourselves to describing functions, especially in terms of communicative, important for the formation and behavior of personality. The main ethnographic problem will be the establishment of types of expressive functions, which indicates common systems in the field of linguistics.

From all the above mentioned issues, we can conclude that speech is subject to the behavior of both an individual and a group of people. Besides the study of speech in an ethnographic context does not have sufficient material for research. Ethnographic vocabulary should be considered as an independent object of study and field methods of its study should be conducted. The language and culture of the people are interconnected, and evidence of this connection must be sought in their most detailed analogy. In linguistic analysis, it is important to determine which qualities of language are common cultural and which are not. The functions of speech in the languages of certain nationalities are the same, the main thing is to prove that language and culture are in mutual correspondence and interaction.

Let us consider one more descriptive method of research. It can be applied when studying the language of Russian and Uzbek peoples, their dialects and ethnographic dialectisms (ethnographies).

Discussion. Dialects and ethnographic dialectisms in Russian. The Russian language includes a large variety of dialects, which in turn can be divided into subgroups, but all these dialects are united into a northern dialect, which is called a full fringe (vowels in these dialects /a/ and /o/, you can hear and distinguish from each other in syllables that do not fall on the emphasis, for example, the words: [*воды- вода*], [*сом – сома*], in the southern dialect, on the contrary, there are different types of using *a* instead of *o* (*аканья*): [*полить цветы –палить цветы*], [*молока*]- [*малака*]), they may also refer to the composition of the Central Russian dialects, combining features that are separately present and are characteristic of both dialects, in this regard, in the Central Russian dialects of the northern part of Russia there are more northern dialects, and thus in the southern part prevail southern dialects.

Ethnography requires special attention from researchers. Giving a definition of ethnographisms, let's highlight the main concept. These are words used in the everyday life of a certain territory, in a certain saying, which are unfamiliar to residents of other areas or differ from

the words of another area by something special. For example, words belonging to the North Russian dialect: *зорбуша* is the name of a special kind of scythe (bagpipe), *дулейка* is the name of a woman's sweater, *копач* is an agricultural tool (like hoes), *суковатка* is an agricultural tool (harrow). Words belonging to South Russian tales: *кичка* - the name of a female headdress; *понёва* - a type of skirt made of woolen fabric, *шушпан* - a type of women's outer clothing, *рало* - an agricultural tool (plough). These words have no analogy in other dialects. In the lexical composition of the Russian language there are separate words that can be used in a number of sayings, but may have completely different meanings. For example, in the Kursk region, the word *вала* has a meaning of scales, but in the Tambov region, this word can mean a cojourn. The word *бурак*, which is used in the north, denotes a sparkling vessel, but in the south it means glass. Certain words do not have in their composition words to determine the meaning of any object, but in other words, on the contrary, such words take place. Let's consider an example: the North Russian word has a special name for expression of *sheep's wool*, but the South Russian word has its definition with the help of the word *wave*. On the northern territory, the field from which the entire harvest of rye and oats is removed is called *ржанище* or *овсянище*, and on the southern territory, the field after the harvest of all kinds of cereals is called one word *жниво*.

Let us consider the dialects and ethnographic dialectisms of the Uzbek language.

Modern colloquial dialects, which are used in Uzbekistan, are divided into two groups:

- "akayushiy" - which are also divided into two groups and differ from each other by the use of initial letters "dj" or "y";
- "okayushiy" is a term used by residents of the capital and Tashkent Province, Samarkand, Bukhara and nearby areas, as well as some other adjacent areas.

Linguists, on the other hand, divide all dialects of Uzbek into 4 groups: Kypchak, Oghuz, South Uzbek and North Uzbek. Words-ethnographisms: *сава* — *кунак* - horse leather bag for keeping koumiss, *табар* - axe, squirrel - saddle bedding, *беллик* - saddle, *давур* - blanket. But in the following words you can notice a difference in pronunciation and meaning. For example, *зунни* - in the dialect kirk (medieval Uzbek dialect) means fussy, and in Gurlan, Mangita Kypchak is used in the sense of a thick quilted, quilted robe.

Conclusion. According to the definition of common features of the dialects and ethnographies described above, we can say that there are similarities in both languages. Thus, in both Russian and Uzbek conversations there is the so-called "akanya" and "okanye". Also in both language dialects there are ethnographic dialectisms, which are used only in a certain area. The interest of this study is that we can identify the relationship and interdependence of several dialects within a single language. The task of modern linguistics is that it should present its questions concerning the ethnography of speech and find an answer to them.

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**MODERN UZBEK LEXICOGRAPHY: CURRENT PROBLEMS AND FUTURE PLANS
(Improving the microstructure of bilingual dictionaries)**

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Abstract:

Background. *Current state of the Uzbek lexicography requires immediate reconsideration of the old principles and beliefs of dictionary-making. The foundation of lexicographic faculties at higher educational establishments, creating effective lexicographic manuals, commercializing dictionary-making, developing corpus and computational linguistics are the large-scale plans which are bound to improve the quality of the dictionaries. In this article, they are going to be discussed in connection with bilingual (English-Uzbek and Uzbek-English) dictionaries.*

Methods. *Specific microstructure elements for English-Uzbek as well as Uzbek-English translation dictionaries were discussed and worked out taking into account their purpose of use (for active and passive language use). The corpus examples of such dictionaries as Collins, Cambridge and (Oxford) Lexico were used with this goal in mind.*

Results. *The purpose of the dictionary use proved to be the driving force in the dictionary interpretation of words. Active bilingual dictionaries required provision of equivalents, while presentation of clear definitions of lemmata is believed to be appropriate for passive translation dictionaries. Some of the microstructure elements (collocations, sufficient grammatical information, pronunciation) are principal in active bilingual dictionaries. The microstructure of passive bilingual dictionaries does not necessitate the inclusion of detailed syntagmatic information since the language user can make inferences based on the context.*

Conclusion. *The organization of the microstructure elements of lemmata in accordance with the purpose of the dictionary increases their functional value. Existing language corpora can be of great help in the creation of bilingual (especially active) dictionaries.*

Key words: *lexicography, computer linguistics, corpus linguistics, functional value, active bilingual dictionaries, passive bilingual dictionaries, dictionary macrostructure, dictionary microstructure, lemma equivalents, corpus-based examples, author-made examples*

Introduction. *New advances in computer science have radically changed the nature and form of dictionaries. A large number of multifunctional dictionaries for different purposes and user groups have become widely available in the world market. Their mobile as well as online alternatives are easily accessible for anyone's use. The content of dictionaries has been enriched with real-life data samples, which has increased their functional value. There have come into being large publishing houses of dictionaries that reflect the cooperation of lexicography with marketing. Turning dictionary-making into a profitable industry has drastically improved their quality.*

However, all of the above are truer about Western lexicography. Uzbek lexicography has only started to realize the necessity to walk along this long way to the progress. At present, it represents the presence of primary problems whose solution is of paramount importance.

The new century is characterized by the transformation of existing concepts in human society into revolutionary reforms, developing a new form and appearance. Interpersonal communication, social relations, economic operations, services, provision and acquisition of education, and all other aspects of life have taken on a "digital" nature. This transformation was marked by the emergence of computer and corpus linguistics as the main guiding force in lexicography. But it is a pity that the lexicography of our country has not undergone this advancement.

During the period of independence, although the Uzbek dictionary-making developed in various directions and themes, some problems arose due to the requirements of the time. Even the original nature and scope of the tasks of the lexicography as a science were recognized relatively later.

"Lexicography is a branch of lexicology that deals with compiling dictionaries," said Iriskulov once [9; 112]. It is understandable from this commentary that rather a narrow view of lexicography prevailed decades ago. Indeed, the tasks of lexicography initially included a very narrow range of operations and it was equated to a skill (rather than a science) that was referred to as a "technique of dictionary-making" which could be performed by amateurs who did not even have a special university education. Especially in the Western press, it was widely regarded as the "art of skillful compiling a dictionary²."

However, it did not take long for lexicography to be recognized as a science. The 2006 textbook states that "lexicography is a branch of linguistics that deals with the collection of words specific to a particular language, their systematization, and publication in the form of a dictionary, as well as the structure and types of dictionaries. [16; 70]" As proof that lexicography is a relatively young field of linguistics, L.P. Stupin argues that the term is not mentioned in the popular encyclopedias *Britannica* and *Americana* [12]. Sherba was recognized as a linguist who for the first time firmly promoted the idea that lexicography is a separate science with its own subject of study, scientific and methodological principles, its own theoretical problems and its place in a series of other disciplines [13; 308]. But Dubichinsky's description of it ("lexicography is the science of compiling, studying, and implementing dictionaries" [4; 8]) is considered the most plausible explanation. The emergence of separate lexicographic terms (microstructure, macrostructure, dictionary definition, lexicographic metalanguage, etc.) can prove that it has already formed as a separate science [6; 16].

For the time being, the practice of the following important tasks is of primary importance for the transformation of Uzbek lexicography into an active branch of science and commerce³:

⇒ Teaching lexicography as a separate discipline in higher educational institutions, i.e. giving it a status of a profession with its own theoretical foundations and practice (the involvement of specific group of linguists and philologists in dictionary-making leads to a sharp increase in the quality of dictionaries)

⇒ Creating modern theoretical basis of the science. A single glance at the lexicographical manuals of advanced countries and research results shows that Uzbek lexicography is still at the beginning of a difficult path.

Most of the dictionaries created in our country are amateur works, which are created on a natural-intuitive basis, following the example of some popular dictionaries. Proof of this can be seen in the fact that they have virtually no useful value in the consumer community.

² E. Partridge's *The Gentle Art of Lexicography* (1963) and S. Landau's *Dictionaries: The Art and Craft of Lexicography* (2001) can be examples of this.

³ The harmonious relationship between science and commerce (economics) is based on the laws of supply and demand. Ideally, science studies the market demand and creates intellectual products. The economy plays the role of a customer in this context.

⇒ Establish and maintain strict quality control of created and future dictionaries. This means testing them to see if they are based on tested theoretical guidelines and principles, have been developed and experimented at a high level, targeted at a specific group of consumers, and so on.

Dictionaries created in our country reflect our nation's level of intelligence. It is important to ensure that they are created wholeheartedly in accordance with international standards.

Although the basics of lexicography and effective lexicographic techniques have been developed and published in the West, many created and revised bilingual (e.g. Uzbek-English and English-Uzbek) translation dictionaries do not take advantage of wide consumer demand. We can cite several factors as the reason for this. First of all, the fact that the mass manuals of publishers, which have a stable position in the world market of lexicographic products, are in English makes it difficult for Uzbek linguists and philologists to create a dictionary that can perform practical and communicative functions. It should be noted that in our country there is a shortage of quality dictionaries created for commercial purposes, and most of the focus is directed on scientific ones. This requires a reconsideration of current consumer demand and needs in the present market economy. In the West, dictionary-making is not only a science, but also a marketable type of entrepreneurship. But this is not a situation that negatively affects their quality and functional efficiency, but rather should be seen as an impetus for the creation of everyday dictionaries carried in the pocket for active use rather than the ones kept on the shelf.

Another reason for the slow demand for dictionaries is the decline in the general level of communicative culture of the population and the poor formation of vocabulary skills in teachers and students [14]. And as one of the most important factors, it is argued that dictionaries are developed in an extremely complex language and structure for potential consumer use, which decreases their functional value. S. Johnson, who created *The Plan of a Dictionary of the English Language*, commented on this already in 1747, "It is useless for dictionaries to be tested by sharp-tongued critics unless they can provide practical help to the average reader; what good is a machine if it is designed with skill that will delight the eyes of a skilled engineer, but to say, requires elaborate knowledge and skill to be used by an ordinary worker?"

Another shortcoming of modern lexicography (especially our own lexicography) is the fact that the innovations of computer science are not widely applied in this area. Numerous small-scale dictionaries created in our country are based on a limited number of samples selected by the author. For a long time there have been many debates over whether the dictionary examples should be the hand-made sentences of the lexicographer or should be taken from a vast circulation of existing written and oral human data [7]. Undoubtedly, the computerization of lexicography enables the analysis of all oral and written texts created by mankind, in which the behavior of certain lexicographic elements (what units they collocate with in texts, their frequency of use, stylistic peculiarities and etc.) and the most common cases are selected, summarized and reflected in dictionaries. This is where the practical connection of lexicography with corpus linguistics emerges.

The realization of the plans discussed above will, undoubtedly, improve the quality of existing as well as future dictionaries. The assistance of corpus as well as computational linguistics will be especially decisive in the advancement of bilingual dictionaries.

Materials and methods. There are two general types of dictionaries (encyclopedic and linguistic dictionaries), and we will focus only on bilingual dictionaries in terms of their importance for our research.

The fulfillment of the following four tasks is associated with bilingual dictionary use [10;67]:

- I. Receiving information in a foreign language
- II. Receiving information in a foreign language and creating information in the native language
- III. Creating information in a foreign language
- IV. Receiving information in the native language and creating information in a foreign language

Technically, dictionaries that combine the above functions should be useful in the successful implementation of the communicative function for both language community members. In practice,

however, many dictionaries are clumsy in this regard and remain effective for one-way (monodirectional) use, i.e., only for one group of consumers. It turns out that one of the next issues remains the creation of bidirectional (serving both language communities) quality dictionaries.

An important issue in bilingual translation dictionaries is to achieve the optimal level of interlingual equivalence (whether lexical or translation equivalents or either explanatory or functional equivalents). This is required by the process of dividing the units to be included in the dictionary into semantic meanings. Due to interlingual incompatibility (anisomorphism [17; 294]), the achievement of denotative and connotative equality in lexical units is of great difficulty. Interlingual equivalents may express the same or similar concept of an object in denotative terms, but cultural differences often lead to lexical units having different connotative semantics. For this reason, the most appropriate way is to present the units given in the dictionaries by means of translation equivalents. This comes in handy in the realization of their communicative function. Otherwise, many existing English and Uzbek translation dictionaries are based on the translation of denotative and connotative meanings of individual lexemes, which negates their importance in the process of real communication. In fact, the more abstract the semantic nature of a single lexeme, the more precise its conventional behavior in finding an interlingual alternative. Kilgarif emphasizes that the relationship of a word with other units in the contextual environment provides the most accurate lexical-semantic information about it [5]. Therefore, before presenting the most optimal metalinguistic information about the lexeme to be included in the dictionary, it is necessary to analyze all the existing contextual and stylistic situations involving this lexeme, to study its relation to other words, to collect the necessary samples for the lexeme whereby translation equivalents could be developed. Only then will the interlingual reception and presentation of information have the same content, i.e. the dictionary will really work. But this would be practically a very difficult and time-consuming task for a human being, and the help of computer-assisted corpus linguistics would be unique in this regard.

Another aspect of the matter is that the more contexts a word comes from, the more semantically versatile it becomes. This means that it can have more shades of meaning than we can imagine. But it is practically impossible and (even if possible) unacceptable to put them all in one dictionary. Indeed, the potential consumer expects that the word will have a limited number of cases of its use, which will be reflected in dictionaries on the example of separate and specific sentences.

The next step in gathering information that needs to be reflected in the dictionary is to present it effectively and clearly. This is done using a special metalexigraphic language. Duval argues that bilingual translation dictionaries of the early twentieth century did not differ from monolingual dictionaries, that is, they were approached only from the point of view of the consumer receiving the information, and that metalinguistic information was naturally presented in a way that was not clear and convenient enough for the presentation of information (i.e. for communicative competence) [3;98].

Metalanguage sheds light on many aspects of the use of the word, and Durkin describes it as “a language used to speak about words (lexical units)”. Metalinguistic information interprets the nature of this word from different angles so that the user has a complete idea of the appearance and content of a particular word and is able to use it correctly and meaningfully in communication. Below we discuss metalinguistic information in orderly groups and lay the groundwork for the principles of word rendering in the dictionaries [11; 5]:

⇒ Formal categories. They represent the outer shell of the lexeme. This is reflected in the graphic representation, pronunciation, and inflections of the word.

⇒ Syntagmatic categories represent how a word interacts with other words. Such information is presented in the form of word combinations, collocations, fixed expressions and idioms in its presence. Makin says that the most effective way to study in detail the relationship of a lexeme to other words is to study the collocations it forms [8; 149-65], and this is one of the linguistic features that especially applies to the structure of English in particular.

⇒ Semantic categories reflect the meaning of a word for each individual context. In translation dictionaries, this is done by presenting equivalents in the target language.

Equivalents are required to be equal not only semantically but also from the point of view of their style (i.e. contextually). But just as it is difficult to find absolute synonyms within one language itself, the question of an absolute alternative between languages is also controversial. Various linguistic phenomena can be an obstacle in achieving direct equivalence. For example, a monosemantic word in the source language may have a polysemantic translation alternative, or conversely, a word of a polysemantic nature may be coordinated by a single-meaning alternative that applies equally to the translation of all contexts [3; 96]. In this case, words with specific meaning are translated using lexemes with general semantic meaning and vice versa. The most important thing is that the alternative to the word in the source language has the same semantic content.

The issue of equivalents takes on a different character depending on the type of dictionaries in terms of purpose. In passive dictionaries, it is sufficient to cite the lexical equivalent or explanation of the basic meaning (or of several other acquired meanings in case of a polysemantic word) of the lexical unit. This is because the consumer is expected to select the desired translation option of the word based on his existing background knowledge as well as the context, and, if necessary, adapt it for the integrity of the content in the text. However, in active (i.e., targeted at the speech production) dictionaries, it is not sufficient to present a mere lexical equivalent of the lexical unit for the communicative ability of the consumer. Metalinguistic information on the contextual translation equivalents of the word and their pragmatic features should be provided in detail. The greater the number of conventional collocations that the target word generates in the source language (especially in English, the collocations have a fixed nature), the greater the chance for the dictionary user to select the most appropriate translation equivalent [1;470]. We can see it in the example of the Uzbek speech verb *муҳокама қилмоқ* in passive Uzbek-English dictionary:

Муҳокама қилмоқ *фешл* [мавзуни, саволни, китобни, мақолани] *усл.бет.* discuss; [ҳаётини, қилмишларини, туйғуларини] *сал.* бўёқ. judge; [буйруқни, топширикни] *бўл-сиз шаклда* be out of question

Stylistic information related to the use of syntagmatic combinations of lexical units is important because the informal style lexeme should be transformed with its informal equivalent, the literary lexeme should be translated with the literary equivalent, and the pejorative lexeme with the one that has the same connotations. This gives the produced speech a natural color and helps avoid awkward situations.

Since the object of our study is speech verbs, and the expression of speech action by means of idioms is a traditional phenomenon in any human language, we found it necessary to dwell briefly on the equivalence of phrases. When it comes to the translation of phraseological units, there is a mismatch between the semantic content of the lexical unit and the indirect information understood through it. In this case, of course, it makes sense that the choice should be in favor of information underlying the idiom. Sometimes the hidden information is completely different from the semantic content of the phrase, i.e. on its basis it is impossible to predict the meaning understood from the phraseological unit in general. In addition to phraseological units, this is the case which also happens in the translation of proverbs and sayings.

The practice of corpus linguistics in Western lexicography has greatly alleviated the problem of equivalents, and dictionaries have also improved the quality of the translation product resulting from them. The main tool of corpus linguistics is the computer system. It creates a database of texts available in different languages (hereinafter referred to as the “language corpus”) and links lexicographers to a large number of ready-made comparable or translated sentences, thus saving time in searching for written or oral equivalents -to a particular lexical unit. The job of a professional translator is to generalize, select, edit, and add to the dictionary the examples provided. In linguistics, the concept known as *parallel corpora* allows for simultaneous analytical-comparative operations to be conducted on the corpus of two or more languages [1; 476]. It provides a great deal of valuable lexicographic material in bilingual and multilingual translation dictionaries. Translation corpora and / or comparative corpora come in handy when creating a bilingual dictionary. While the translation corpus provides a database of sentences in which an

optimal interlingual translation has taken place, we can see that in comparative corpora the lexical unit in the target is given in different translation-language sentences. Both are effective in finding translation equivalents. For example, the dictionary Reverso, known to all Internet users, uses a translation corpus. However, the creation of a real corpus of existing texts of the Uzbek language, the connection of lexicography with corpus linguistics, it must be acknowledged, are important issues in the linguistics of our country, which are still lagging behind, but need attention. This is a long-term task that requires time and money. However, the implementation of serious dictionary projects with large budgets in the future requires it.

Results and discussion. To put the discussed theory above into practice we created a dictionary microstructure for English and Uzbek lexemes to be reflected both in active and passive translation dictionaries.

Lexicographic interpretation of English speech verbs in active and passive dictionaries:

Tell (Passive bilingual dictionary interpretation) [2] → *in this context the dictionary user is an Uzbek-speaking person trying to interpret an oral or written text in English*

1. v. Бирор кишига бирор маълумотни айтмоқ:

In the evening I returned to tell Phyllis our relationship was over.

Claire had made me promise to tell her the truth.

Syn. [inform](#), [notify](#), make aware, say to

2. v. Бирор кишига ҳазил, воқеа ёки шахсий кечинмаларини айтмоқ:

His friends say he was always quick to tell a joke.

He told his story to The Sunday Times and produced photographs.

Syn. [describe](#), [relate](#), [recount](#), [report](#)

3. v. Бирор кишига маслаҳат ёки буйруқ бермоқ:

She told me on the telephone to come help clean the house.

Syn. [instruct](#), [order](#), [command](#), [direct](#)

4. v. [+ ref.pr.] ўз-ўзини руҳлантирмоқ, ундамоқ ёки рағбатлантирмоқ:
'Come on,' she told herself.

I told myself that I would be satisfied with whatever I could get.

5. v. [nonpr.] Тахмин қилмоқ, тушунмоқ, баҳоламоқ:

It was already impossible to tell where the bullet had entered.

I couldn't tell if he had been in a fight or had just fallen down.

Syn. [see](#), make out, [discern](#), [understand](#)

6. v. [nonpr.] Фарқламоқ, фарқиға бормоқ:

I can't really tell the difference between their policies and ours.

I had to look twice to tell which was Martin; the twins were almost identical.

Syn. [distinguish](#), [discriminate](#), [discern](#), [differentiate](#)

7. v. [inf.] Сирни айтиб қўймоқ, фош қилмоқ, гуллаб қўймоқ:

Many of the children know who they are but are not telling.

Syn. [talk](#), tell tales, [spill the beans](#) [inf], give the game away

8. v. Факт ёки далилларнинг “гапириши”, вазиятни ошкор этиши:

The facts tell us that this is not true.

The evidence of our eyes tells us a different story.

Syn. [reveal](#), [show](#), [indicate](#), [disclose](#)

9. Ёқимсиз ёки тушқун вазиятнинг ўз таъсирини кўрсата бошлаши:

The pressure began to tell as rain closed in after 20 laps.

The strains of office are beginning to tell on the prime minister.

Syn. have or take effect, [register](#) [inf], [weigh](#), have force

The meanings of the speech verb *tell* above have been arranged from the most widely used to the least widely used. This arrangement has certain conveniences. A user familiar with the dictionary microstructure knows that it is not necessary to go down to the end of a series of word meanings when it is not necessary (i.e., when there is no need for less usable content of words). Another advantage of this microstructure is that their close synonyms are also given to more

accurately differentiate the existing meanings of the word and to select a meaning appropriate to the target context.

Mutter (Active bilingual dictionary interpretation) [15] → *in this context the dictionary user is an English-speaking person trying to produce an oral or written text in Uzbek*

vt syn. [grumble](#), [complain](#), [murmur](#), [rumble](#), [whine](#), [mumble](#), [grouse](#), [bleat](#), [grouch](#)

≈ **МИНГИЛЛАМОҚ /ming`illamoq/ vi:**

Низомжон унинг юзига қарамай мингиллади: "Кечир, Дилдор, бехосдан шундай бўлиб қолди." (С. Аҳмад, Уфқ)

Бола йиғласа, қайнана мингиллайди, самоварнинг ўти тутаса, қайнота дўнгиллайди. (С. Аҳмад, Сайланма)

≈ **ТўНГИЛЛАМОҚ (дўНГИЛЛАМОҚ) /to`ng`illamoq (do`ng`illamoq)/ vi:**

Толиб ака яна нима балолар деб тўнгиллади. Аммо Аҳмад энди без бўлиб ўтирарди. (Ф. Мусажонов, Ҳиммат)

Бора-бора уйга пўнгиллаб кириб, тўнгиллаб чиқиб кетадиган бўлиб қолди. (А. Муҳиддин, Давлат қораловчиси)

Дераза тагида қовоқ-тумшуғини осилтириб ўтирган Муса кўса дўнгиллади. (С. Аҳмад, Ҳукм)

≈ **ЎЛДИРАМОҚ /g`o`ldiramoq/ vi:**

"Ўтган гапга салавот, ука," деди полвон худди хумга тушган аридай ўлдираб. (Ҳ. Назир, Ўтлар туташиганда)

Баъзида ўлдираб босинқирар, уйғониб кетиб, тангрига ёлвориб, нажот тиларди. (Мирмуҳсин, Чўри)

≈ **ШИКОЯТ ҚИЛМОҚ /shikoyat qilmoq/ vi lit:**

Пальмирадагилар ЮНЕСКО ёрдам тўғрисидаги ваъдасини бажармаётганидан шикоят қилишди, деб хабар бермоқда РИА «Новости». (<https://kun.uz/39558528>)

So, an English-speaking person searches a dictionary for a word that is necessary for the active presentation of information in Uzbek using a lexeme in their own language. For this reason, English speech lexemes in infinitive form become dictionary lemmas. Only information about their part of speech category in English will be important. The reason for this is the phenomenon of homonymy, which is common among English words, i.e. this information is considered necessary for the dictionary user to find the equivalent of the word in the desired category. Since other linguistic aspects and contextual features of speech verbs in English are already known to the dictionary user and are not important at the moment, no other information about the lemma is given. But all the information about its equivalent Uzbek lexemes is considered valuable. Since it is likely that the speech production will take place orally, the information about pronunciation peculiarities of equivalents (i.e. transcription) is also necessary; it helps the language user to sound natural.

Lexicographic interpretation of Uzbek speech verbs in active and passive dictionaries:

Таъна қилмоқ (passive bilingual dictionary interpretation) → *in this context the dictionary user is an English-speaking person trying to interpret an oral or written text in Uzbek*

^ verb Express sharp disapproval or criticism of (someone) because of their behaviour or actions:

"Синфдошлар учрашувда йиғилган дўстлар бирпас яхши гаплардан гаплашиб ўтиргач, Сарвар ўртоғи Маҳмуднинг унга битирув имтиҳонида ёрдам бермагани эсига тушиб, таъна қила бошлади."

"Таъна қилма! — деди лаби пиртираб.— Мен нурли чўққига етолмаган бўлсам... сизир миниб сен етиб борасан!.." (Абдулла Қаҳҳор. Нурли чўққилар (ҳикоя))

Phrases:

Таъна – ўпка сўзларини айтмоқ ^ adj tell rebukable words:

"Бунни кўриб Фотиманинг гина-кудурати ёзилди, унинг қилмиши, ёзган тўмтоқ хати, бояги гапи хусусида кўнглига тугиб қўйган ўпка-таъна сўзларини айтмади, аксинча, уни юпатди, турмушини сўради." (Абдулла Қаҳҳор. Нурли чўққилар (ҳикоя))

Таъна-дашномларни эшитмоқ ^ noun hear rebukable words (addressed to one):

Фотима бунақа таъна-дашноларни кўп эшитди, ниҳоят, жон-жонидан ўтиб кетдию, йиғлаб деди: “Аяжон, ҳамма айбни менга тўнкайверманг, ахир Зухрага менинг сўзим эмас, ўзингизнинг сўзингиз ҳам ўтмас эди-ку!” (Абдулла Қаҳҳор. Нурли чўққилар (ҳикоя))

Idioms:

Таъна тошини отмоқ ^ to rebuke someone:

“Ва ҳеч ким ўша пайт менга таъна тошини отиши ҳақида ўйлаб ҳам кўрмаганман!”
(<https://darakchi.uz/oz/26788>)

If we look at the microstructural elements of the lexeme *таъна қилмоқ*, the greatest responsibility in its transmission is to provide a clear and concise explanation. After all, passive bilingual dictionaries are often referred to by the user in order to see the meaning of a particular word or to make sure of the meaning they have guessed based on the context of the text at hand. It is also preferable to present the common collocations or idioms of the word in passive dictionaries. This is because the language user can come across the collocations or idioms with the presence of the target lexeme in the text and what is even more challenging is that their meaning can be rather different from the primary meaning of the target word.

Мақтамоқ (active bilingual dictionary interpretation) → *in this context the dictionary user is an Uzbek-speaking person trying to produce an oral or written text in English*

суп. мадҳ этмоқ, илтифот қилмоқ, олқишламоқ, кўкка кўтармоқ

1. *praise* /preɪz/ [with obj]:

‘People appreciate and praise her, are warmed by her smile and nourished by her soup.’
‘Johnson’s work was highly praised by critics and showered with awards.’

2. *commend* /kəˈmend/ fml. [with obj]:

‘he was commended by the judge for his courageous actions’
‘Fire officers plan to officially commend Jonathan for his bravery.’

3. *compliment* /ˈkɒmplɪm(ə)nt/ [smb+on]:

‘he complimented Erika on her appearance’
‘Ask yourself what people tend to compliment you on the most.’

4. *glorify* /ˈglɔːrɪfaɪ/ (glorifies, glorifying, glorified) [with obj]:

‘Thereafter one should praise and glorify Allah in the best manner and recite the following Dua.’

‘Do you not see that everyone in the heavens and Earth glorifies God, as do the birds with their outspread wings?’

‘Our television shows, our video games, our music, and our movies all glorify violence.’

Phrases

1. *express approval of:*

The people listening expressed their approval of the new government regulations.

2. *express admiration for:*

She wrote to him expressing her admiration for his bravery.

3. *speak highly of:*

Your son’s teacher speaks very highly of him.

Idioms

1. *sing the praises of:*

The newspapers have been singing the praises of Italy’s new star player.

2. *praise to the skies:*

Your previous boss praised you to the skies in his letter of recommendation, so we have high hopes for you here.

3. *pat on the back:*

Treating his daughter to ice cream was Joe’s way of giving patting her on the back after she won first place in the science fair.

4. *take one’s hat off to:*

I take off my hat off to you—you’ve done very well indeed.

5. throw bouquets at:

I throw a bouquet at Tim for gaining us that decisive score.

Conclusion. Uzbek lexicography is going through the transformation period during which the solution of a number of interrelated problems will find its reflection in the improvement of created as well as future dictionaries. Speaking specifically, the creation of bilingual quality dictionaries requires the following steps be taken:

⇒ Creating a corpus of the Uzbek language, which is of a higher importance in the compilation of active translation dictionaries.

⇒ Developing Uzbek computational linguistics. This will reinforce the creation of electron (and online) dictionaries which would enable the lexicographers to increase the informational value of the dictionaries.

⇒ To give them a high functional value, active and passive types of bilingual dictionaries should be created using different principles.

⇒ New theoretical manuals explaining those principles and strategies should be created or/and their western counterparts should be translated for a wide use in Uzbek lexicography.

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LEXICOGRAPHIC ANALYSIS OF THE CONCISE OXFORD DICTIONARY OF LITERARY TERMS BY K. BOLDIK AND SOME UZBEK LITERARY DICTIONARIES

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Abstract:

Background: *The scientific research shows that literary terms in the Germanic languages were not studied uniformly. Literary terms, which were the subject of our research, have hardly been studied in the Slavic, Roman and Germanic languages. Therefore, it is relevant to study the terms of philosophy, culture and spirituality, ethics, aesthetics, religion, linguistics and especially literary criticism.*

Methods: *The degree of study and significance of literary terms are carried out in the given article. The article also gives information about the dictionary of Chris Baldick "The Concise Oxford Dictionary of Literary Terms" and the significant aspects of literary terms. Research on terms that have been fully borrowed and introduced unchanged from other languages is described as well. The structure of dictionaries of some Uzbek literary terms is discussed in the article.*

Results: *"The Concise Oxford Dictionary of literary terms" by Chris Baldick contains 1060 literary terms. 118 terms from 1060 were borrowed from other languages without changing and most of them were taken from French, German, Latin and Greek languages. There are terms which were borrowed from Italian, Spanish, Russian and even Japanese.*

Conclusions: *The main purpose of Chris Baldick's The Concise Oxford Dictionary of Literary Terms was not to explain everyday terms, but to explain rare terms that are difficult to understand. The "Dictionary of Literary Criticism" compiled by D. Kurbanov, Z. Mamajonov, M. Sheraliyeva corrected the drawbacks in the dictionaries published during the pre-independence and independence period and this is a dictionary that can explain the specific aspects of modern Uzbek literary criticism.*

Key words: *terminology, literary terms, concept, etymology, dictionary, thesaurus, dictionary units, theory of literature, history of literature, borrowed terms.*

Introduction. The analysis and research of scientific literature indicates that the terms in all spheres were not studied identically. The study of terminology in former USSR was led off by D. Lotte in 1931 publishing his work on the technical terminology [see Lotte 1931], followed by E. Drezen in 1934, by G. Vinokur in 1939 and in 1986 by A. A. Reformatsky . On the basis of these studies, the main directions of working on terminology were defined: A.A.Reformatsky (1986), B.N Goloven (1981), N. P. Kuzkin (1962), L.Kapanadze (1965) and others studied the terminology, O.S.Akhmanova(1990), V.P.Karpovich (1978), R.Yu. Kobrin(1991), V.M.Leychik (1986), V.D.Tabanakova (1998), E.N.Tolikina and others worked on semantic features of terminology, A.S.Gelt (1991) based on the relationship between terminology and nomenclature units, M.V. Oganisyan (2003), O.V.Dovbysh (2003), S.V.Sakhneevich (1998) on translation problems of terminology and Z.M. Polyutina (2002) studied civilization approaches on terminology.

After much research on terms and nomenclature, the lexicographical foundations of terminology began to appear in the late twentieth century, with a good deal of linguists working to elaborate a taxonomy of terms, categorizing them, and incorporating them into a dictionary. As a result, a number of terminological dictionaries have appeared around the world. For example, zoonyms by Shamledi, phloronyms by Repko, Barishnikova, Bulakh were studied separately, artifacts by Manerco, socio-political terms by Grebul'skaya, Khalikova, Maskovich, sociological terms by Turushkova, economical terms by Konovalova, Sakhneevich, Burnistrova, Rakhimberdiev, law terms by Maximenko, Ivanenko, medical terms by Volfbekg, Ivanov, Oganisyan, anthroponyms by Kvartich were researched and studied. Besides, technological terms, media terminology, commercial, scientific literature, bureaucratic terminology, architecture,

military, music, philosophy, theater, sports, relationship terminology, geography, mathematics, geology, mining, translation linguo-didactics, areas such as dialectological terminology have also been extensively studied by scholars. Since then, many scholars have researched terminology on different fields.

Materials and methods. The scientific and practical research and investigation about linguistic terms are founded on ideas of Akhmanova (1966, 1990), Vasileva (1998), Gwishiani (1986, 1990), Golovin (1976), Kulikova (2002), Petrosyants (2004), Podolskaya (1988), Slyusarova (1983, 2000), Shelov (1998) and others. In recent years, we can see the studies on linguistic terms published and learned Roman language terminology in works of Nikulina (1990), Utkina (2001), Emelyanova (2000), Vermeer (1971), Zakharenkova (1999), German (1990), Golovkina (1996) [7; 11-41].

If we take note to the aforementioned researches, we can witness that literary terms which is the object of our research work has been studied quite rarely in Slovenian, Roman and German languages. Therefore, the investigation of philosophical, cultural, religious, ethical and aesthetical, linguistic terms and especially terms of literature are one of the burning issues.

According to E.G.Petrosyants, currently there are more than 70 dictionaries, encyclopedias and reference books on linguistics. However, dictionaries, encyclopedias and reference books on literary terms are relatively rare. This situation shows that the literary terms have not been sufficiently studied and information on them is not systematized [7; 11-41].

The problem of literary term system has already been one of the most controversial issue that is not a completely new sphere of study. It has developed and is still developing from the simple human need to name and identify. Its precise definition and scope are, however, still not clearly defined. During the past several decades, the theory of terminology has been a subject of debates in various circles. According to certain sources there are four scholars can be identified as the intellectual fathers of terminological theory: “Alfred Schulman from Germany, the first one to consider the systematic nature of special terms; the Swiss linguist Ferdinand de Saussure, the first one to have drawn attention to the systematic nature of language; E. Dresen, a Russian, a pioneer in underscoring the importance of standardization; and J. E. Holmstrom, the English scholar from UNESCO, who was instrumental in disseminating terminologies on an international scale” [3; 56].

“The Concise Oxford Dictionary of Literary Terms” by Chris Baldick was first announced in 1990 and in a year it was republished by Oxford University Press. Revised edition of updated volume followed in 1996. The edition we chose for our research work is the second and it was announced in 2001. This dictionary of literary hard terms briefly explained and alphabetically organized. It does not imply to execute the functions of an expository guide book to literary concepts and does not attempt to catalogue the complete body of literary terms in use. The dictionary interprets those thousand terms that are most likely to cause the student or just a general reader some uncertainty in the context of literary theory, literary criticism or in other discussion of literary works. In the preface of the dictionary author gives these words: “Rather than include for the sake of encyclopedic completeness all the most common terms found in literary discussion, I have set aside several that I have judged to be sufficiently well understood in common speech (*anagram, biography, cliché* and many more), or virtually self-explanatory (*detective story, psychological criticism*), along with a broad category of general concepts such as *art, belief, culture, etc.*, which may appear as literary critical problems but which are not specifically literary terms”. The author mentions in the preface of the dictionary as well that along with these terms there are hundreds of terms from literary criticism, literary history, prosody, genres, drama and theatre. The assortment is weighted towards English literature, but there are many terms borrowed from other languages, and many more associated primarily with other literatures [2; 3].

Results and discussion. The terms in the dictionary we have analyzed, as mentioned above, consist of 1,060 terms, of which 118 terms were borrowed from other languages without any change. According to the definition given by the author in the introduction part, the terms in this dictionary are not ordinary terms found in everyday literature, but include less common literary terms that is not understandable to everyone. Most of the 1060 terms given in the dictionary have

been mastered by transliteration and transcription into English, among which the terms of ancient Greek, Latin, and French literature are very common. There are also terms borrowed from German, Italian, Spanish, Russian and Japanese. The information on their pronunciation and origin are also given. As noted above, the development of literary terms is closely connected with the development of literature, art, culture and language of this nation. That is the main reason we have analyzed the terms in "The Concise Oxford Dictionary of Literary Terms" etymologically and achieved the following results:

| | | |
|---|-----------------------------------|------|
| 1 | Fully borrowed terms | 89 % |
| 2 | Borrowed terms without any change | 11 % |

Now let us see the terms that have been borrowed from other languages without any changes:

| | | |
|---|----------|------|
| 1 | French | 57 % |
| 2 | German | 19 % |
| 3 | Latin | 9 % |
| 4 | Italian | 5 % |
| 5 | Greek | 3 % |
| 6 | Spanish | 1 % |
| 7 | Russian | 2 % |
| 8 | Japanese | 4 % |

It can be seen from the tables that although most of the terms explained in Chris Baldick's The Concise Oxford Dictionary of Literary Terms have been fully borrowed in English, some of them have been borrowed without any changes. Most of the terms borrowed from French literature. They accounted for 57 % of the total adopted layer terms. We can say that the influence of French literature on English literature has always been enormous. The culture, art and literature of these two nations developed in tandem with each other. Terms taken from German literature without any changing were also more than terms that came from other languages, accounting for 19 % of the total. We believe that this is due to the commonality of the two languages and the fact that both languages belong to the Germanic language family. Layer terms borrowed from Italian and Japanese languages are mainly terms related to genres in the fiction of these languages. Below we consider the etymological categories of terms in this dictionary.

Terms borrowed from French language without any change: *aperçu, avant-garde, belles-lettres, bovarysme, bricolage, cenacle, chanson, chanson de geste, chant royal, clique, conte, coup de theatre, debat, differance, discours, dizain, donnee, double entendre, drame, ecriture, enonce and enonciation, epater les bourgeois, feuilleton, ficelle, fin de siecle, Grand Guignol, histoire, huitain, jeu d'esprit, jongleur, jouissance, lai, laisse, langue, lisible, litterateur, longueur, mise-en-abyeme, mise en scene, negritude, nom de plume, le nouveau roman, nouvelle, oeuvre, parole, pastourelle, philosophes, la Pleiade, poete maudit, la preciosite, raisonneur, recit, reverdie, rime riche, roman a clef, roman a these, roman a tiroirs, roman-feuilleton, roman-fleuve, scriptible, success d'estime, trouvere, vers de societe, vers libre, vraisemblance.*

Terms borrowed from German language without any change: *Angst, Aufklarung, Bildungsroman, Encyclopedistes, erlebte Rede, Erziehungsroman, Fastnachtspiel, Knittelvers, Kunstlerroman, Marchen, Meistersinger, Minnesanger, Novelle, Rezeptionsasthetik, Schauerroman, Sturm und Drang, Tagelied, Urtext, Verfremdungseffekt, Weltanschauung, Weltschmerz, Zeitgeist.*

Terms borrowed from Latin language without any change: *carpe diem, dramatis personae, fabula, in medias res, In Memoriam stanza, obiter dicta, rogatio, sententia, ubi sunt.*

Terms borrowed from Italian language without any change: *canzone, commedia dell' arte, ermetismo, ottava rima, terza rima, ut pictura poesis, verismo, volta or volte.*

Terms borrowed from Greek language without any change: *dues ex machina, eiron, hamartia, occupatio.*

Terms borrowed from Spanish language without any change: *entremes,*

Terms borrowed from French language without any change: *ostranenie, samizdat, sjuzet, syuzhet*.

Terms borrowed from Japanese language without any change: *haiku, hokku, kabuki, no' or noh, tanka*.

Speaking about literary terms in modern Uzbek literary language, it should be noted that literary terms are very different due to the lack of commonalities in the culture, art and literature of the Uzbek and English people.

The range of literary terms used in Uzbek language is very wide today. Literary terms are a system of literary-theoretical concepts formed in the practice of Uzbek folklore and classical literature, new literary concepts born and developed in the process of formation and prosperity of Uzbek literature, as well as specific to fraternal peoples and world literature. It covers words and phrases that describe literary events. Terms as *Ertak, latifa, doston, vazn, nasr, qasida, g'azal, ruboiy, majoz, istiora* have been used for a long time, but later new Uzbek literary terms as *romantisizm, realism, naturalism, klassitsizm, drama, roman, ocherk, lirika, ballada, sonnet, libretto, ssenariy* added. Some of the Russian international terms are accepted (*allegoriya, almanah, aforizm, monolog, tragediya, komediya, kompozitsiya, syujet*), some were translated (*och qofiya, to'q qofiya, badiiy to'qima, ko'klam qo'shig'I, erin she'r, oq she'r*), some were obtained by translating one of the components into Uzbek and the other without any change (*ijodiy obraz, tanqidiy realism, ichki dialog, antik adabiyot, tarixiy proza, kinolavha, telehikoya*), and sometimes through Uzbek phraseological constructions and suffixes were used (*tipik obraz, komik, anonym asar, avtordoshlik, kulgili poema, muzikaviy-nutqiy she'r*) [8; 7].

In the process of researching Uzbek literary terms, we came across a number of dictionaries of Uzbek literary terms. "Russian-Uzbek explanatory dictionary of literary terms" published by N. Hotamov, B. Sarimsakov; "Dictionary of Literary Terms" by H. Homidi, Sh. Abdullayeva, S. Ibragimova; "Short Explanatory Dictionary of Literary Terms" by Sh. Suleymanov, K. Tokhsanov and "Dictionary of Literary Criticism" by D. Kurbanov, Z. Mamajonov, M. Sheralieva were studied.

"Russian-Uzbek explanatory dictionary of literary terms" published by N. Hotamov, B. Sarimsakov is a scientific manual for high school students, language and literature teachers, and philological students. The second edition (which we studied) was published in 1983 in Tashkent by the publishing house "Teacher". According to the dictionary, it is intended for high school students, journalists, editors, philology students and all readers interested in literature and includes all the literary terms used in the Uzbek language [8; 11].

As the dictionary is a bilingual terminological dictionary, it does not cover the traditional terms that have been taken from Arabic and Persian-Tadjik languages. The dictionary contains more than 1,000 terms and phrases related to literature and literary criticism. The dictionary first highlights the Russian terms in alphabetical order, then explains from which language they were borrowed, and then their Uzbek equivalent or translation, in accordance with the traditions of terminological lexicography, the terms are translated into Uzbek. Uzbek part is explained in more details, with a shorter or broader interpretation, depending on the nature of the concept. Despite of such perfection, most of the terms explained in this dictionary were in Russian, with their explanations and the Uzbek equivalent. In addition, due to the fact that the terms selected for the dictionary are mostly in Russian, the main terms specific to modern Uzbek literature were omitted, as they did not exist in Russian literature. This is the main reason why it cannot be the basis for the analysis of Uzbek terminology. Dictionaries as "Краткий словарь литературоведческих терминов" (Concise dictionary of literary terms) by L. Timofeev va N. Vengrov (Moscow, 1958), "Словарь поэтических терминов" (Dictionary of poetic terms) by A.K. Kvyatovski (Moscow 1940), "Словарь литературоведческих терминов" (Dictionary of literary terms) by L.I. Timofeev va S.V. Turayev (Moscow, 1974), "Adabiyotshunoslik terminlari lug'ati" (Dictionary of literary terms) by H. Homidiy, Sh. Abdullayeva va S. Ibrohimova (Toshkent, 1967), "Lug'ati istilohoti adabiyotshunosi" (Dictionary of literary terms) by R. Hodizoda, M. Shukurov va T. Abdujabborov (Dushanbe, 1964), "Словарь лингвистических терминов" (Dictionary of

linguistic terms) by O.S. Ahmanova (Moscow, 1966), “Основная терминология метрики и поэтики”, “Ruscha internatsional so’zlarining izohli lug’ati” (Dictionary of Russian international terms) by Olim Usmon va Renat Doniyorov (Toshkent, 1965) were served as basis to form above-mentioned dictionary.

The dictionary we analyzed next was written by H. Homidi, Sh. Abdullayeva and S. Ibragimova. "Dictionary of Literary Terms" was first published in 1967 by the publishing house "Teacher". This dictionary, like many others, is the first step in creating a handbook of literary terms for literature teachers and students. The manual generally covers terms related to literary theory, Uzbek classical literature, folk poetic works and, in part, the literature of fraternal peoples, as well as some important terms specific to world literature [4; 3].

“Краткий словарь литературоведческих терминов”(Concise dictionary of literary terms) by L. Timofeev va N. Vengrov (Moscow, 1952, 1955, 1958) was served as the basis to compile the literary terms in the “Adabiyotshunoslik terminlari lug’ati”(The dictionary of literary terms) by H. Homidiy Sh. Abdullayeva and S. Ibrohimova. Besides old literary dictionaries as “O’zbek klassik adabiyoti asarlari uchun qisqacha izohli lug’at” (The concise dictionary of Uzbek classic literary works) edited by G. G’ulom (Toshkent, 1953), “Словарь поэтических терминов” (The dictionary of poetic terms) by A.K. Kvyatovskiy (Moscow 1940), “Lug’ati istilohoti adabiyotshunosi”(the dictionary of literary terms) by R. Hodizoda, M. Shukurov and T. Abdujabborovlarning (Dushanbe, 1964) and many others were very much helpful and useful to form literary terms in above-mentioned dictionary. "Dictionary of Literary Terms" selects the most important terms and gives them in alphabetical order, often stating the word from which the term is borrowed. Although this dictionary is relatively better and closer to Uzbek literature, we know that it was published long ago and we know that a number of updates and changes have taken place in our literature since independence. The next dictionary we analyzed "Short Explanatory Dictionary of Literary Terms" by Shodmon Suleymanov, Kakhramon Tokhsanov, published in 2009 by Bukhara publishing house. The dictionary is published in the form of a manual for high school and academic lyceum students, university and vocational college students, applicants and literature teachers. And from its name we can see that the dictionary is short, and the number of terms in the dictionary is very small, about 500 terms explained. Secondly, the language of the dictionary and the method of expression are very sophisticated and understandable, while meeting the requirements of science. They are designed to make it easier for students to understand and explain the problem to teachers.

The next "Dictionary of Literary Criticism" was developed by D. Kurbanov, Z. Mamajonov, M. Sheraliev was published in 2010 and 2013. Compiled in the form of a dictionary, this book explains literary terms and illustrates their meaning with examples. The dictionary is intended for undergraduate and graduate students, students of academic lyceums and vocational colleges, teachers of Uzbek language and literature, applicants, as well as the general public [6; 2].

The dictionary covers a number of terms that cause problems in the field of literary science, explained with examples and clear definitions. The language is scientific and understandable. We believe that this dictionary meets all our requirements for selection and analysis. This is not only due to its language, style, definitions and structure, but also to the fact that it was published during the years of independence. As mentioned earlier, all of the above-mentioned dictionaries belong to the pre-independence period, and most of the terms given in them are Russian international terms and they do not reveal the peculiarities of Uzbek literature. For these reasons, we consider the "Dictionary of Literary Criticism" compiled by D. Kurbanov, Z. Mamajonov, M. Sheralieva worthy of analysis.

Conclusion. The formation and development of literary terms are inextricably linked with the development of word art and literary criticism, as well as literary language. The main purpose of The Concise Oxford Dictionary of Literary Terms by Chris Baldick does not to explain everyday terms, but to explain rare terms that are difficult to understand. The terms in this dictionary are arranged alphabetically, and the dictionary contains more than 1,000 terms. We can say that definitions and explanations given in “The Concise Oxford Dictionary of Literary terms” are plain

and easy to understand, especially for those who are interested in literary terms. Most of the terms explained in Chris Baldick's *The Concise Oxford Dictionary of Literary Terms* have been fully borrowed in English, some of them have been borrowed without any changes. Most of the terms borrowed from French literature. They accounted for 57 % of the total adopted layer terms. Terms taken from German literature without any changing were also more than terms that came from other languages, accounting for 19 % of the total. Layer terms borrowed from Italian and Japanese languages are mainly terms related to genres in the fiction of these languages. Literary terms existing in the modern Uzbek literary language are a system of literary-theoretical concepts formed in the practice of Uzbek folklore and classical literature, new literary concepts born and developed in the process of formation and prosperity of Uzbek literature, including words and phrases that express literary phenomena specific to fraternal peoples and world literature. The "Dictionary of Literary Criticism" compiled by D. Kurbanov, Z. Mamajonov, M. Sheralieva corrected the drawbacks in the dictionaries published during the pre-independence and independence period and this is a dictionary that can explain the specific aspects of modern Uzbek literary criticism.

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ENGLISH TRANSLATION OF TOURISM LEXEMES INTO UZBEK

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Abstract:

Background. *The article describes the concepts that have been formed in different cultures and entered into the terminology system, it is desirable to take them in their own national-private image, because tourism requires the reform of diversity and is built on the basis of diversity. Much of the active terminology of tourism in everyday life has been presented to the potential consumer through transcription and transliteration, and evidence has been cited.*

Methods. *The most objective approach to the aspects of source-language culture is the "gloss", ie the technique of descriptive interpretation. This is because finding a functional alternative to a certain term takes a lot of work and sometimes ends in a completely unsatisfactory result. Neither transliteration nor transcription is always acceptable. But not all realities are so popular. In addition, the culture of the tourism terminology system is constantly expanding due to the languages of different peoples in the process of development. Realities limited to a particular cultural space can be mastered in several ways*

Results. *The fact that so many exercises are associated with the movement of flying in the wind, no doubt leads to confusion in the reception of information. This means that the term has failed to achieve its functional function. Because whether it is a tourist product or a type of service, the consumer must have a clear idea about it and be able to use it to the fullest.*

Conclusion. *The purpose of the tourist text is to make a conscious impression on the consumer by using phonetic sounds. The translator should be careful to notice such features of the text in the source language and carefully translate them into the target language.*

Keywords: *transcription, transliteration, word-neologism, loan-translation, realities, gloss-translation, contextual translation, neutralization, zero translation.*

Introduction. Languages, their lexical structure, the rules of formation of lexical units, the "behavior" of these lexical units in the sentence structure and their features of stylistic information differ between languages. These differences are natural and inevitable. After all, languages also live in the lives of members of a particular cultural community, reflecting, changing and refining their socio-historical aspects. This is also characteristic of the evolution of tourist terms. However, when socio-cultural, economic and political relations are not limited to one state, but begin to operate across borders, there is a need for translation of these units. The process of translation becomes more complex as these lexical units now take on different cultural and ethnic aspects across multiple frontiers and take on new forms and meanings. All of these complexities are reflected in the English tourism terminology that has gone through this process.

Translating lexical items from one language to another requires the translator to use certain translation techniques. Successful translation is impossible without them. Since tourist lexemes are an integral part of a vast vocabulary, special methods of translating them have been developed. Before we start talking about the translation of the term, let's explain what lexical units we should include in this group. Vinogradova refers to the terminosystem as an industry term and a system that combines terminoids. The term terminoid refers to three groups of professional-specific lexemes:

- Professional special lexical units
- Words and phrases used in professional colloquial language
- Professional jargons

In general, tourism encompasses a wide range of areas and includes lexemes related to various aspects of life (food, transportation, recreation, work, health, entertainment, etc.). For this reason, the lexical-semantic and contextual-stylistic features inherent in all lexemes are also specific to it and must be taken into account in the translation process.

In the community of translators, the following methods of translating terms are distinguished:

1. transcription;
2. transliteration;
3. creation of new word-neologisms through translation;
4. literal translation;
5. translating realities through realities;
6. translation based on the approximation of meaning;
7. gloss translation - translation of realities by means of descriptive interpretation;
8. Expression through a contextual alternative;
9. transfer;
10. Neutralization-expression of a special term by means of a general lexical unit;
11. Zero translation is the omission of a particular term.

Before examining tourism terminology in the example of the above methods, it should be noted that some of them are useful in the translation of individual terms, while others are used in their contextual translation.

The object of our research was the content of the *Dictionary of Tourism and Hospitality*.

Transcription involves the acquisition of a term in the source language by the phonetic shell. A significant part of English tourism terminology is "Uzbekized" in this way.

Кемпинг-camping, сноубординг-snowboarding, армреслинг-armwrestling дайвинг-diving, снорклинг-snorkeling, кейтеринг-catering, казино-casino, шейпинг-shaping, Драйв-ин-drive-in, пицца-pizza, сэндвич-sandwich, бранч-branch, шеф-chef(новар), кафетерия-cafeteria, Ресепшн-reception, альберго-albergo(итальянча меҳмонхона), альфреско-alfresco(очиқ

ҳаводаги меҳмонхона), ҳаускипинг-housekeeping, Дьюти-фри-duty free, экотуризм-ecotourism, бизнес-центр-business center, онлайн-online, офлайн-offline, бизнес класс-business class, автострада-autostrada, вебсайт-website, агротуризм-agritourism, виза-visa, Зенофобия-xenophobia.

In transliteration, the language of translation is learned in a graphical shell. This phenomenon is less common than transcription and can be traced to the following terms:

Гид-guide, пансион-guesthouse, карусель-carousel, курьер-courier, тур-tour, круиз-cruise, брошюра-brochure, каталог-catalogue, кушетка-kushetka, минибус-minibus, аттракцион-attraction, апартамент-apartment, ассимиляция-assimilation, акклиматизация-acclimatization, форс-мажор-Force Majeure, буфет- a buffet, ҳалол-halal, этник туризм-ethnics tourism, карвонсарой-accomodation, аутентиклик-authenticity.

Transfer means learning the word without any changes: *a la carte menu bistro dacha motel spa charter bed and breakfast*. It has been found that the method of transfer involves the acquisition of a very small number of terms. However, the process is in a state of open progress, and the transfer of popular culture among Uzbek culture is growing. However, this is associated with the risk that the need for translators will decrease.

Sometimes in the process of translation new concepts and with them new names, and sometimes new additional meanings of existing names. This process ends with the formation of *neologisms*. For example, we all know the meaning of the English *animator* lexeme, which means "master of animation." But in the context of tourism, it is formed by the meaning of "entertainment developer" of any type and place (hotel, steamship, plane, etc.). Another example is the translation of the English word *vending machine*. By pointing to a device that sells a product by accepting a coin, he introduced a new concept and its name, and even a new type of business that has not yet become widespread (Vending business). However, due to the desire of the Uzbek people to become a direct participant in the trade process and the fact that the culture of bargaining is part of the values of our people, this term and its essence of service has not yet attracted widespread attention.

At the present stage of linguistic development, one of the most "productive" ways of learning words and terms is *kalkalash*. It means expressing concepts that do not exist in the language within the limits of language. *Kalkalash* is an active method in Uzbek language.

The translation of the English tourism terminology also shows that *kalkalash* results are the most numerous and the most effective method:

| | |
|------------------------|--|
| Circle/round trip | Aylanma sayohat |
| Airport art | Aeroport san'ati |
| Ghost town | Arvoh shahar (aholisi tark etgan shahar) |
| Mental map | Aqliy xarita |
| Sunbaking/sunbathing | Oftobda toblanish |
| Culture shock | Madaniy shok/zarba |
| Travel/motion sickness | Sayohat behuzurligi |
| Room service | Xona xizmati |
| Summer home | Yozlik uy |
| Health farm | Sog'lomlashtirish fermasi |
| E-ticket | Elektron chipta |
| Duplicate reservation | Dublikat buyurtma |
| Compactness index | Ixchamlik indeksi |
| Community tourism | Jamoa turizmi |
| Rest room | Hojatxona |
| Mass tourism | Ommaviy turizm |
| Airship | Havo kemasi |

It is also observed that the *kalkalash* is carried out through the neighboring languages. For example, the following tourist terms are included in the Uzbek lexicon in Russian:

Adult tourist ⇒ Взрослый турист ⇒ O'spirin turist

Baby-sitter ⇒ Услуги детской сиделки ⇒ Bolalarga qarash xizmati

Beachview room ⇔ Номер с видом на пляж ⇔ Plyajga qaragan nomer
 Cityview room ⇔ Номер с видом на город ⇔ Shaharga qaragan nomer
 Gardenview room ⇔ Номер с видом на сад ⇔ Bog'ga qaragan nomer
 Landview room ⇔ Номер с видом на окрестности ⇔ Atrofga qaragan nomer
 Mountainview room ⇔ Номер с видом на горы ⇔ Tog'ga qaragan nomer
 Oceanview room ⇔ Номер с видом на океан ⇔ Okeanga qaragan nomer
 Parkview room ⇔ Номер с видом на парк ⇔ Parkka qaragan nomer
 Poolview room ⇔ Номер с видом на бассейн ⇔ Basseynga qaragan nomer
 Riverview room ⇔ Номер с видом на реку ⇔ Daryoga qaragan nomer
 Seaview room ⇔ Номер с видом на море ⇔ Dengizga qaragan nomer
 Valleyview room ⇔ Номер с видом на долину ⇔ Vodiyga qaragan nomer
 Grandmaster ⇔ Мастер-ключ ⇔ Master kalit
 Triple room ⇔ Трехместный номер ⇔ To'rt o'rinli xona
 Botel ⇔ Плавающий отель ⇔ Suzuvchi mehmonxona
 Diving ⇔ Подводное плавание ⇔ Suv ostiga sho'ng'ish
 Incentive-tour ⇔ Инсентив-тур ⇔ Insentiv tur
 Catering ⇔ Общественное питание ⇔ Ijtimoiy ta'minot
 Convenience foods ⇔ Полуфабрикаты ⇔ Yarim- tayyor mahsulotlar

Commenting on some of the above, the words diving and catering are still in use. The meaning of terms, that is, the expression of a concept in two or more terms, is one of the central problems in terminology. It is customary to refer to this linguistic phenomenon in the scientific literature as "duplication" or "quasi-synonymy". Quasi-synonyms (partial synonyms) are words with similar meanings that cannot be synonymous in all contexts. It turned out that there are many examples of them in tourism terminology:

keytering ↔ ijtimoiy ta'minot
 xona ↔ nomer
 ekonom klass ↔ ikkinchi klass
 akvatik sport ↔ suv sporti
 administratsiya ↔ resepsion
 elektropoyezd ↔ elektrichka
 turist ↔ ekskursant
 (route) yo'nalish ↔ kurs ↔ qatnov yo'li
 (cabin) kupe ↔ salon
 (charter) yollanma reys ↔ yollanma samolyot
 (porter) yuk tashuvchi ↔ shveysar ↔ eshik qorovuli

Proof that quasi-synonyms are not absolute synonyms is that, for example, the terms *economy class* and *second class* can only be mutually functional substitutes in the context of an aircraft cabin. Absolute synonyms, on the other hand, must be equivalent in any contextual context.

L.L. Kutina, who contributed to the Russian terminology, explains the phenomenon of duplication as follows:

This definition indicates that the terminology system of the tourism industry of our country is open to change and the process of formation, selection and consumption is still in its infancy. The very process of socio-cultural evolution requires which of the quasi-synonyms undergoes a historical selection and disappears in the process. In recent years, it has been observed that people of different nationalities are becoming more and more aware of popular culture and are assimilating tourism terms through linguistic transfer (without change). As a result, it is possible to linguistically predict the decline of perceptions in the following centuries of trends in the translation of terminology in various fields.

Materials and methods. One of the most pressing issues in the translation of tourism terminology is the assimilation of national-private words that express concepts specific to a particular folk culture. These words are known in linguistics and translation theory as "realities." The word "Realis" was originally derived from the Latin plural word "realia", which originally

meant "вещественный" - "material", "действительный" - "real", and later became a horse. has become a term that expresses a nationally specific word. "Realities are synonymous words and phrases that belong to a particular people and represent objects, concepts, and event names in that language. They represent the geographical, ethnographic, literary, material and spiritual life of the people, as well as cultural, social and historical. "

The discussion of realities is also relative. After all, some realities have become international and familiar to the whole world community. They represent concepts that are specific to specific semantic groups:

Foods ⇒ hot dog, hamburger, kimchi, pizza, spaghetti, muesli, marshmallows, champagne, sausage, bistro

Dresses ⇒ kimono, sari,

Shelters and buildings ⇒ dacha, bungalow, yurt, albergo, alfresco, market

Road transport ⇒ highway, caravan, rickshaw

But not all realities are so popular. In addition, the culture of the tourism terminology system is constantly expanding due to the languages of different peoples in the process of development. Realities limited to a particular cultural space can be mastered in several ways:

- Transliteration or transcription is performed;
- Translated verbatim (kalkalash);
- Represented by means of descriptive commentary;
- Functional alternatives are found in the culture of the language of translation.

Of the above methods, the most objective approach to the aspects of source-language culture is the "gloss", ie the technique of descriptive interpretation. This is because finding a functional alternative to a certain term takes a lot of work and sometimes ends in a completely unsatisfactory result. Neither transliteration nor transcription is always acceptable.

There are also cases when some terms in the foreign terminosystem are not mastered at all. This is known as a "zero translation". This is because a particular term-lexeme is an expression of a concept that is completely alien to the source-language culture, is condemned, or does not need to be used. For example, the names of all types of tourism are often mentioned in various publications and shows, in everyday life, there is no need to translate the words *sex tourism*, *pick-up point*. Although their content is easy to understand, there is no need to include them in the Uzbek tourism terminology system. As a result, they are left without translation for an indefinite period of time (it is difficult to predict developmental changes).

Neutralization is used in the translation of tourist terms, as well as in the translation of other texts. The reason for this linguistic phenomenon may be that the possibilities of translation are limited in some respects, and the exact meaning of the word cannot be found. For example, the English lexemes *traveler*, *tourist*, *excursionist*, and *hiker* are translated in the same way as *tourist* (or *tourist*).

The extent to which term translation techniques are actively used is illustrated by the results of a small study based on the translation of three types of travel texts:

| | Transcription / transliteration | kalkalash | Transference | Gloss translation | Functional equivalent | Neutralization | Zero translation |
|---|---------------------------------|-----------|--------------|-------------------|-----------------------|----------------|------------------|
| Descriptive texts | 10,2% | 17% | 1,5% | 5,1% | 33,9% | 11,9% | 8,5% |
| Illuminating texts | 25,4% | 40% | 1,3% | 9,7% | 15,8% | 2,5% | 1,3% |
| Professional communication texts | 9,9% | 24% | 26,8% | 5,7% | 21% | 4,2% | 4,2% |

Three types of travel texts were selected for the above study:

1. Descriptive texts (recreation area (country, island, sea, etc.), landscapes (forest, waterfall, modern city, etc.), types of holidays (beach vacation, attractions, cruise, excursion) texts giving general descriptive information about;

2. Illuminating texts (texts that provide practical information about the means, equipment and services used and offered: hotel, cruise ship, excursion equipment, terms of service, visas and documents information);

3. Professional communication texts (texts representing the exchange of information between tourism professionals: price lists, applications, booking systems, ticket conditions, booking guides);

We will explore the conditions and methods of mastering tourism terminology and examine some of the complexities and incompetent examples of translation that may arise in the translation process.

Analyzing the content of the sites on the Internet, we have seen the factors that lead to the observation.

“Words from English. The concept of flying in the wind is one of a number of sports that have been introduced to the Uzbek language in the section "English words from other languages":

"Flying in the wind, arm wrestling, freestyle, skateboarding, snowboarding, kickboxing ..."

While all types of training are understandable, the name of flying in the wind evokes various associations in the minds of internet users. In the culture of Western countries, air and wind sports form two separate directions. Wikipedia lists the following sports activities under the names of these two groups:

Wind sports:

- ◆ [Ice boating](#)
- ◆ [Kite boating](#)
- ◆ [Kite landboarding](#)
- ◆ [Kite buggy](#)
- ◆ [Kite flying](#)
- ◆ [Kite jumping](#)
- ◆ [Kite skating](#)
- ◆ [Kite surfing](#)
- ◆ [Land sailing](#)
- ◆ [Sailing](#)
- ◆ [Snowkiting](#)
- ◆ [Windsurfing](#)
- ◆ [Sail biking](#)

Air sports:

- [Gliding](#)
- [Hang gliding](#)
- [Microlighting](#)
- [Parachuting](#)
- [Paragliding](#)
- [Parasailing](#)
- [Air Ballooning](#)

Results and discussions. In all of the above, the movement in the wind is caused by a certain means (aircraft, boat, sail, sail). The fact that so many exercises are associated with the movement of flying in the wind, no doubt leads to confusion in the reception of information. This means that the term has failed to achieve its functional function. Because whether it is a tourist product or a type of service, the consumer must have a clear idea about it and be able to use it to the fullest.

Here is another excerpt from this site:

“Shaping, fitness, diving, surfing, bodybuilding, snowboarding, paintball, freestyle wrestling, wrestling, powerlifting, bowling, training, skating ring, forward, goalkeeper, biker, sniper, overtime, stepping class, competitions, scooters. ”

The word formulation listed above does not quickly reflect the concept of *shaping* in the minds of all users. First, the transcribed shaping term itself is already popular and there is no need to translate it literally. Second, the use of an additional explanatory word for semantic conformity is a necessity in this case, i.e., *the formation of the body*.

The description of the *skate ring* on the list is simply a sad example of illiteracy. The linguist understands that this interpretation refers to the English *skating -rink* lexeme. In English, this lexeme means "*ice skating rink*" (katok), and the word rink differs from the ring lexeme (ring) by a single letter.

Consider another lexical group in the Art / Radio / TV category:

“Thriller, western, video clip, clipmaker, news producer, music, blockbuster, bestseller, underground, pop art, (had) rock, rock and roll (L), casting, shake, break, brain rings, (discussion), hit - parade, meteotime, supersta, superman, skinhead ”

Shaking in this lexical group refers to western dances (breakdance, shakedance). Such a translation of them is not an acceptable option. Although there are essential elements of these types of dances, *shaking* and *breaking* are units of extreme general meaning in this case, and the functional function of the terms is lost.

Also, the concept expressed in the form of *brain rings* already implies a well-known *brainwashing*. The best way to learn these terms is to transcribe them in the phonetic shell. Trying to translate all the terms of tourism (as well as any other optional field) literally is not wise in today's fast-paced world. Because of the rapid spread of information on the Internet, the population of the country is mastering any concept *first-hand*, that is, directly (as first-hand information).

While the above examples focus on the inappropriate translation of individual terms, the issue of their optimal translation in tourist texts is also worth noting. After all, the term tourism is used in practice in the language of tourism in the context of tourist texts.

Representatives of the world linguistic community have categorized errors and inconsistencies in the translation of tourism terms. The following are the types of errors that are generalized based on their criteria:

- grammatical and spelling errors
- lexical-semantic inconsistencies
- Pragmatic and discourse (methodological context) inconsistencies
- Dropping the required information, duplicating or entering excessive information

In order to avoid the above mistakes and discuss techniques for skillfully translating travel texts, we will explore a few travel text sentences.

" You will meet **friendly and welcoming** people."

"Sizni samimiy va mehmondo 'st insonlar kutib olishadi."

Conclusion. If we pay close attention, the difference between the two sentences used in the future tense is that in the English version, if the owner of the sentence is the performer of the action, in the translated text it is the person who receives it (directly). the translation would be “You meet sincere and hospitable people”). This difference is due to the different features of the languages, that is, as natural and effective as the first sentence sounds in the English tourist text, the Uzbek version has the same effect on the tourist of this language culture.

The same can be said of the translation of "You will like it": "You will definitely like it."

Rhetorical interrogations have a place in the tourist text. They serve as a stimulus to the consumer to promote tourism services and products. They should be expressed in functional equivalent rhetorical questioning:

→ "Isn't it time you treated yourself to a holiday?"

→ "Ta 'tilga chiqish vaqti kelmadimi?"

The translator is also required to have a special knowledge of English tourist terminology. Because without knowing their essence, it is impossible to create a cultural alternative in translation:

"Alaska B4UDIE." (Alaska, before you die.)

("Alyaskaga bormabsiz, bu dunyoga kelmabsiz!")

In addition to the above, it is important to choose the right personal pronouns:

"We work so you don't have to".

"Biz ishlaymiz — siz dam olasiz."

The purpose of the tourist text is to make a conscious impression on the consumer by using phonetic sounds. The translator should be careful to notice such features of the text in the source language and carefully translate them into the target language. For example, using alliteration works well:

“Tour to Turkey! → “Тур в Турцию!”

However, such direct embodiment of the sound shell of a sentence does not create a natural-sounding act of speech in the Uzbek language. In the Uzbek text, we will try to create this effect with a different sound:

“Turkiya sarhadlariga sayohat!”

Apparently, the sound [s] also did a great job. If this effect is not achieved by sound, it is necessary to use combinations such as unusual rhythm, word order, repetition.

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STRUCTURAL AND COMPOSITIONAL PROPERTIES OF PHYTOMORPHS

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Abstract:

Background. *The article is based on factual material, which shows that metaphors are an important product of popular thinking, one of the most common ways of creating figurative meaning. The fact that phytomorphic metaphors - figurative words based on the names of plants in the Uzbek language - occur as a separate system is confirmed by examples. Structural and compositional features of phytonym metaphors are analyzed and classified.*

It is well known that an important feature of fiction is that the author puts into words the idea he wants to convey through the work. Every word, every idea serves to reveal the purpose of the

writer. *Phytonym metaphors also play an important role in fiction and writers' works. Because phytonutrients are a long-standing part of language. In addition to the life, culture, history, socio-political views of the people, they preserve the ancient traditions of the language and language of the people who created them. The term phytonim (Greek phyton - plant + onim - name) refers to the names of plants. Phytonyms also form a unique semantic field in the lexicon of the Uzbek language.*

Methods. *The methods section of the article mentions the use of works by scientists such as Mirtpjiev, Mukarramov, Mahmudov. Structural and compositional analysis and classification of phytonym metaphors in Uzbek language.*

Results. *This section provides information on the fact that metaphor is the most important means of artistic expression, as the most common method of deriving meaning, and that metaphorical derivation is very common in speech, but they are less linguistic.*

Discussion. *In the discussion section, it is clearly explained by examples that the formation of a new word by adding more than one root morpheme is called the method of composition, the formation of compound words by the method of composition.*

Conclusion. *At the end of the article, it is concluded that the study of the essence of phytomorphic metaphors in a comprehensive linguoculturological aspect and the analysis of lingvopoetic features in our literature is always relevant and important for linguistics.*

Keywords: *metaphor, phytomorphic metaphor, anthropomorphic, zoomorphic, phytoomorph, cosmomorphic, abiomorphic, linguoculturological, linguopoetic, myth, animism, word-formation structure, composition method.*

Introduction. According to the scientific literature, the first real meaning of the word about things, events, is called the meaning of the word itself: Book - a tool, bread - food, came - action, red - colour.

It is also called the figurative meaning of a word if it is used in other senses than by its real lexical meaning by analogy, exaggeration, or allegory. I bought land to build a house (land - place). O Sun, show your face (the sun is a beautiful lover).

We know that the figurative meaning of speech is created by eliminating some of the semantics in the semantic structure of the word (omitting, removing) and strengthening the other semantics. For example, in the example above, the planetary meaning of the word "Sun" is removed, and a strong connotative meaning is created based on the exaggeration of the beautiful, shiny, beautiful semaphores.

When a word and a lexeme are used figuratively, the noun semantics in its semantics disappears, and the semantics of expression and function increase in accordance with the speech reality. For example, the semantics of the golden lexeme "yellow", "metal", "nonu" in the semantics of the golden lexeme "yellow" means "rare rare metal", the semantics of "rare", "precious" have intensified, and "The function semantic "noun" has become a part of the meaning of "quality". However, since the change in the function semaphore is a speech phenomenon, it does not indicate that the semaphore belongs to the second category, but should be understood as a function of another category. Thus, it is clear that the spiritual modification of the use of a lexeme in a figurative sense can be considered as a "change in the sema of semema".

This is how metaphor, a form of figurative meaning, is defined in the scientific literature. Metaphor (gr. Metaphora - transfer) - a mechanism of speech, used to express another meaning based on the external, apparent similarity of the denotation of a lexeme.

One of the reasons for the formation of metaphorical meaning is:

Firstly, one word is more appropriate and relevant to the purpose of the speaker's expression than another, and therefore the second is used instead of the first;

Secondly, there is no denotative, and a word is used to denote another denotation.

So, in this first case, the word being copied is the second term of the denotation, and in the second case, it is the first term. For example, the word "skirt" is used to refer to the lower part of a mountain because the word "skirt" is more convenient and complete in meaning. Since the Uzbek

language does not have the name of a specific geographical location on the sea, the word armpit is also applied to it.

Basically, the phenomenon of metaphor occurs mainly within the category of horses, partly in the verb: The bird flew. In the second of the aircraft's flying devices, the action of the verb to fly is similar to the flight of a bird fluttering its wings in the air. Therefore, the next meaning of the verb to fly is metaphorical.

Methods. Metaphor is one of the most important means of artistic style, of speech, as a common way of creating meaning. Metaphorical derivations are very common in speech. But their linguisticization is relatively rare. The derivation of lexemes such as wing(plane), fly, and mouth is metaphorical.

The system of metaphors is formed in the language of each nation with an ancient history, socio-economic, cultural and educational development. Most of the metaphors are based on myths and animism. This system of metaphors is passed down from generation to generation. Metaphors appear in direct connection with the specific traditions, customs, traditions, religious beliefs and culture of the people. The names of plants and animals, which are very relevant in people's daily lives and are often referred to by them, are metaphorical. The system of metaphors in the Uzbek language is formed in harmony with the worldview, culture and spirit of the people.

According to R. Suvonova's classification, metaphor is always based on similarity, but it differs from analogy in the following ways:

1. In metaphors, words are always used in a figurative sense when words are compared in their proper meanings.

2. In analogy, two components: the object being imitated and the analogous images are compared with each other on the basis of a certain sign, while in the metaphor, the word itself, which represents the analogous image, is the object and analogy content. That is, the metaphor has one component.

3. Parables can expand and come in the form of a compound, a sentence, or even a paragraph. Metaphors, on the other hand, do not have such an expansive character. They consist of a single word or phrase that has a figurative meaning.

4. Linguistic metaphors expand the meaning of the word and form the basis for the formation of new semantics. In analogy, such a feature is expressed only through metaphor.

5. Similarities often occur by *-day // -dek(as)*, *-simon*, *-larcha*, *kabi*, *singari(like)*, *o'xshamoq(look like)*, and so on. There is no need for these tools in metaphors.

According to linguist R. Kungurov, metaphor is a hidden analogy. "But it is different from a simple analogy," he writes. If a simple analogy always consists of two main members (i.e., the object being compared and compared), in the metaphor only the second member - the analogy remains, the analogy is omitted, but it is clearly felt from the context, that is, the object described in the metaphor is perceived through this second member.

What we know is that in a metaphor, three of the four members of the analogy (similar, likened, likeness note, likeness) (likeness, likeness note, likeness means)) is dropped, only one, i.e., similar, occurs. Linguist M. Mirtojiev notes in the monograph "Semasiology of the Uzbek language" that there are three types of metaphors. They are: simple metaphor ,personification (animation), synesthesia. Other scholarly works have suggested that metaphors be divided into these types.

It should be noted that the scientific nature of metaphors is almost indistinguishable from each other, except for the variety of terms related to it. In all of them, metaphors are recognized as a separate type of naming, emphasis, conciseness, emotional-expressiveness in the artistic image is stronger than the analogy in the metaphor. noted that it has tried to make extensive use of this type of image.

In fact, metaphors allow you to convey emotions and moods in a clear, vivid, concise, and effective way. With its conciseness, simplicity, and semantic richness, it is well suited to the short form of a poetic text and serves as an important factor in enhancing its art. As mentioned above, in a metaphorical phenomenon, a particular thing, character, action is called secondary. In the classical

literature, the following general requirements are set for the secondary naming to have an artistic and aesthetic significance:

- must directly serve the ideological and artistic intentions of the creator, and it must be used purposefully, in accordance with the content of the work, the ideological direction;
- should enrich the artistic and aesthetic thinking of the people, express emotional and expressiveness, have aesthetic value;
- just as the excessive use of metaphors has a negative effect on the ideological and artistic aspects of the work of art, there is no doubt that the expression of ideas without them undermines the value of the work. With that in mind, metaphors should be used sparingly;
- must be understandable, accepted and approved by the general public;
- symbols of analogy should correspond to the reality of life, not contradict it, the delicate balance between the two objects should be logically appropriate and they should be expressed on the basis of lexically and grammatically defined norms;
- identification symbols should be new, beautiful, unique and effective.

Here are some comments. These are ideas about the members of a metaphor and the terms used to describe them. It is known that in metaphors there are basically two members. In *The Rules of Literature*, Fitrat called one of them "similar" and the other "sitimulated." In Uzbek philology, in the scientific works created after this manual of the scientist, the members of the metaphor (istiora) are expressed in different terms. Thus, M.Mirtojiev is a nominative and a nominal, M.Mukarramov is a simulated object and a similar image, A.Rustamov is simulated and similar, N.Mahmudov is a subject of comparison and a standard of comparison, M.Yakubbekova is the basis of analogy and called a symbol of analogy. It is understood that the same phenomenon is represented by different names. This, of course, creates all sorts of confusion, difficulty and complexity. In our opinion, it is necessary to come to a definite conclusion and move to the use of the names of the members of the metaphor (metaphor) in the same form. In order to eliminate the differences, first of all, the terms used by Fitrat express the essence of the phenomenon logically, accurately, concisely, as they are lexical units specific to our language, it is advisable to switch to regular use.

The main types of metaphorical copying are:

1. The name of an object is copied on the basis of a formal resemblance to another object: mouth- (human mouth) - mouth- (bottle mouth), tooth- (human tooth) - tooth- (saw's teeth), skirt- (skirt of a dress) - a skirt- (skirt of a mountain).
2. The name of a sign specific to one object (sometimes an action) is transferred to a sign in another object: bitter- (bitter pepper-) - bitter (bitter speech), straight- (straight line) - correct- (correct speech), live- (live nature-) - live- (live conversation-).

It is also possible to transfer the name of an object to another object as a symbol: gold (the name of a precious mineral) - like gold leaves- (tawny). In this case, the name of the object means a symbol. In the above examples, the name of the character is moved from one object to another.

3. The name of an action specific to one object is transferred to the action of another object: quilt- (what) - quilt- (who), squat- (squat!) - squat- (sink of a building) - squat- (drowning in old age). The Greek philosopher Aristotle's views on metaphor are worth mentioning: Aristotle, in his *Poetics*, advises the poet to be creative in his use of metaphors, emphasizing that:) serves as a sign of talent. After all, creating good metaphors means seeing similarities. ” It is understood that Aristotle understood the ability to create a metaphor inherent in innate talent, so it cannot be assimilated from others. Of course, it is no coincidence that the philosopher emphasizes "seeing the similarities." This is because it requires an artistic look, and seeing similarities is the most important condition for figurative thinking.

It is well known that an important feature of fiction is that the author puts into words the idea he is trying to convey through his work. Every word, every idea serves to reveal the purpose of the writer. Phytonym metaphors also play an important role in fiction and writers. Because phytonutrients are a long-standing part of language. In addition to the life, culture, history, socio-political views of the people, they preserve the ancient traditions of the language and language of the people who created them. The term phytonim (Greek phyton - plant + onim - name) refers to the

names of plants. Phytonyms also form a unique semantic field in the lexicon of the Uzbek language. This field includes the phytonymous archetypal units - horses. Lexemes related to plants and trees form one of the largest semantic fields in the Uzbek lexicon.

Results. The word-formation structure of a word differs from both the morpheme structure and the morphological structure. The word-formation structure of a word consists of the constituent components of that word. For example, *terim*: ter-making base, -im-forming affix, *terimchi*: making base, -chi-forming affix. Compare: the word *terimchi* consists of 3 morphemes. This is the morpheme structure of the word. If a word consists of a base and a formative affix, it will be a word-forming structure. The base can be a compound word or a combination of words: Belted, multi-layered, five-year. The morphological structure of the word is formed by the base and form-forming affix: *terim* + *ga*. Phytonym metaphors also consist of components. Examples include:

CHILLAKI. According to Shavkat Rakhmatullayev's "Etymological Dictionary of the Uzbek language", the word "*chillaki*" is formed by adding the suffixes *-la* and *-ki* to the forty Persian number *chil*, which means "*yoʻz chillasi*" in Tajik. *lib*, in Uzbek, the sound *g* is replaced by *k*: it means a grape that ripens in forty days or ripens early. *Oq chillaki*.- *Chillaki chillakini koʻrib chumak uradi*. Proverbs. "*Oq kishmish, qora, oq chillaki, charos koʻzlarni qamashtirguday serhosil*." N. Safarov, "Olovli izlar".

The word *chillaki* also means illiterate. *Chillaki olim*. - *Maorif ochgan kurslarda bir talay chillaki muaalimlar oʻqishayotibdi. Oʻrnimga oʻshalardan bittasini ola beradi-da. P. Tursun, Oʻqituvchi*.

DUMBULLIK. 1. The phase, stage, period in which the ripening of seeds begins. This word, which means immaturity, rawness, humility (about fruits), is formed by adding the suffix *-lik* to the word *dumbul*, figuratively, lack of life experience, immaturity, means slavery. *Uning ichida gap yotmaydigan, shaldir-shuldurligi, dumbulligi onaxonga yoqdi*. Mirmuhsin, Umid.

By adding the suffix *-day* to the word *gul* (flower), the word *gulday*, which means flower-like flower, is given in the figurative sense in the works of art as follows: *Rangi soʻlib boradi, Sariq gulday sargʻayib*. «Oysuluv». *Xuddi erta bilan ochilgan gulday boʻlib, tillari bulbulday boʻlib, koʻzlari yorqinlashib ketdi*. «Yusuf va Ahmad». *Ey botirlar, gulday yuzing soʻldirma, Ichki siring dushmaningga bildirma*. «Erali va Serali».

GULLAMOQ. To open a flower, to enter a flower. The cotton blossomed. Almonds bloomed. *Derazanning oldida bir tup oʻrik oppoq boʻlib gulladi*. H. Olimjon. *Gʻoʻzalar gullayotgan payt*. I. Rahim, Chin muhabbat. (In front of my window a bunch of apricots bloomed white. H. Olimjon. When the cotton is in bloom. I. Rahim, True love.)

According to the structure of the word "*gullamoq*", it is formed by adding the suffixes *-la* and *-moq* to the name of the flower, forming the name of the action. The word is to develop, to develop in a figurative sense; means to be prosperous. *Toshtemir Surxon vodiysining gullagan vohalarini koʻrib, aylanib chiqdi*. Nazarmat, *Joʻrlar baland sayraydi*. [Yangi yer] *Boshida qanday edi-yu, hozir qanday? Odamning qadami tegdi-yu, gullab ketdi*. R. Fayziy, Choʻlga bahor keldi.

The word **kurtaklamoq** is also a compound word formed by adding the affix *-la* to the noun of *kurtak*. This lexeme is used literally and figuratively. The trees sprouted. - *Hurmatli direktorda mana shu kayfiyat kurtaklab qolgan*. «Mushtum».

The word **koʻkarmoq** is structurally a verb maker *-ar* and the name of the action *-moq* consists of components, covered with grass or leaves, which means blue and green. *Bahor keldi, dalalar koʻkara boshladi*. - *Giyoh unmagan choʻllar mehnatkashlar qoni baravariga yam-yashil koʻkargan edi*. A. Qodiriy, Mehrobdan chayon. (Spring came and the fields began to turn green. "The cocaine-free deserts were as green as the blood of the workers.")

In the explanatory dictionary of the Uzbek language, the word *koʻkarmoq* means to grow, to follow. The word is evolving in a figurative sense; means to grow. *Daraxt bir joyda (erda) koʻkaradi*. Maqol. - *Yer olgan koʻkaradi, yer sotgan quriydi. Mana bu gapning magʻzini chaq!* Oybek, Tanlangan asarlar. *Birovning koʻkarganini koʻra olmaydigan gʻalamisga oʻxshaydi*. S. Nurov, Narvoy.

Discussion. The process of composing a new word by adding more than one stem morpheme is called the composition method. Composite is a compound word. In the explanatory dictionary of the Uzbek language there are many phytonym metaphors formed by the method of composition. Examples include phytonyms such as *bo'tako'z*, *mehrigiyo*, *atirgul*, *lolaqizg'aldoq*, *momaqaymoq*, *oyimsupurgi*, *po'panak o't*, *xashaki tut*, *chaqirtikanak*. In the process of naming plants in the Uzbek language, the names of household artifacts related to the life of nomadic tribes, mainly engaged in animal husbandry, are used. These artifacts are an integral part of Uzbek ethnoculture. For example, the phytonym of the word *cho'pontelpak* is composed of a combination of *cho'pon* and *telpak* nouns - the plant has a spherical convex shape resembling a cap, since the word shepherd is a favorite food of the plant's lambs, it may be related to the fact that shepherds always drive their herds to areas where the plant grows (the second name of the plant – *qo'zigul* confirms this idea).

Similarly, the all-Turkic word *bo'tako'z* is formed from the combination of the words *bo'ta* and *ko'z*, its original lexical meaning *belongs to the family of complex flowers, an annual alien with purple or blue flowers*. [OTIL, I, p. 45], which is applied in a figurative sense to a person with a beautiful eye, a squint eye, and so on: *O'lan aytib o'tirgan bo'tako'zim, Bari qizdan yaxshisan yolg'iz o'zing*. (“Oq olma, qizil olma”); *Yaxshi ekan sizning olgan qizingiz, Qutli bo'lcin, jezna, bo'ta ko'zingiz!* (“Gulnorpari”). It should be noted that the word is used figuratively for a lover, a child and a loved one. Their eyes are like the eyes of a beautiful camel. Some people even named the girl *Bo'tako'z*, hoping that her eyes would be bright. Such naming is more common in camel-related populations.

This is the definition of the phytonym of *mehrigiyo* in the Uzbek dictionary. **MEHRIGIYO (H) [f. - mandragora]** 1. A perennial plant belonging to the Ituzum family of flowers (there is a legend that people love someone who keeps the seeds of this plant with him). The word is used figuratively to refer to someone or something that attracts affection. *Bitta o'g'il tug'ib berdi-yu, erxotin orasiga mehriyo tushdi-qo'ydi*. S. Ahmad, Cho'l shamollari. *Yaxshi odamning mehriyosi bo'ladi, deganlaricha bor ekan*. S. Karomatov, Oltin qum.

If we look at the etymology of the word *mehriyo* (h), this name is given in the form PRS [mehr-giyah] (545), in TjRS in the form *mehriyoh*; In OTIL, the *i* sound is included in the range of *rg* sounds to facilitate the pronunciation of *hr*g sounds; at the same time the *h* sound at the end of this horse was unspeakable. This phytonym, which is a combination of the words *mehr* and *giyoh*, means cocaine.

In the literature, the word *momaqaymoq* dandelion is used more often than women who have a full face and body and a pleasant appearance. For example: *U momaqaymoq xotiniga ham qiyo boqmasdi*. Mirmuhsin, Umid. *Olchinbekning ta'rifiga qaraganda, Zubaydaxon tengi yo'q momaqaymoq, ofatijon emish*. K. Yashin, Hamza.

This phytonym, formed from the combination of the words *moma* and *qaymoq*, is a yellow-flowered, wind-blown grass seed; is a weed. *Erta bahor Yorqinoy ko'k terib yurardi. U yon-bu yonga elanib, otquloq, ismaloq, momaqaymoq qidirardi*. R. Rahmonov, Mehr ko'zda. *U xuddi bizdagi momaqaymoq yoki bo'tako'zga o'xshaydi*. From newspaper.

OYIMSUPURGI. A plant with red grains that can be swept from the stem. The broom attached to the stem of this plant is called *oyimsupurgi*. Here the word *oyimsupurgi* is formed from the combination of *oyim* and *supurgi* nouns, which is used in a negative sense and means a metaphor of a gentle man who bends like a broom [*Mo'min aka*]. *Nechundir, to'satdan kirpi qiyofasidan oyimsupurgi qiyofasiga kirgan, muloyimlashib qolgan edi*. O. Yoqubov, Bir feleton qissasi.

PO'PANAK O'T. This phytonym, which is a combination of butterfly and grass horses, is a blue fungus-like plant that is formed by the coexistence of fungi and aquatic plants. *Hovuzning chetlarini har xil po'panak o'tlar bosib ketgan*. G'. G'ulom, Shum bola. *Iliq po'panak o'tga yuzimni bosib yotardim, birdan shamollagan odam tovushiday xirqiroq tovushlar eshitildi*. A. Muxtor, Davr mening taqdirimda.

The word is used figuratively, as if it has been standing for a long time without being used. *Miyasini po'panak bosib ketgan bu inson hali beri o'zgarmaydi*. (From the newspaper).

There is a type of mulberry tree that is called *xashaki tut*. The adjective *hashaki* is formed by adding the suffix *-i (k)* to the Persian [hashak] noun, which means low variety, low breed. *Hashaki tut* is a combination of *hashaki* adjective and *tut* noun. The fruit is a local mulberry with seeds, black, reddish, white and yellow. The same word literally means simple, straightforward, human, like all other people. *Ahmad polvon unaqa senlar o'ylagan xashaki bolalardanmas*, — *dedi Boqi*. Q. Kenja, Tog' yo'lida bir oqshom.

CHAKIRTIKANAK This phytonim stem, formed by the combination of *chaqir* + *tikan* + *ak* parts, is a wild grass that grows on the ground. *Umid yantoq, chaqirtikanaklar yonida cho'nqayib o'tirib, ho'ng-ho'ng yig'lardi*. Mirmuhsin, Me'mor.

This phytonim is used figuratively to refer to people who are obstructing or harming someone. *Endi qarasam, o'zim ham chaqirtikanak ekanman, G'oziddin Qobulov meni yulib tashlashga harakat qilgan sayin, uning qo'lini qonata boshladim*. O. Muxtorov, Egilgan, bosh.

(PARABLE WORDS RELATED TO PLANT MEMBERS)

GULBARG. The combination of the words *gul* + *barg* formed the compound word *petal*. The petals, which make up the flower and surround the pollinator with the seed, represent a set of petals. *Gulbarglar orasiga yashiringan tirnoqday qo'ng'iz uchib ketdi*. O'. Hoshimov, Qalbingga quloq sol. *Gulbarglarga termulib, yana uchdi o'ylarim, Yaproq misol titratib qo'yingiz-ku yuragim*. E. Oxunova, Men tongni uyg'otdim.

This compound word is used figuratively to refer to beautiful, handsome, delicate women as flower petals. *Hamlet yuragiga berardi hayot Sening u otashin gulbarg lablaring*. H. Olimjon, Ofeliyaning o'limi. *Mayli endi, hech bo'lmasa qumg'on qaynatsam, Qish kunlari lovillatsam gulbarg yonog'ing*. Mirtemir.

The compound word **GULTOJ** is a word formed from the addition of *gul* + *toj* nouns, and in botany it means the part of a flower that consists of petals and fills the vase, the crown.

The word "*Gultojs*" means the highest, the best of anything mobile. *Odamzod bo'lgan paydo, Husniga olam shaydo, Odam — olam gultojsi*. Q. Muhammadiy. *She'riyat gultojsi — drama demak, Mening teatrim qalbim sahnida*. A. Isroilov.

Conclusion. In conclusion, we can say that in our language there are many phytonims formed in structural and functional forms. The use of these phytonims, which adorn our speech, in the metaphorical way increases the artistic value of the works. An important part of our people's thinking is the study of phytonym metaphors as a phenomenon directly related to the development of our culture. The system of metaphors is formed in the language of each nation with ancient history, socio-economic, cultural and educational development. Most of them go to livestock and agriculture. The system of metaphors is passed down from generation to generation, enriching its structure and content. Metaphors originated in direct connection with the specific traditions, customs, religious beliefs and cultures of the people. The names of plants and animals, which are very relevant in people's daily lives and are often referred to by them, are metaphorical. The system of metaphors in language is formed in harmony with the worldview, culture and spirit of the people. Many features of the structural and functional forms of plants in the vocabulary of the Uzbek people have been transferred to human nature through metaphors and served to express a new image and content. We have focused on the detailed study of the mobile meaning, structural and compositional properties of phytomorphs, which are the product of national thinking. The study of the essence of phytomorphic metaphors in a comprehensive linguoculturological aspect and the analysis of lingvopoetic features in our literature is always relevant and important for linguistics.

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THE MAIN AREAS (SPHERES) OF EUPHEMISMS AND TABOOS IN FRENCH LINGUISTICS

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Abstract:

Background. *In world linguistics, special attention is paid to the practical use of linguistic possibilities, the use of euphemisms in speech, the disclosure of their peculiarities, the creative power of speech. Euphemisms have a special place in the coverage of aspects that have become a necessity of social life, such as speech etiquette, language culture, the effectiveness of communication. Taboos and euphemisms are still one of the topics that have not been studied in depth in French linguistics, the terminology of which has not been formed. Many articles have been written on the subject in France, and Western linguists are conducting in-depth research on the subject. At the same time, there are more explanations, terms, and terminological problems in the solution of linguistic problems related to taboos and euphemisms.*

Materials and methods. *In French, as in other languages, there are an infinite number of “taboo” or “forbidden” and euphemisms. In our article, we have mentioned the four main areas for the emergence of euphemisms and taboos:*

I. a group of superstitions, sorcery, fear, and religious beliefs;

II. a group associated with kindness, death, and shyness (shame);

III. a group of tenderness, kindness, compassion (regret, remorse, repentance) compassion;

IV. caution, etiquette, foresight, interest group. Methods of description, classification, comparison, ethnolinguistic analysis and sociological analysis were used to cover this topic.

Results. *The concepts of “euphemism” and “taboo” in modern French linguistics, the history of the formation of these concepts, the areas of their origin were analyzed and identified.*

Conclusion. *“Taboo” and “euphemism” have their own historical epoch, development histories, they are unique in different social environments, used in different ways. It also explores examples of the emergence of the concepts of “euphemism” and “taboo” in the field in which these concepts occur. Theoretical views on euphemisms and taboos are expressed and generalized by scientists.*

Keywords: *euphemisms, taboo, ephemeral group, religious dogmas, superstition, notion, term.*

Introduction. In the process of rapid globalization of science and technology around the world, as in any science, linguistics is developing day by day, giving rise to various new trends, directions, new scientific and theoretical views. At the same time, a number of decisions and orders, efforts made by our esteemed President Sh.M. Mirziyoyev, the next generation will be highly spiritual, perfect, able to think freely in foreign languages, love to read books, have high abilities. The launch of 5 important initiatives, their implementation throughout the country, as well as the meetings of the President with intellectuals and academics, the appreciation of the work of science-loving people will inspire scientists to create a variety of new research.

According to the report, “... Explicit, obscene words and phrases that are forbidden in terms of certain ethical norms and certain beliefs are called taboo. “Taboo” is typical of Polynesian languages and is used in a number of humanities to mean “forbidden thing, action, word”, “generally forbidden”. Where there is a need to speak in a more civilized way, words and phrases that are taboo are replaced by words and phrases that are appropriate to the etiquette and conceal the meaning. Such softer, more civilized words and expressions, which are used in place of language units that are in some ways forbidden, are called “euphemisms”. The term is derived from an ancient Greek compound word meaning “I speak well” [1: 483,570]. We know that at different stages of development, especially in the early stages of human society, certain things and actions are forbidden. Such a prohibition is called a taboo. The word “forbidden” in linguistics vary according to different social periods of life. At the same time, it is necessary to recognize the stratification of society, that is, the specific linguistic prohibitions of primitive society and developed society.

The emergence of “forbidden” words and phrases in linguistics is directly related to the development of human thinking at different stages of social life, the fact that language is the main criterion for the existence of social phenomena and society. At all times, it has been difficult for linguists to study the nature of “taboo” and “euphemism” and to draw the line between them.

It should be noted that, taboo, in contrast to euphemism, encompasses an event as a whole, not just a speech phenomenon, but also the actions, behaviors, attitudes, behaviors, customs, and other characteristics of a society or an individual.

“The concept of euphemism is purely a linguistic phenomenon. Early humans had to keep secret not only words but also actions and deeds, depending on the time or circumstances. In the early stages of the development of society, people had a strong belief in demons, ghosts, and so on. Such peoples believed that demons and ghosts could be avoided if the name of a person or object was not mentioned. In ancient times, as well as in modern nations, it is forbidden to touch the belongings of tribal leaders or to mention their names after their deaths. They imagined that if their

belongings were touched or the names of these things were mentioned, the ghosts, the demons, would strike and cause some harm. It is also forbidden to name some wild, poisonous animals. It was believed that if the names of such animals were mentioned, harm would be done.

Taboo remains can still be found today. So taboo is not just about words, it's about all aspects of life " [2: 932-945]. Indeed, in linguistics, the concept of taboo usually coincides with euphemism, and in this case euphemism is an aspect of reflecting the taboo. Taboos are understood to be religious, magical, or superstitious, a primitive prohibition that reflected superstition.

Historically, euphemisms have been thought to be linguistic phenomena that originated in developed societies. There are many theories about euphemisms in the linguistic literature.

E. Tyurina defines euphemism as follows: "Euphemism is a veiled, soft reflection in other words and expressions"[3: 127].

Scholar I. Zabodkina writes: "Euphemism combines many positive qualities: politeness, courtesy, gentleness, decency, etc."[4: 137].

N.S. Arapova describes euphemism as "a soft or figurative expression of a harsh, unpleasant truth" [5: 231].

Regarding euphemism, Galperin writes, "Euphemism is a word or phrase that is used to replace an unpleasant word, to express it in an alternative way" [6:29].

L. Chrisin writes: "Euphemistic exchange is used to avoid communicative conflicts and failures, which serve to avoid communicative inconveniences with the interlocutor" [7:65].

Vasilyevich describes euphemism as the avoidance of unpleasant words and expressions in social relations [8: 242].

It should be noted that it is impossible to completely stop the forbidden words and phrases in linguistics. Because the concept of taboo is as prevalent in modern society as it was in primitive society. Only its appearance, its formation for one reason or another, can change.

Depending on the basis of social change, the semantic scope of the word "taboo" expands: from superstitions based on the nature of superstition are transferred to general prohibitions, as well as from the notions of "divine", "holy", and "sacred" to "inappropriate, inconvenient" [9: 12-13].

The concept of taboo has retained its value in linguistics, and it refers to words and concepts that are "forbidden" in modern linguistics. The concepts of "taboo" and "euphemism" have existed and complemented each other since the earliest stages of the development of social and material culture. An analysis of primitive taboos shows that the direction of taboos changed. Taboo words are no longer words of religion, superstition (supernatural beings, dangerous animals, and partly religious practices), but words that are forbidden in linguistics, should be used as euphemisms.

For example, the French word "le diable" is used with different euphemistic units:

diantre,
diatre,
le malin,
le vilain,
l'adversaire,
l'ennemi,
le compère,
le cousin,
le mauvais esprit.

It is also possible to observe that such linguistic prohibitions are disappearing from the language today.

For example, if we compare the level of using such kind of words in primitive and civilized society or the rate of its emergence in different groups, we can say that in modern, developed society, such prohibitions are rarely used. Such a distinction can also be found in the example of remote and developing regions or highly developed and developing countries.

On the other hand, superstitions are often replaced by taboos based on other ethnic, social norms, or words whose origins are not sufficiently discussed in the modern context of social life.

For example, the use of the word “diable” (devil) in some social classes has a strong effect, which means that the speaker has signs of indecency in term of his culture of speech.

Prohibitions in linguistics have stabilized relations between members of society and are directly related to social ethics.

Materials and methods. There is no consensus among scholars as to where euphemisms are used in linguistics. Each period has its own areas of taboo and euphemism, and these areas are unique to a particular period or society. In our century, there are areas that have become an integral part of today’s society and will not go unnoticed. These include economic life, domestic and foreign policy, finance, the relationship between manager and subordinate, and more.

This article discusses the concepts of “euphemism” and “taboo” in modern French linguistics, as well as the origins of these concepts.

“In French linguistics, four groups are identified as the main areas for the emergence of euphemisms and taboos: [10: 166]

- I. a group of superstitions, sorcery, fear, and religious beliefs;
- II. a group associated with kindness, death, and shyness (shame);
- III. a group of tenderness, kindness, compassion (regret, remorse, repentance) compassion;
- IV. caution, etiquette, foresight, interest group.

I. Taboos related to magic, sorcery, and religious beliefs. This area of taboo stems from the ancient view that there is an ambiguous connection between a word and a person or a word and an object. Accordingly, a noun denoting an object or person is not only a noun but also a part of that object or person.

In ancient times, it was thought that when a name was pronounced, it could be directly related to it. That is why the ancients were very careful when talking about a supernatural being, whether it was good or bad, dangerous or harmless, or when they were talking about scary and wild animals, death and disease.

Humans have been very careful with creatures that are stronger than they are. There is a French proverb that says “quand on parle du loup on en voit la queue”, which means “if you visit a wolf, you will see its ears”.

This is a product of the above view, which has its own version in other languages. Even today, among ordinary people, the word “Dieu” – “God” is used in different variants.

For example,

- le Bon Dieu (The Good God),*
- le Seigneur (The Lord)*
- Notre Seigneur (Our Lord),*
- or in an oriental tone,*
- le Tout-Puissant the All Mighty),*
- le Créateur (Creator),*
- l'Éternel (Absolute Ruler), (The Eternal)*
- le Sauveur (Saviour),*
- l'Etre Suprême (the Supreme Being),*
- le Grand Etre (the Great Being),*
- la Providence (God).*

In many countries, including Italy, Germany, and Poland, the word “Jesus” is a taboo word that has been removed from the list of baptismal names. In France, the word was taboo in the Middle Ages and is used today as an exception.

The feminine name “Marie” is easily used by women in France, and in some countries, especially Spain, the word has its own euphemistic variant [11:45].

In other less developed areas, there are some language taboos associated with saints. In French, the word “saint” is used before the name of a saint as a sign of religiosity, godliness, respect, reverence. Even today, in French linguistics, the words “satan” – “satan”, “sorcière” – “witch” are taboo words and are understood to be harmful to anyone who thinks about them. Even

hunters who go hunting do not pronounce the name of the animal they want to hunt for fear of losing it [12: 156].

II. Taboos related to cheerfulness, death, and shame. The euphemisms used in this group are used in place of words and phrases that are considered obscene. When the French people speak on topics related to death, shyness, shame, they replace the words and expressions with other linguistic synonyms, especially in social relations, for avoiding appearing an unpleasant conversation between the speaker and the listener. They prefer to use euphemistic expressions. Special mention should be made of various agreements, contracts and cooperation. This group includes euphemisms for human body parts, physiological movements, intimacy, and other processes. In the above cases and in other similar cases, expressions that are considered “*indecente*” are replaced by euphemisms. These euphemisms are often used in the modern world. (It is also interesting to find that while the euphemisms of superstition are linked with the less advanced in the progress of civilization, the euphemisms of delicacy and decorum are for the most part born out of modern civilization and that they most often result from the canons which worldly relationships.)

It should be noted that while euphemisms for superstition and superstition are used in a more backward, backward society, most euphemisms for kindness and shyness have emerged in modern society. The roots of this group are based on religious principles. Surprisingly, the peasant who will be afraid of pronouncing the words such as “*diable*” (*devil*), “*loup*” (*wolf*), “*belette*” (*weasel*), and will use words easily and without shy away from the words that are embarrassing for a highly educated person.

III. Taboos related to kindness, gentleness, pity (regret, remorse, repentance) and compassion. The euphemisms in this group are characterized by low tone, softness, and extreme caution. Areas that fall into this category include areas that are deadly, dangerous, or infectious. For example, when talking to a sick person, it may be helpful not to mention the name of the illness or, in compulsory situations, to replace the illness with another, non-verbal pronoun. For example, a person with tuberculosis (*le tuberculeux*) is called

“*enrhumé*” (*runny nose*),
 “*indispose*” (*unhealthy*),
 “*faible*” (*weak*).

It is represented by euphemistic words such as “*pale*” (*pale*), or the disease can be expressed as “*malade des poumons*” (*a patient with lung disease*) for figurative purposes. The phrase “*une personne malade*” is also an ancient euphemistic unit derived from the word “*mal habitus*”, meaning “*bad habits*”. Today, the word is associated with other euphemistic units, including “*faible*” (*weak*),

“*se sent mal*” (*feeling bad*),
 “*indisposé*” (*unhealthy*),
 “*incommode*” (*not quite healthy*),
 “*souffrante*” (*suffering*).

In order to calm the patient or to build his self-confidence, the patient is politely referred to as “*sanatorium*” (especially for tuberculosis patients), rather than a “*hospital*”

“*À la maison repos*” - “*at the rest home*”.

“*l’observation du médecin*” - “*under observation of the doctor*”, and

“*the intervention of the doctor*” will appear to him less threatening and dangerous than the operation which causes worry.

In many cases, words and phrases that have a “strong” effect on the other person are used with a slight softening of the expression. Anyone who wants to avoid the impression of being “rude” or “uncivilized” will try not to say certain words “openly”. A good example of this is a case of some defect, defect or error.

For example, “*sot*” is the word for “*fool*” is replaced by the words

“*sans expérience*” - “*inexperienced*”,
 “*naïf*” - “*simple*” (Latin euphemistic unit “*nativus*”).

It should be noted that euphemisms also change over time. So, a word or phrase that is a euphemism in one period is a taboo word for another. "Bênet", which means today "fool", was formerly an euphemism and meant "benedictus".

IV. Taboos related to prudence, etiquette, foresight, and interest. The taboos in this category are in some ways closely related to the groups listed above. Most of the euphemisms in the group are intended to make a good impression or to convey a good mood to the interlocutor.

So, the euphemistic units in this category are mainly based on the desire to make a good impression, to please the interlocutor, or simply on the basis of tenderness and delicacy.

For example, the French call *a waiter (or waitress)* in a restaurant like

"patron" – "boss",

a police officer (l'agent de police) is called a "commissaire".

For various reasons and circumstances

worker (l'employé) is called "directeur" – "director",

the speaker (le lecteur) or *his assistant (l'assistant)* is called a "professeur" – "professor".

Such euphemisms are especially common between a leader and his subordinates [13:13].

Euphemisms or words that are a sign of elegance, politeness, such as

"Monsieur" – "Mr"

"Vous" – "You",

"Votre Excellence" – "Your Excellency" are used in this direction. [14: 295-367].

To this group also belongs the phenomenon of the raising of incomplete titles to their superior correspondents complete, for example "consul" for "vice-consul", "colonel" for "lieutenant colonel", etc. Sometimes, symbolically, in order to overcome the situation of "upper class", "stratification", "inequality" in social relations, especially to create an atmosphere of sincerity and friendship between the director and his staff, the leader and his employees or adults and young people are used euphemistic units. This group also includes euphemisms based on the speaker's personal interests. The French people also have a desire to express themselves and their actions in the best colors. In this way, they try to hide their shortcomings and emphasize their positive qualities. There are several examples of this process: *the house (maison)* will be called a "villa" or a "palace" (*palais*), *the accommodation (logement)* an "apartment" (*appartement*), *a hairdresser's or a tailor's room* a "salon" (*salon*) or "fashion house" (*maison de mode*), *a shop (boutique)* will receive the noble denomination of a "department store" (*un grand magasin*). In trade, at the market, "beef" becomes "veal" (*du veau*) and "a hen", "a chicken" (*un poulet*), which expresses the tendency to present the goods as younger, and therefore better [15: 111]. They do everything to present the things for sale as excellent and try to captivate and conquer the customer. In turn, the perfect, exemplary presentation of a product encourages and convinces consumers to buy the goods. The client is automatically referred to as "monsieur" – "gentleman" and many other adjectives. The buyer has the right to "order" – "commander", as well as "run money" or "manage money" (*régler la note*) to receive the product in the store. This right is given to him directly by the store staff.

Results. The article deals with the concepts of "euphemism" and "taboo" in modern French linguistics, the history of the formation of these concepts, the areas of their emergence. The views of foreign scholars on the phenomenon of euphemisms are summarized, and the formation features of euphemisms are analyzed. We believe that the results obtained are useful as an important source for the problems of modern French linguistics, especially for specialists working on taboos and euphemisms, students in higher education, masters, senior researchers and independent researchers. The content and results of this article can be used in the teaching of a number of subjects in higher and secondary education, including linguistics, comparative linguistics, literature, history, oral and written practice.

The results of this article can also be used in practical training and special courses, in the creation of textbooks, manuals and programs. The views of scholars on the phenomenon of euphemisms are summarized. We believe that the results obtained are useful as an important resource for specialists in modern French linguistics, including taboo and euphemisms,

undergraduate students, graduate students, senior researchers, and independent research teachers. Introduction to linguistics in higher and secondary special education institutions, comparative linguistics, literature, history, oral and written practice of the countries where the language is studied, language and intercultural communication, foreign experience in learning a foreign language, practical training and the content and results of this dissertation can be used in practice in teaching special courses, creating textbooks, manuals and programs.

Conclusion. In short, in modern French linguistics, as in other European languages, language taboos are defined as words that are “forbidden” or unwelcome, considered inappropriate, harmful, or painful to use. Euphemisms are used to soften the word and “wrap it in paper”. In French, as in other languages, there are an infinite number of “taboo” or “forbidden” and euphemisms. In our article, we have mentioned just a few of them as examples.

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**EXPRESSION OF IMAGES RELATED TO NATIONAL
TRADITIONS IN A.NAVOI'S WORK**

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Abstract:

Background. *It is known that the customs, traditions, material and spiritual riches of the Turkic peoples belong to the great poet A. Thanks to Navoi's sharp intellect and artistic thinking; it has become an immortal property of our spirituality. Therefore, the creative heritage of the great poet is important not only as a work of art, but also as a unique historical and ethnographic source of culture of life of the Turkic peoples, including the Uzbek nation. This article examines the works of Alisher Navoi, depicting the way of life, culture, socio-political, theological and mystical worldview of the Turkic peoples, and even the ancient mythological ideas and some of the customs and rituals associated with them. The traditions of the poet's lyrical, lyre-epic works are an important source for studying the history and spiritual world of the Turkic peoples.*

Methods. *In the article A. In order to clarify the place of folk traditions in Navoi's lyrical heritage, comparative-typological, analytical methods were used.*

Results. *In the works of Alisher Navoi, a special place is given to the depiction and interpretation of plates related to the way of life, culture, socio-political, divine and mystical worldview of the Turkic peoples, and even ancient mythological notions and some customs and rituals associated with them. Such works of art, which are recorded as "ethnographic folklorisms", have played an important role in enhancing the national and realistic spirit of the poet's works, their artistic impact.*

Conclusion. *Navoi's works contain valuable artistic details related to the way of life and customs of the people, which can provide important information in the study of the history of life of the people of that period.*

Keywords: *ethnography, ritual, tradition, love, lover, lyrical hero.*

Introduction The works of the thinker and poet Alisher Navoi are important not only as works of art, but also as a unique historical and ethnographic inscription of the culture of life of the Turkic peoples, including the Uzbek nation. The great poet chooses from the traditions formed among the people as a metaphor for those who lived in his time, and through them creates beautiful images, thus giving the life of the period in realistic lines. In this regard, the well-known Navoi scholar Nathan Mallaev: "Alisher Navoi did not write a special work on the history of the XV century, the customs and traditions of his people. However, if he collects and systematizes the "scattered" facts, information, descriptions in his works, he will create a very valuable historical and ethnographic source. Therefore, the heritage of Navoi is valuable in terms of studying the ethnic development of the Uzbek people " [2,49].

Ethnography is a set of features of the life, culture, customs of one nation or several peoples in the territory [11,456]. While some literary studies have argued that "interpretations of people's lifestyles, rituals, customs, traditional views, and beliefs used in the text of written works should be regarded as" literary ethnographies, "[10,12] the term "ethnographic folklorisms" [1,14] was used. In our opinion, it is better to call literary events "ethnographic folklorisms", which are the motivation of the concepts and traditions of a particular people, or any detail related to them in a particular work of art, the description and interpretation of a particular artistic style. .

A. In Navoi's works there are many examples of cultural and everyday life of the poet. One of them is the custom that in the past the rulers of the state, the emirs, had their own personal seals. Such seals are usually in the form of a ring with an inscription or name written in the Arabic alphabet on its eye. Or the image of something in the eye of the ring. This custom, which had a

tradition in the Middle Ages, meant that letters and orders prepared by officials were to be authentic.

A. In his works, Navoi gives a wide space to the image of rulers, statesmen, in which he skillfully uses the detail of the "official ring" to reveal the status of the hero, his place and position in socio-political life:

There is always a picture to be written in Chun nigin,
Who has seen a letter like a bud in a vegetable [6,327].

In the first verse, the poet is referring to a picture of writing a letter to a ring (nigin) that is present in the people, while in the second verse, he compares the lover's permission to a bud. Sabza, on the other hand, figuratively meant the eyebrows and the eyebrows. The poet further developed his idea and gradually likened the lover's eyebrow to the writing inside the nigin (ring). Of course, the basis of the poet's resemblance goes back to folklore. Recall that in the epic "Ravshan" Ravshan's life changed when he read the name "Zulhumor" in the eye of a ring given to him by his grandmother Yunus, a descendant of fairies. He felt Zulhumor written on his forehead and set off in search of his wound. With a thousand hardships, however, they reach Zulhumor. It is also noteworthy that in his poems, A. Navoi uses the words yor + nigin + in his poems, as if in the epic "Ravshan" about the grandson of the beloved epic hero of the Turkic peoples Gorogly. In general, it is understood that the poet is referring to the religious belief that human destiny is in fact based on the writings of God.

In the nineteenth chapter of the epic "Saddi Iskandariy" on the rightness, the poet emphasizes that the justice of the king is in his rightness, and once again refers to the tradition that the rulers had a written ring. The poet's wisdom in the ring "Truth" - "If you are right, you will be saved" explains in this detail that the king was the motto of the just rule of the whole country:

Nigin birla ul bo`lsa masnadnishin
Anga "Rosti rasti" etsa nigor

The following verse also contains another tradition related to the way of life of the people:

- a) transfer from one place to another;
- b) a word in the sense of narration, story, narration.

The word "will" in the verse indicates that the original meaning of the narration corresponds to the content of the byte. It is still the custom of the people to ask a sick person where he or she will be buried if he or she dies. This custom was also practiced during the Navoi period. The poet sometimes used this habit, which existed among the people, in order to clarify and describe the crisis of the lyrical hero. So, according to the content of the above verse, the lover is afraid of hajj. He asks his mistress to fix it. It is as if the people asked the patient for his will, that is, his last wishes.

It is often the case that Navoi skillfully used the existing traditions of the people to confirm his opinion in giving the status of a lover. We know that in the public, a patient with a serious condition is dripping water with a cotton ball into his mouth. In the following verse it is observed that the poet is referring to this custom. The main purpose of this is to convey the state of love in exaggerated images:

If you find a new soul, your lips will live,
They drip cotton and water into my mouth [6, 368].

In classical literature, the lips of a lover are described as "water animal" - "water of life". The lips of a lover are like a source of life for a lover. In the verse, the lover (patient) finds a new life because of the lover's lips, as in the case of a drop of water with cotton in the mouth of a dying lover.

The following image also refers to the habit of dripping water with a cotton ball into the patient's mouth, which served an artistic function to create an exaggerated image. That is, the lover is mentally ill. The wound in his heart "drank water" from his lover's "cotton stalk". It is like a patient drinking water with fluff.

Illness in the mouth of the patient, cotton paikonidine,
There is a patient who drinks water with fluff [3, 472].

A. The ethno-folklore materials in Navoi's works are very remarkable for their ability to provide detailed information about the worldview, way of life and human relations of the Turkic peoples. In particular, our people have a tradition of respecting the guest, putting everything in front of him, which is one of the most beautiful traditions of the Turkic peoples. The following byte draws attention in the same way:

When I throw it away, let the wool be finished,
That is, I opened the khan in front of the guests on all sides [3, 268].

The word *junun* used in the verse is madness, insanity, trade; finished - spot, mark; board - a piece of felt; hail - group, gang, ball; khan means tablecloth. "Birth board" means "a stain left by burnt felt", while figuratively it means "falling in love" in the heart of a lover. That is, a stain appears in the heart where love falls. And the lover who falls in love with her is happier than that, so she writes a table for the guests.

The following verse also describes one of the customs shown to the guest - giving him gifts:
Why will be the period of drawing a gift to a guest

Thanksgiving is upon us, which means the holiday season is in full swing. [6,32]

It was part of one of Navoi's ghazals. The ghazal describes an event related to the miracles of Muhammad (peace and blessings of Allaah be upon him). It says, "Let's be a host at the right time, dear guest." The poet justifies the honoring of the Noble Messenger of Allah with "his gift" (giving him the status of a prophet) through the "picture of the time" - the custom of giving a gift to a guest.

From time immemorial, our people have a tradition of wearing a tunic at weddings and celebrations as a symbol of gratitude to the relatives and teachers of the host. This tradition continues to this day. The poet skillfully refers to this tradition in the following verse:

Navoi cried and commented like a candle,
He has a ton of true lovers at the lunar feast [3,104.].

She is a lover. Ashiq's (Navoi's) description of his condition with tears is like a candle burning and melting. The lover, who has described his situation truthfully, wants to wear a tunic at his mistress's party. The purpose of wearing a tunic is to attain the favor of the lover.

In the labyrinth, I imprisoned my heart,
Why to hand over a lifeless hand to the dust [3,275]

A beautiful image is created in the byte. The lover, who was burnt in the pilgrimage, equated himself to the earth (*khoki*). He imprisoned himself in the dungeon. The feeling of the soul is equated with the death of a person. We know that in classical literature the soul is glorified, the humanity of man is determined by his possession of the so-called treasure of the soul. The "hibis" of the soul is the death of the body of the lover. In our nation, the dead are buried. A. Through this ritual, Navoi was able to vividly depict the feelings of the lyrical hero.

In Giyosiddin Khandamir's work "Makorim ul-akhlaq" A. There are stories that describe the qualities of Navoi's gentleness and kindness. One of these stories is about a pigeon and the other is about an ant. Khandamir writes: "One winter, when he was serving in the just Sahibkiran Marv, the pink shelter of the greats of the world, while he was serving in his heavenly abode, a musician flew into his tent several times and there was no one to touch him. dried and laid eggs ...

Therefore, the compassion inherent in the nature of the Most High, and the tenderness which is an innate quality in him, demanded that he leave this tent unopened until he opened that musical chick and raised his children. Accordingly, he ordered Hodja Hasan Bakhtiar to keep an eye on the tent and to collect the tent only after the music had been blown away "[12.156].

It is condemned by the people to break the bird's nest and harm it. Even very mild-mannered people are characterized by the quality of "not hurting the music." So, it is no coincidence that Navoi chose the story of music in order to emphasize the quality of kindness and compassion inherent in nature.

A. Navoi skillfully referred to the ancient custom of "not harming the bird" formed on the basis of mythological beliefs of the people in the cult of birds (sponsorship) in the following verse:

What is it like to set fire to my body?
To take a bird without a picture and cut it in half [3,306].

From the interpretation of this life story, it is clear that Hazrat Navoi, who was gentle and kind by nature, was well aware of the traditions of the people based on a religious attitude to the world of birds, and encouraged others not to be indifferent to it.

It is known that a large part of the poetic heritage of the thinker and poet Alisher Navoi is lyrical poems. They often describe the problems of love. In the poems of the poet, it is observed that words and phrases related to the rituals of mourning are often used to express the impossibility of the lover, his depressed mood, his body bent from the pain of love, his crushed heart, his sorrow. This indicates that love is a matter of life and death for the lover. In particular, the 399 th ghazal of the "Favoyid ul-kibar" divan contains the following verses:

Black dust to covered my face,
There is a smoke coming from my head.
I mourn for him,
I have witnessed a dark life.
My eyes are wide, that is, O Navoi,
The king wore a black cloak in mourning [6, 272].

Prose statement: A black handkerchief is wrapped around Mohim's head. Smoke billowed from my head. I am also mourning to be in harmony with him. This is evidenced by my dark life. O Navoi, my eyes were black. The mourning king (eye) wore a black cloak.

In the bytes quoted, the words "dastar, dud, ro`z`gor, ko`z, to`n" came with a black quality. Of these, only the compound "black car" was used in a figurative sense.

Literary scholar I. Hakkulov writes in his article "On the Interpretation of Black Again": "Of course, it is not easy to argue about colors and their symbolic meaning. Because colors are connected not only with the ancient views of a nation about the world around it, socio-cultural life, customs, rituals, literature and art, but also with cosmogonic, mythological, religious and divine concepts and ideas. Also, with the change of people's worldview, living conditions, religious way of life, their attitude to colors, their goals have changed and sometimes completely renewed"[14, 45]. In this article, the scientist discusses the black color A. The essence of Navoi's work is emphasized, and the positive qualities expressed in "black" are highlighted through analysis. Approving the scientific views of the scientist, A. In the above verses of Navoi, it can be noted that the custom of wearing a black cloak during mourning (mourning) served to describe the unpleasant events of this color in the Turkic peoples. The following bytes can also serve as a confirmation of this idea:

Grain smoke is inside black clothes,
It's like mourning for the people of love.
That is , a mad lover,
It is as if the unbelieving human being [6, 26].

The connection of black to the mourning ceremony and the custom of wearing black in mourning can also be seen in the following verse:

The middle butterfly, O candle, then what hang,
Crying black mourning handkerchief [5. 249].

Meaning: O candle, what is the use of burning a propeller? It is as if the people were dressed in black in mourning, mourning and mourning.

In the byte, A. Navoi sought to depict the burning of a lover like a butterfly at work by illustrating the custom of the people wearing black in mourning and weeping.

Along with traditional images and images, A. Navoi's lyrical heritage includes Navoi's specific "findings". This, of course, testifies to the great poet's artistic taste and high skill. In such images, A. Navoi appeals more to the traditions of the people. Including:

To the living is the letter of love in me, my friend,
If I die, my mother will die on the stone of my grave [3, 343].

Meaning: O wife, while I am alive, the letter of love is within me. If I die, write it on my tombstone.

We know that Turkic peoples have a custom of placing a stone on the grave of a deceased person. The poet quotes this custom in the above verse for confirmation of thought. The following continent of the poet also mentions the custom of placing stones on the tomb:

Shaho, you killed the ore,
Javohir's greed is exposed.
Chu is dead, what a hanging, shed mother
A small stone on the tomb [3,636].

In this continent, where the moral-didactic idea was put forward, the idea that the king should be just was put forward. What is the use of placing a stone on his tomb after the death of the king who took the life of the people in the lust of jewels, - says the poet.

Our people have a habit of rushing to share the good news with their loved ones, and this is still the case today. Gifts were given to the bearer of the good news. This is called joy. The reference to this tradition also served as an artistic expression of the ideological intention of some of A. Navoi's verses.

Wow, what a day it will be when he disappears from the journey,
Wanting is my joy, if it is news from every side [6,122].

Any tradition is formed over the centuries and manifests itself as a reflection of the social, spiritual, religious worldview of the people. Their emergence depends on the fate of the whole nation.

It is known that in the oral and written literature of all nations, an artistic and aesthetic attitude to certain events is expressed through various objects. In particular, mirrors, fountains, trees, hair, carpets, etc. are often depicted in folk tales, as well as in classical and modern Uzbek literature.

It should be noted that the emergence of various traditions associated with a single mirror is based on science, which is closely related with the ancient religious beliefs of the peoples of Central Asia. As a result, the epic motifs that emerged in folklore were introduced into written literature, including classical literature.

In primitive times, people regarded the return of light in a mirror as an abnormal phenomenon. That is why those who treat the mirror as something mysterious and sacred. This led to the formation of various views on it among the people.

Hence, according to primitive notions, a mirror is not only an object that reflects the human reflection, but also an expression of the human spirit in the mirror. In addition, as a result of the view of the mirror as a magical object that gives light, happiness, joy, various traditions have emerged in many nations. In particular, in Turkic peoples, the custom of the bride and groom looking in the same mirror at a wedding is still alive today [9,30]. It is meant to add the spirit of the bride and groom.

In the lyrical heritage of the great thinker, the mirror is depicted in various goals and tasks. In particular, the mirror is a being, the universe (the mirror of the wheel), the perfect human heart, the soul, the love (the mirror of May), the sky, the sun, the face, the make-up, the means of exposing lies. There are such verses in the poet's legacy that the traditions associated with the mirror have found their artistic expression. It is known that among the people, a mirror was placed in the mouth to determine whether a dying person was breathing or not, whether he was dead or not [13,106]. If the surface of the mirror is sweating, it is clear that the person is breathing, and if he is not sweating, it means that he has stopped breathing and is dying. The fact that the great poet A. Navoi created beautiful artistic images by pointing to this tradition, which exists among the people, can be confirmed by the example of the bytes analyzed below:

Сипехри ойнагун гар дамимдин ўлди қоронғу,
Асар йўқ эмди дамимдин қўюлса оғзима кўзгу [5, 368].

"The clear sky was darker than my breath," he said. If a mirror is placed in my mouth, it is known that there is no trace of my breathing. "The words mirror and reflection are used in this verse. In fact, these two words are synonymous. In his verse, Navoi equated the clarity of the mirror with the clarity of the sky and used it

As a metaphor.

On this basis, it is said that the lover's breath of the rose from the ground to the sky, and his shield made the moon dark - the sky dark. The word "rest" in the second byte is used to mean breath. If the mirror is placed in the mouth of the lover, then there is no trace of breathing. While the poet described the mental state of the lover in such an exaggerated way, the tradition that existed among the people served as an artistic means for the realization of his purpose.

In short, the purpose of Hazrat Navoi's appeal to the national traditions of the great historical period is, on the one hand, to promote the imitation of them, and, on the other hand, to vividly depict the mental state of the lyrical hero. In this way he was able to express his socio-philosophical, divine-mystical, didactic views in an artistically impressive way.

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SAIKALI'S EPIC "BAKHROM AND GULANDOM" AND THE FOLK TALES

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Abstract:

Background. This article is devoted to the study of the wealth of "Bakhrom and Gulandom" and folk traditions of the Uzbek poet Saikali, who lived in the XVIII century. Saikali is considered one of the poets that have a special place in the history of Uzbek literature. It is especially difficult to imagine his work without the genre of the poem. Among the extant literary heritage of the poet, the poem "Bahrom and Gulandom" stands out. "Bahrom and Gulandom" - a romantic poem love. The plot of the poem tells about the love of Bakhrom to Gulandom, about events based on the image of Gulandom's love Bakhrom. Some of the events in the story are characterized by episodes of Uzbek folk tales. The special relevance of the problem is determined by the effective use of oral folk art, in particular, in fairy tales, advanced traditions.

Methods. Despite the fact that the issue of the poem "BaKhrom and Gulandom" and folk tales was covered by a comparative method, the methods of psychoanalytic, structural, and historical-typological analysis were also used in its way.

Results. The question of the influence of advanced traditions of oral folk art on written literature is considered as a natural phenomenon. Because in all the works of art created by creators who lived in the past, you can observe folk achievements. This tradition continues successfully in the fairy tale "fringe and garland" polished. In particular, in the image of fringe,

the main character of the poem, there are features inherent in the heroes of some Uzbek folk tales. This ensures that he acts as a folk hero. In addition, the poem "Bakhrom and Gulandom" brings us closer to the examples of oral folk art, in which nobility always prevails, the main character experiences interesting adventures, patiently overcomes difficulties and achieves his dreams.

Conclusion. *Saikali, with the character Bakhrom, is considered a poet who made a worthy contribution to the development of Uzbek writing in the XVIII century. He worked enthusiastically to develop this theme, following the existing traditions in the Eastern literature that preceded him, and as a result created the poem "Bakhrom and Gulandom". This image, originally found in the works of Firdavsi, was later widely used in the poem "Khamasa". The composition of the poem "Bakhrom and Gulandom" by G. Saikali traces a number of features inherent in samples of oral folk art, especially folk tales. An especially important role in the plot of Epic is played by an adventure game in which endless possibilities of enjoyment, the sole submission of the giants led by Saifur, supernatural actions in overcoming the giant, heroism in defeating the enemies who invaded the Land of China, ensure harmony between the epic "Bakhrom and Gulandom" and works of folklore.*

Keywords: *fairy tale, epic, image, motive, idea, plot, tradition, experience, detail, folklore, written literature, fairy tale composition, epic composition, mythical power, supernatural phenomenon.*

Introduction. Samples of oral and written literature of different genres associated with the plot of Bakhrom Gor have a unique tradition in Uzbek literature. Although a lot of exemplary works have been done in the world of science on the genesis, variants and distribution of events associated with the image of Bakhrom, and their comparative study, the epic of Saikali "Bakhrom and Gulandom" has not been sufficiently studied from the point of view of folklore traditions. It is obvious that the poet tried to get acquainted with the samples of folklore, to include his advanced experience and traditions in the essence of "Bakhrom and Gulandom". In particular, the epic has a number of features of Uzbek folk tales, which does not complicate the knowledge of the poet's achievements in oral literature.

Materials and methods. The epos of Saikali "Bakhrom and Gulandom" begins with the motive so-called childlessness, which is widespread in folklore. There was a king of the Greek land. He was a very wise, intelligent, calculating man, respected by the people, and had no children, despite countless wealth and treasures:

*Бор эрди подшоҳи кишвари Рум,
Ажаб оқилу доно, хуш такалум.
Кўп эрди мол ашёси жаҳонда,
Хазиналар қўйиб эрди ниҳонда.
Бериб эрди анга эзид Худованд,
Ки иззу, жоҳу нусрат гайри фарзанд [5.21].*

The childlessness of the king is also characteristic of many folk tales. In particular, the tale "The Black-Haired Fairy" begins with the following message: "Once upon a time, there was a king in the land of Damascus. Despite the fact that he has a lot of money, he is always sad because he has no children." Apparently, the childlessness and constant sadness of the king, as well as his innumerable wealth, bring these two works together.

The motive of the king's infertility can be found in such fairy tales as "Yaltillama Ceramic Plate", "Mysterious Dream", "Rustam", "Sherzod and Gulshod", "Khasan and Khusan", "Mohistara", "Ali", Shepherd", "Clean Face". However, they differ depending on the different actions of the ruler regarding the birth of children. For example, in such tales as "Rustam", "Mysterious Dream", "Yaltillam Ceramic Plate", "Sherzod and Gulshod", if the king decides to marry again voluntarily or due to the advice of others to have children, "Khasan and Khusan", "Shepherd" In the fairy tales "Ali", "Mohistara", "Clean Face", a child is born as a result of a long wait of the king.

Saikali, as in fairy tales, pays special attention to the fact that the king has children. According to legend, the king every day asked God for a child, gave alms to the poor and helped those in need. At the age of forty, God gave him a child, which made him happy:

*Агарчи дунёлигдин эрди бе гам,
Тилоди Тангридин фарзанд дамо-дам.
Фақирларга қилурди хайру эҳсон,
Қилиб фарзанд учун жонини қурбон.
Бу орзу бирла ёши қирқда етти,
Билохир, Тангрим анга раҳм қилди.
Ато қилди анга бир олий фарзанд,
Кўруб фарзандини кўб бўлди хурсанд [5.21].*

Hence the long wait and patience bring the ruler closer to the image of kings in the above mentioned second group of folk tales. In general, the motive of infertility in fairy tales is not limited with the image of the king. Observing Uzbek folk tales shows that this motive embraces different categories of people. Among them there are images as an old woman and a wealthy vassal who play the leading role. They differ only by their birth circumstances. For example, in the story "Sokhibjon and Akhmadjan," an old man and his wife pray to God for having a baby and achieve their goals. According to the story of the "Gray Boy", on the way to the birth of child, there had not left any graves, any saints to pray for the rich man. In the story "If he laughs - a flower, if he cries - a pearl", the saint Khizr approached the old man and gave him a red apple. Half of the red apple was eaten by the old man himself and half by his wife. After a while, they had a baby girl.

According to the epic "Bakhrom and Gulandom", the king was overjoyed after he had a child, had conducted weddings, gave gifts and was jubilant. He named his son Bakhrom. He sent him, to school when he turned 6, and the prince also began to practice becoming a property owner at the age 12. When the ruler Bakhrom was 18 years old, he called the inhabitants of the palace and invited his son to sit on the throne. But the prince did not want to rule the country at this age:

*Деди: "Эй шахрёри номдори,
Азиз жоним қадам хокинг нисори.
Ҳаётинг борича сан шоҳ бўлгил,
Улу рутба Фаридун жоҳ бўлгил.
Ки гул гашти чаман фасли баҳори
Бўлубтур рўйи сахро лолазори.
Ки акнун давлатингдин бўлса рухсат,
Чиқиб сайри шикор этсам бу фурсат" [2.24].*

When narrating fictional events, Saikali describes examples of folklore, in particular, the hunt of the main hero, which is often observed in fairy tales, and interesting events taking place during the hunt. Hunting is a unique tool in fiction. Subsequent changes in the life of the heroes are also occurs through hunting. For example, in the fairy tale "Sherzod and Gulshod" there is a description of hunting events. They say that once the king went hunting with his army. During the hunt, a lion came out of the grove. They wanted to keep him alive. The lion hunting episode also occurs in the epic "Bakhrom and Gulandom". While prince Bahrom was hunting with his warriors, they encounter a huge lion. Bahrom then orders his warriors to defeat the lion in a one-on-one battle. But no one dared to do this. After that, the prince himself fought with the lion:

*Қўториб шер ул дам икки илкин,
Ўзин шаҳ устига ташлади ул ҳин.
Ки шаҳ ҳам бўлди ерга рад берибон,
Ўтуб кетга анда шери гуррон.
Югуриб кейнидин шаҳзода ул дам,
Солиб қўл қуйруғидин тутди маҳкам.
Қўториб бошига ердин ким они
Анга Рустамлигу соҳибқирони.
Ўгуриб бошидин бир неча навбат,*

*Ки чулғаб ерга урди бо сиёсат.
Ки синди зарбидин шер устихони,
Бўлубон майда-майда, чиқти жони [2.26].*

Obviously, the unnatural behavior of the main hero in the fight against the lion also reflects the peculiarities of folklore. The fact that Bakhrom's such legendary power reminds us some features of the main characters of fairy tales and epics. In particular, the main hero of the fairy tale "Mokhistar" prince Shavkat goes hunting with the warriors, on the fourth day of the hunt, while hunting geese with shooters, he came across with a magnificent deer. The deer's four-legged hooves are also made of pearls, with two to eight gold rings on each leg, and two antlers are engraved with patterns of gold, silver, pearls and diamonds. The prince wanted to catch the deer alive. The soldiers warriors the deer and slowly narrowed the circle. In the end, when the circle became smaller and closer to the deer, the deer jumped on the horse of prince Shavkat, and had another jump, this time it jumped out of line and ran towards the mountain. The prince could not capture the deer, ashamed of this he went on to catch it with his horse. The story of the pursued animal running past the main character is also found in the fairy tale "Sherzod and Gulshod". King Khurshod himself, together with his troops, grabbed one end of the rope and began to catch the lion. "The troops took over and captured the lion". Not knowing what to do in the middle, the poor lion ran in panic, grabbed one end of the rope, knocked the king down and fled. "King Khurshod, "I will punish you if you run away" said to his troop in an extreme anger and got on a horse then chased a lion, not knowing what to do".

The main hero of the Saikali's epic "Bakhrom and Gulandom" - Bakhrom sends a lion as a gift to his father after defeating, and he continues hunting:

*Ов устида юрурди шахзода,
Йўлуқти бир кийик ул чўл орода.
Кўрар шахзодаким, бир турфа оҳу
Паридин ишвали кўзлари жоду.
Ани кўруб унутди ўзга овни,
"Тирик ушлай", - дебонким қувди они [2. 27].*

The deer runs away, the prince chases. Meanwhile, the army also gets lost and loses the prince. It is late night, and Prince Bahrom does not even know where he is:

*Таажжуб жой эдиким, ваҳми бисёр,
Ки одам наслидин ўзга ҳама бор.
Эди бир ёни дарёи муаззам,
Яна бир ёни бир кўҳ баланд ҳам.
Ғолоғулар келурди ҳар саридин,
Хуфилу, бабру, карку, дев паридин.
Эшитиб шоҳким таҳсин этарди,
Кўзидин уйқуси кўчиб кетарди [2. 28-29].*

This episode is very similar to the following characters in the Mokhistara tale. According to the tale, Prince Shavkat searches a deer in the forest and cannot find. It gets dark. He leaves his horse to graze and goes to bed. The prince's eyes just opened and he was awakened by a frightened voice. "When he woke up, all kinds of terrible sounds came from all sides; In this forest there were all kinds of animals that hunted and screamed everywhere at night. Shavkat's ears the voices heard of bears, lions, tigers and wolves. Then a dream escaped from Shavkat's eyes, and he climbed to the top of a large tree, as they say, "beware of trouble," and his horse remained below.

Apparently, the image of a lion hunt unites the fairy tale "Sherzod and Gulshod" and the epic "Bakhrom and Gulandom". In both tales, the main heroes pursue animals they are supposed to hunt out of shame.

Since fairy tales are a relatively small and compact genre, they are often limited to one episode of the capturing the animal in describing a hunting situation. In the epic, the hunting process is given in more detail. For example, after hunting a lion, he goes on a deer hunt, which also

plays a special role in the epic. If Bakhrom's lion hunting process is looked through, there we can see that a deer hunt became a trigger for new adventures.

After a frightening night, Bakhrom spent a week looking for a deer. On the eighth day he reached the mountain. There were many beautiful orchards in the mountains, nightingales roamed the fields, sang various fruits, and the surroundings were beautiful. While watching, Bakhrom approached the dome. He dismounted and entered in. In the middle there was a throne:

*Ки ул тахт устига бир қизни кўрди,
Юзи гул лаблари қирмизни кўрди.
Қайилгон қошлари, кўзлар чу бодом,
Анга боқти ва ҳайрон бўлди Баҳром.
Яқинлаб борди анга сўз қотай деб,
Агар уйқуда бўлса уйғотай деб.
Кўрарким, жони йўқ сурат эрур ул,
Агарчи сурат ул, олдирди кўнгул [3. 29-30].*

The motive of distant love through photography is one of the most frequent occurrences in oral literature. The sculptor continues to use the photo detail in the epic to launch the main hero on new adventures. In this he is again helped by the traditions of oral creativity. In particular, the photo detail in the Mokhistara fairy tale fulfills a similar function. The main character of the tale, Prince Shavkat, falls in love with Mokhistara through the picture and sets off on a long and difficult journey in search for her. In the story "Poor Girl", the prince's wife shows her husband an image of a girl on a piece of paper from a box. When the prince saw the beautiful girl in the painting, his love for her became unstable. In Uzbek folk tales, it is incorrect to say that the motive of distant love is manifested only through a picture. In particular, this can be seen in the tale "Khasan and Khusan". The main character of the tale, Khasan, saw people running in panic on one of the streets of Bukhara. The old woman said that the reason is as follows:

"The Bukhara Khan Usmonkhan has a beautiful daughter named Mokhinbonu. She goes to bath once a week with a guard on a decorated camel. Despite the fact that her face was covered with seven veils, whoever looked at her, the khan said: "Why are you looking at my daughter with non-Makhram eyes?" he orders this person to die. That's why people run away. "Hearing this, Khasan fell in love without seeing Mokhinbona. He didn't eat and lost weight in a few days, like a patient who had been ill for several months. Apparently, this event took its rightful place in the composition of folk tales and epics as an integral part of folklore samples.

Determining who the girl in the photo is becomes the most important task for Bakhrom. Surprised and not knowing where he was going, an old man approached him. During a conversation with the old man, the prince discovers that the girl in the picture is Gulandom, the daughter of Chin Khakan. In the fairy tale "Mokhistara" Prince Shavkat learns the identity of the girl in the photo from the old man. Consequently, the image of the old man performs the same function in both the fairy tale and the epic.

Prince Bahrom set off on a long journey with the desire to catch up Princess Gulandom. Walking along the road, he worked hard and in less than a month came across with a beautiful castle. The palace belonged to a giant named Saifur. Saifur and his five brothers went hunting, Sarvozo his sister remained at the castle.

Saikali portrays Bakhrom as more powerful in his struggle against Saifur and his brothers. He alone defeats Saifur and his brothers. Returning from the hunt, Saifur knows that a stranger is in the castle, and sends his brother Shammos to catch him. The process of defeating Shammos and hanging him on tree shows even more clearly how strong Bakhrom is:

*Ҳавола айлади шаҳ сори ул дам,
Туруб Баҳром еридин мисли Рустам.
Ҳавода ушлади илкидин они,
Суғуриб олди ва отти равони.
Яна қайтиб гирибонидин ушлаб,
Кўтариб урди отдин ерга тўлғоб.*

*Ки қўлу бўйинини боғлаб ўшал дам,
Хўраб-чирмаб дарахтга қўйди маҳкам [3.46].*

This situation is repeated in the process of fighting the later brothers of Saifur Kammos and Hartos. Each combat episode reveals a different aspect of Bakhrom's power.

When his brothers do not return, Saifur sends his sister Sarvoso after them. His sister is surprised to see her brothers. When he hears about that from Sarvoso, he gets angry and rides a horse in a rage to see personally the condition of his brothers and punish Bakhrom. But Saifur is also helpless before Bakhrom. Seeing him, the prince with great zeal enters to the battle:

*Чу қайнаб гайрати шоҳ зўр қилди,
Дебон бу сак мани қўп хўр қилди.
Урай деб ерга они кўрди чоқлаб,
Қулочи етмас ул олса қучоқлаб.
Ўзатса гарданига бўйи етмас,
Ки шаҳзод эрди андин етти газ наст.
Ки охир энкайиб лангидин олиб,
Ҳаво берди юқори шоҳ голиб.
Кўториб бошидин уч чарх ўгурди,
Миноридек қилибон ерга урди [3.50].*

After that, Saifur also fell into the state of his brothers and was hanged by Bakhrom. Such anomaly of Bakhrom is represented in the characters of heroes of some other fairy-tale. In particular, such supernatural phenomena is observed in Kahramon, main hero of the fairy tale named "Hero". Even the giants are helpless before his power. The process of the hero's battle with an unknown giant who attacked the land of Zabunshah can serve as confirmation of our opinion. Leaping to defeat the unknown giant, Kahramon released twelve giants led by the giant Sanggi, who was originally captured and imprisoned by his grandfather Sakwon Pakhlavon. Then he was accompanied by twelve giants, they went to the city where Zabunshah lived. The hero ordered the giants to roar from all sides of the city and capture the unknown giant alive. "The giants attacked from twelve sides and entered the city. The hero raised the large iron gates of the city, threw them down, and entered the city with a scream. This abnormality of the main hero is not limited to the depiction of just this episode. It is even surprising that he has the ability to fight for several days without a break. The following images of the battle demonstrate the same features: "An unknown giant heard these screams and immediately approached the giants. He began to fight them. After a long battle, he finally wounded eleven giants. The only giant Sangga not injured. While the unknown giant was fighting the giant Sanggi, a Hero appeared. When the unknown giant heard the Hero's voice, Sanggi stopped fighting the giant and attacked him. The two were fighting. The fight is not over. Then they spearing with each other. Again, the battle was not one-sided. Thus, he did not rest for seven days and seven nights, but fought and finally came to fencing. At the end of the battle, the Hero's sword broke the right arm of the unknown giant. The unknown giant, seeing that he could not get rid of the hero, unfortunately, immediately disappeared.

In the process of fighting Bakhrom with a shark, Saikali also tries once again to portray his legendary power. The prince, who saw the shark like a mountain with the mouth opened like a cave, and pouring water in all directions, took a bow and shoot targeting the eyes. The bullet hits the shark's right eye and exits through the tail. The second bullet blinds its left eye:

*Наҳангни кўзлари чун кўр бўлди,
У дарё ичра турфа шўр бўлди.
Ярим белдин бошини сувга солиб,
Дами бирлан сочарди сувни олиб.
Бўлак-бўлак бўлиб сувлар чу гумбаз,
Чиқар эрди ҳавога икки юз газ [5.65].*

Then he gets into the sailor's boat, draws his sword from the side, first splits the shark in two, and then breaks it apart and steps on board.

Traders watching the battle with Shark also amazed. They take turns coming to Bakhrom and praising him. Admiring the strength of the prince, they did not believe that humankind might be so great:

*Мунунгдек баҳраро тоғдек наҳангни,
Бу шаҳбозлик била ўлдирдинг они.
Эшитса ҳар диёру ҳар диловар,
Инониб қилмагай бу ишга бовар.
Агар чандки биз ҳозир кўрубмиз,
Сифотингни билолмай ҳам турубмиз [5.66].*

This abnormality of Bakhrom did not end there. He also showed himself in a bell battle led by Behzod who was invading the Chin.

After Bekhzod and his army were killed, the army led by Noshad comes to Chin to take his blood. Noshad invited Bakhrom to a one-on-one battle. The war began, and from the very beginning of the battle, the supernatural power of Bakhrom was seen again:

*Борурди от шамоли бирла Нўшод,
Солиб тигин, олиб гурзини шаҳзод.
Деди: - Эй паҳлавон, бу ҳамлани ол,
Тутуб қалқон деди Нўшод: - Сен ҳам сол.
Чунонча урдиким, шаҳзода Баҳром,
Йиқилди шаҳр Чиндин бир неча том.
Шароралар учти қалқондин баҳар ён,
Магар тахти фалак бўлди чарогон [5.177].*

The collapse of several houses in the city due to the impact of the Bakhrom's sword shaped weapon and the lightening of the sky from fire caused by the collision of the shield and weapon are indeed phenomena that distinguishes the supernatural power.

The wool is different in that it plays a special role in Uzbek folk tales. In some fairy tales, different animals or creatures give their fur to the heroes of the fairy tale and teach them how to use when they have difficulties. If this fur is burned, they will immediately come to the rescue. This phenomenon is common in Uzbek folk tales. For example, in the fairy tale "Erkajon" it is said that Erkajon's stepmother tortured him and tried to kill his favorite horse. Then Erkajon begged the butcher and received permission to sit on his horse for the last time. He saddled the horse, adorned it with accessories, and as he rode, the horse flew out to the sky and landed in a distant place. Then he said to Erkajon: "Your stepmother first wanted to kill me, and then you". "You're out of danger now. When you need my help, if you burn one of these manes, I'll be there soon" and disappeared. It is evident that in the course of the fairy tale Erkajon might need for services of horse. Erkajon, who was later the king's youngest bridegroom, decided to go to bird hunting, as other two older fiancés. Everyone laughed as he left town on a lame horse. "The young man left the city and burned the mane of the horse. The horse came quickly. " Then he returned, doing what two older grooms could not do with their horses. Until the end of the fairy tale, Erkajon once again uses the services of a horse. In this, he also necessarily finds a horse by, burning its mane.

Using the help of horse by burning its mane is also given in the tale "The Bequest of Father A little boy, who is one of the heroes of the tale, does this job. Before his death, the father summoned his sons and invited them to secure his grave for three days after his death. The elder and middle son did not agree, and the younger agreed to fulfill the will. "The youngest son was securing father's grave after his death. At midnight a white horse came down from the sky with weapons and clothes and walked around the grave three times. At that moment the boy woke up and grabbed the horse.

The child on the horse: "Why did you walk around the grave three times?" he asked.

White horse: "I followed your father's orders when he was alive, and now I'm going to visit your father's grave," he said, and as he left, he pulled the mane out of his neck and handed it to the boy. "When something bad happens to you, if you burn this, I'll be there."

The same thing happened in the following days. The next day a black horse came and circled the grave three times, giving a little boy the mane. On the third day, a big horse landed from heaven to visit his father's grave, and it also took off a piece of mane and left it to the child.

The king of the country fired a forty-step shot onto the porch and built his daughter's porch on top of the shrine where the brothers lived. Then everyone, whether on a horse, on a donkey or on a camel, took a bowl of water from his daughter's hand, took an engagement ring from her hand and announced that he would arrange a wedding for forty days, sharing palov to people of the country and let his daughter get marry him. The furs were still burning from the horses. With the help of these horses, the little boy, who fulfilled the requirement, married the king's daughter and achieved his goal.

In the epic "Bakhrom and Gulandom" there is a case similar to that where the mane is burned and someone is coming to rescue. Saikali skillfully uses this phenomenon in his work. Bakhrom after arriving to Chin decides to fight against Bekhzod who invaded the place and thinks about calling Saifur and his army. When Saifur's brother Shammos said goodbye to Bakhrom, he gave him a few strings of his hair and said: "If we need you, we will come to you immediately if you throw this into the fire."

*Қўшундин айрилиб қолди кейинга,
Бор эрди чунки Шаммос мўйи анда.
Видо айларда ул Шаммос оқил,
Бериб эрди сочидин бир неча қил.
Доб эрди: - Эй шаҳо, зинҳор-зинҳор,
Ки биз ҳам ҳар вақтки бўлсоқ сизга даркор.
Олиб бир тора мўни ўтқа солинг,
Ўшал дам биз сиза этиб боролинг [5.71].*

Then Bakhrom struck a lightning stone, lit a fire and throw a string of hair that Shammos gave him. Immediately keeping his promise, Shammos arrived. Prince Bakhrom ordered Shammos to come with Saifur's army. Shammos immediately turned and handed the task over to his brother. Saifur gathered an army and immediately approached Bakhrom.

Bakhrom also uses Shammos string for the second time in the epic. When the Chinese ruler met and spoke to the prince, he asked him how he defeated Behzod and his army. During the conversation, the prince says that there is another army led by Saifur. The ruler starts to get interested in him. Then Bakhrom grabs the string and calls Shammos.

It looks like Prince Saikali is making good use of the achievements of folk tales to achieve Prince Bakhrom's goal. This is one more proof of the influence of oral literary traditions on the epic "Bakhrom and Gulandom".

Results and discussion. Fairy tales are one of the most widespread and popular genres of oral literature. The main hero of the fairy tale follows the path of a noble goal, overcomes many obstacles on the way to achieving it, withstands various tests and finally reaches his dream. Such feature of Uzbek folk tales can be traced in the epic "Bakhrom and Gulandom" and in the image of its main hero Bakhrom, a young man is faithful to his love. He can find his happiness only when he reaches Gulandom. That is why he patiently tries to wake Princess Gulandom's trust up and achieve her love. Along the way, he endures all kinds of adversity, leaving property and even he relinquish being prince and choose uneasy path like being wanderer. Love enriches Bakhrom spiritually, deepens his love for his parents and country, and for even a moment he never forget about the Roman country and his relatives. It is no exaggeration to say that the composition of the epic "Bakhrom and Gulandom" has successfully absorbed such features like the end of good deeds in fairy tales, the victory of positive forces in the struggle between the forces of good and evil, the fulfillment of the dreams of the main characters and a happy life.

Conclusion. The image of Bakhrom has a unique path of formation and development in the Eastern literature. This image, which first appeared in "Shokhnoma", was later developed in the epics of "Khamsa". After Firdavsi, great poets such as Nizami Ganjavi, Khusrav Dekhlavi and Alisher Navoi made a great contribution to the development of the image of Bakhrom in written

literature. The epic of Saikali "Bakhrom and Gulandom" - "... another characteristic feature of the plot lies is that - the end of the story is not as tragic as in " Khamsa", but in an optimistic spirit." This feature in the epic once again resembles folk tales. Prince Bakhrom, like the main characters of fairy tales, achieves his goals and objectives. Organize weddings ceremonies, and marries to the princess Gulandom.

It seems that the traditions of folklore and its achievements played an important role in the creation of the epic "Bakhrom and Gulandom". The proper place of the adventures in the plot of the epic, the limitless power of the main hero, defeating the giants led by Saifur, defeating the shark alone, the magnificent power to defeat the bell warriors led by Bekhzod and Navshod and other heroic actions makes the epic Bakhrom and Gulandom close to the genre folklore. Especially in the image of Bakhrom, Saikali effectively uses the features of the heroes of folklore, which testifies the poet's unique abilities and knowledge of oral literature.

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MICRO-CHRONOTOP FEATURES IN THE NOVELS “THE DAY LASTS MORE THAN A HUNDRED YEARS” AND “DOOMSDAY”

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Abstract:

Background. *In the world literature, the chronotope is interpreted as a compositional element that reflects the sequence and intensity of events, describes the images and affects the author's vision on the structure, view, perception of the world. In the next hundred years of development of the world scientific-theoretical thinking, the chronotope is accepted as one of the poetic means of depiction of existence and a literary phenomenon based on the writer's creative intent and ideological concept of the work.*

The aim of the research work. The purpose of the study is to generalize the scientific-analytical and theoretical examples of parallel chronotope forms on the examples of Chingiz Aitmatov's novels.

The object of the research work. The objects of research are the novels of the famous Kyrgyz writer Chingiz Aitmatov “The Day Lasts More than a Hundred Years” and “Doomsday”. The article uses the methods of comparative-typological, biographical, psychological analysis.

Methods of the research. *Methods of comparative-typological, biographic, psychological analysis have been used.*

Results and considerations. *The chronotope provides an opportunity to comprehensively perceive the landscape of the literary world created by the author as the object and subject of the work. The microcosm reflects the changes in the spiritual world of the protagonist, the conflict that arises between the relationship between human being and his/her “I”. One of the tasks of modern literature is to analyze the vital facts of artistic epic in modern novels, events in the context of individuality and comparative-typological generalization on the examples of the works by the writers who lived in one place and one time, one place, different time, different places.*

Conclusion. *In the conclusion and comments section, the theoretical features of the chronotope, the parallel expression of the microchronotope were studied on the basis of the laws of the novel genre. The research concluded that the resurrection in the society and in the human heart is the essence of the work as a philosophical prediction of the writer.*

Keywords: *chronotope, micro-world chronotope, macro-world chronotope, parallel time, amebey composition, motif, plot line, compositional construction, Chingiz Aitmatov, novel, writer's style, psyche interpretation.*

Introduction. The deep creative mastery of chronotope, which organizes the structure, plot and composition of the work of art, forms the field of epic text, ensures the perception of artistic reality in its entirety, and requires a unique approach to understanding the aesthetic nature of the creation. After all, while the chronotope covers all the elements of the work, the series of events, the moods of the protagonists can not be shown without their images. "In the late twentieth and early twenty-first centuries, a theoretical, practical and general approach to the literary-aesthetic phenomenon of chronotope emerged in literary criticism:

1. The theoretical approach explores the understanding of the essence of the category of time and space, its importance, role, specific aspects of its functions in the work of art.

2. In the practical approach, the theory of chronotope is studied on the examples of the work by a particular writer.

3. In the general approach, time and space are analyzed in conjunction with all the components of the work, the criteria and rhythms of art"(26).

Since the chronotope is seen in the novels "The Day Lasts More than a Hundred Years" and "Doomsday" in the context of the semantic-structural relationship of poetic components such as plot, composition, motif, image, detail, style, relied on a general approach based on the theory by A.Temirbolat.

Scientists interpret human development and its existence on the basis of three stages: the mega-world, the macro-world, and the micro-world. Each of these is characterized by its own dimensions of time and space.

The first is that space consists of our planet. It incorporates the temporal and spatial motions of galaxies, celestial systems and luminaries.

The second is related to human life on earth. Time and space cover the events that take place in people's real lives.

The third represents the inner world of human. At this stage, the chronotope category serves to characterize the flow of one's emotions and thoughts (25).

All three phases are common, and changes in the mega-world affect macro and micro-world. In mystical literature, the human body is likened to the space. Human is the universe: small world and big world (36).

Сувратингда – олами асғар ўзинг,
Маъни ичра олами акбар ўзинг (24).
(In your picture – the small world is you,
In the meaning, the great world is you.)

Research methods. The article uses the methods of comparative-typological, biographical, psychological analysis.

Problem development status. This literary problem was studied theoretically in Europe [A.James, W.Heffernan (14); M. Vukanovichand, L. Grmusha (10); N.Bemong, P.Borghart (8); J.Culler (9); M.Atkins (4)], Russia (M.Bakhtin (5, 6); D.Likhachev (18); N.Gey (11); N.Shutaya (34); Z.Turaeva (28); E.Meletinskiy (19); V.Khalizev (31)] and in Uzbekistan [N.Shodiev (32, 33); H.Boltaboev (7), B.Karimov (17); E.Abutalieva (1); A.Tuychiev (27); A.Nosirov (21); U.Jurakulov (16); M.Umarova (30); U.Karshibaeva (35); U.Nazarov (20)].

Results and considerations. Mega-world, macro-world and micro-world used side by side in Chingiz Aitmatov's novels. He was able to describe the spiritual experiences of human being, who is a small universe within the universe, on the scale of the mind, society, and the universe.

The author chose pre-post events of the Second World War as the theme of "The Day Lasts More than a Hundred Years"; described the stories in the hero's past based on the method of retrospection; combined the motives of love, betrayal, separation, death, loss; described the war crimes of fascism and the horrors of repression in a holistic time-space. In the novel, the literary

time is pre-post Second World War period, and the literary space is different regions of Uzbekistan and Kazakhstan.

Just as any distance is measured by the Greenwich meridian, in the novel the distance is measured by railway and the author pointed out eleven times “In these regions the trains run from east to west, from west to east turn by turn” and eight times “And the trains run from east to west part, from west to east part turn by turn”. The author’s creative intention is that the place where the events take place in the outward sense refers to the railway in the Sariozak steppe, while in the inner sense the artistic age refers to the rush of human life as the transience of trains.

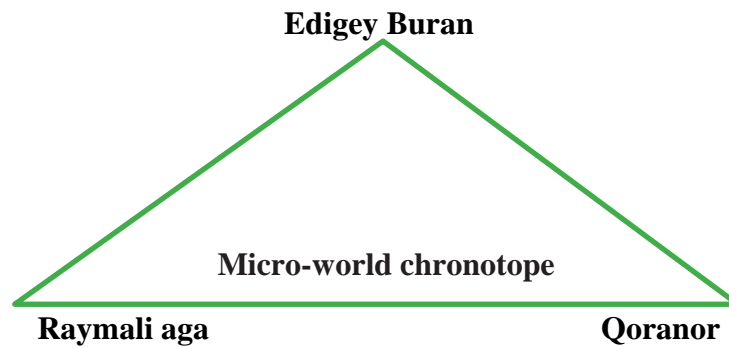
Chingiz Aitmatov's novel “The Day Lasts More than a Hundred Years” reflects Edigey Jongeldin and his memories, and through the method of retrospection the heroes sometimes remember the past sadly, sometimes happily. “The method of recollection also serves to substantiate the thoughts and actions of the characters in certain situations in relation to past events. In some cases, this method is used in connection with the thoughts of the character, the flow of consciousness. In such cases, the method of retrospection serves to extinguish the character’s extremely complex mental state, the bitter mental anguish in his/her mind and heart, and to prove that he/she is fully justified in all his/her actions” (13). *“Crossing the barren, lifeless Sariozak steppe, he thinks of Kazangap along the way. Even when he is burying his friend in the ancestral cemetery, his thought is only of his passed friend. Yes, that was the condition. No one, not even the son of the passed, can refuse to fulfill his last wish, regardless of the distance or proximity of the road...”* (2; 42). At the center of the events is the image of Edigey, which connects each plot line. The story of Edigey Buron on burying Kazangap embodies the whole reality in the form of a “story within a story” and the plot is built on the character’s memories through the method of retrospective.

“Approaching to Mother Bayit, Edigey was engrossed in various thoughts. The rising sun, measuring the flow of life on the horizon, reminded him of the bitterness of life. Edigey remembered his youth with Kazangap” (2; 116). Edigey starts to remember his life one by one: Ukkubolasi and her daughters, his life’s connection with Kazangap, the return of Kazangap and Bokei to Sariozak steppe with the grateful help of Kazangap and Bokei, returning from war with contusion and falling madly in love with Zarifa. “The Day Lasts More than a Hundred Years” is a high ideological and artistic work. Its artistic plot and compositional structure are also broad and at the same time very compact, in which we can see the plot lines, parallel chronotope, which includes many events: Edigey - Kazangap, Edigey - Abutolib, Edigey - Elizarov, Edigey - Sobotjon, Edigey - Ukkubola, Edigey - Zarifa, Edigey - Qoranor, Edigey and the old poet Raymali aga, and etc., – each of them is a complete, perfect story, each character reveals his/her inner and outer microcosm, worldview in a natural, convincing way (22).

In the novel, chronotope of the micro-world that connects the events is parallel, and includes smaller chronotope as well:

Edigey and Zarifa - Raymali aga and Begimoy - Qoranor camel micro-world chronotope: after Abutolib Quttibaev’s unjust accusation and death, Edigey Boron’s fell in love with his widow Zarifa, but could not give up his Ukkubola, when Zarifa left his heart sank is intermingled with the stories “Raymali aga and Begimoy ” and the adventures of Qoranor camel, all of these resulted in strong dramatism.

As the author admits, he puts Edigey Buran at the center of his excitement and uses a triad of images of the Qoranor camel and Raymali aga to more vividly depict the evolution of his heart.



Picture. The description of psychological sceneries through micro-world chronotope

The writer uses a parallel chronotope to express “Edigey’s feelings connection, harmony, pain and similarity with Raymali aga’s love adventures”. Although the terrible fate in the legend of “Raymali aga and Begimoy” is completely different from the time and place of Edigey and Zarifa, they are united by an internal chronotope. *“When Raymali aga is over sixty, he falls in love with a beautiful girl named Begimoy. When the winter of my life is approaching, why are you so beautiful? If I enchant you and give me peace, then there is no greater happiness in the world ”*(2; 354), he says. Because of unrequited love, the elders of the Barakboy clan and his brother Abdilkhan drive him crazy. *“You are misguided ... you do not see where the truth and happiness are in the world. After all, what's the point of singing when the tune is pouring? If life has given me love for the rest of my life, what shame is there to love?”* (2; 362). When Raymali told him that he would go to other lands with Begimoy not to disturb them with his songs and manners, Abdilkhan broke the drum that had captivated people with his songs for many years and stabbed his horse Saralla in the throat. The old akin turns his hands behind his back and ties them to the birch:

Олатовдан кўч келар, кўч келганда
 Сарбозорда кутма мени, Бегимой.
 Рухдай енгил фалакка учиб кетгум,
 Сени суйиб васлингга қачон етгум (2; 366).
 (Migration comes from Alatov, when migration comes
 Don't wait for me in the army, Begimoy.
 I flew into the light sky,
 When did I join with you)

Although they have nothing in common, Edigey and Raymali aga’s love adventures have in common.

The skill of the writer is that the state of animals and humans is described side by side: *“The rabid Qoranor did not give peace to the poor, he ran around the female camels and read angrily as if he was jealous of someone. Is he jealous of the moon, which is barely shining through the clouds?”* (2; 331). The pain in Edigey’s heart is transferred to the double-breasted Qoranor, who can’t find a place to put himself. According to Kospan, *“the camel terrified everyone. Nor maimed our camels and took our best three female camels ... Since my birth, I had never seen such an evil beast. The people of our village were terrified. If you don’t save me from this trouble, I will shoot Qoranor”*(2; 316), after a letter from the tribe, Edigey makes his way to Akmoynak. Zarifa takes her children that day and leaves Sariozak completely: *“All this is because of you! Yes, you are the cause of it all ... Did you have to keep warm in the countryside? And she took her children! None of you have anything to do with how many days I have left! How do I live now? How do I live?”* (2; 341) *“... Then he sank into the snow and cried, clutching his head. Edigey chose to be buried under the snow and die”* (2; 342). The protagonist’s artistic interpretation of all the complexity, contradictions, invisible and mysterious aspects of the emotions, the expression of the uncontrollable changes in the inner world, effectively used not only the image of the animal, but also the landscape. Snow is symbolically the love in the heart of Edigey Storm. At that moment, he chose to stay with the pain that was raging in his heart for the rest of his life, and to be buried in that pain.

The works “The Day Lasts More than a Hundred Years”, “Doomsday” combine the best practices of modern world literature in the depiction of life events and the embodiment of the human world (29). This is reflected in the construction of the composition and plot of these works, the placement of myths and legends, the behavior of the heroes, the connection of their experiences with their memories and, most importantly, the attention to the contradictions in the inner world of different characters. After all, everyone, according to M. Bakhtin, is an independent subject with his own voice, worldview and imagination. At the same time, man exists only in communication with people, with himself, with the world (7).

In the novel “Doomsday” blue wolves - Akbara and Toshchaynar are chronotope of the micro-world; The micro-world of Avdi and Jesus Christ; Boston and Gulimkhan performed artistic and aesthetic tasks, such as expanding the scope of events in the micro-world, depicting the relationship between man and nature in a parallel way, ensuring diversity in the psyche of the characters, achieving compositional integrity. The Akbara and Toshchaynar’s chronotope is the main plot line, which organizes the plot and composition of the novel, forms the field of epic text, and ensures the perception of artistic reality in its entirety. “Independent plot lines form the logical chain of the work: wolves, drug addicts, Avdi Kallistratov, Altovlon and the Seventh, Ponti Pilat and Jesus, Boston and Bazarboy” (15).

Each of the two adjacent chronotope has its own characteristics that allow it to organize the plot and depict reality in a parallel way:

1. *Blue wolves - Akbara and Toshchaynar’s micro-world.* Guram Johadze and Sandro connected all chronotope except the macro-world of Jesus Christ and Ponti Pilat. While Avdi Kallistratov was collecting shirach, he came face to face with Akbara, Toshchaynar and their children. “*Save me, wolf,*” said Avdi, who had been tied to a saksovol by the drunk, a hunter, was being tortured by his people. “*The man did not move, did not make a sound, his head was tilted to the side, and blood flowed from one end of his mouth. The stone was about to be thrown at the man, and Akbara pushed him away. She approached the man, looked him in the face, and moaned softly: she remembered her dead children. Life in Moyinkum was chaotic. To whom should she weep, to whom should she complain? This man can never help her. Her candle of life was extinguished, but her soul was not yet completely extinguished. The man raised his swollen eyelids and whispered to the wolf, which was slowly howling: “Have you come ...” Then his head shook*” (3; 125). The writer brings Avdi's micro-world side by side with Akbara, that is, two helpless creatures are waiting for salvation from each other. Akbara defends Avdi, who twice pushed his people to ruin, from Toshchaynar. Although he is a human being who has killed her children and raised the apocalypse in Moyinkum, Akbara shows mercy to Avdi.

Realistic prose of the Turkic peoples, in particular, the novels of Chingiz Aitmatov, also depicts the wolf. The images of Akbara and Toshchaynar are especially noteworthy. In the image of these two wolves, the writer combines the most beautiful human qualities, such as kindness, love, loyalty, nobility, honor, excitement, resentment, embarrassment, shame, jealousy, fear, and courage. In the writer’s novel, although the realistic colors are dark, it is the mythology of the Turkic peoples associated with the wolf totem that the writer chooses exactly the image of the wolf (12).

The leader of these two creatures, Akbara, and her black slave Toshchaynar, who obeys her will, live in the Moyinkum desert, Lake Aldash, and the Issyk-Kul mountain range. The suffering of Akbara and Toshchaynar, who lost their children because of the people children three times, is expressed in three small chronotope:

A) the death of three young children when saigaks were slaughtered in the Moyinkum desert to carry out a meat plan;

B) the loss of five children as a result of a fire in a reed field due to the opening of a new mine in the mountain and its passage through a reed field near Lake Aldash;

C) the removal of four children from the Bulak gorge by Bazarboy.

A) *The death of three young children when saigaks were slaughtered in the Moyinkum desert to carry out a meat plan.* In the early days of winter in the Moyinkum desert, Akbara and Toshchaynar remain in a raging difficulties when they take their eldest cubs on their first big saigak

hunt. Countless saigaks were rushing towards the wolves at an insane speed, and the wolves were unable to defend themselves, let alone hunt. *“Akbara was watching them out through attentive glance – they were running faster and faster among the deer, and their eldest son, Humkalla, that was Ildam, and there was Suyginoy, and the brave warrior of Moyinkum Toshchaynar was running away in horror too”* (3; 15).

The first catastrophe for Akbara and Toshchaynar was the trampling of their children under the hooves of deer, the frightening noise, the sound of gunfire, the roar of cars, the screams of people, the screams of dying deer, the people covered in blood from head to toe.

B) *She lost five children as a result of a fire in a reed field as a new mine was discovered in the mountain and passed through a reed field near Lake Aldash.* The reeds in the lake are set on fire to make way for the precious ore found in the mountain. They beat themselves to the right and to the left to get their children out of the fire: *“While the wolves sensed the taffeta of fire, they saw the reeds burning on all sides, and began to beat themselves from side to side to save the wolves. They carried them here and there with rest in their teeth. Doomsday is over in the reeds of Aldashboy”* (3; 126). The second tragedy was that Akbara and Toshchaynar left three of their children, carried two in their teeth, swam across the lake, and drowned as they passed.

C) *The removal of four children from the Bulak gorge by Bazarboy.* Twice separated from their cubs, the wolves crossed the White Salt Pass and inhabited the Issyk-Kul mountain ranges. In the second year of their life in the mountains, they had four children. Leaving the geologists in the Bitter Stone Gorge, Bazarbay, who was returning home, stopped by the river to drink his paid vodka, and the voices of the lone wolf cubs were heard: *“Before she reached her nest, Akbara’s heart felt a pang in the distance. ... The rays of the bloody dawn reflected on the tops of the high mountains grew darker and darker, adding to her anxiety and fear. As she got closer to her brother, she ran harder. The hunter snarled and snarled like a hunting dog in every corner of her empty nest, froze for a moment, then threw herself out, collided with Toshchaynar in her mouth, as if she were to blame for everything, not for her husband, but for her enemy”* (3 133]. Akbara and Toshchaynar did not want to admit the bitter test of fate this time, for in previous losses they had seen their cubs drown under saigak hooves, in fire, in water. This time, Bazarbay Boston Orkunchiev, who kidnapped their children alive, survived. Not only for Toshchaynar and Akbara, who are desperately trying to save their descendants, but also for Boston, painful days begin. In search of finding their children, Toshchaynar and Akbara, who had been snoring and screaming at night, and the sound of the snorts filled the sky and caused panic in the heart, and the sheep could not bear the pain.

Instead of going to her nest in the Boshat gorge again and again in search of her children, she saw an empty nest and Akbara’s fig rose into the sky. The author describes the sufferings of the mother wolf in parallel with the micro-world of Boston and Gulimkhan. Each of them was aware of their own suffering, and none of them wanted to be convinced that these trials were their destiny. The spirit of separation in Akbara’s heart is conveyed through an episodic depiction of a dream. This changes the chronotope. The reality of the dream is transferred to Moyinkum: *“Akbara had a dream in which her children were lying on Akbara’s lap. She says that she has been breastfeeding for a long time, her nipples are full of milk, her nipples hurt, milk slips ... the boy falls asleep, the third is quarrelsome and crying, the fourth is a girl, she is very sweet, her eyes are blue. ... Then Akbara saw in a dream that she was flying in the great desert Moyinkum, her feet did not touch the ground, she had four children with her, they were also flying, and Toshchaynar was jumping next to her”* (3; 160). No matter how much the mother wolf sucks her cubs in her dreams, for some reason her milk does not decrease, and she feels the unbearable pain in her breasts even in her dreams.

The grief of the mother wolf, who has been deprived of her children three times, and even the fact that Boston’s child longs for Kenjash to live in her nest, to nurse him, make the work convincing. In the desert of Moyinkum, in the steppes of Aldash, on the shores of Lake Issyk-Kul, Kenjash was the last refuge for Akbara, remembering the days of joy and sorrow with Toshchaynar.

2. *Boston and Gulimkhan’s micro-world.* Bazarbay's jealousy of Boston’s Gulimkhan, his horse named Donko’liq, that he was an advanced shepherd, Ernazar’s immortality in the glaciers of

Ola Mongu, Gulimkhan's grief over the loss of Ernazar when he lost his Kenjash three years later, Akbara and Toshchaynar's loss of three children, all of these is the culmination of the expression of the chronotope of the micro-world in Chapter III consisting three paragraphs. In the psyche of each protagonist, the passing portrait complements each other given in a parallel way. Akbara's mourning of separation, her heart-wrenching, unbearable lamentations, renewed the wounds of Boston and Gulimkhan's hearts and burned their souls in the fire of pain can reflect strong dramatism. Akbara's bitter cry reminded Gulimkhan and Boston of their painful past, which they could not bear: *"Akbara, in particular, was on fire. She moaned like a woman going to the grave. Then Gulimkhan remembered that when Ernazar died on the pass, she hit her head on the wall and cried. At that moment, she said, "I will send you out of pain." She almost woke up Boston and told him everything from one side, and she could hardly stop herself"* (3; 145).

Boston, on the other hand, *"reminisced about the past days, his heart burning with the pain of the lowly. Oh, that facelessness! They even turn someone's unhappiness into a source of ridicule and deception, slander. ... His heart was sometimes so overwhelmed by endless sad thoughts that it seemed as if the cries of the wolves, who had reappeared tonight, were bursting into Boston from their mustard chests"* (3; 158). Partorg Kochkorbaev said, "In our country, the land belongs only to the people, to the people alone, and to no one else. Moreover, you want winter and summer pastures, we can't give them to you as private property, we have no right to violate the principles of socialism". There was painful thoughts about Ernazar's body frozen on the Ola Mongu's ice mountain pass could give peace to Boston *"It was not the wolves that looked at him, it was as if his burnt heart was wandering in despair in the darkness of the night behind the blacks. ... What do you want from me? -said Boston. "I couldn't help you". I tried, but nothing worked, trust me, Akbara. That's it, another hunt! Do it now! How long will you torment us? Go, go, Akbara!"* (3 158].

The closeness of the bitter memories buried in the hearts of Boston and Gulimkhan made it possible to depict Akbara's mental anguish in an artistically touching, bubbly way. The macro-world chronotope is a priority because the first and second parts of the novel reflect the relationship between man and society. In the third part, mental anguish is brought to the fore. The micro-world of Akbara and Toshchaynar, Boston and Gulimkhan created a parallelism based on the motive of separation and loss of a child. The unwritten law of nature is that no matter how much Boston warns Bazarbay, who knows that creatures will take revenge on their loved ones, he will not break his pin. Bazarbay, who has gained humiliation (he survived in the bosom of Boston when he kidnapped the wolf cubs), is even happy that Akbara and Toshchaynar are disturbing the peace of Boston, he does not think that the other end of evil will take his life:

"Don't be silly, Bazarbay. Talk like men in the world. What difference does it make to you, to whom do you sell?"

"I know! Do not teach me! My mind reaches out to me. Look at me, hey; you know how to brag about yourself at these party meetings, you know how to brag. E, if you want, I will knock a post at that party meeting that you will never forget, you will not be able to find your home. Do you want to do this?"

"Wow! - Boston, who was sincerely surprised, involuntarily blocked himself from Bazarbay. - Before you scare me, explain which dog will rob you?"

"Did the dog ask me? It is amazing! You are working against the government. Did you know! There is no one smarter than you are! The masters are everywhere ordering the wolves to disappear. You, on the other hand, feel sorry for the wolves and want to breed them - right?" (3; 148)

The event that caused the conflict in the Boston-Bazarboy dialogue was the return of the wolf cubs to their nests and the removal of Akbara and Toshchaynar from around Boston's hut. He accused Boston of working against the government without acknowledging Bazarbay's actions (kidnapping wolf cubs, saving Akbara and Toshchaynar's children in Boston's hut, and chasing them around the hut day and night) threatens to sting the bark. The Bazarbay did not realize that he would destroy not only the wolf cubs, but also Kenjash, Boston's youngest son. The dialogue reveals the essence of the images of Boston and Bazarboy. For M. Bakhtin, dialogism is, first of all,

a philosophical category necessary for understanding and explaining man, his essence and whole existence (23).

In the novel, the chronotope of the micro-world is expressed through the literary and aesthetic means of memory, landscape, monologue, dialogue, dream, prayer.

When Akbara lost her children and Toshchaynar, all she had left was a bitter memory: *“She was left alone, staring in all directions. The days she spent with Toshchaynar passed by her eyes day by day, month by month, hour by hour, and each time Akbara could not bear the pain of grief, she stood up, looked around, threw her sad old head on her paws, and lay down on the ground again, remembering her children. She remembered her four children who had recently been abducted, those who had died in the Moyinkum massacre, and those who had been burned to death in the reeds along the Aldash lake. But most of all, she remembered her Toshchaynar -her alpine, loyal male”* (3; 181). The writer skillfully used the method of remembering painful experiences, pains. Akbara’s repeated visits to her desolate nest, as if her children were waiting for her there, are sometimes portrayed on the basis of sharp drama, unable to bear the loss of everything and remain in a whirlpool of painful memories.

The dream motif fills the micro-world of the image of Boston: *“For many years he had a nightmare that remained indelibly etched in the memory of Boston. He is falling on a rope into an ice canyon. The patch illuminates the walls with a lantern in his hand. He has another lantern. If one falls out of his hand, he uses the other. Suddenly he lost his second flashlight. He does not know where he disappeared. His heart sank badly. He was scared, worried. He wants to shout. But the dreaded dark ice kept falling as it sank to the bottom. Finally, in the light of the lamp, he saw Ernazar clinging to the ice like a stone: Ernazar (as he really was) was hunched over, his skin hanging over his head, his face stained with blood, his lips tightly closed, his eyes closed. “Ernazar! -called Boston. I’m here! Listen, I wanted to leave you a second lantern - this place is so scary and dark - but I lost it. You see, Ernazar, I lost. But still I will give you my lantern”* (3; 165). The fact that he lost one of the two lanterns he had brought to illuminate the darkness in the depths of the ice cave in Boston’s dream and left his own in the late Ernazar is a mysterious sign of the tragic loss of his son Kenjash.

As the number of herds increased, there was a shortage of pastures, but the state plan grew from year to year.

No matter how much he talks about it in the meetings, Partorg Kochkorbaev: *“the land belongs to the Soviet people and state, your words smell like nonsense, your time is over and we will not allow anyone to destroy the foundations of socialism”* (3; 153), he strongly denies Boston Orkunchiev’s idea of giving additional pastures to shepherds. In desperation, Boston, in consultation with Ernazar, leads the herd across the Ola Mongu Ice Pass to the Kichibel Plateau, where the ice cracks and Ernazar is trapped in the permafrost. The torment of conscience firmly entrenched in the mind of the helpless Boston, who could not save Ernazar, manifests itself again and again in the form of a dream. There is also a mysterious sign that Ernazar could not recite the passage prayer in full, that their supplications had not reached the blue God, the Ruler of heaven. The writer laments the fact that the traditions of our ancestors are being forgotten, and that they are taught in schools as backwardness and ignorance: *“Now no one needs such prayers. Now in schools these are taught as backwardness and ignorance. Look, they say man is flying into space. “What has the universe got to do with this?” What, if we fly to heaven, should we forget the words of our ancestors? The number of those who ascend to heaven is innumerable, how many of us on earth, how many of us live on earth? Our ancestors lived on earth; their livelihood was with the earth, what is there in heaven for us? Whoever flies let him fly. Let everyone do their job”* (3; 157). It is clear from the dialogue between Ernazar and Boston that the forgetting of sacred traditions is also a spiritual decline for the next generation.

Akbara, who has lost her children three times, wants Kenjash to fill the gap in her heart; he somehow reminds her children and decides to take him with her:

“Wolf! The wolf kidnapped the boy! Faster, faster! Unconscious, Boston snatched his rifle from the wall and ran out of the house behind Gulimkhan.

Here! Here! Here, Kenjash! Here is the wolf taking it! Cried Asilgul, clutching her head in her hands. Now Boston saw the wolf, too - he was screaming and screaming.

Stop it! Stop, Akbara! I say stop! Boston shouted in a hoarse voice and chased after the wolf. Akbara fled. Boston ran after her, carrying a rifle, and read in an unnatural voice: "Stop, Akbara!" Don't touch my son! I will never harm you! Put the baby down, don't touch him! Akbara! Listen, Akbara! (3; 184)

The man shot the creature, but the bullet killed his child, resulting in the loss of his future. The scales of life's justice were equal, but both Boston and Akbara were innocent culprits in this trade.

"Look, the world is over, –said Boston to himself, and then a terrible truth was revealed to him: the world of light, which had hitherto existed, was over, and now it was over. He was the sky, he was the earth, he was the mountains, the great mother of being, the wolf, was Akbara, Ernazar, who remained forever in the glaciers of Ola Mongu, the last piece of meat from his pink belt, Kenjash, who shot with his own hands, was the cursed and killed Bazarboy and what he had seen so far, what he had experienced - all this was his, his own world, lived for him, lived for him, and now, though all this is the same as before, it remains forever, but only now in it. he won't be - he'll be a completely different person now, and his unfree, unrepeatable world is now gone, and he'll never be repeated to anyone. He reached the great catastrophe, for him the world was the end ..." (3; 187).

In the words of the writer, man is a part of nature, nature is the space given to him to live. If man oppresses nature, of course, this suffering applies to him as well. Because of the encroachment of one's own living space, one's peace of mind is disturbed, that is, it violates the laws of nature. In the novel "Doomsday", the main essence of the chronotope of micro-world and macro-world is the image of the unity of man and nature, the image of animals to the level of character as humans. At the heart of the work is the artistic age, i.e. the time of doomsday. The author incorporated a huge artistic image typical of the novel form drug addiction, alcoholism, cruelty, murder, injustice, and oppression of nature as the calamities that will lead mankind to the day of judgment into the literary text. Although one thousand nine hundred and fifty years have passed from the time of Jesus Christ to the time of Avdi Kallistratov, the sin of the apocalypse is taking on a new form, for which future generations will be compensated on a parallel chronotope.

Conclusion. In the novel "The Day Lasts More than a Hundred Years", a parallel chronotope provides syncretism, that is, two distinct myths in artistic time and space, adjacent to the main plot line. Chingiz Aitmatov's artistic skill is that he compares the two contradictory characters Edigey and Sobitjon with the legendary heroes and connects commonalities. The legends "Naiman ona", "Raymali aga and Begimoy" were used to reveal the importance of depicting the psyche of the heroes in expanding the boundaries of the novel time and space.

The way of remembering the spiritual image laid the foundation for the content of the characters of Avdi and Boston in the novel "Doomsday", the drama of the soul, the true revelation of spiritual experiences and the expansion of chronotope boundaries.

In the micro-world of the protagonist, the suffering and anguish of the human and sentient psyche are conveyed through dream motives. In the dream of Akbara, deprived of her children and Toshchaynar, her happy moments are seen, in the dream of Boston, the destruction of Ernazar is shown, and he will remain forever on the ice. In the first dream, the unattainable dream turns into sorrow, and in the second, the prophecy of an inevitable catastrophe is interpreted.

As the plot lines of both novels form a parallel chronotope, there is a sense of distinction in the plot elements as well, but this literary phenomenon did not impair the composition of the works. The micro-chronotopes that make up the novels have gained integrity based on amoebic composition.

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RELATIONSHIP OF THE LITERARY CRITIC BEGALI KASYMOV TO THE
WORK OF MAHMUDKHOJA BEHBUDI IN HIS WORK "COUNSELORS"

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Abstract:

Background. *Literary scholar Begali Kasimov seriously studied the literature of the Jadid period, studied and analyzed the works of the artists of that period on a deep scientific basis. The scientist studied the works of Mahmudkhoja Behbudi, Abdulla Avloni, Mirmukhsin Shermuhamedov, Saidrasul Azizi, Sofizoda, Nozimakhanim, Sidqi Khandayliqi, Tavallo, Botu, Mirmulla, Cholpon, Fitrat, Kami and acquainted them with their creative activity. In particular, in his work "Maslakdoshlar" the first Uzbek playwright Mahmudkhoja Behbudi analyzed the information about his life, work, contribution to Uzbek science and political views on the basis of archival documents and specific historical sources. His research interests include Uzbek classical literature and literary relations, methods of teaching Uzbek literature, textualism, the Jadid movement, and much more, the history of the formation of Jadid literature, literary figures and their work. Sh.Yusupov, B.Kasimov, N.Karimov, Sh.Turdiyev, U.Dolimov, A.Aliev, Sh.Rizaev, D.Quronov, B.Karimov, N.Jabborov, Z.Abdirashidov and others conducted special scientific research on Uzbek Jadid studies. There is no doubt that the study of research on this topic will help to address the pressing issues on the literary agenda. This article is important in that it aims to fill this gap in literary criticism by exploring specific aspects of Professor Begali Kasimov's research. The period of the national awakening was periodized in Uzbek literature on the basis of irrefutable facts and clear scientific principles. Mahmudkhoja Behbudi, the leader of Turkestan Jadids, is a well-known enlightener, one of the ideologues and leaders of Jadidism, a publisher and a politician. He was a descendant of the Turkish Sheikh Khoja Ahmad Yassavi. Ismail Gasprinsky, the founder of the Jadid movement, played a major role in shaping Mahmudkhoja's worldview.*

Methods. *The article uses historical-comparative, analytical, hermeneutic, biographical and sociological methods of analysis.*

Objective. *The practical result of the work is expected to be: Begali Kasimov's researches on jadidism and jadid literature: the first stage; 2) perfection; 3) proves that it has gone through a gradual process, such as the study in the context of world literary movement;*

it is proved that in the works of the scientist mainly sociological, biographical and hermeneutic research methods are used;

The analysis of scientific works shows that the scientific and theoretical basis for the study of modern literature was developed in the research of Begali Kasimov;

Begali Kasimov's scientific works prove that the common and peculiar features of the interpretation of the ideas of Jadidism in the literature of the Uzbek and fraternal peoples are studied in a comparative aspect.

Conclusion. *Literary scholar Begali Kasimov seriously studied the literature of the Jadid period, studied and analyzed the works of the artists of that period on a deep scientific basis. The scientist studied the works of Mahmudkhoja Behbudi, Abdulla Avloni, Mirmukhsin Shermuhamedov, Saidrasul Azizi, Sofizoda, Nozimakhanim, Sidqi Khandayliqi, Tavallo, Botu, Mirmulla, Cholpon, Fitrat, Kami and acquainted them with their creative activity. In particular, in his work "Maslakdoshlar" the first Uzbek playwright Mahmudkhoja Behbudi analyzed the information about his life, work, contribution to Uzbek science and political views on the basis of archival documents and specific historical sources. His research interests include Uzbek classical literature and literary relations, methods of teaching Uzbek literature, textualism, the Jadid movement, and much more, the history of the formation of Jadid literature, literary figures and their work.*

Literary scholar Begali Kasimov, through this research, dedicated his life and creative activity to the Uzbek readers to a certain extent to read his pure name. From the above considerations, it is clear that Behbudi's speech in his will almost a century and a half ago, his courage, will undoubtedly serve as a program for the upbringing of today's young generation, his patriotic activities. There is no doubt that the ideas put forward in the works of the writer will serve as a foundation for the spiritual development of the future of our nation.

There is no doubt that the ideas put forward in the works of the writer will serve as a foundation for the spiritual development of the future of our nation.

We can say without hesitation that the great work of Behbudi, which he said a century ago in the interests of the people and the nation, is being solved today and is serving the development of the Motherland. To date, the work on Jadid studies has not stopped. It is clear from the studied and researched works that Jadidism is not only a movement for freedom, but also the courage shown by the Uzbek people for national, social, cultural and spiritual freedom. Young scholars, leading researchers of the republic in the state archives of Uzbekistan, are studying many documents related to the life and work of one of the leaders of the Jadid movement Behbudi. It is especially gratifying that as a result of this research, new information about his life and political activities has emerged one after another. This year, the 145th anniversary of the great scholar and public figure Mahmudhoja Behbudi will be widely celebrated. The fact that President Shavkat Mirziyoyev emphasized this in his Address to the Oliy Majlis is also a sign of high respect for the memory of the enlightened artis.

Keywords: *independence, enlightenment, education, agility, revolution, progress.*

Introduction. Uzbek and world scholars have conducted extensive research on Jadidism and Jadid literature. Uzbek literary critics such as B.Kasimov, N.Karimov, Sh.Yusupov, U.Dolimov, Sh.Turdiyev, D.Kuronov, N.Jabborov, B.Karimov, I.Ganiev, Sh.Rizaev, as well as American E. Allworth, A. These include the research of Khalid, A. Lazzeri, A. Benningson of France, I. Baldauf of Germany, Marco Buttino of Italy, and H. Komatsu of Japan. Begali Kasimov's scientific activity dedicated to the study of the history of modern Uzbek literature, the literary and scientific heritage of prominent representatives of the literature of this period, including Mahmudkhoja Behbudi, awaits his researchers. Today, along with Jadidism and Jadid literature, some work is being done on the study of Jadid studies. In particular, some research has been conducted on the study of the scientific heritage of Begali Kasimov, a well-known representative of Uzbek Jadid studies, an internationally recognized scientist. Scientific articles on the research of Begali Kasimov's scientific activity by Uzbek and foreign scientists such as Sh.Yusupov, I.Baldauf, N.Jabborov, Sh.Rizaev, U.Jurakulov, F.Ochik have been published. In these studies, various aspects of the scientist's work are analyzed. However, the degree of study of modern scientists and their creative features is not widely covered in these scientific works. Jadid aesthetics, which served as the cornerstone of twentieth-century Uzbek literature, emerged as a holistic cultural phenomenon based on its genesis, universal and national foundations. The period of the national awakening was periodized in Uzbek literature on the basis of irrefutable facts and clear scientific principles. More than a hundred representatives of modern literature, including the works of M. Behbudi, were introduced to the scientific community and research work was carried out on their scientific activities. In particular, during this period a number of our literary scholars have worked selflessly; In addition to presenting the forgotten works of Jadid thinkers to a wide readership, they cleansed our literature of various false ideologies and took rapid steps towards the realization of national identity. Sh.Yusupov, B.Kasimov, N.Karimov, Sh.Turdiyev, U.Dolimov, A.Aliev, Sh.Rizaev, D.Quronov, B.Karimov, N.Jabborov, Z.Abdirashidov and others conducted special scientific research on Uzbek Jadid studies. There is no doubt that the study of research on this topic will help to address the pressing issues on the literary agenda. This article is important in that it aims to fill this gap in literary criticism by exploring specific aspects of Professor Begali Kasimov's research. The name of the national hero of the Turkestan people, public, cultural and educational figure, the first Uzbek playwright, founder of the national theater, great journalist, writer, translator Mahmudhoja Behbudi is known not only to Turkestan intellectuals, but also to many countries in

Asia and Europe. Therefore, his life and work have been in the spotlight of historians, literary critics, jurists, art historians, as well as the general public for almost a century. Since 1989, a new approach to the life and work of Behbudi has emerged in connection with the acquittal of people of culture, education and science, who created in the first half of the twentieth century on the eve of independence of Uzbekistan and were unjustly punished by the former USSR government.

Materials and methods. The article uses historical-comparative, analytical, hermeneutic, biographical and sociological methods of analysis.

Thanks to independence, Behbudi's scientific and artistic works have been published in the press with the enthusiasm of scientists, researchers and employees of newspapers and magazines. In particular, Salih Kasimov, Ahmad Aliyev, Begali Kasimov, Sherali Turdiev, N. Norkulov, Naim Karimov, Dilorom Alimova, Dilbar Rashidova, Sirojiddin Ahmad in recent years, Halim Sayyid, Boybota Dustqoraev, Shuhrat Ochilov, Nilufar Namozova, Zebuniso Ahrorova and others. published their scientific researches and opinions. In particular, Mahmudkhoja Behbudi's "Selected Works" prepared by Begali Kasimov, researchers N.Norkulov and K.Rabbimov collected and published some articles published in "Mirror". As a result of the restoration of the pure name of Mahmudkhoja Behbudi, his place and position in the national culture, a wide range of works of culture and education such as Munavvar qori Abdurashidkhonov, Cholpon, Fitrat, Elbek, Tavallo, Vasli, Ajzi, Haji Mu'in was opened. Consequently, it laid a clean ground for the rewriting of the history of our nation and, consequently, for the restoration of historical justice. All this testifies to the fact that Mahmudkhoja Behbudi Salihkhoja oğlu was a wise man with a strong vision, rich scientific and literary heritage, who played a significant role in the history of our culture. [3, pp.3-5]

On August 15, 1905, Gasprinsky's Jadids managed to form the "Union of Muslims" (Union of Muslims), the first congress of which will be held in Nizhny Novgorod on the ship Gustav Struve and will include 150 delegates (Turkestan and Siberia). This party was represented in the Russian State Duma. The Mufti of Samarkand, Mahmudhoja Behbudi, took an active part in the work of the party, and for him Tamerlane was an example of an enlightened ruler. [5,56-79bb] Due to the demands of the time, their struggle for independence was bypassed and their main focus was on enlightenment. Thanks to independence, it was possible to study the activities and heritage of these artists in detail, to evaluate them in the interests of the Motherland and the Nation.

Results and discussion. Mahmudhoja Behbudi, the leader of Turkestan Jadids, is a well-known enlightener, one of the ideologues and leaders of Jadidism, a publisher and a politician. He was a descendant of the Turkish Sheikh Khoja Ahmad Yassavi. Ismail Gasprinsky, the founder of the Jadid movement, played a major role in shaping Mahmudkhoja's worldview. Mahmudhoja Behbudi, in particular, left an indelible mark on history as the author of "Muntahabi Geography and Generality" - "A Brief General Geography" (1903), "Kitab-ul-Atfol" - "Book for Children" (1904) and many others. The book "Maslakdoshlar" is one of the first researches of the literary scholar B.Kasimov. Published in 1994, this little book contains a great deal of scientific research, tireless work and, of course, dedication.

In this research, the scientist tried to shed light on the life activities of three great writers of our literature M. Behbudi, A. Fitrat, S. Ajzi and their tragic fate with scientifically based facts.

To do this, the scientist got acquainted with the archives of the republic, relatives of the deceased, court documents and verdicts. Gathered accurate and solid data. Literary scholar Maslakdoshlar reports that Mahmudkhoja Behbudi was born on January 19, 1975 in Samarkand in a priestly family. In this regard, Behbudi signed a number of articles published in Tashkent, such as the newspaper "Turkistan Region" and "Time" in Orenburg, as "Mufti Mamudkhoja Behbudi", met with Ismailbek Gasprinsky, the founder of the Jadid movement, and talked about socio-political issues. [4, 29-34] In addition, Behbudi has authored more than two hundred articles and works in Uzbek and Tajik languages. Behbudi was known in the 1905s as a prominent intellectual of his time. Fayzulla Khodjaev wrote about it: "In terms of political, social activity, the breadth of knowledge, at that time there was no one among the Jadids in Turkestan who could be equal to him" [2, pp. 6-8]. Similarly, one of the founders of the Tatar revolutionary literature, the famous writer Olimjon Ibragimov, wrote in his 1916 article "Though their languages are different, their hearts are one": If

we go across the Caspian Sea to Movarounnahr, stop in Samarkand and Tashkent, and look at the world of this people, in the world of textbooks, instead of our "Teacher" by Ahmad Mithat from Istanbul, Khoja Behbudi's "Adibi Avval" is written. Oyina", "Sadoyi Fergana", "Osiyo", "Tijorat", "Khurshid", "Sadoyi Turkiston" and so on. They are suckling pigs.

"Recognizing Behbudi as a symbol of Movarounnahr's progress, the author of the article equates his enlightenment services with the activities of Ahmad Mithat in Turkey. It is obvious that Behbudi's activity in Turkestan school education is very productive and huge. He considers Ismailbek Gasprinsky to be his mentor and guide, and has been active in establishing the "Usul Jadid" schools he established in Turkestan, providing them with textbooks and manuals. He has published many serious articles about how such schools can be an important factor in our national-cultural and spiritual development. He set up a publishing house and published textbooks and manuals and even maps. "Muntahabi Geography" (Brief General Geography), "Kitabat ul Atfol" (Children's Book), "A Brief History of Islam" (A Brief History of Islam), "Practice of Islam", "Madhali Geography of Umrani" ("Introduction to Population Geography"), "A Brief Geography of Russia" (Brief Geography of Russia).

"Behbudi's name was known not only to the governor-general of Turkestan, but also to the white tsar himself. The Emir of Bukhara Said Alimkhan considered him his personal enemy. In the spring of 1919, government spies arrested him in Shakhrisabz, then secretly brought him to Karshi, where he was secretly executed on the orders of Karshi Beg Togaybek. "It does not matter whether this information is true or not. After all, Behbudi, an enlightener who considered independence sacred, did not spare his life for the national, religious, spiritual and cultural development of his people, and had a great reputation among the people, left an indelible mark on the minds of our people and the history of our literature. Modern Uzbek criticism was founded during the national awakening. Abdurauf Fitrat's research on Uzbek classical and national Renaissance literature, Cholpon's famous "Adabiyot Nadir", Abdulla Avloni's "Sanoe' nafisa", Abdurahmon Sa'di's "In the world of fine art", Wadud Mahmud's works on literary criticism served this purpose. While acknowledging that the work of these authors has had a significant impact on the development of literary criticism, it should be noted that the work of Mahmudhoja Behbudi in this regard is particularly noteworthy. As Professor Naim Karimov noted, he is a thinker who "contributed not only to the reform of the education system and the formation of the periodical press, but also to the formation of a new society, ie social life, not only through his speeches and ideas expressed through the press." [4, pp. 38-54b]

Of course, the glory that Behbudi has gained will start to irritate members of the ruling class and officials. For this reason, he was accused of benevolence to the revolutionary forces in Bukhara and was executed by Said Alimkhan in 1918 in Karshi. The city of Karshi was called Behbudi in 20-30 years. Mahmudhoja Behbudi was acquitted in 1956. Today, the rich literary and cultural heritage he left behind contributes to the education of the younger generation of his people, the acquisition of knowledge and skills. The great literary critic S. Ayni he writes: "The name of the suffering poet Behbudi is revered by the Muslim East, because for 20 years he has called on all beings who know their consciousness and human dignity to fight for free life, light and enlightenment" "[2, 45-48bb].

In 1913, Behbudi began publishing the Samarkand newspaper. Behbudi, like other Jadids, was a supporter of the development of national art and literature, equality of women, teaching in the national language in schools, and reforming the political structure of the country. He struggled to introduce a new method of teaching in Muslim schools, a number of secular subjects. Behbudi dreamed of creating the history of his homeland, Turkestan, and seeing it as an independent enlightened country.

As mentioned above, Mahmudhoja Behbudi was distinguished among his contemporaries by his strong knowledge, he knew several languages. He began touring the world at a very young age and has visited a number of countries around the world, including Egypt, Syria, Algeria, Turkey and several cities in Russia, and is also interested in European culture. He collaborates with Arabic-language newspapers and magazines published in Kazan and Orenburg, and his articles begin to

appear in these publications. The promotion of the ideas of school, education, culture, enlightenment was at the center of these articles. During these trips, during his stay in Crimea, Behbudi met Ismail Ghaspirali, the founder of the idea of Jadidism and a great thinker of Russian and Crimean Tatar Muslims.

All this has a great impact on his political views and thinking. What did Mahmudhoja Behbudi and his comrades Fitrat, Munavvarqori, Ibrat and others want? First of all, they tried to reform and renew the country, which was lagging behind in development. They stressed the need for education reform, in addition to political reforms.

Mahmudhoja Behbudi's numerous articles in newspapers such as "Samarkand", "Hurriyat", "Sadoi Turkiston", "Oyna", "Hurshid", "Najot" put forward the idea of large-scale political, economic and educational reforms in Turkestan. He sharply criticized the old traditions of the local population, which hindered development, the "old-timers" who could not give up the old views, those who opposed the reforms and innovations. The "ancient" strata of society had expelled the enlightened and the jadids as infidels on charges of attempting to undermine values and discriminating against Muslims. In his articles, Behbudi said, "No, it is not so, we are also Muslims, we just want progress, prosperity, enlightenment. Opportunity is running out, we have fallen behind, we have to strive for innovation, we have to absorb innovation. Because of our backwardness, we became a colony, we were subjugated. Now, instead of pretending that our past is great, we must draw the right conclusions from our mistakes and look for ways to develop. It is time for others to respect us, to communicate with them on an equal footing, and to think about what we can do to protect the interests of Muslims."

Conclusion. The arguments and theoretical considerations presented in the article can be widely used in bachelor's, bachelor's, "History of Uzbek literature", master's degree in "History of Jadid literature" special courses and lectures, textbooks, textbooks, collections. The scientific conclusions and results of the article can also serve as a source for students to write term papers, dissertations, master's dissertations in the field of literature. Researcher B. Kasimov quotes in the Uzbek Soviet Encyclopedia the author's will before the execution: "We know our destiny, but we look forward to death because we are proud to feel that we have done what we can to our poor people in our lives. If our lives are needed as a sacrifice for freedom and the happiness of the people, we will gladly welcome death. Opening as many new schools as possible, working tirelessly in the field of education and the well-being of the people will be the best sculpture for us "[2, 39 - 43bb].

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POETIC WORKS AND RHETORICAL QUESTIONS (On the example of Erkin Vahidov's epic "Nido")

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Abstract:

Background. This article analyzes the Uzbek poet Erkin Vahidov's ability to use rhetorical forms of questioning on the example of his epic Nido. This linguopoetic theme demonstrates the

poet's ability to describe the lyrical hero's experiences through the rhetorical forms of interrogative sentences, to ensure that the events of the work are effective and colorful. Through his jeweled approach to linguistic units, his unique style and the boundless possibilities of our language have been criticized. In addition, this article analyzes in detail the specific methods of expression of the poet's inner experiences and compares them with the methods of expression of other literary figures. The role of the rhetorical question in his work and the extent to which this linguistic combination enriched the poet's work are illustrated. The role of rhetorical questions in linguistics and its significance are also covered in detail in this article. Additionally, besides the poems of E. Vahidov, some other examples for rhetorical question will also be stated and analyzed in a detailed way.

Methods. The article uses component, differential-semantic, observation and comparison methods to determine the respective poet's ability to use rhetoric questions.

Results. 1. Detailed information on the science of rhetorical questioning and its role in poetic works such as epic.

2. Analysis of the poetical characteristics and the use of literary arts in the epic by Erkin Vahidov, "Nido".

3. The essence and aesthetic value of rhetorical forms of expression

4. Having been informed with some examples of rhetorical questioning in the literary works.

Conclusion. The beloved poet of the Uzbek people, the creator of the twentieth century Uzbek poetry Erkin Vahidov in his epic "Nido" from rhetorical interrogations to increase the influence of the feelings of the lyrical hero, was able to use the work effectively and appropriately, giving it a unique charm, expressing the hero's experiences in brighter colors.

Keywords: rhetorical interrogative forms, interrogative pronouns, poetic speech, methodological purpose, emotional coloring, variety, mood.

Introduction: We know that rhetorical questions are usually used in speech when no answer is required or when the answer to the question is known to the speaker and sometimes it is necessary to emphasize that answer. Rhetorical interrogative sentences serve to express the speaker's attitude to reality, feelings, and emotional state at the time of the interrogation. In rhetoric, too, rhetorical interrogatives are uttered with a special tone, a different spirit, such as joy, pride, anger, hatred, persuasion. Dozens of rhymes are combined with emphasis.

From the general rules of linguistics it is known that, a rhetorical question is asked just for effect, or to lay emphasis on some point being discussed, when no real answer is expected. A rhetorical question may have an obvious answer, but the questioner asks it to lay emphasis to the point. In literature, a rhetorical question is self-evident, and used for style as an impressive persuasive device.

Methods. The article uses component, differential-semantic, observation and comparison methods to determine the respective poet's ability to use rhetoric questions.

Results. 1. Detailed information on the science of rhetorical questioning and its role in poetic works such as epic.

2. Analysis of the poetical characteristics and the use of literary arts in the epic by Erkin Vahidov, "Nido".

3. The essence and aesthetic value of rhetorical forms of expression

4. Having been informed with some examples of rhetorical questioning in the literary works.

Discussion. Rhetorical interrogative sentences use the grammatical forms of simple interrogative sentences (that is, sentences that are asked when something is not understood, when something needs to be clarified, and, of course, require an answer) [3; 2]. This means that both pure question sentences that require a specific answer, affirmation or denial, and rhetorical questions that have an answer in themselves or do not require a logical answer, emerge through the same grammatical forms. For instance:

1. Using interrogative pronouns:

Pure question: “*Nega men bu arzimas xatoga yopishib oldim?*” (Why did I stick to this trivial mistake?) (E.Vahidov. From the book "Fondness of word")

Rhetorical question: “*Ruh to ‘g‘riso ‘z bo ‘lgani uchun shohdan yiroqda, shaxmat taxtasining chekkasida turadi. Shunday bo ‘lgach farzin kabi kajravlar, egri qadamlar shoh oldidan joy olsa ne ajab?*” (The soul stands on the edge of the chessboard, away from the king because it is wrong. Why shouldn't the crooked, crooked steps take place in front of the king?) (E.Vahidov. From the book "Fondness of word")

2. Using questionnaires:

Pure question: “*Gap ko ‘p, ko ‘mir oz degan iborada men chuqur ma‘no, tagdor fikr ko ‘rmadim. Suhbat cho ‘zilsa, sandalning cho ‘g‘i sovib qolgani uchun shunday deyiladimi*” (I didn't see a deep meaning in the phrase "there's a lot of talk, a little coal." If the conversation drags on, is it because the sandals are cold?) (E.Vahidov. From the book "fondness of word") [2,11]

Rhetorical question: “*Chiqqan tovush chapillasa chapak, qarsillasa qarsak bo ‘ladi. Buni anglash qiyin emas, lekin ko ‘ksimizda gursillab urgan yurakni yurak deyish to ‘g‘rimi yoki urak? Yurak yuradimi, uradimi?*” (If the sound is clapped, there is applause. It's not hard to understand, but is it right to call a heart beating in our chest a heart or a heart? Does the heart beat or beat?) (From the book "Fondness of word" by E.Vahidov) [2,4]

3. Using the interrogative tone:

Quarantine extended?

You?

At first glance, all the interrogative pronouns used in our language seem to be used to ask, know, and understand something from the listener for the purpose of expression, and in certain speech situations they always seem to be needed. Indeed, it is. However, we also have a constant need for questions that do not require an answer to a logical question, which can easily be considered as an integral part of the richness of the Uzbek language vocabulary, one of the linguistic possibilities of speech. There is always a need for two places in the speech to use rhetorical questions. These are in oral speech and fiction. (Sometimes in popular speech (publicist style), the uplifting is also used to express the spirit.)

This technique is often used in the literature. This term is defined as a kind of turn of speech, a figure designed to enhance the expressiveness of speech. “A distinctive feature of these phrases is their conventionality, that is, the use of interrogative, exclamation, etc. intonation in cases that essentially do not require it, due to which the phrase in which these phrases are used acquires a particularly emphasized shade that enhances its expressiveness. So, a rhetorical question is, in essence, a statement expressed only in an interrogative form, due to which the answer to such a question is already known in advance” reads the literary dictionary.

Directly in rhetoric, the science that studies oratorical speech, such questions have been applied, probably from its inception. Already in the IV century BC, the ancient orator Demosthenes often puzzled his listeners with such remarks: "So when, finally, citizens of the Athenians, will you do what you need to do?" or "Why am I saying this?" After such a question, the audience froze in silence, everyone waited for what the speaker would say next. This way the listeners focused on the speech, and the essential thoughts were better remembered.

Rhetorical interrogative pronouns are used in fiction, in more poetic speech, to express the specific stylistic purpose of the artist, which makes the verses more attractive, increases the stylistic value of the poetic work, and increases the impact of the logic expressed.

Rhetorical questions have long been used in oratory, literature and journalism. The ancient Roman orator Cicero began his accusatory speech against the conspirator Catiline with a rhetorical question: "How long will you, Catiline, abuse our patience?"

In addition to rhetorical questions, sometimes rhetorical exclamations are used ("O times, about manners!") And rhetorical question addresses ("Poet! Do not cherish the love of the people").

It should be noted that, a direct question asked necessarily implies an answer. But not all questions require an answer. A rhetorical question, as well as a rhetorical exclamation and rhetorical address, are peculiar turns of speech that enhance its expressiveness. A distinctive feature of these

phrases is their conventionality, that is, the use of interrogative, exclamatory, etc. intonation in cases that essentially do not require it, due to which the phrase in which these phrases are used acquires a particularly emphasized shade that enhances its expressiveness. In the practice of oratory, techniques have long been developed that are not only a strong influencing tool on listeners, but also have expressiveness and emotionality. One of these means of speech is a rhetorical question, which is asked to the audience with a special expression. Addressing the audience with a rhetorical question is an effective technique. It turns the monologue of a speaker or writer into a hidden dialogue with the audience, as it activates the attention of listeners or readers. The audience is invited to participate in the conversation, in the discussion of the raised issue.

The unsurpassed master of depicting Russian nature with the help of words is the writer I.S. Turgenev. With special subtlety and sensitivity he describes the beginning of the day in springtime and precedes it with a rhetorical question: Do you know what a pleasure it is to leave in spring before dawn? Horses soundly slap their feet through the puddles, the coachman whistles. In the dark gray sky, stars blink here and there, a damp breeze occasionally comes in a wave, the restrained indistinct whisper of the night is heard. And who are the judges? (A.S. Griboyedov) Isn't every blade of grass filled with fragrant juice, and every linden seed beautiful? (K. Paustovsky). Russia, where are you rushing? (N.V. Gogol) A rhetorical question occupies a special place in the work of S. Yesenin. Let's observe: Whom to regret? After all, every wanderer in the world will pass, enter and again leave home.

Indeed, the widespread use of such expressions in poetic speech has a special place as a sharp means of depicting the poet's feelings: pain, emotions. Like many other stylistic figures, rhetorical questions add expressiveness and color to speech bring it closer to lively emotional human speech. Therefore, this technique is regularly used in various genres of literature, as well as, epics. We will try to prove our point by considering the rhetorical interrogative sentences used as an expression of the poet's aesthetic goals on the basis of the epic "Nido" by the People's Poet of Uzbekistan, Hero of Uzbekistan Erkin Vahidov.

Steps,
Steps,
Heavy steps...
The soil vibrates from the impact of boots.
Where are so many people going?
How far they have come!
"Look, do you see?"
My dad!
"Dad"!!!
My voice never comes out but
I run - steps go backward. [1, 28]

In the above verses, the lyrical protagonist seeks answers to the anguish that is going on in someone's heart, and even seems to be waiting for answers from the reader. At first glance, the questions seem unanswered, but the poet reflects the answers to the pains that torment the heart of the lyrical hero in the form of rhetorical questions in the form of verses:

Sore throat,
Bitter pain,
I'm standing in the middle of the road.
At this time—
The train screams.
Stop, people!
Where are you going?
Where is my father?!
A blue light flashes above me...
I wake up scared
My mother is with me.

Kind hands
Fire in my head:
"Why are you crying?"
My only one, my dear?
The night is long, sleep,
Close your eyes [1,30].

Through these verses, the poet's anguish in the heart of the lyrical protagonist seems to answer endless questions:

These days, of course
It will pass.
Human injury
It's over.
Mother Earth again
One day he will live.
The world is full of light
Full of blood [1,31].

In another part of the story, the lyrical protagonist is immersed in endless fantasies, as if asking his mother for answers to the questions that are troubling his heart, adorning his imagination with sweet thoughts about his father, trying to soothe a broken heart:

Thoughts lead to thoughts,
My mother fills in the blanks with questions.
**"Tell me, is my father a hero?
A warrior who also destroys mountains?
Does he have a gun in his pocket?
Do you have a lot of medals on your chest?
Does my dad fly?
Will he parachute from the skies?
Grabbing a sharp steel sword,
Fearing the hearts of the enemies,
Will he fight alone?
Five stars burning in his hat?
Tell me, does my father love me?
Will he bring a mare when he arrives?
Leading my foal in the streets,
Can I have something for a cold?"**
Let those days go by quickly,
Tell my father not to dream. [1,31].

To the reader of the epic, these questions may seem like the lyrical protagonist (the poet himself) was asked by his mother, but in reality it is a message to the whole world and an expression of the salvation he seeks. The lyrical protagonist goes back to the beginning of his twenty-year dream: as if answering the questions of the baby's imagination, full of wonder and excitement, it is obvious that he wants to confirm the sweet ending he has woven from the listener. how much is it possible Is it possible to correct the terrible mistakes of the war, which dried the pillows of twenty million Uzbeks, separated children from their fathers, young brides from their husbands, women from their livelihoods, and mothers from their children ?! Is it true that the Cold War, which wounded the world, is really warm?!

The answer to the questions of the Black War is always clear: destruction, endless separation, yellow orphaned patience, harmony... harmony... harmony...

The essence and aesthetic value of rhetorical forms of expression are reflected in these aspects. Forms of rhetorical appeal were used in almost every part of the epic Nido, and it served to enhance the emotional color of the poetic work. The lyrical hero's letter to his father is simply unreadable. When you read it, you don't feel like reading it again, because the letter has already

pierced your heart. Now you can see the hearts of the children of war in the pajmur that has touched the "lead of desire", you can deeply feel the tragedy and pain of the terrible war through the heartaches of a baby.

Dad!

I miss you very much.

I miss you with both eyes.

Will you come sooner or later,

My mother said,

Is that true, tell me?!

We adults deceive children in many places, and we think that they "Forget, forget, because they are children" In fact, even the biggest mistake of adults is at this point.

Dad,

I saw you in my dream that day.

You came on a white horse,

You asked for water.

I told this to my aunt.

Dad said he was coming,

Is that true? [1,36]

To be honest,

I miss you so much,

I miss you with both eyes,

Will you come sooner or later?

I look for,

Dad, of course keeling "[1,37].

Do you know what the hardest thing in the world is? What is waiting, waiting for a beloved? Waiting for him, waiting for him to drink, unaware of his fate or not, like a yellow leaf trembling on a tree branch. In these verses, a rhetorical question is used for reflection. The author or lyric hero, in whose mouth the author puts such reflections, asks a number of questions to himself in order to better understand his own state.

Waiting...

The nights of separation are very long,

The road to separation is long.

I go out a hundred times a day,

My eyes are sad

Is the letter coming?

Even when you get up in the morning,

Even at sunset,

Can't stand even at night,

I look at the door,

It pains.

I look forward to

Is the letter coming? [1,37]

Here we see a series of rhetorical questions, the answers to which the hero already knows. Elsewhere in the story, the poet uses rhetorical forms to paint a horrific scene of war:

Around silence,

Only the river

They hit the shore.

Mysterious night, the whole being

Like a magician.

It's four o'clock tonight

How far is it?

Where to hurry

In this cold, in this damp?

It's snowing,

It's raining,

There is night only in the universe... [1,40]

Here rhetorical questions help to strengthen the impression of the reader, make him put himself in the place of the lyrical hero and, together with him, recall the terrible events of the recent past. In the last part of the epic, the poet's address to the world becomes an irresistible call:

Do not kick the ground; do not kick the ground...

We are fantasies

Flowing in waves

A story we read about those days.

But to the dead

Poetry, what good is a friend,

if it simply "blends in" with everything else out there?

A thousand years of glory,

An honor to say a thousand years,

The departed will not return to the world.

Why not bend

If a man leaves.

If the poet (E. Vahidov) did not use rhetorical questions in this epic and used only the narrative method, would the epic "Nido" still be effective? We don't think the answer is yes. Such forms of rhetorical appeal in a work of art are invaluable in vividly expressing the experiences of the lyrical hero, exaggerating and articulating the aesthetic goals of the artist, as well as giving it color, and most importantly, "infecting" the reader with the lyrical hero's excitement.

Rhetorical questions in literature are as important as they are in daily language, or perhaps even more so. The reason is the significant change a rhetorical question can bring about. The absence or presence of a rhetorical question in some of the most famous lines in literature would change the impact altogether. Some examples of rhetorical questions in literature show that writers sometimes ask questions, and then goes on to answer them to produce a desired effect.

Romeo and Juliet (By William Shakespeare)

"This but thy name that is my enemy.

Thou art thyself, though not a Montague.

What's Montague? It is nor hand, nor foot,

Nor arm, nor face, nor any other part

Belonging to a man. O, be some other name!

What's in a name? That which we call a rose

By any other name would smell as sweet"

A very good example of rhetorical question in literature is from Shakespeare's *Romeo and Juliet*. Here, Juliet makes a statement that a man's name does not define him as a person. She draws attention to this issue by asking two important rhetorical questions, as noted in bold.

As it is analyzed above, Writers employ rhetorical questions for rhetorical effects, and we cannot easily quantify the impact rendered by a rhetorical question. The idea becomes all the more powerful, and our interest is aroused to continue to read and enjoy the technical and aesthetic beauty that a rhetorical question generates. Moreover, it is a requirement in persuasive speeches.

This type of questioning is placed not to receive an answer, but to draw the attention of the reader or listener to what is important at the moment. Lomonosov wrote in his work "Rhetoric" that a rhetorical question "is not for testing the unknown, but for the strongest depiction of known things." Often this is due to the need to convey various emotionally expressive meanings.

Conclusion. The beloved poet of the Uzbek people, the creator of the twentieth century Uzbek poetry Erkin Vahidov in his epic "Nido" from rhetorical interrogations to increase the influence of the feelings of the lyrical hero, was able to use the work effectively and appropriately,

giving it a unique charm, expressing the hero's experiences in brighter colors. As it is stated, "The effectiveness of rhetorical questions in argument comes from their dramatic quality. They suggest dialogue, especially when the speaker both asks and answers them himself, as if he were playing two parts on the stage. They are not always impassioned; they may be mildly ironical or merely argumentative: but they are always to some extent dramatic, and, if used to excess, they tend to give one's style a theatrical air." [5,201] That is, Erkin Vahidov gains his aesthetic goals through using the rhetorical questioning in his epic "Nido".

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COMPARATIVE ANALYSIS OF THE NOVELS "THE WINTER OF OUR DISCONTENT" AND "ADOLAT MANZILI" ("JUSTICE VENUE")

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Abstract:

Background. John Steinbeck and Adil Yakubov are the prominent literary representatives who greatly contributed to the development of world literature. Their works reflect the psyche of the period to which they belong, the contradictions of society, different characters and destinies, changes, disagreements or imbalances between society and man. In the process of studying literary works, specialists dive into the creative ocean of writers and enjoy the gems of this world.

Methods. In the following article there have been drawn some views about the comparison of the novels "The Winter of Our Discontent" by John Steinbeck and "Adolat manzili" ("Justice Venue") by Adil Yakubov. The similarities between the literary themes, main idea, conflict, title and characters of the works are discussed in the paper.

Results. In the novels the authors showed the fate and feelings of people belonging to different classes in the society, besides they expressed the problems of the time, too. Both novelists created their works at a time when the spiritual, moral and social situation in the country was complicated. The main characters fight against injustices and frauds that occur in public life and everyday life. In Steinbeck's last novel, unlike Adil Yakubov's work, there is much more pessimistic spirit. The protagonist, Ethan, is a very pure-hearted, humorous man who enjoys life. However, until the end of the novel, Ethan cannot retain his positive qualities. But Adil Yakubov's protagonist Suyun Burgut (Eagle) keeps his personal features and stays proud.

Conclusion. *Through the effective use of interpersonal, protagonist and environment, internal conflicts, the creators verbally expressed not only the image of the heroes' psyche, but also the contradictions of life before the eyes of the reader. Along with similar feelings such as sincerity, kindness and love in the heroes, it can also be witnessed that they have different qualities. The works of the writers are united by vividness, truthfulness, boldness of the sharp social, spiritual and enlightenment issues of the time.*

Keywords: American tragedy, fate, society, nation, significant, writer, novel, John Steinbeck, Adil Yakubov, literary theme, main idea, conflict, title, character, realism, relation, struggle.

Introduction Every artist has their own peculiar spiritual world. Their works reflect the psyche of the period to which they belong, the contradictions of society, different characters and destinies, changes, disagreements or imbalances between society and man. In the process of investigation of literary works, specialists dive into the writers' literary ocean and enjoy the gems of this world. As G. Muradov notes in his research, the need for in-depth and comprehensive study of the history of fiction on the basis of modern development, social, cultural, scientific thinking, the study of literary and poetic features of mature works of art on the basis of advanced methods is one of the main issues on the agenda of world literature [5].

The analysis of the works that have a strong place in world literature in a comparative aspect, gives the possibility to identify the similar relations between man and society, harmonious human experiences, even if they represent different social environments. The prominent theorist of comparative literature V. Zhirmunsky's ideas confirm our opinion: "Typological similarities in the development of literature appear rather distinctly in those cases, when separate works, genres and styles in literature that are not connected with one another with direct relations or influences, discover the features of more or less significant similarities. Such similarities between ideological (particularly literary) phenomena belonging to one stage of social development and the same according to its class essence and direction, even if there is no genetic connection and mutual impact between them, can be met more in world literature than we think" [3]. A number of similarities in the novels "The Winter of Our Discontent" by John Steinbeck's and "Adolat manzili" ("Justice Venue") by Adil Yakubov are analyzed in this article.

Materials and methods. It is crucial to study the history, the period and conditions, contributing factors in the success of any work that is going to be discussed, because it helps to comprehend the topic, problem, main idea focused in the literary work. Regarding these aspects several similarities between the following novels that are about to be compared are observed. Both works were written at the end of the authors' creative path and could be evaluated as the product of the writers' life and creative experience.

Every work by John Steinbeck is worth exploring. However, his last novel "The Winter of Our Discontent" has become the subject of many debates, discussions, articles and research works. This case is questionable: why has this work been praised by so many readers and critics alike? Or why the author himself ended the novel as follows: "End. And I hope this time it's clear. I really do hope so". [12] There is no doubt to say that the author's both life and literary experience were the basis for such a strong novel. Though "The Grapes of Wrath" has been evaluated as a realistic starter and a powerful expression of brilliant intonation, Steinbeck also published a number of rather empty and spiritually abstract works. Without doubt that the creative evolution of the American prose writer was unstable. However, during his aspirations for the pinnacle of his career, especially during 1950s, when it was not only complicated period for him, but for the whole country, he remained as a humanist-writer who was loyal to the democratic principles.

Adil Yakubov's novel "Adolat manzili" ("Justice Venue") is also the result of a long life experience and creative maturity. The author experimented different artistic skills in various genres and styles, working creatively in the period when it was the time of complex socio-political changes. But in all his works, the deep understanding of the essence of the nation's spirituality, high moral and aesthetic values, was always the basis of his creative artistic research. The depiction of the spiritual, moral and social interrelationship between the people and the period dominates in the

novel. According to the writer's point of view, both these problems of the society should be comprehended; the conclusions achieved during the discussion should be transmitted to the reader, thus these both gain a deep aesthetic value. The author pays special attention to the description of the essence of poetic research in the socio-psychological development of human existence. The content expressed in the "Adolat manzili" ("Justice Venue") is interrelated with the interests and aspirations of the people.

Literary critic N.Karimov describes the novel as follows: "The novel is a literary genre that can reflect deeply and distinctly all classes of society, the lives of people of all categories, their inner experiences, details of everyday life and life problems" [4]. Indeed, in these novels, John Steinbeck and Adil Yakubov describe the people belonging to different classes of the ruling society, their feelings, and the problems of the time. Both novelists created their works at a time when the spiritual, moral and social situation in the country was complicated. Naturally, this discomfort and anxiety was reflected in their creative pattern. The novel "The Winter of Our Discontent" covers a symbolic and ironic term - the first half begins on Easter Day in 1960 and ends on July 4 of that year (Independence Day in the United States). The protagonist begins to change from the sacred day and on the day when a new page was opened for his country he realizes that his future as a human being is in captivity. But the work also has a realistic basis: the events take place in Sag Harbor, New York, New Baytown, where the writer lived until 1955, and was influenced by the prevailing spiritual swamp in America. The novel was published in June 1961 and it bears no resemblance to any of the author's previous works. The protagonist is also a character who is traditionally typical of Steinbeck - not an ordinary worker, but a descendant of the founders of the city, even in American terms, well-supplied, in a word, a moderately honest American.

It is known that in the second half of the twentieth century, the dominant realistic views began to move from the socio-historical sphere to the spiritual form. In their works, the novelists investigated in depth the social flaws in man, his inner feelings, the perfection or decline of the individual. During this period, in the United States, although progress was much more advanced, relations in society deteriorated. Recognizing the grandeur of the American Dream, the writers described their frustrations in their works. In his novel, Steinbeck also embodied the relations of material interests, representatives of the ruling class, who day by day showed less humanity.

The end of the twentieth century was engraved in the pages of history of the country as a period of political, economic, spiritual, legal and spiritual renewal, various contradictions and a series of conflicts between good and evil in the life of Uzbeks and Uzbekistan. The spiritual and cultural life of the nation was trampled as a result of various actions taken by the dictatorial regime to maintain its dominance. Adil Yakubov, similarly as John Steinbeck, expresses his concern for the future of his people, an unhealthy society in his novel "Adolat manzili" ("Justice Venue"). Some changes can also be observed in the author's literary career in the 1960s. If in the works written in the 50s, the society was led by devoted heroes, by the 1960s the issue of human dignity came to the fore in his works. The novel exposes the inferior methods and tactics of the political and legal forces in the colonial mood. According to A. Nosirov, this work, which discusses the recent past of the socio-spiritual life of the Uzbek people, poetically studied the complications of the stagnation in the psyche of the nation, and the artistic reality in it gradually moved to the imagination of the reader [6]. One of the peculiarities of the author's poetical skill is that the novel takes into account human life, the spiritual world, the intellectual level. The protagonists of the novel are chosen from the middle class, which embodies the healthy lifestyle and beliefs of the nation.

Results and discussion. It should be noted that in the analysis of a literary work it is important to identify the topic, problem, main idea. One more thing that unites these works is the main idea put forward by the writers; the similarity in the life material described and the problems that made them think and write. The novel "The Winter of Our Discontent" is imbued with deep sympathy, in which the author covers topics that have touched his heart throughout his life. Although in "The Grapes of Wrath" the reader's emotions have peaked, the author is still not satisfied. In his last novel, Steinbeck tries to diversify a familiar theme to us. According to the Russian critic O. Osmukhina, "The Winter of Our Discontent" is a product of purposeful writing,

which was consciously created as a result of spiritual instability in the dominant society in the United States in the early twentieth century [7]. Steinbeck's novel simultaneously describes a number of moral issues, such as the destructive power of war and greed in the society, at the same time it depicts American society and the position of a man in life in general. Of course, the writer had enough reasons for this, so the creation of this work could be called as a rebellion against those who were leading the country down to dangerous path. This work is a link in a chain of facts about the strengthening of realistic traditions that are often mentioned in American literature. The fluency of the main conflicts in the novel, the content they carry, reminds us of the "American Tragedy" of its time. The protagonists - an American Ethan and his wife Mary, descended from a generous family, whose ancestors were the first immigrants of the USA, live very happily. Not only Ethan, but all the townspeople in one of the states of New England live a life of self-sufficiency: they go on picnics on holidays, relax in cafes at night. They don't even think about the poverty that the Joads in "The Grapes of Wrath" experienced. But Steinbeck's great achievement is that the analytical power of the author's talent penetrates the visible aspects of the life, exposing the profound socio-psychological laws of American society in that period of a quiet daily life. Then it can be seen that they have not changed their original face.

Adil Yakubov's "Adolat manzili" ("Justice Venue"), as in "The Winter of Our Discontent", is watered down with concern and sympathy for the present and future of the nation. The writer rebels against the injustice of the ruling system and mourns the plight of the people in the example of the fate of his heroes. In some places characters show their discontent in the dialogues, but in some places they express their dissatisfaction with the help of internal monologues. A. Nosirov notes that in Adil Yakubov's novel "Adolat manzili" ("Justice Venue") the text consists of logically connected communicative connections [6]. This connection consists of a stream of mythopoetic thinking based on the legend of Marjantav (Marjan Mountain). Describing the protagonist's appeals to Marjantav, his warm impressions on a happy day, on sorrowful times waiting for salvation from nature, the novelist transfers the gap between grandparents and grandchildren from the soul to the being. The description of the rural way of life carries a specific purpose in the novel. The writer sprinkles rural life on the analogy of the characters (Veteran-Suyun Burgut-Mansur Mesh-Marjonoy). The logical connection between Marjantav's songs and the tragedy of Suyun Burgut fills the literary gap. In fact, this tragedy was an expression of the suffering and anxiety that befell the nation. So, the author tries to penetrate the consciousness and worldview of the nation by covering the tragedy of an individual. In the novel, through the strong and amiable old man, who spared both his life and health for the government, the aspirations of the government towards the human destiny are exposed [10]. Exposing the inferior methods and tricks of the political-legal forces in the colonial mood, their original appearance is revealed. The Veteran, who has devoted half a century of his life to government affairs, feels helpless like a child and regrets his past as he encounters dishonest, irreligious, quarrelsome, corrupt, accused officials. It seems that the scope of traditional realism changes and improves in a positive way according to the opportunities provided by objective conditions and the life experience of a particular writer, his way of thinking, his intellectual weight, coverage and style of expression. In the example of the heroes, the writer describes honesty, loyalty, courage, pride that exists in the nation. The following themes are common for both novels:

a) *friendship* - close relationship between Lochin, Kumush and Salim, support between them; the long-standing intimacy between Ethan and Danny, but later Ethan becomes the reason of his friend's misfortune;

b) *family ties* - depiction of sincere relationships, family traditions and values on the example of Ethan's nuclear family in "The Winter of Our Discontent" and the Veteran's extended family in "Adolat manzili" ("Justice Venue");

c) *love* - love between Ethan and his wife Mary, Suyun Burgut and Marjonoy;

d) *betrayal* - Ethan's betrayal to his close people and Mansur Mesh's betrayal to his neighbors;

e) *respect for ancestors* - Ethan regularly remembers his ancestors and Suyun Burgut appreciates national traditions;

f) *father-child problems* - in both novels a warm father-child relationship is expressed, but Steinbeck also describes a declining respect for the father, as well;

g) *loyalty* - as a daughter Ellen's confidence in her father, Marjonoy's loyalty as a wife and as a son Lochin's trust to Suyun Burgut;

h) *honesty* - as one of the qualities of the protagonists Ethan and Suyun Burgut;

i) *courage* – Ethan's confession of his mistakes, Suyun Burgut's superiority over the ruthless defenders of law, his desire for justice, and his steadfastness to death.

The principle of a new interpretation of man and his socio-spiritual and biological world is clearly reflected in the novels. In it the inextricable link between man and nature, man and society can be observed. The image of both relationships was aimed at the same goal. While both creative novels express the way of life of mankind, the continuity of spiritual relations has paved the way for a full understanding of the beginning and end of human life, destiny and existence. The deepening of interpretation and analysis of Steinbeck's creative thinking can be noticed in the work of Adil Yakubov, too.

Literary critic D.Kuronov emphasizes the plot as an element that forms the theme, arises in connection with the creative intent of the writer and organizes the material of life, which allows the artistic study of the problem of work [8]. In a literary work, the plots are external and internal, depending on the priority of the action. The novels "The Winter of Our Discontent" and "Adolat manzili" ("Justice Venue") are dominated by the dynamics of external action, depicting deeds, struggles and conflicts, turning points in life, so there are a number of changes in their destinies and social status. In both works, the events are fully reflected, and they acquire artistic and aesthetic value. But in these novels, the dynamics of internal movement are also observed. During the course of events in the work, the process in the psyche of Ethan, Suyun Burgut and Marjonoy, the uprising and changes in their inner world are described. While Steinbeck uses Shakespeare's sonnet as the title of the novel, the structure of the work is divided into two parts, just as in the sonnet. The changes taking place in the psyche of the protagonist Ethan are reflected in his speech. As he sits on the beach where he spends his time alone or in the store where he works, his thoughts "speak": "*What are morals? Are they simply words? Was it honorable to assess my father's weakness, which was a generous mind and the ill-founded dream that other men were equally generous? No, it was simply good business to dig the pit for him. He fell into it himself. No one pushed him. Was it immoral to strip him when he was down? Apparently not*". [12] The protagonist Ethan expresses his protest against the flaw in society - indifference and apathy - with the following thoughts. His father's failure, misfortune, and unhappiness are accepted by the people around him calmly, and instead of supporting him, they are comforted to see that he is facing a personal crisis from day to day. "What are the rules of ethics? What is its essence?" In fact, the author addresses the people through the language of the protagonist. The writer laments the immense importance of such qualities as humanity, consequence, kindness, mercy, which is disappearing among human beings. The attitude to a similar tragic situation is expressed by a number of heroes in "Adolat manzili" ("Justice Venue"). But a strong cry can be heard in the speech of the Suyun Burgut, who has witnessed almost all the cruelty of life. "*What kind of government is it if it leaves the most innocent people to the tricks of life, children who do not know what evil, fraud, foxing are, to the judgment of these filthy ravens? Even if honest people are thrown into the torment of hell and the sky does not fall from this injustice!...*" [11] The protagonist is deeply saddened by the carelessness, cruelty and indifference of society. His own pain and suffering is described as the inner rebellion. Adil Yakubov expresses his dissatisfaction with the decaying policies of the dictatorial regime in the speech of his protagonist. The author embodies in the reader's eyes the bitter fate of a humiliated, condemned people who live in their homeland and endure insults. In fact, the main character of the novel, who rides a horse, sings national songs, plays national games, becomes a victim of the injustices of the government officials and dies. Veteran, who has dedicated his life to this government, is ignored when he tries to save his son-in-law from these troubles. On the contrary, he

is not valued and honored as a human being. Society radically changes the fate of the protagonists in the novels leaving it in an ugly state.

In the novels “The Winter of Our Discontent” and “Adolat manzili” (“Justice Venue”) the authors used a chronic plot. They were able to show the fate of their heroes in a periodic sequence and the dynamics of their character. In the novels, the writers naturally incorporated extra-plot elements, their own observations, details, and included them into the literary text. In some places, Adil Yakubov, unlike Steinbeck, also uses the method of retrospective. The novel “Adolat manzili” (“Justice Venue”) begins with Marjonoy's telephone call to her mother Bibisora about the arrest of her husband Suyun Burgut. But as soon as the mother-child conversation ends, Bibisora goes back and recalls Marjonoy's father's death, being widowed, marrying Veteran Sherbuta Norbutayev, raising Marjonoy together, and her marriage to Suyun Burgut. This allows the reader to get acquainted with the heroes at the beginning of the novel.

The importance of conflict in the analysis of family, social, and personal relationships in the works is important. As a prominent literary critic D.Kuronov states, the conflict reflects the mutual struggles of the characters at the work of art, the contradictions of the protagonist with his environment, as well as the contradictions in his psyche [9]. Because a literary work is an artistic reflection of reality and the image of a person is at its center, all the conflicts that exist in real human life are reflected in it. With this in mind, the literary critic divides the conflict into the following types: interpersonal, character and environment, internal (psychological). In these novels all types can be noticed.

a) *interpersonal conflict* - in the novel “The Winter of Our Discontent” Ethan’s conflict with his wife and son, the protagonist’s opposition to the idea that material security is paramount for human survival; Ethan’s disapproval of his close friend Danny’s lifestyle; in “Adolat manzili” (“Justice Venue”) Suyun does not listen to the advice of Marjonoy; Marjonoy’s inability to reconcile with his son Lochin;

b) *conflict between the character and the environment* - in the novel “The Winter of Our Discontent” Ethan disagrees with Mr. Baker, the shopkeeper Marullo, and Margie; in “Adolat manzili” (“Justice Venue”) Suyun Burgut clashes with former director Mansur Mesh, prosecutor Sharanovsky, and investigator Mirjalolov, as well as prison inmates;

c) *internal (psychological) conflict* – it can be observed that in both novels, internal conflict is often manifested. In “The Winter of Our Discontent” Ethan often expresses his inner rage in words; an image of the outward world of Mary; in “Adolat manzili” (“Justice Venue”) Suyun Burgut’s cry against injustice in the face of various blows of life; Marjonoy’s anguished moans; Lochin’s painful grief as a teenager. Each type of conflict appears as a mixture in the novels, one motivating the expression of the other. The writers skillfully used these types of conflicts in their accurate depiction of the politics of the time, the evils of social life, and the vices of society.

Another similar feature in the novels is that the psyche of the person does not seem to be reconciled with the character of the surrounding environment. Ethan and Suyun Burgut fight against injustices and frauds that occur in public life and everyday life. In Steinbeck’s last novel, unlike Adil Yakubov’s work, there is much more pessimistic spirit. The protagonist, Ethan, is a very pure-hearted, humorous man who enjoys life. He goes through the same thing every day, but he tries to enjoy every minute, even if he is not indifferent to the nature around him (his appeal to the sea) and the animals (a dog nicknamed Red Baker, a conversation with birds). He has a conversation with them, which is a sign of his extraordinary nature. But until the end of the novel, Ethan cannot retain his positive qualities. Influenced by the social environment, he betrays his friend and store owner. At the end of the work, the protagonist sees the differences between his family, his son, and his children, and realizes that betrayal, corruption, theft, and crime are the downfall of the human psyche. “*Allen, my son, walked beside his sister, but each of them tried to give the impression that they were total strangers. I think she despises him and he detests her. This may last all their lives while they learn to conceal it in a rose cloud of loving words*” [12]. The protagonist wants the sincerity and kindness in his children not to be spoiled by the vices of society. So he gives his daughter Ellen an amulet and tells her that the “light of love” burning in her will never go out.

Though the novel ends poignantly, it leaves a spark of hope in the reader. Steinbeck warns that spiritual virtues and traditions will persist, and that a light-hearted life will lead mankind to decline. It may have been hard to comprehend the idea that the novel conveyed in the prosperous 1960s, but after a while, after a series of scandals, it became clear to everyone that the country was ruled by a few unjust political scientists. It is a country where those who stand firm in their opinions are punished. The Hawley family in the novel may be any American family of the 1960s, but the protagonists and events embody problems of jealousy, lust, and human greed that are not affected by the series of years.

In the novel, Adil Yakubov incorporates the attitude of humanity to goodness, the essence and dignity of humanism into the expression of national spirituality. The central line in the novel is the interpretation of the concepts of religion, consequence, and love. In other words, a healthy belief gradually becomes an integral part of the protagonist's character. Suyun Burgut's proud head does not bow before prosecutors, investigators and former directors. He sacrifices himself in order to protect the honor and dignity of his family and compatriots. Compared to this aspect of the protagonist, "Adolat manzili" ("Justice Venue") is close to Steinbeck's "The Grapes of Wrath". While Ethan's inner world is characterized by calmness and generosity, Suyun's is characterized by sharpness and courage. But there is a similarity in Suyun's cries as "How insulting?", "How humiliating?" and Ethan's concern that "money causes panic". For both, the concept of happiness is embodied in humanity, the harmony of the family and the perfection of their children.

John Steinbeck and Adil Yakubov not only portray the protagonist, but also depict the teenagers of the period, using teenage characters such as Allen and Ellen, Lochin and Oltinoy. Steinbeck using images of two categories - an honest, thoughtful and loving teenager as his daughter Ellen and arrogant teenager as his son Allen, the author states that pure-natured teenagers in society are the future of the family, the country. The protagonist's son, Allen, represents a new generation of 1960's in the United States, teenagers prone to bribery and deception. In this way, the author points to his grief and concern for the future of the nation. Adil Yakubov's teenage characters are as sincere and fair as Ellen. They are passionate about family development, parental consent, and community development. Lochin, in particular, is frustrated by the lack of justice in the society; he becomes depressed and tries to commit suicide. But his love for his mother turns him away from this path. The author points out that a child who loves his mother is a child who loves his homeland.

Conclusion. In short, John Steinbeck and Adil Yakubov express their concern about the changes and vices in the society of their time. One of the unifying factors of both novels is the idea expressed by the authors. Naturally, themes such as friendship, respect for ancestors, family, child rearing, betrayal, love, loyalty and courage take the lead in the novels "The Winter of Our Discontent" and "Adolat manzili" ("Justice Venue"). Through the effective use of interpersonal, protagonist and environment, internal conflicts, the creators verbally expressed not only the image of the heroes' psyche, but also the contradictions of life in the eyes of the reader. Along with similar feelings such as sincerity, kindness and love in the heroes, one can also witness that they have different qualities. The works of the writers are united by vividness, truthfulness, boldness of the sharp social, spiritual and enlightenment issues of the time, the ability to open new facets of the truth about man and his heart, sharp drama, deep humanism, passionate thoughts about human life.

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SAMANDAR VOHIDOV'S POETRY AND EXPRESSION OF THE AUTHOR'S INNER WORLD IN IT

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Abstract:

Background. This article is dedicated to the creative heritage of Samandar Vakhidov, a representative of the literary environment of Bukhara, who lived from 1942 to 2014, study of his oeuvre and analysis of several poems, through which the individual and personal features of the author are revealed.

Methods. Many poets and writers grew up in Bukhara. One of the most important tasks of literary criticism today is to study their work, to identify their peculiarities, to recognize that they have made a worthy contribution not only to the development of Uzbek literature, but also world literature. It is important to study the literary environment of Bukhara, formed over many years, and the peculiarities of this literary process on the example of works of art. The new season of poetry, which sprouted in the 60s and 70s, also ignited in the hearths of Bukhara poetry. And in the same years, many talented poets and writers grew up on this land. One of them is poet, TV journalist, translator Samandar Vahidov. The above-mentioned works will be covered in the article on the example of S.Vakhidov's work. This article tries to identify the main ideological features of S.Vakhidov's poems. Emphasis is placed on defining the essence of the symbolic images in the poems, which serve to reveal the author's purpose, and thus on how the poet's artistic and aesthetic thinking expresses his feelings. The article also provides information about the stages and directions of the study of the poet's work. The article deals with the main content of the poet's poetry. In the land of Bukhara, an attempt was made to identify the most topical theme of the poet's works for almost forty years, the thoughts and feelings that constantly occupied the creative heart, mind and consciousness.

Results. An attempt was made to demonstrate Samandar Vahidov's ability to create images and his ability to use his image for creative purposes. The main content, ideological and artistic features of the lyrics of the poet Samandar Vahidov were analyzed. Based on the analysis, an attempt was made to determine the methodological individuality of the creator. Emphasis was placed on the ability to express one's spiritual world through lyrical imagery and poetic imagery. At the same time, information was provided on the level and direction of the study of

Conclusions. Samandar Vahidov's work. S.Vakhidov's work requires serious study in terms of its richness of poetic forms, genres, images, and visual aids. The fact that there are enough ghazals and muhammas in his work shows that there is research that needs to be done in this regard as well.

Keywords: Artistic and aesthetic thinking, poetic form, duality, poetic image, skill, creative individuality.

Introduction. Samandar Vokhidov is the poet who greatly contributed to poetic legacy of literary environment of Bukhara. In particular, he composed amazing mukhammas to ghazals of Ali-Shir Nava'i, and presented his collection of mukhammas under the name "The inspiration is

eternal in this garden' to his readers. Professor, doctor of philological sciences Oxunjon Safarov wrote about poets' mukhammas in the preface of the poet's book "... in his mukhammas to the ghazals of Nava'i, the poet did not abandon Persian and Arabic words and expressions, trying to preserve as much as possible the elements of the poetic expression of the original source language, and in some cases fascinatingly expressed the poetic thought by creating completely new, unexpected exaggerations which are in tune with those created by Great teacher (Nava'i).

The creative work performed by Samandar Vokhidov in the field of translation is also worthy of respect. He translated into Uzbek the Persian poetry samples of the thirty classical poets who lived and worked in Bukhara. His book "The Orchard of the Bukharians" has embodied his work in this direction. This book can be cited as a valuable resource, which can provide information not only about the creativity of poets from Rudaki to Sadriiddin Ayniy, but also about the social environment of a certain period. The poet's epics, his poetic findings in dozens of collections, also showed that he is a creator who is able to feel, listen to the tones with all his spirit, which others are not. Evaluation and attitude to his poetry began during his life. Bukhara poetry writers observed with great admiration, read and tried to understand every line of this talented poet. Such a responsible task was first carried out by the doctor of philological sciences, professor Rahim Vokhidov.

Materials and methods. In his collection named 'My findings about one writer and three poets' he expressed his thoughts about representatives of Bukhara literature - Muzaffar Tursun, Tashpulat Ahmad, Sadriiddin Salim Bukhari, as well as about the works of Samandar Vokhidov. He spoke with respect and passion about the poetic findings of Samandar Vokhidov and rediscovered them through the eyes of poetry lovers. In this collection, the most popular poems from collection 'Sunbula' (V irgo) by Samandar Vokhidov – 'Let this land live long', 'Memories engrossed in poems', 'Love – is the iris of poetry', 'The garden of ghazal is a beautiful flower bed' were analyzed. R.Vokhidov highly appreciates the poet's research in translation and notes 'the poet himself enhanced his skills at the school of great classical poets of the East, and took lessons from their experience, and today he is also promoted to the status of a masterly ghazal writer and creator of beautiful poems'.

Samandar Vokhidov, a poet and translator, in various years published the three-volume "Saylanma" (Favorites). However, they have not been fully analyzed.

Samandar Vokhidov gives the impression that he wrote in one rhythm, modestly, calmly with a touch of a pen in poetry. However, having closely acquainted with the lines that he created with color from the heart blood, you will realize that he is worrying about the Motherland, he is upset by inappropriate behavior of some people, sometimes suffering from a sense of longing. The important visible aspect in the work of the poet is the appearance of a man who, as a man, is hurrying to complete his noble deeds, who does not know the meaning of life without purpose and tries to live with satisfaction. No matter on which topic the poem is written, the same feeling is felt as if it is written on a piece of paper.

O'ljasini taqsimlashga kechikkan
Ovchi kabi shoshar umr hansirab.
Ulgurmasa - ov zavqi bir pul ekan,
Yirtqichga em – yo'l yo'qotsa tentirab.
Ulguray deb shoshilaman jonsarak,
Men tinmasligim kerak.
(Life goes on gasping for breath
like a hunter late for butchering his prey
If he doesn't make it,
the pleasure received from hunting is a waste
Will become the prey of a predator - will roam if lost
So I'm in a hurry to catch
I have no rest)

As the hunter hurries in the distribution of prey, life is also so fast in giving us shares. A person cannot know whether he has little or no life left. If little, the shares we have worth nothing. If there is a lot of life, then we may go astray and the prey is him. The poet motivates to live with the soul, so as not to succumb to such possibilities.

From the poems of Vokhidov, in which the image of nature is reflected. One can also perceive exactly these feelings in his poem "Flow the waterfall, flow" at first glance, as it is written about the flowing pure water, beating from stone to stone. But each image in the poem carries a symbolic meaning.

Sharqira, shalola sharqira,
Toshlarni uyg'otsin tug'yoning.
Har zarrang olmosday yarqirab,
Yog'duga g'arq ayla dunyoni
(Flow, the waterfall, flow
May your power wake the stones
Let every drop of yours sparkle like a diamond
Turn the world into a rainbow)

The waterfall is the place where the waters hit the stones and flow in a boisterous way. The poet, on the example of waterfall, expresses the original purpose of his life, its meaning, what his life tasks consist of. That is, the waterfall in its own example brings the heat of rebellion, which awakens the stones – stricken hearts, and with every particle – every line, the world is flooded – a feeling of longing for the good. On the one hand, the flow of the waterfall from the stones to the stones and making noise means the enthusiasm in the heart of the poet, the excitement, the love of life, etc., on the other hand, it is necessary to be able to withstand the shock of those cold stones in order to excite in life. The poet calls to appreciate every moment with the line 'Flow the waterfall, flow' and says 'Such a fortune of happiness is one-time'. He appeals to the waterfall again, encourages it not to stay in the unmindfulness.

Sharqira, shalola sharqira,
Daryoga yetguncha hushyor bo'l.
Chim bosgan sohilga kift tirab,
Yo'lingni poylaydi qancha ko'l.
(Flow, the waterfall, flow
Be careful when approaching the river
Leaning against the reed shore
So many lakes are waiting for you)

A person who stops cannot achieve his original goal. A person who got rid of laziness and worked tirelessly has always achieved his intention. In such a symbolic sense, the river and the lake are facing each other, the river-location, width, freedom, the opportunity to flow without obstacles - without stones. Lake – dreams' mirage, helplessness, impossibility, 'temptation for a rest'. And the last lines of the poem clearly show the author's goal again.

O'zliging unutm, botqoqmas, -
Tog'larda tug'ilding sharqiroq.
(Do not forget who you are - you are not a swamp
You were born in the mountains waterfall)

It is not difficult to understand from these lines that once you are created as man, live your life without error. Simply put, the waterfall (shalola) is a symbol of the poet's heart, the whole spiritual world, his flying emotions, his heart without rest.

The peculiarity of Samandar Vakhidov's poems is that at first glance they seem to be written about simple life events. In fact, the feelings expressed in them do not leave anyone indifferent. Each word in it contains an inner meaning that is hidden only in the inner world of the author and reflects his personality. He brings every detail of events into the world of the soul and expresses them in verse, reflecting the strings of his soul. The same condition applies to his poem "Intiho" (The Final Battle). In it, the poet describes that "a tree whose branches are empty of fruit" has

become useless, invisible, or even that “stones will not be thrown at it” not as a natural phenomenon. And the fact that the tree fell into decay after performing its functions does not make it clear that it looks like a human life path. Despite this, anyone who reads this poem about the fate of a tree will quickly understand that it is not only about a tree, but also about human life. So what is the fate of the tree (man), which is dropped out of view? The poet reveals the essence at the end of the poem; Thus, it becomes clear that each of us will have a bitter fate when we find ourselves in the arms of autumn, oblivion awaits us.

Keraksiz qolganin sezar-u shartta –
Daraxtni mahriga qo’shib olar kuz.
Tashqari chiqolmay tushar titroqqa
Qishning qilichidan dilzada ildiz...
(It instantly realized that had become otiose
Autumn has embraced the tree.
The root not daring to get out
Waiting for death by the sword of winter.)

Every poet wants his poems to be popular and to have a large readership. Because he longs to see many on the path he has begun to understand the truth, describing the sweet and bitter feelings he drank from the fountain of life on the path of life. Perhaps the heart of a creator holding a pen in his hand is thinner than silk. The reason is that the frustrations that seem insignificant to others, the poet's gaze, the poet's feelings, create a huge explosion. Then he prepares a shield from his poems against the evils that destroy human goodness. In his poem, which begins with the words, "I do not want to be like you, dear friend," the poet urges his reader not to succumb to the lowly, the lowly, the lame. Maybe it's good for someone to live with their hands on their chests in front of such pessimists, but for a poet's heart, for a creative person, it's like giving up oneself. In an environment full of hypocrites, the poet says: He emphasizes his philosophy of life, his ability to stand firm in his beliefs, and encourages his readers to do the same.

Modomiki, menday yashash dilda muroding,
Qismatingda faxrdan ko’p bo’lar faryoding,
Yashab ko’rgin – pand bermasa sabr-u saboting...

So how do you live? Since a person has the right to live, how can he live a life that is sometimes uneasy, sometimes calm, but flowing like a river? In his poem "Yashash huquqi" S.Vakhidov said, "If a flower does not break from the blow of your footsteps, if the spark of love does not die in your heart, if the fountain of Mercy does not stop, if your friends do not leave your house, you have the right to say He makes a number of comments. This means that a person must live "soul to soul." Only then does he have the right to say, "I have lived." The general conclusion of the poem is that a person who cannot keep his heart free from the scourge of arrogance, jealousy, and corruption will only live. In the poem "munosabat", the poet secretly tells his reader that life is a balance of good and evil, black and white, and that man, as a human being, must live by the principle of humanity. Let the dam pass through the sea of rivers that do not overflow with stones, the rivers that do not feel the danger of the tricks of the traveler, the rivers that do not feel the danger of the tricks of the traveler. According to the author, every creature in the world has a burden to carry, and even the heaviest must carry the weight.

Ro’baro’ chiqmasang sabotim sinab,
Qasdimga tig’ emas, yursang tig’ qayrab,
Tirnoqning ostidan yursang kir izlab,
Men o’ngdan kelganda, yo’lni solsang chap,
Ag’yor, ag’yorlikning bahridan o’tgil!

In the poem "Agar..." the poet examines his feelings, creativity and life in the same way. In it, the poet is ready to give up his bar, saying, "You are a penny," if his poems, love, anger, and even his life are worthless. S.Vakhidov is a poet who, despite his love and anger, can assign great tasks to the cause of goodness.

In his poem "Karavan", S. Vahidov observes Abdulla Aripov's sharp philosophy: If it breaks, Is it guilt, Is it sin? This echo is the soul of the rushing desert - Return and turn from Hope. A caravan is a person who is on a mission to a higher goal. And the bell is the echo of the success of this passenger as he travels - the prey he gains as he moves. His voice gives hope to the desert, to those who have given up on their dreams, and calls them to their destination. What about dogs? Dogs - "Dead begs for help from silence, Danger is at the bell of the caravan." Dogs are jealous people who are ready to tear you to pieces. They are ready to do anything to keep their peace. But that's not what the poet wants to emphasize. In the last lines of the poem there are lines of condolences to Abdulla Aripov, who is walking among the dogs of the caravan of life. (There are dogs, and everyone knows the caravan is passing.) That is, "It is a miracle that the whiteness of the white is not covered by the imperceptible black, the caravan is not known, unless the dogs bark at the dog. The poet hates the diversity of hypocrites, his heart breaks as if he were about to burst:

Manov nusxa tushganmi oydan,
Soyasidan yuribdi tonib.
Kecha o'zi tup urgan soydan,
Ixlos ila suv ichar qonib

Even so, owning one is still beyond the reach of the average person, who says, "You try to be human, life, you play like a monkey."

In his poems, S. Vahidov depicts unique human relations through poetic images, and one can be sure of how optimistic the poet's heart is. There is something else that makes her beautiful in a troubled world. These are eternal values, pure feelings that have been cherished since childhood. No matter where you grow up, no matter where you live, you will miss the places of your childhood and the feelings you felt at that time. Whenever he returns to that place, at any age, in any situation, he feels at peace, as if he has forgotten the worries of life for a moment. Many of the poet's poems are about this beloved place, about his native village, where his first poems, in his own words, inspired him to finish his "grave poems". The poet recites a heartbreaking, heartbreaking, long-suffering victim of a distant past.

Umrimdan mamnunman,
Toleimdan shod,
Dunyo kezgan sari – hislarim daryo,
Yorqin istiqboldan so'zlaydi hayot,
Va lekin, rostini tan olsam, goho –
Sizni qo'msab yoshga to'lar ko'zlarim,
Olis bolalikda qolgan hislarim!

Results and discussion. The study and reaction to the work of Samandar Vahidov began in the life of the poet. Since the publication of the first collection of poems - "Kaftimdagi gul", representatives of the literary community of Bukhara and literary critics have not been indifferent to the work of Samandar Vahidov. Ahad Hasan, Toshpolad Hamid, Toshpolad Ahmad, Tilak Jora, Omon Mukhtor, M. Tursunov, R. Vohidov, O. Safarov, G'. Murodov, L. Sharipova constantly followed the work of the poet and gave reasonable opinions about them. M. Jumaboyev, a researcher of children's literature, in his research expressed his views on the poet's epic "Asal bobo", albeit briefly. Professor R. Vahidov made a detailed analysis of the author's epic "Sunbula". O. Safarov, on the other hand, carried out a comprehensive work on the literary environment of Bukhara, uniting them into a single literary field under the name "Bukhara Literary Movement". Samandar Vahidov's work has been praised under the title of this valuable book "Kengliklarni qo'msagan shoir". O. Safarov tried to analyze and interpret the poet's work from three angles. In particular, in the sub-chapter "The difficult path of writing" Samandar Vahidov's process of entering the creative world, as well as his work as a journalist and translator, is highlighted. At the same time, through the analysis of his poetry, the poet focused on discovering the spiritual world, defining his creative style, the poetic ups and downs in his work - the process of growth from "barmoq vazn" to dream tones. In the "Aylanadir bu dunyo" section, S. Vahidov's poems and epics from the "Selection", which contains almost forty years of creative work, reveal that at first glance,

they contain simple but philosophical ideas. The chapter "Beautiful muhammasot on Alisher Navoi's ghazals" emphasizes the poet's mastery of muhammas. Only these researches of O.Safarov show that Samandar Vahidov's work is multifaceted. The poet's poems on various topics, written in the weight of a finger, deserve in-depth study in terms of ideological and artistic, formal structure, diversity of genres, richness in poetic arts, philosophical views. At the same time, both his work as a telepublicist and his achievements in translation require critics to take a serious approach to the poet's work. Samandar Vahidov's creative legacy has been enhanced several times by his ability to write freely in modern poetry, as well as in classical melodies. Professor O. Safarov compares his mastery in muhammasnavig with the work of Ogahi, Muqimi. As mentioned above, Samandar Vahidov is a talented artist. Every aspect of the poet's poetic legacy is worth exploring and requires the seeker to be as versatile as he is.

Conclusions. Samandar Vokhidov is one of the creators who can bring his spiritual sufferings on paper with thoroughness and skill. The artistry of the poet's poetry is so powerful that analyzing them on the basis of the criteria of poetry and presenting them to the masses of a wide range of readers is considered one of the most important tasks of today. Every edge of the poet's creativity requires such attention.

Samandar Vahidov is a singer of emotions dear to such a person. He is a creator who can turn his student into a pure-hearted person, urging him not to make mistakes that will erode his conscience in his life. Therefore, he himself considers it his highest goal to do good deeds, saying, "If you live like the air, enjoy the air." The content of the emotions born in his heart was able to harmonize with the poetic form and poetic images in his poems. It is this aspect that determines his poetic nature and creative individuality, the level of ideological and aesthetic thinking.

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PROVERBS ARE A MIRROR OF NATIONAL CULTURE

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Abstract:

Background. Formation of anthropocentric paradigm in Uzbek linguistics during the independence period. plays an important role in research in terms of cultural attitudes. This article discusses the importance of Uzbek and English zoonym component articles in reflecting the national, cultural and mental characteristics of both nations and ethnicities. The articles identify individual and universal nouns created by the example of zoonym, and identify common aspects of English and Uzbek people.

Methods. The subject of this research is the study of the level of expression of cultural features of articles with a zoonymic component. Methods of analysis, synthesis, comparison, semantic, descriptive and statistical analysis were used to cover this research topic.

Results. The linguistic units that emerge as a result of the unity of national-cultural and ethnic differences, mental features are recognized as important concepts to be studied in the field of

linguocultural science. The issue of studying the essence of their meaning and the extent of their application in everyday life is analyzed in the context of linguocultural science.

According to the results of the study the following conclusions were reached:

➤ *It was determined that the diversity of zoonyms is determined by the folk cultural environment;*

➤ *Based on the fact that zoonyms provide information in articles as units that reflect the relationship of language and culture;*

➤ *The degree of expression of national values, customs and traditions, social relations in articles with a zoonymic component is determined;*

➤ *Semantic and lingvokulturological features of Uzbek articles with zoonymic component are revealed, conceptual groups are defined.*

Conclusion. *Finding solutions to problems related to language and culture and increasing the amount of research will be an important factor in determining the development of linguocultural science.*

Keywords: *uzbek proverbs, english proverbs, folk culture, national feature, linguoculturology, linguocultural characteristics, individual and universal seme, characteristics of mentality.*

Introduction. Proverbs play an important role in creating a figurative image based on people's worldview and cultural life. Zoonym component proverbs are found in almost all world languages. This is because humans and animals have lived side by side for thousands of years. Therefore, animals play a special role in the daily activities and cultural life of people.

Surrounding, realities in speech are important in the study of zoonyms. Differences in the amount and way of using zoonyms in speech, shows the attitude of each nation to the individual living conditions, and natural environment. The differential naming of zoonyms in different languages is also a result of animal attitude, lexical, grammatical, and phonetic capabilities of each language.

Zoonyms are an onomastic field that is difficult to learn. This is because the disappearance of certain species in nature causes the disappearance of the same name. The fact that rats and mice have a single lexeme in Japanese and Turkish indicates that they are relatively rare or nonexistent in the daily lives of the people.

Zoonyms are used in the physical, emotional and mental image of a person. The content of the animal names also depends on the language features used. The world outlook, way of life and thoughts of a particular nation are understood by the occult semantics of zoonyms. At the same time, the animal image used in the article may form an integrated semes in several languages or differentiate between differential semes.

Materials and methods. Samples of folklore in Uzbek and English were widely used for preparing this article. Annotated dictionaries in both languages also were used as research material. Methods of analysis, synthesis, comparison, semantic, descriptive and statistical analysis were used to cover this research topic.

Results and discussion. It should be noted that English proverbs and sayings with components of zoonyms, has an important role in the mental character of the people. The main information is given by English proverbs depending on the nature of English, the long history of everyday life, hobbies, and cultural ties, customs and traditions.

Therefore, *an ant on the move does more than a Dozier ox* (the movement of an ant who is capable of much more than a bull dozing) English mentality is included such as mobility, reflected on business, and working on creativity. The view is always highlighted in the inability to determine the amount of work carried out.

Continuous research and action is considered to be the key to all success. *In time, even a bear can be taught to dance* (if it is necessary must make bear to dance) with will, and desire man can overcome of any difficulties, and man can make bright his own future and it is in his hands.

But *until the cows come home* (for a long time and urgency) describes a person who moves so slow and without taking responsibilities on their action embodied. Also wants to say that everything has its selected time and it must be completed on its right time.

When the mouse laughs at the cat, there's a hole nearby (escape is near if mouse smiles to cat as the convenient holes there) the following is meant by the proverb: by any action of human there is a certain sense of determination and valor behind it. Typically, without mental support it is hard to make serious actions.

Scruple, is a behavior, which is considered the word of the character of the British people. A *chatter builder has not nest* is about talking a lot for nonsenses is criticized by the nature of decompression operation of the people. Known magpie is much more than singing, but young birds open pit. By the image of magpie gossiping, backbiting, chatterbox people are rebuked.

Let the cat out of the bag (to reveal the secret) are used to the people by over speaking try to reveal others secrets with the aim of hurting them or putting them in a selfish situation. Here people are warned of the situation and not to trust everybody.

As well as in English folk samples in response to his word, plus there are sayings. They will be recognized as an example for the younger generation. However, *none preaches better than the ant and she says nothing* (no one can give a good advice but ant. And he says nothing) to solve the problem with remaining in silence and calm stressed that in many cases it leads to positive results. Ant's silence is because of being wise to find the solution of the problem.

A crab does not like a bird, which means where or how person might live any way he will be like those who he belongs to. On this point there is a similar proverb in Uzbek Language "*dog gives birth to dog, and lion gives birth to lion*".

The person who has chamber has to control his balance, and must respect and treat them in with good manners *no matter how high a bird flies, it has to come down for water* (not how the top flight of birds, it will eventually return to the ground for water) reflected in the case of the proverb. How high man climbs, glory steep passes, it is not true pulp and forget relatives or to leave them. As well as in this saying it also includes the meaning not to interfere others and keep doing only its duty.

Pigs might fly, but they are very unlikely birds (pigs can fly, but they are unusual birds) life behind the supernatural events also took place as it could be. But in any case, no breach of the principles of the law of nature and society are only the admiration of others. In rare cases, they found an amateur or a pro. As well as a figurative sense, "*anyone who has entrusted the work of others and acting head overpower*" that is expressed in the content.

In society we often face to hypocrisy, flattery and well treating basing on others economic vices are black sides of habits: *if you have money, I think you are wise, handsome and able to sing like a bird* (if you money people think you are wise, handsome and can sing like a bird). People are warned against being selfish and to do all the worst things for the achievement of their aims. *In a cat's eyes, all things belong to the cat* (the cat's sight, everything is related to him) means each person thinks first of all of its benefits, and only the best of the things wants to get. As a logical continuation of this saying can be included the following: *every bird loves to hear Himself to sing* (every bird its lower preferred). By nature man tries to strive always to put his own interests above all highlighted. From this point of view this wise saying becomes both positive and negative - although expressed enthusiasm for fame and career.

Like other nation the will of the British people, passions and life should be confined to the necessary conditions are described in the examples of folk. Satisfaction, principle, limit, knowing its extreme mentally function features do a number of proverbs in seme. Especially those who are greedy and miserly nature *you can't sell the cow and drink the milk* (can't drink milk by selling cow) illuminated by the example of the proverb. The basis for the success of any article referred to in the specific sense of the sacrifices lie.

English mentality of the people has the grit, fruitful work, cleanliness, contentment, loyalty, honesty, diligence, equality, mutual competitiveness; prosperity and bright future, such as features are also reflected in the case of national proverbs and sayings. Each of the language used in the

process of folk samples of people who have them in the right direction, the role of the dynamics of the experiences of fathers.

Seeking for the success man has to work hard and must be patient *a bird in the hand is worth two in the empty* (two birds, a bird screeching in your right hand landed in your hand is more valuable) highlighted the example of the proverb. Therefore, man should be grateful for the existing conditions and events. Also, *the early bird catches the worm* (succeeded who is awoken early) tells the benefits of being awoken early. Our wise people say "*God blesses those who started work early*," which has the same similar meaning this English proverb. Indeed, the early started work end with blessing and prosperity.

In any situation man should live honestly, not to betray *others if you are buying a cow, make sure that the price of the tail is* illuminated. People are asked not to be bad tempered to others property, they are called to be courageous and brave.

A professional man can earn enough amount of money due to his knowledge and ability. Thus, the English folk proverbs and samples, which encourage people to study science and profession, which many people as they grow up in an important role in the slot. *A cat will teach Her young ones all the tricks, except how to jump backwards* which means any owner of a profession while teaching his followers will try to keep some secrets, which asked student to learn by his own experience which must cause for his development.

In our culture it is important that old life experienced peoples' advice as they have ability to overcome any kind of situations and it is described in the following: *a new net will not catch the front of an bird* (with new trap can't hunt on the bird); *old birds are not to be caught with chaff* (bird can't be hunted by little stick). So, in a sense, created modern and mobile conditions always can't be beneficial and sometimes it is good to follow to its old method.

Depending on the experience and qualification any kind of work will be effectively. The result of the work can be seen only after determining it: *only when you have crossed the river you can say the crocodile has felt a lump on his snout* (only by crossing the river you can tell what is in the mouth of a crocodile. In Uzbek Language there is a similar proverb: "experienced is practitioner").

Examples of proverbs devoted to the topics of love and loyalty, which describes people's character and attitude to human feelings. So, *love me, love my dog* (if you love me love as I am). This saying means to love somebody as he or she is without complaining about that person's existing bad and good habits. The word "dog" here is used as an image of negative habits.

But reflected on the negative consequences of early love in folk samples are also available: *he who falls in puppy love, leads a dog's life* (young man with a love heart it is the beginning of the day). After all, in English mentality people are carried out life plans, which is based on education, and profession. Adult educated person can be the key to a brighter future. Having independent life for such a kind of man he can overcome life stumbles using his skills and work abilities. So, in sense, proverb is highlighted to the existence of its time for everything.

Particularly a big attention is paid to the education and training among English families: *use a book as a bee does a flower* (bee flower, such as the use of the book is to be used). It is known bees are very industrious creatures, landed on the flower-blossom honey balls. In addition to this, their job is useful to society and nature. This proverb describes cultural life of English people, advising for young people by the representatives of their older generation, said the positive sense of the word as a rebuke.

In our language there is saying "*early learn knowledge is like carved pattern in the stone*", there is the same ideology in English. In particular, *it is hard to teach an old dog tricks* (hard to teach an old dog cunning), from this proverb we can learn it is hard to explain something to an experienced man.

It is hard to pass through life's ups and downs if person keeps listening to others gossips or advices: *if you stop every time a dog bark, your road will never end* (if you stop on each dog's barking you will never reach your destination) illuminated by the example of the proverb. In Uzbek-

language "dog keeps barking but caravan keeps his walk" proverb is the synonym with above mentioned saying.

It should be noted that in British proverbs so many saying are told with about success and bright future. *You will always be lucky if you know how to make friends with strange cats* (being friends with strangers, you'll be always successful) it means trying to find the way to the hearts of people will lead to the success. Meanwhile, the fate of every human brings blessings and abundance in the rich days, disrespectful, and expecting for more luck and success on coming days than today *every dog has its day* (each dog has its day); *every dog will get a period of success or satisfaction during his lifetime* (each one can be lucky and successful) articles are also available, and they have a positive effect on human psychology.

Everyone is given the same opportunity to achieve their goals in life. Only few people seek for opportunities, and others do not make steps towards his goals. *Every dog is allowed one runs out* (once a dog is allowed to bite). These words relate to people who had missed his opportunities, the author of life of every event that takes place in their own way. About passing happiness and luck, said: *every day the sun does not shine on the empty dog's back* (not every day the sun shines on a dog). By this saying wants to say that if man only once succeeded should not always expect or thing that he always will be lucky and he must seize the each chance of life.

Most of the Uzbek proverbs are based on the topic of unity, hard work, entrepreneurship, patriotism, family, generosity, and follow the counsel of the elderly, respect, gentleness, belief for a bright future, a honor, word keeping, patience, and wise, which play an influential role in the education of the future generations.

The Uzbek proverbs are also very enrich with the belief for light future with hope. Such a kind of proverbs encourages nation to keep forward on, to search for the better way which leads to the success of goals. And for achieving the aim also mentioned to be patient, hard work and solidarity only.

"Wanted person can get milk from goat" this wise word says us to be motivated to overcome all the difficulties on the way of achieving goals. And should be feed with the hope of success, to pursue before they are delivered to the people in their search, today, tomorrow and move us to believe will be effective.

All things in life, has its blessings and importance: *"even a donkey must bring luck"*. People are contributed choosing things not due to its size but for its effort to encourage the purchase. By the image of donkey thankfulness and satisfaction are described. Another proverb but with the close meaning of the above mentioned proverb proves that with patient and hard work man can reach to his dreams: *"people who have a donkey, one day will have a horse too"*.

The symbol of endurance and patience are widely used by the image of cow: *"when you have not a cow, even goat is cow"*. Therefore, human life can be reduced in a variety of situations. By the wise word calls people to be patient and satisfied what he has got without letting others to be informed from his personal situation.

Besides, by the following proverb *"A good neighbor is half wealth"* is sample of harmonious combination of good neighbor relationship is discussed. The article is pointed out to the unity of being neighbors.

By the proverb: *"All dogs of village will be friends if see a wolf"* fight against violence is pointed out by uniting honest people. Here is it worth to see the united groups under the great power against the battle of grief, pain and enemies. The proverb calls for the encouragement of people to unity and solidarity. The meaning of the proverb is that being separated or performing alone it is hard to achieve for goals and most of times by the support of people has a great meaning.

There is a saying: *"collective will win, but solitude suffers a default"* which encourages people to be united and do the task together. With the same meaning there is another proverb *"even the wolf is afraid of from a herd of sheep"*. The meaning is stressed that lonely wolf can't attack to a storm. Those proverbs call upon people to be united and overcome together all the problems in order not to be devastated or destroyed.

In the society the category of crimes are done by two kinds of criminologists: first by mandatory and being misled; second type person is the person who made criminal as his job, even though having no social problems. The following saying tells exactly about the same meaning: *“satisfied wolf is worse than hungry one”*. *“Hungry wolves”* belong to the first categorized group, and the representatives of the *“satisfied wolves”* belong to the second group. By proverb wants to draw the attention of people to be alarmed against thieves and liars.

Human is helpless for achieving goals being separated from society. Food and wealth will not have taste for lonely person. As Uzbeks have special love for family, relatives, friends, brotherhood and companies, it is one of the Uzbeks mental characteristics and the following proverb says: *“a group of crows eat solitary goose”* By the proverb wants to say that loneliness might cause for the negative results mentioning separated geese. And crow is the symbol of united violent gangs.

To be always protected against robbery and crime, fight against evil and injustice appropriate measures, most importantly people must be together with their council, the necessary weapons should be prepared and by the following proverb our analysis is shown: *“soldier without weapon like a goose without wings and legs”*. Here it is considered King’s army troops without preparation to the battle is like a fly of goose without wings and legs which is the main weapon for its flight, which ends with losing. And in sense, another point is that if person is about to start something he has to be prepared and must know how to work in order not to be lost or lose his chance. Otherwise, the result ends in tragedy.

From the long ancient times the Uzbeks present a great respect to elder people. In each Uzbek families grandparents are respected and their words are listened by young people and also followed to their counseling. It is also one of the features of our mentality. *“In houses where there live old men and sheep are whole, and wolves are not present”* by this saying described the wisdom of the wise of older people. Due to their life experience and age they can guide young generation from making mistakes and to be lost. Elderly counsels are the heritage of modest effect, and know the best ways to solve problems.

The following saying is experienced by hunters: *“If you can correctly operate, even a bird can catch a duck, but if you are not able to do it, it will not be possible even to an eagle correctly hunt”*. It determines hunters to be alarmed and focus on the direction of the bird, which is the source of successful hunting. As we know hunting birds are used as a source of hunting by hunters. Hunter birds have a great role in hunting and it was known very well among hunters. In this saying wants to say also that before starting some work he must directly follow to the instructions and must know enough information and knowledge which is related to his chosen profession or hobby: *“even the sparrow should cut the butcher”*. Here by image of butcher mentioned experienced, qualified master of his job; embodiment of the present invention is understood to assimilate the secrets of the profession.

“Be a goose not a duck, get the knowledge and become an educated”. The presented proverb also is an advice of elder men to youth to be ideal man and to be succeeded. However, image of goose is more beautiful and attractive than ducks. And the point of the saying includes wide opportunities of goose as flying and swimming. Besides, duck is fool. By this wise word ancestors wanted to call out youth for education and to seek the knowledge.

However, during the life, people met some types of people who have enough skills, knowledge or good profession but do not use them. For such a related group of people our wise nation has many proverbs and idioms and they are compared with animals. For instance, *“A donkey loaded onto the illiterate clerics”*, *“scientist without knowledge is a donkey without legs”* which means who does not work at his knowledge or even the most ordinary things and is not ashamed of his work and such a kind of people are criticized by above mentioned phrase.

In this life man must use all the opportunities wisely and has keep respect for every blessing what he has, and in this is said: *“if you eat duck, must earn a goose”*. The meaning is reflected to use property by taking care and saving the earned thing. In this wise word also says to save much amount of the salary rather than spending it all.

In Uzbek folk there are so many proverbs, saying, idioms are told on the related topic which is the main national mental habits which calls people for being thankful, grateful, hard-working, love to motherland and so on.

In particular, “*goose which lives in lake does not know the worth of desert and who that lives in desert does not know the worth of lake*” with this word wants to say that each place has its benefits and all the land as the gift of nature has no difference from another part of the land. A person who experienced living there knows its quality where each article of nature in a way that no space is not less than the other, the earth, the nature of the people living here know that. In addition, gratitude, contentment, patience and our unique adaptability features illuminated by the example of the second part of the proverb.

“*Person who dislikes his country will not get luck, and a goose who dislikes his lake is the same*” – this saying means a man who betrayed his motherland will never be successful comparing with goose which is annoyed with its lake. “Will not get luck” means unsuccessful, or unlucky.

There are many varieties of proverbs based on the topic of business and also a big range of animals are used in a professional way, for teaching people. It also shows the wise skills of the nation and their attention to the events of social life. Besides, “*to water gipsy's donkey and to earn money*” says not to be greedy and keep work with the purpose of earning money and at the same time to cope with people to make its business successful.

Ass or ass broke, or cargo (option: Bring your ass broke ass or cargo) status are the people to become an entrepreneur, always overcome of difficult situations, and encourage to seek measures to find a solution to the problem.

But “*A goat, with the milk, a hare, with the flesh*” this saying talks about the people who are interested of their own, with the fate of others who will try to take advantage of the nature of those interested in self-lit. People in this situation are encouraged to be aware of the correct conclusion.

“*A donkey with its work, a pig is with its teeth*” this presented saying says about type of people who achieves his goals with his hard work, besides, some others using force, violence to complaint with the goal. The images of “donkey” and “pig” are provided by the example of good people and bad tempered.

In our national topics are also included some features of aspects of social life characteristics as well as laziness, delaying tasks, having no responsibilities for the duty as stains, and in this situations such a kind of proverbs are used to educate young generation on a positive side to find the right path. “*An ass load of light, it would be more lazy*” this proverb means as much more you give freedom to man, so much he will be lazy and will be highlighted. That’s why it is important to be strict of the growing up children in family.

However, the award for hard-working people has to be promoted on its time wisely, and also pointed out not to abuse the current situation, which is characterized by the creation of their long history unflinching of Uzbek nation. It calls out people to be decent, conscientious and honest. In fact, the following proverb “*the meat of donkey is bad, but work is good*” shows some kind of people who use the effort of others but not respecting them, even abusing them as a person. Those kinds of people are criticized by the above mentioned proverb. Here is also pointed out the aim to be against to the oppressors and to protect oppressed ones and not to forget them.

Conclusion. 1. In the above included examples, we can conclude that zoonyms in Uzbek Language cover various aspects of the people’s characteristics. In particular,

- Evaluate the external appearance of the people;
- Cognitive skills;
- Human behavior, self - behavior, general - behavior;
- Movement capacity (efficiency, agility, and laziness) to reflect.

2. Also, we can say that the zoonyms enrich, evaluate humankind’s positive and negative situations. They help to understand the situation and to solve it in its right way.

3. In fact, each nation’s cultural wealth based on zoonyms national spirit and mentality which describes its deep and true meaning. Especially animal’s name can clarify social and psychological

aspects of the nation's culture; complex linguistic integrity and zoonyms display information about the culture of all nation.

4. On the one hand, Uzbek and English proverbs and sayings defines the difference between cultural and national features, on the other hand, the presence of proverbs in both languages in the same diagram of the relationship of all nationalities and ethnic groups has been historically proved once again.

5. In summary, we can say that animal names and their formation are an expression of everyday life in every nation. The figurative paints, which are understood in the example of zoonyms, are also influenced by the cultural life of the people.

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THE PROBLEM OF STYLISTIC POETICS IN LITERARY CRITICISM

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Abstract:

Background. This article is devoted to one of the least studied issues in Uzbek literature, the study of literary style. Theoretical views on the method and the attitude of other scholars to this issue are highlighted. The study is based on a number of works by literary scholar Ibrahim Hakkulov. On the basis of the analysis, the views on the poetics of the literary style are put forward. Ibrahim Hakkulov's style is highlighted and his skills are praised. Particular attention is paid to a number of elements that make up the poetics of the work.

Methods. The comparative-typological method was mainly used in the study of the scientist's work. He relied on the method of biographical analysis in defining his style and demonstrating his skill. The articles were also researched using analytical analysis methods.

Results. Scientific and literary thinking is a specific type of creativity in which the elements of style are manifested in a number of forms. In particular, a number of factors influencing style: composition, authorial language, title selection, and skill in word usage are important elements that characterize a literary style. Landscape was used effectively in Ibrahim Hakkulov's essays. Several plot lines can be seen in the essays. The scholar has skillfully used the method of parallelism in his debates. In his articles, he paid special attention to the use of each word, was able to feel the inner subtleties of the meaning of the word and show different stylistic aspects.

Conclusion. Ibrahim Hakkulov enriched the Uzbek literary criticism through his work. His essay "Ahmad Kalla" took a worthy place among such works. The language of the scientist's works is unique in terms of color, syncretism of scientific and artistic style. The fluency and breadth of the language of his articles do not go unnoticed by readers. The choice of headings that can harmonize the content and form of each article, as well as its attitude to the word - the pursuit of conciseness, the application of the word in its place with a deep sense of meaning - are the leading qualities of the scholar's style.

Keywords: Ibrahim Hakkul, style, poetics, author's language, skill, genre, essay, scientific-critical article, art, aphorism, title, talent.

Introduction. There are many artists in Uzbek literature who have their own style, the study of their creativity, the study of their methodological features helps to determine the development, the principles of the development of literature, in this regard, the topic becomes relevant.

Style is a generalization of ideological and aesthetic features that emerge as a set of a number of aspects that distinguish an artist from others and reflect his personality.

British theorist Jennifer M. Robinson puts forward a number of theoretical ideas about style in her research. In particular, "Style and Personality in the Literary Work" focuses on the manifestation of style in a work of art, its relationship to personality, stylistic analysis is an analysis of personality, and the constant qualities and qualities of the creator combine to form his style, emerging through certain characters. According to Jennifer Robinson, style is an expression of a set of qualities of the mind. The creative style is initially reflected in the way he perceives life, in the choice of theme and idea, the protagonist for his work. The speech that reveals these is one of the elements of style [2, 240].

Another English scholar, Nelson Goodman, in his research on style, considers style as a signature and considers external factors as primary in determining the creative style [5, 811]. In doing so, he focuses mainly on the use of words and phrases.

Scientific-literary thinking is a unique type of creativity, and the study of the poetics of his works is extremely important in the analysis of the style of the scientist and the determination of his skills. After all, the analysis and interpretation of a scientific-critical work, the author's position, attitude, composition of the work, language features, the ability to choose a title for the article - all come together and reflect the style of the scientist.

Methods. The object of the article is the literary scholar Ibrahim Hakkul's "Next to the Chained Lion", "Fate and Contemplation", "Poetry's Spiritual Relationship", "Knowledge and Perception", "Return to Navoi - 1,2,3", "Talent - the Ore of Courage", Life, eternity, literature" books were selected. It focuses more on the analysis of essays and scientific-theoretical articles. Comparative-typological, biographical, analytical methods of analysis were used in the analysis of selected articles and coverage of the topic.

Results. Composition is one of the important elements that define style. It has a direct impact on both the form and content of the work, the solidity of the composition determines the creative skill. Just as Ibrahim Hakkulov's work is diverse in genre, the composition of his scientific and literary works is also diverse and unique. For example, if we look at his works written in the genre of essays, this principle is obvious. "One of the leading qualities of an essay is to find content based on the principle of free thinking, independent plot direction, construction and internal constructions with a protagonist" [4, 375]. The scholar's essay "Ahmad Kalla" consists of nine parts, almost every part of which is enriched with introductory events. Although they are not directly related to the life and work of Ahmad Donish, they are focused on a specific ideological goal. For example, the seventh part of the essay includes an introductory story about the Azerbaijani poet Mullo Panoh Vagif in order to shed more light on Ahmad Donish's dark and brutal environment, the mood and experiences around him. serves to express the people's trust and respect for him.

The landscape is skillfully used in the essay. The author uses the method of contrasting the natural landscape with the situation and mood that occurred in the essay. "Life is boiling in the villages and remote villages of ancient Bukhara, which began to breathe freely in the embrace of spring. The winter numbness, the stillness, left the hearts. It is as if the world does not recognize one excitement - the joy of spring and the joy of life. In the gardens full of birds, people are busy with spring work" [6, 223]. While this landscape expresses the existence of life, the subsequent events are associated with the death of Ahmad Donish. On the other hand, the reason why I. Hakkulov, a scholar of mysticism and Islamic teachings, described the landscape in such an uplifting spirit is that the journey of a great spiritual person who understands himself in this eternal world and is not a slave to his desires in any situation is the beginning of life.

The compositional originality of critique's articles can also be seen in his works of other genres. The following aspects are observed in the article "The Art of Understanding and Feeling":
a) The introductory part of the article is given a wide space and the scientist starts the speech from a

distance. Firstly, the present state of our poetry speaks of the work of poets; b) In the main part, the scholar uses the method of parallel analysis, that is, first about the poems of Safo Achil, then about the poems that were negatively evaluated by him, then the analysis of the poems of the creators praised by S. Achil and again the analysis of negatively evaluated poems by him. The purpose of starting the critical analysis with S. Achil's poems is to acquaint the reader with the level of the critic, and through parallel analyzes to encourage the reader to compare and choose a good poem; c) The conclusion is short, with a tone of urging, and firm demand.

The portrait-memoir article "Abdukodir Hayitmetov's position in Uzbek literature" begins with a unique knot: "In almost all periods of ancient history, especially during the Soviet era, to belong to a group or gang in order to achieve a high position, a higher position or a great title, a high award through science and creativity, of course, flattery, hypocrisy, and skillful adherence to the unwritten rules of hymn-singing"[9, 214]. Such a situation, which the scientist considers to be a disaster and humiliation, directly refreshes the reader, makes him curious about what is going on, and encourages him to know more quickly how this sentence is related to the life and work of the scientist. He also points out that during the period of Abdukodir Hayitmetov's work, literature was under the influence of various political influences. It is no coincidence that in the introductory part of the article it is noted that A. Hayitmetov has become a symbol of hard-working science, ingenuity and devotion. Apparently, the use of different elements in the composition in a specific way is clearly ideological and didactic. This is a characteristic feature of I. Hakkulov's skill and style.

Language is the main tool of fiction, as well as the leading tool of literary criticism. After all, the author's attitude to the literary text or the creator of the text, the range of ideas about it, the conclusion emerges through his language. And it is through language that we understand the inner world and worldview of the literary critic, his attitude to the literary text and its author. Through language, the scientist introduces the reader to the meanings of the text, explains the keys to understanding the author, and reveals his spirituality, scientific and artistic potential as a creator of the text.

"For the critic, the language and style of the article is a powerful tool in the analysis of works of art, the process of development of literature in general, which affects the reader and the writer" [1, 273]. From this point of view, it is important to study the linguistic features of the scientific heritage of the literary scholar Ibrahim Hakkulov, who played an important role in the development of Uzbek literature, as this is one of the important aspects of the critic's style. Due to the breadth of the scientific and artistic thinking of the scientist, the language of his articles also differs from each other. This difference differs in terms of the article genre, the reader's worldview and age, and the author's attitude toward the creator being analyzed in the article.

Taking into account the level and worldview of the readers in the articles is one of the remarkable qualities of the scientist's work. His works for schoolchildren are notable for their simplicity of language, curiosity, freedom from excessive scientific and lengthy statements, and fluency.

One of the interesting aspects of the book "Next to the Chained Lion", as mentioned above, is the wide range of interesting stories. For example, "It is narrated that in ancient times, a wise man had a beautiful daughter. Two angels fell in love with this charm ..." [10,20] ("Attention to the tongue - attention to the wind").

In one of Alisher Navoi's poems, he says: "It is strange if the soul dies in a hundred ways." This is a puzzling idea. How can the soul be dust? "[10,68] ("Be dust ...")

In Saadi's Gulistan, a sage was asked: "Is generosity good or courage?" When asked, he said, "What is the use of courage when you are generous?" that means ..."[10.68]

An easy explanation of the nature of the issue to young readers will be more effective if it is compared and implemented with its opposite. Realizing this, I. Hakkul effectively used the antithesis in his book "Next to the Chained Lion..." to explain his thoughts and interpret the verses: "The most important and the best word is the truth. The worst is a lie"[10,23]. In this way, the

scientist encourages students to gain a deeper understanding of the essence of Alisher Navoi's works and to observe life.

Discussion. Some of Ibrahim Hakkulov's articles, especially the language of his essays, are very close to the work of art. While this is a distinctive feature of the essay genre on the one hand, it reflects the charm of scholarly style on the other. The analogies, semantic shifts (metaphor, synecdoche, satire) used by the scientist, increase the charm of the work and make it read with interest. In his articles, the scientist uses the word "literature" sometimes in its own sense, sometimes in a figurative sense. In most cases, it is revived: "Betrayal of literature is felt first of all by literature - those who sell it are not sold by literature, they sell themselves, they put themselves in a miserable situation" [9, 56]. In this sentence, "Literature" is embodied in our minds as a figure that has experienced many betrayals and sufferings, but with great power. And through this sentence, thoughts about the history, present, and future of literature envelop the reader's heart. Or, "The light of literature flows from the heart to the heart" [9,107] in the sentence "People who are tired of living without rights and are accustomed to indifference to everything" [9,107] can be called a masterful invention. Through this metaphorical connection, a picture of a happy state of affairs in the human heart is drawn. It is also emphasized that the savior feature of literature is that it encourages the reader to observe, to read. At the same time, it shows that the scientific and artistic thinking of the scientist is high.

The synthesis of scientific and artistic thinking in the work of I. Hakkul, while in some articles pure scientific language is used, in others the charm of artistic language can be seen. For example, if we look at the problematic article "On Oybek's poetry and personality" dedicated to the analysis of Oybek's lyrics, we see the uniqueness of the language of the article, the scientist skillfully uses various metaphors: "It is not the same as the light and flame that illuminate the universe, although it radiates from the sun" [6,275]. This analogy belongs to Oybek's heart, through which the critic emphasizes the infinite ocean of the poet's heart, which, no matter how much he describes it, cannot be fully expressed in its entirety. In addition, the descriptions given to Oybek, such as "undiscovered mystery", "word magician", "mystery poet", clearly show the critic's boundless love and devotion to the poet, as well as his knowledge of Oybek's work.

The use of the word "person" in Ibrahim Hakkulov's articles is noteworthy. In the explanatory dictionary of the Uzbek language, this word means 1- Person, figure, human, and represents a separate person in the society; It is said to come in the sense of the 2nd personality [11,567].

The scholar sometimes writes this word in lowercase letters in the middle of a sentence according to the spelling rule, and in some places, contrary to the rule, he writes the first letter in uppercase and sometimes all the letters in uppercase. In the first case, the word expresses its lexical meaning, but in the second and third cases, it corresponds to the meaning of the word "personality" and also has a number of methodological meanings. To Chekhov, "I consider this unique person to be an invaluable asset of the Russian people and literature" [7,119] refers to the uniqueness of his place in Russian and world literature.

"In my opinion, a 'nationalist' is not someone who puts his nation above other nations, but a proud person who does not consider him inferior to any other great nation, who does not tolerate discrimination against language, history and culture" [7,50]. There are also semantics of non-existence, striving for freedom, devotion, and courage. "People who want to increase their confidence in their national potential and the power of thinking must first think about the education that will bring them up" [7,129].

This passage from an essay on Ibrahim Muminov emphasizes that the word "person" is used to describe the stages of maturity, which are associated with feelings of patriotism. "Now, in creation, too, it is necessary to start the work of completely independent, strong individuals who are committed to art with all their being" [7,219] - and in this example, the word means a call to self-realization. Apparently, the scholar was able to express different meanings in a single word, reinforcing the emphasis on the idea he was trying to convey through that very word. It shows his deep sense of the meaning of the word and his skill in applying it.

Ibrahim Hakkulov's literary-critical comments are characterized by conciseness and sharpness, and his language is aphoristic in this area. Aphorisms are mainly used to substantiate an idea, to concisely express the essence, to increase the appeal of a text, to emphasize the importance of the problem being critically debated in all times and places. For this reason, the scope of aphorisms is also wide: in the interpretation of the same phenomenon, the ideas of genius creators of both Eastern and Western literature are used. Take, for example, the scholar's article on the work of Shakespeare, *The Love of the Great Heart*. The article begins with the idea of a western poet, "Learn to think with the mind and feel with the heart" [9,56]. While the scholar says that Shakespeare's work was created in exactly the same way through this idea, he emphasizes to the reader the balance of mind and heart. The article skillfully uses the hadiths of the Russian writer N.V. Gogol, the German poet Goethe, the Danish philosopher Seryon Kerkegor, the French poet Bualo, the Arab poet Ibn Arabi and the Prophet Muhammad. Through the aphorisms presented in the article, we can also understand the boundless breadth of Shakespeare's work and its significance today. It can also be seen that the scientist is a mature scholar of both western and eastern literature, with a wide range of scientific thinking.

The style of each artist is also different when choosing a title for an article. The titles selected for Ibrahim Hakkulov's articles have a number of distinctive features. The scholar first and foremost seeks to cover the content of the article in general, a feature that is, of course, unique to many creators. Secondly, it seeks to direct the title to the article, the essence is reflected in the title, thirdly, the titles are artistically enriched, and fourthly, the analyzed artist makes effective use of his work, which is mainly evident in the literary-enlightenment conversations of the critic. Fifthly, the construction is simple and compact.

Academician Bakhtiyor Nazarov also highlighted the scholar's skill in choosing a title and highlighted the content of the sentence "Return to Navoi". [3,38] his ascension, from which he makes a great contribution to the study of the secrets of skill and knowledge. It is not difficult for lovers of literature to understand who Ibrahim Hakkulov is from.

For example, the article "Heart spilled like a mulberry"

"My heart spilled like a mulberry,

From every whip of pain ... "about the author of the poems Tilak Jora. In the process of reading the article, it can be seen that this title is expressed not only in this poem, but also in the general spirit of the poet's work, the poet's heart. Also, another aspect of this title, the melody, the tone, attracts attention. It is no coincidence that "Heart spilled like a mulberry(tutdek to'kilgan yurak)" is a critique of the harmony of letters, alliteration, and the harmony of this poet's name (like a mulberry(tutdek), wish(tilak), heart(yurak)).

If we look at the headlines chosen by Ibrahim Hakkulov, we can see that the dash is used a lot in them. In particular, this is evident in most of the titles of articles included in the book "Next to the Chained Lion...": In titles like "History - the light of memory", "Black - the blessed color", "Knowledge - the light of faith", "Youth - the blue of life", "Understanding mistakes is getting rid of", "Drinking is the water of sorrow", "Criticism is an attack of conscience" it has or has a cut, and in some it is both a combination and an adjective. Although dashes are used because there is no link, it also has methodological aspects. The dashes are aimed at emphasizing, striving for conciseness, increasing the attractiveness of the sentence.

Titles such as "Ignorance is evil", "Generosity is body, generosity is soul", "Love is truth, love is life", "Dog is a friend, dog is a rival" and the dashes that connect the cut increase the emphasis and impact of the idea. There are also repetitions (love, dog), antonyms (companion-rival) in the headlines that reinforce the emphasis, which are also open to the reader to enter into the subject and are easily stamped in the memory. It should be noted that almost all of the titles are built on the basis of comparison. No extra grammatical means are used in the comparisons and adjectives, and the task of all is loaded on the dash. This also shows that the scientist used language tools skillfully.

There is another aspect of critical essays that also quickly grabs the reader's attention. This is his skillful use of interrogative pronouns. The critic uses simple interrogative sentences mainly to

engage the reader, to focus attention, and to encourage him to think. For example, in the article "The Sorrows of the Country" dedicated to Cholpon, who invented the word "Ruffian(bosmachi)"? What kind of person is called a printer?" [7, 50]. It is obvious that the problem of finding scientific, clear answers to these questions is that the purpose of asking these questions is to encourage the reader to think, as well as to introduce the reader to the psyche of the period in which Cholpon lived. As a result of searching for answers to questions, thinking, the reader will have a broader understanding of the points the author is trying to make. Sometimes a scientist makes appropriate use of interrogative pronouns even when there is a need for a more in-depth introduction to the subject under study.

In particular, in the analysis of Babur's verses on the enmity of the lust, the question is asked: "Is it really so? Should we always consider the lust as an enemy and constantly blame it?" [8,35] The purpose of asking a question here is to provide the reader with a broader, more scientific answer. Throughout the article, both questions have found their deepest solution. Such questions are mainly used in research articles by a scientist and also serve as a key to finding a solution to a particular problem.

In addition, rhetorical interrogative pronouns are used in many places in the work of the scientist. Analyzing Alisher Navoi's poem "I want to go to the sea of trade ...(Kirma savdo bahriga olamdin istab sudkim)", the scientist draws attention to the river of trade and asks the question: "Who did not swim in it, who did not drown?" [8,140]. This question does not require an answer from either the author or the reader. But it will no doubt appeal to the reader. This rhetorical question also contains a warning and a call not to lose the meaning of life by indulging in a false world.

Conclusion. In short, Ibrahim Hakkulov's works and articles of various genres directly contributed to the enrichment of the content of the work with the strength of the compositional structure. The color of the language of the scholar's articles differs from other artists by such features as the skillful use of artistic means in the specific expression of scientific and literary thinking, and also serves to define the individuality of the creative style. It is safe to say that the choice of titles that can harmonize the content and form of each article, as well as its attitude to the word - the pursuit of conciseness, the use of the word in its place with a deep sense of meaning, has ensured a worthy place in our literature.

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A CHARACTERISTIC FEATURE OF THE CRITIC'S STYLE

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Abstract:

Background. *The study of the skill and originality of the critic is one of the most important and topical problems of literary criticism. While the issue of writer's style has been studied in Uzbek literature, the issue of style and skill of critics has been neglected. Therefore, we aimed to explore the specific skills of the critic in our study. This article examines the research and skills of literary scholar and critic I. Gafurov in the study of Uzbek prose.*

Methods. *I. Gafurov's work was studied on the basis of comparative-typological method. In order to determine the basic principles of critique's work, the works of the scientist were studied on the basis of structural analysis. Some of the scholar's articles have been analyzed on the basis of a formal method.*

Discussions and Results. *There are different methods and forms of analysis in literary criticism. Some critics are more inclined to sociological analysis, some to psychological analysis, others to aesthetic analysis, and still others to structural analysis. Which of the following has its advantages and its disadvantages. In Ibrahim Gafurov one can see the confusion of the analysis and it is called synthetic analysis. Speaking about the works of A. Qahhor and P. Kadyrov, the critic refers to psychological analysis and reveals the internal sources of the heroes' movement, uses sociological analysis and determines the ideological and social value of the work, and, where necessary, discovers the artistic beauty of the work using aesthetic analysis. All of this combined to give a complete picture of all aspects of the work being analyzed. It seems that the way chosen by I. Gafurov in the analysis of prose works is a very effective and useful way for the development of criticism.*

Conclusion. *In his research, the critic often takes novels as the object of analysis. In his series "Research on the way to the novel" three novels: H.Tukhtaboev's "Years and ways", P.Kadyrov's "Diamond belt", Sh.Kholmiraev's "Bridge" are the object of analysis. Their peculiarities are revealed. True, the analysis of the "Bridge" shows the point of view of the Soviet ideology of the time when the article was written.*

Key words: *criticism, critique, prose analysis, principle, interpretation, style, literary text.*

Introduction. One of the qualitative changes in literary criticism is the scientific approach to the study of the literary process, its active influence on it, as well as the growth of critical skills. "The skills of a critic cover as many issues as the skills of a writer," said academician B. Nazarov. - From the language of the article or research to the style, from the genre to the composition, from the identification of "mysteries" in reality and fiction to the pathos and temperament of its interpretation, from its relation to life to the harmony of artistic tastes and emotions; - all these are the features that define the skills of a literary critic"[1,26].

Methods. Indeed, in the historical development of literary criticism, issues such as the evolution of the skill of the critics, the uniqueness of each critic, and the development of the history of our critique and its place in the present state are important. Therefore, the study of the research of the critic I. Gafurov, who played an important role in Uzbek criticism and has his own style, is a topical issue. "I. Gafurov entered the literary process with the words of a delicate, poetic-hearted critic. He was able to clearly demonstrate his unique style with his initial critical articles. The basis of this style is a very passionate approach to the work under analysis. At the age of twenty-five, the critic, translator, publicist, and writer published his first book, The Diamond Edges of Beauty (1963), and for almost half a century, he has followed the creative principle that preceded his book. The publication of his first book at this age is a rare event in Uzbek criticism. The beauty and

attractiveness of its articles have attracted the attention of a wide range of readers, experts and poets, from the beginning to the end of the book. . Ibrahim Gafurov's "Charm" (1970), "Fire word" (1973), "Green Tree" (1976), "Heart is a Flame" (1980), "Thirty Years of Confession" (1987), "Prayer" (1991), "Freedom of Language" (1998), "Shame-Savior" (2006), and "Everlasting fondness" (2008) are meaningful, unique scientific-artistic and spiritual worlds"[3,196].

Results. O.Sharafiddinov, B.Nazarov, A.Rasulov, N.Kamilov, S.Mamajonov, H.Dustmuhammad wrote a number of articles devoted to the critical work of scientists and writers. The anniversary article "Puberty" was written on the occasion of the 60th anniversary of the critic. It reflects on the human qualities, poetry, translations and critical works of I. Gafurov. Literary scholar A.Rasulov evaluates the creative path of the scientist in his review article "Enlightened image" included in the book "Unique identity". He reviews and evaluates the process from his first book, *The Diamond Edges of Beauty*, to *Hayo the Savior*. N.Kamilov's preface "Awake heart" is written in the critic's book "Freedom of language". Literary critic S. Mamajonov's article "Fields of artistic thinking" is also in the form of a preface, written in the book "Thirty years of expression". The review of the author H. Dostmuhammad "Enlightenment of the heart" is also dedicated to this book. A small digression into the articles devoted to the work of the critic demonstrates the need to create research that will form a holistic view of his scientific and creative heritage, his analysis. In this article, we also aim to reflect on the scholar's research on prose analysis.

I. Gafurov, known as an intelligent researcher of poetry, also demonstrates his observation in the analysis of prose works. Literary scholar S. Mamajonov writes: "Ibrahim Gafurov seems to have been born as a critic of poetry: he has a deep and delicate understanding of poetry, every poet or literary process is quick to notice new trends and is quick to comment on them. But prose also looks at the field of dramaturgy, showing examples of beautiful analysis (works of Odil Yakubov, etc.). It has the ability to observe the literary process as a whole, to perceive it, and that is why both adults and young writers consistently follow their research"[2,5]. Although the discovery of the mysteries of poetry is at the forefront of the scholar's research, his comments on prose are also noteworthy. There is another reason for this: I. Gafurov from the very first step in the field of literature began to show a tendency to artistic creation. He wrote a number of stories, created *mansuras*. He translated. At the same time, it greatly helped him to learn more and more deeply the secrets of artistic creation.

The scholar's book "Heart-flame" contains articles such as "The chemical stone of the heart", "The pure autumn of life", which contains a good analysis of the stories of Abdullah Qahhor and the stories and novels of Pirimkul Kadyrov. It is also possible to show the unique qualities of these articles. It is known that in literary criticism there are different methods and forms of analysis. Some critics are more inclined to sociological analysis, some to psychological analysis, others to aesthetic analysis, and still others to structural analysis. Which of the following has its advantages and its disadvantages. In Ibrahim Gafurov one can see the confusion of the analysis and it is called synthetic analysis. Speaking about the works of A. Qahhor and P. Kadyrov, the critic turns to psychological analysis and reveals the internal sources of the protagonists' movement, uses sociological analysis and determines the ideological and social value of the work, and, where necessary, discovers the artistic beauty of the work using aesthetic analysis. All this together gives a complete picture of all aspects of the work being analyzed. It seems that the way chosen by I. Gafurov in the analysis of prose works is a very effective and useful way for the development of criticism.

New Interpretations in Prose Study. A review of prose analysis from the critic's book "Charm" is called "The Spiritual World of the Hero." It examines the problem of the protagonist in the stories of the 70's. Review People who enjoy their lives and, therefore, their humanity, the needs of society - to shake the affairs of the time, to solve the problems of the time, to decorate their own lives, the lives of others, will be able to fight for ideals. We value these qualities in our contemporaries. We require writers to portray such a virtuous contemporary image with a high degree of clarity"[4,41]. Looking at a number of stories by Uzbek writers, the critic points out that they are a vivid diary of literature, showing where research is going, what they are focused on, what

issues they are raising as a fast-paced part of life and literature. is important in that it can be the basis for review articles.

The critic prefers to evaluate with critical considerations while thinking about the narrative of the period in which the object is considered. The following shortcomings of the positive heroes created in the stories of O. Yakubov "Goodness", H. Gulom "Gold", I. Rahim "Found", S. Azimov "Femininity" are shown: positive heroes live with some kind and gentle kindness, this kindness are self-satisfied, extremely self-satisfied heroes who have eaten within; they say big things throughout the story, but in the end, they're so angry, so crazy, God forbid." Or the characteristics of negative heroes: the fact that they have some kind of mental disorder, infertility, vulgarity does not satisfy the critic, who seeks the reasons for the proliferation of such heroes in the stories: or are there such people in life - young people? And compares them with the heroes created by A. Qahhor, G. Gulom, and connects them with the fact that it is much easier and easier to describe some light-hearted, thoughtless, shameless young people as heroes. Because of this ease, they are perceived as temporary heroes of literature and regret that they have not reached the level of type or important character. But for some reason, the image of Musharraf in Shuhrat's novel "Golden Stainless" is analyzed in the review of critical stories, and this method does not justify itself in the review article.

The analysis of the story of "A thief" published in a newspaper by an amateur artist shows that failure to follow consistent psychology can in many cases lead to extraordinary, unbelievable, unnatural situations. He sometimes criticizes the fact that in some works of great writers there are cases of "misrepresentation of human behavior, extraordinary artificial expression, psychological, natural, loss of vitality", as evidenced by the analysis of the above-mentioned story of I. Rahim.

Analyzing the storytelling of the 70s of the XX century, I. Gafurov noted that in the stories of Sh.Kholmirzaev - time - environment and their interdependence suggests a very serious solution. At the same time, Sh.Kholmirzaev rightly emphasizes such qualities as "the search for new opportunities in the image, the desire to find a way", which really played an important role in the Uzbek storytelling with its unique stories, with the features that the critic correctly noticed.

The critic sees such a tendency in the works of such writers as H. Nazir, H. Gulom, O. Yakubov, O. Hoshimov, Omon Mukhtor, whose stories are "written with the living breath of the day", each of which raises topical issues of life, the meaning of human life, his responsibility for life, the honor of honest labor, is the subject of these stories, yet he criticizes the fact that many of the heroes they create do not have the artistic power to be exemplary and exemplary in all respects to the reader. Demanding critical positive heroes often have one-sided, sometimes diminished features, as some stories show through analysis:

"There is no need to hide, they sometimes make elephants out of mosquitoes, interpreting ordinary human relationships as incomparable nobility" [4,49], some stories are read with interest, expressions are very influential, "but the smallness of the subject The fact that he has become a bacchanalian makes his flesh flesh"[4,50] can also be applied to some of the stories being created today. Because in most of the stories being created today, it can be seen that the flaws that the critic pointed out and criticized in the story of the 70s continue. In this regard, I. Gafurov's comments clearly show that he is right. Most importantly, along with the successes in the storytelling of the period, the shortcomings are clearly revealed. The critic likens the story to a thin net, and even a guard can distort its tone. In the story, the sounds of the spiritual world of human life are always expressed as a belief in the truth, as a confidence in the future of Uzbek storytelling.

"There are many challenges to creating an overview. The reviewer is, first and foremost, well versed in world literature, more precisely, in the advanced literature of the world; second, to be aware of the principles of modern direction; thirdly, he must carefully follow the research of the great artists who describe the new facets of man, and finally, fourthly, he must be well acquainted with the history of his own literature, the present literary process. Only then will literary-critical review articles be created that will not become obsolete over time and can attract the reader's attention with their ideas about the laws of artistic creation. Therefore, the review requires a great and deep knowledge from the author"[3, 358]. In this regard, if we look at the reviews of I. Gafurov, they show the above features. True, not all of these features may be visible in a single

review article we have analyzed, but subsequent articles may demonstrate that the critic has mastered the art of creating a review article.

The review also has its shortcomings: the critic, while thinking about psychological legitimacy, cites an example from M. Stelmax's story "Evening Rest." As we have shown above, it would be more appropriate to take examples from the narrative genre than from genres such as novels and short stories.

Discussion. At the beginning of the article, the reviewer argues with the critic N. Khudoyberganov, but due to the ambiguity of the debate, it is natural that the reader who reads the article will have different questions. At the same time, the analysis of the protagonists, either positively or negatively, can be considered as one of the shortcomings of the literature of that period (Soviet period, the influence of social realism).

Critic Mirkarim Osim wrote two articles about his work: "In the" Waves of History "included in the" Charm "refers to the historical works of the author, in the memoir" Disappearance "in the" Thirty Years of Expression "he remembers the author fondly" [3, 204].

The article "Waves of History" analyzes the historical story and narratives of the writer Mirkarim Osim about Navoi. M. Osim is a writer known for his mastery of historical stories and narratives. "No matter how thick and strong the branch of a tree, it is the product of the root. The horn's approach to the root is reminiscent of the writer's approach to the subject. Although most writers have chosen one subject — a subject close to their spirits, pens, and characters — they have not moved on to another subject without working it deeply and comprehensively and bringing it to a relative conclusion.

I. Gafurov considers the work of M. Osim worthy of respect in this regard as well. Historical facts, details, stories, memoirs of Alisher Navoi and his time in recent years. However, the author's works are not written in the shadow of the works of Mirkhand, Khandamir, Vasifi or Navoi.

Emphasizing the importance of historical works based on facts, the writer looks at them with a creative eye, creates an image from details, collects and balances the scattered details, places the necessary in the work, draws conclusions from it, revives with the power of knowledge and imagination. He sees Osim as "a noble and knowledgeable in his historical imagination, a creator with a high language culture." Emphasizes the author's ability to enrich historical details with imaginary but at the same time realistic scenes:

"Its 'textures' are not intended to beautify the event, to artificially impress it, to adorn it, to 'adorn it', but to enrich it, to make it more exemplary, more attractive" [4, 178]. In order to prove his point, he analyzes the author's story "The humor of Pahlavon Muhammad", discover the art of embodying with the power of imagination and imagination.

In addition, the value of historical stories created by the writer is reflected in the image of Navoi, whose transformation into greatness is reflected in the image of Navoi. Critic Khandamir's words in Navoi's Makorimul-akhlaq, "An hour of justice is better than sixty years of prayer," "opened the doors of justice and fairness to humanity," and the great poet M. Osim's "justice." He strives to embody the "doors" in an artistic way, and in many scenes he demonstrates this through examples. Thus, a number of new stories by M. Osim testify to the fact that every new true work about the great poet delights the critic, in which the image of the poet is created as a person with extremely careful, wise and deep human qualities. While adhering to his principle, the critic points out some of the writer's successes as well as some of his shortcomings, hence, the author proves by examples that in all his stories he drew the image of the great poet with the same skill, and in some places used expressions that did not correspond to the image of the poet.

Importantly, the article shows that M. Osim is a writer who understands the word, but at the same time has a deep love for history, the creators of our history. Although Alisher Navoi has given more space to the commentary on historical events, we believe that it would be appropriate for the reader to accept the article as a way to unleash the writer's skill in the reading process. In addition, in other researches and books of I. Gafurov one can find in-depth comments on prose works. For example, the third chapter of the scholar's book "Burning word" is called "Proses and Proasers". The review article "Love Stories" deals with the interpretation of love in the stories of A. Qahhor

"Love", O. Yakubov "Holy", U. Nazarov "Days" and "Dust". While the critic points out shortcomings in the narrative, there are places where he himself allows narrative.

In the portrait-article about O. Yakubov, the writer follows the development of his work, dwells on the author's story "I'm looking". The series "Two Stages of a Story" is unique in its form. Although it deals with a single work, the critic focuses on whether the load on the first stage of the scales can lift the second stage on a symbolic basis, clearly demonstrated his choice of style.

The first section of the critic's book, *The Green Tree*, gives a broad account of the analysis of prose. The principles of the prose of the 70s are explored in a review. The question of the writer convincing the reader of his point of view attracts the attention of the critic, who puts the problem in this way and begins the analysis. The spirit of criticism of the shortcomings of the prose of the period, which is the object of the review article, is strong.

Among I. Gafurov's researches on prose analysis, entitled "The Mirror of History", O. Yakubov's article on "Ulugbek's Treasure" is distinguished by its scientific and theoretical depth. Mirzo Ulugbek and other characters reveal the main characters in the novel through tragedy and intrigue. The critic believes that the image of Ali Kushchi in the novel came out complete and perfect. He also rightly points out that the image of Mavlana Muhiddin, like Ali Kushchi, is the most successful in the novel. At the same time, it shows the other shortcomings of the novel one by one.

In his research, the critic often takes novels as the object of analysis. In his series "Research on the way to the novel" three novels are considered: H. Tukhtaboev's "Years and ways", P. Kadyrov's "Diamond belt", Sh. Kholmiraev's "Bridge". Their peculiarities are revealed. True, the analysis of the "Bridge" shows the point of view of the Soviet ideology of the time when the article was written.

I. Gafurov's series of articles about the writer Temur Pulatov is also of special importance, because Uzbek critics have not been interested in this writer from Bukhara for a long time. He was recognized in Moscow and then came to our republic. His way of studying the world, people, his way is unique. I. Gafurov took this into account, delved deep into the world of art and honestly and correctly defined its place in our literature. The series of articles "Eternal circle of the heart" in "Thirty years of confession" is devoted to the works of T. Pulatov. They have a unique compositional structure: they consist of articles within an article, in each of which one work of the author is analyzed.

The second series of articles entitled "Modernity, legend and life" is also dedicated to the work of this writer. Ibrahim Gafurov's work is characterized by "diversity of the world, coverage of human-natural and social phenomena in a close-knit unity, use of legends and myths not for exotic purposes, but to give a complete picture of the human spiritual world, fiction. Although many critics agree that it "blends reality with reality", it also substantiates the shortcomings of the writer's work. In this regard, the interpretation of the story "The Last Dialogue", dedicated to the life of the famous brave commander Jaloliddin Manguberdi, can serve as an example.

Conclusion. In conclusion, it can be said that I. Gafurov was able to show his views not only in his articles and research on poetry, but also in his works on the prose type of literature. Observations on the observations of life, different colors of nature and the vibrations of the human spiritual world, the analysis of the literary text through the mirror of sophistication, burning, excitement and passion are the features of I. Gafurov's articles. His articles on the analysis of prose works, as well as his articles on the interpretation of poetry, attract attention not only for its external expressive aspects, but also for the richness of its internal, ideological content.

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METONYMY AND TYPES OF METONYMIC TRANSFER

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Abstract:

Background. This article is devoted to clarifying the issue of metonymy and its occurrence in the Uzbek language. Among studies, metonymy was studied as a grammatical phenomenon. The study is one of the works in a monographic plan aimed at studying the problems that arise in the Uzbek language in the field of the origin of metonymy. The issues considered with the research have determined the scientific novelty of the work. Analysis and classification of metonymy regular types of metonymic transfers, proof of information that can be considered "models" of semantic evolution, which contribute to the development of metonymic polysemy, have been taken into account.

Methods. The complex of methods of modern linguistics, such as comparative semantic analysis, communicative-pragmatic analysis and contextual analysis, was used to solve the problems posed in the article. It also takes a synchronous and diachronic approach to study the object.

Results. This study will help to investigate the problems of systematic semantics, cognitive linguistics and pragmatics, to further deepen the knowledge of a part of the language images of the world, as well as to investigate the semantic variation of the object and characteristic words in the context of communicative action. The results of the study can be used to develop the general theory of metonymy. In the article:

1. The concept of metonymy has been clarified in a certain and definite sense, its existing classifications have been generalized.

2. Attempts have been made to limit the occurrence of two forms: speech metonymy and linguistic metonymy.

Conclusion. Metonymy is a semantic-methodological phenomenon inherent in language and speech, in which the development of a particular meaning occurs as a result of the relationship between the object and the meaning of the new derivative meaning. No matter how common verbal metonymy is in oral speech, Uzbek language cannot be included in the dictionary like language metonymy. It is one of the most complex types of movement that results from the pursuit of brevity and conciseness in speech.

Keywords: metonymy, linguistic theories, synecdoche, poetic metonymy, speech metonymy, metonymic transfer, semantics, cognitive linguistics, pragmatic problem.

Introduction. Due to the fact that the theoretical rules of metonymy are not fully developed and the boundaries are not clearly defined, there are cases of confusion with the forms of the visual medium, especially with synecdoche. In addition, the development of linguistic theories focuses on a number of aspects of the nature of metonymy that remain unexplored. Because of the growing interest in the essence of speech metonymy, poetic metonymy has not been properly investigated in

terms of modern trends in linguistics. Accordingly, this article is one of the monographs on the problems of metonymy in the Uzbek language. The aim of the work is to generalize, systematize and develop the existing knowledge of theoretical metonymy.

The scientific significance of the article is that our conclusions on a number of problems of metonymy may provide some guidance for future researchers in this field. The issues studied in it determine the scientific novelty of the work. The practical significance is determined by the results of training courses on stylistics, interpretation of poetic texts, as well as the possibility of using linguistics in teaching practice.

Methods. The complex of methods of modern linguistics, such as comparative semantic analysis, communicative-pragmatic analysis and contextual analysis, was used to solve the problems posed in the article. It also takes a synchronous and diachronic approach to the phenomenon under study. қайтариляпти

Results. This study will help to investigate the problems of systematic semantics, cognitive linguistics and pragmatics, to further deepen the knowledge of a part of the language images of the world, as well as to investigate the semantic variation of the object and characteristic words in the context of communicative action. The results of the study can be used to further develop the general theory of metonymy. In the article:

1. The concept of metonymy has been clarified in a certain and definite sense, its existing classifications have been generalized.

2. Attempts have been made to limit the occurrence of two forms: speech metonymy and linguistic metonymy. қайтариляпти

Discussion. The idea of metonymy has survived to the present day from the time of Aristotle, Cicero, and Quintilian to rhetoric, oratorical works, and some of the basic tenets of ancient theories about tropes. It has been the subject of research for philologists as one of the artistic tools in literature and in linguistics. In scientific sources, metonymy is mainly divided into phenomenon of a language and speech. It should be noted that Mirtajiyev argues that metonymy, which is a speech phenomenon, cannot be the subject of theoretical linguistics research [8, 101].

In the research of T.Alikulov in the 60s, metonymy was considered as a multifaceted phenomenon. In the 70s, Mirtajiyev's research further explored this feature of metonymy. In 2001, R.Suvanava also studied the phenomenon of metonymy as a phenomenon of language and speech, as a theoretical basis for her research. Metonymy has been analyzed in the scientific researches of T.Alikulov, M.Mirtajiyev, R.Kungirov, S.Karimov as a phenomenon that creates the style of writing in the language of the work, and in the last two researches it is emphasized that it is a linguistic phenomenon.

The differences between the causes of metonymy in the Uzbek language and other related phenomena were studied by I.K.Shukurov in terms of speech, while M.M.Mirtajiyev studied as a form of polysemy. According to M.Mirtajiyev: "Metonymy ... is a form of derivation of derivative meaning based on the interrelation of derivative and derivative references" [8, 100].

Since the phenomenon of metonymy has been studied as part of Mirtajiyev's research, its features have been relatively fully revealed from scientific and theoretical viewpoint. This idea has been developed by the author's doctoral dissertation. Accordingly, we see in the manuals that there are six or seven different forms of metonymy in the Uzbek language. The sources give almost the same description of the phenomenon of metonymy, but the examples are different.

Main part. Just as each movement has its own place and meaning in the language of the work of art, so metonymy has a special place in poetic discourse as one of the categories of aesthetic pleasure. In poetry, in general, in poetic works, it not only increases the emotional impact, but also the psyche of the work of art, can be a key factor in the creation of a melodic expression. While this means of imagery is based on the cognitive meaning of lexemes, such as metaphors, it is not based on analogies between events, but on connections, connections, and interdependencies between them. That is, in metonymy, "basically, the name of an object or event is transferred to another object or event. In metonymy, when the mutual character properties of similar objects are copied, these two objects differ from each other, even if they have some connection with the internal

properties (content, essence). the comparator is compared with the signs of (dissimilar) objects "[see: 10, 21], i.e., metaphor implies similarity, while metonymy implies connection.

Metonymy is also one of the main phenomena that lead to the formation of new meanings through name changes, and this issue is mentioned in all the works that have been discussed.

Metonymy is the Greek word for "renaming," "renaming" and "renaming". The transfer of the name of one to another on the basis of the interrelationship of space and time between things and events, the expression of a person or object by another name associated with it (signs of that person or object) is a metonymy [see: 17, 83].

There is a certain commonality, connection (connection) between certain things in the objective being - objects, signs, as well as actions. Under its influence, something, a sign, or the name of an action is used to denote something that has something in common with it, a sign, an action, and becomes a name for it. *Navoiyni oldim qo'limga* (I took to read Navai's /book/), which means I read Navoi's works, *Bedilni o'qir edim* (I read Bedil), we understand his creative heritage, because in our minds there is a constant connection between the poet and his works. *Samovarda osh yedik* (We ate at the samavar) and we mean a tea-house, because the name was changed to another because of the connection between the tea place and the teapot.

Metonymy occurs as a result of the desire to achieve brevity, conciseness in speech. When identifiers are used in our language indefinitely, there is often a metonymic migration: *Men ellik birga chiqib «Muqimiy»ga bordim* (I went to Muqimi on the fifty-first /bus/) (I got on the fifty-first bus and went to the Uzbek State Musical Theater named after Muqimi).

Creating metaphorical meaning is one way to express our thoughts in a concise, expressive, and effective way. The transfer of meaning by this method is manifested in the following forms [see: 1, 102-104]:

1. The author's name is transferred to the title of the work: *Rauf Parfini kechadan beri ko'tarib yuribman* (I have been carrying Rauf Parfi since last night). *Abduvali Outbiddinni o'qiyapman* (I am reading Abduvali Kutbiddin) (from the student's speech, the book is meant). *Mashrabga zo'rg'a tishi o'tadi* (He hardly understands Mashrab). In such cases, the author's name is mentioned, but his work (s) is understood, that is, the name of the person is used instead of the common name (atoqli ot turdosh ot o'rnida qo'llanadi) [16, 84-85].

Sometimes the name of the protagonist can be changed to the title of the work: *"Otabek va Kumush"ni sevib o'qiyman* ("I love reading Otabek and Kumush"), the heroes of the novel "Last Days" are used instead of the title of the work.

2. When you say the name of a work, the word genre or work, the word book comes down: *Mabodo "Adashgan ruh" kelmadimi?* (Didn't the "Lost Spirit" come?) (From a question the reader asked the seller, by R.Parfi). *Sabr daraxti"ni o'qib, Rauf Parfini yanada yaxshiroq tushunasiz* (You will understand Rauf Parfi better by reading The Tree of Patience.). *Men kecha "Topmadim"ni yodladim / g'azal* (I memorized "Didn't Find" last night / poem). *"O'tkan kunlar"da o'zbek qizining ibosi ta'riflangan / roman* ("Last Days" describes the Uzbek girl's manners / novel). There is a speech metonymy, not a language metonymy [16, 84]. Because they occur in the process of speech.

3. Relocation. By the name of a different region, building, or period, the person and things in it are meant: *Necha yuz yillardan beri Toshkent shunday gavjum yashaydi* (Tashkent has been so crowded for hundreds of years). *Auditoriya sukutda* (/The students in/ the auditorium are silent). *Butun sinf jimjit* (The whole class is silent). *Zal oyoqqa turdi* (The hall rose to its feet). *Mahalla u muttahamdan shikoyat qildi* (The neighborhood complained about liar's case). *Shahar hozir uyquda* (The city is asleep now). *Hiroat motam tutdi* (Herat mourned). *O'zbekiston Qatarni yengdi* ((Uzbekistan defeated Qatar). *Bolam, qiyinchiliklarni sen ko'rmading, urush yillari ko'rdi* (My son, you did not see the hardships, you saw the war years). In this way, metonyms that occur in relation to place are also observed mainly in the verbal context.

4. Various meetings and ceremonies represent the participants: *To'y erta tarqadi* (The wedding (people) spread early). *Majlis qaror qiladi* (The Assembly decides).

5. The names of various utensils and the like are transferred to the contents, food, etc.: *Dasturxonga boqqan do'st emas* (Not a friend who looks at the table). *Shartmi ekan har bir qadahni ichmoq?* (Is it necessary to drink every glass?) *Bir piyola iching* (Drink a cup). *Bir stakan ichdim, ikki tarelka yedim* (I drank a glass and ate two plates).

6. The name of something somewhere means that place: *Samovarda ovqatlandik* (We ate in a samovar). *Oshda ko'rinmadingiz?* (You didn't show up at the soup?) *Sho'rvaga o'tiring* (Sit in the soup). *Dasturxonga chiqing* (Get on the table).

7. The name of a thing, a raw material, is transferred to the finished product made from it: *Kiyganim ipakmi, chitmi yo kimxob, Yurak boyligidan qilmabman parvo* (I didn't care if I wore silk, calico or brocade because of the richness of my heart) (Zulfiya), *Kiygani nuqul ipak* (She always wears silk).

8. Time migration. It has to do with converting numbers into a noun-specific form or converting them to a category of nouns by the method of conversion and using them as conditional nouns for different places, things and persons: *O'n sakkizga kirmagan kim bor?* (Who is under eighteen?) *Laylo hozir universitetda birni tamomladi* (Leyla has just finished her first /year/ at university). *Abror otaning Uchiga bordik, ertaga Yettisi //ma'raka* (We went to the Three / memorial service) of the Abrar father and tomorrow is the Seven). *Hozir ham 14-05 da yuribman, xizmat bo'lsa, telefon qilaverasiz!* (If you have a service, I'm still on 14-05, you can call!)

9. The name of the object serves as the name of the unit of measurement based on it: jo'ra (friend) – jo'ra (a garment consisting of two parts: one dress satin), day ("sun") - day ("day in light time"), moon ("planet") - moon ("part of the year"). M.: *Navoiy fevral oyida tug'ilgan* (Navoi was born in month of February). *Oradan ikki kun o'tdi, ammo undan darak yo'q* (Two days have passed since then, but there is no news).

Sometimes the opposite is true: the name of the time meter is changed to the name of the time measuring device: *soat* (time: "60 minutes") – *soat* (clock: "time counting device") [7, 158].

10. The name of the symbol is transferred to something that has the following symbol: *Manzuraxon yupqa(ovqati)ni yaxshi pishiradilar* (Manzuraxan cooks thin (food) well). *Birovga chuqur qazisang, o'zing tushasan* (If you dig deep for someone, you will fall on your own). *U kechgacha kir yuvdi, lekin dor uzilib yoygan kirlari yerga tushib, bir kunlik mehnati chippakka chiqdi* (He washed the laundry until evening, but his laundry fell to the ground, and his day's work was in vain).

Such a transfer also leads to the formation of a new word in a lexical-semantic way. Compare: *ko'k* / blue (1) - adjective, *ko'k* / sky (2) - noun (sky), *ko'k* / plant (3) - noun (plant); *yupqa* / thin (1) - adjective, *yupqa* / food (2) - like a noun. This means that blue (1), thin (1) are used to make sky (2), plant (3) and food (2) nouns. This construction takes place on the basis of the law of transition of dialectics from quantitative to qualitative change, and indicates that there is a very complex relationship between polysemy and word formation and the phenomenon of homonymy [16, 84]. Their special study is one of the tasks of Uzbek linguistics.

11. The name of the plant is transferred to a product made from the fruit or other part of this plant: muskat (a type of grape) - muskat (wine made from the same grape variety), tea (a type of plant) - tea (drink made from the leaves of the plant), coffee (coffee tree) - coffee (drink made from the fruit of this tree) [7, 158].

12. The name of a thing is given to the place where it was created and produced: *Shampan vinosi* (Champagne), *Banoras adrasi* (Banoras satin), *Chust pichog'i* (Chust knife), *Xiva gilami* (Khiva carpet), *Qorako'l terisi* (Karakul leather), *Xisor go'y* (Gissar sheep), *Marg'ilon do'ppi* (Margilan embroidered cap), *Xitoy chinni* (Chinese porcelain), *Damashq qilichi* (Sword of Damascus), *Kosonsoy pishlog'I* (Kosonsoy cheese), *Chortoq suvi* (Chartak water).

13. Something is named after the person who created it: Tokhtaniyaz ota sausages, Rasulov doors, Ahmad tea, Khojimatov tincture, Rizamat ota grapes ...

This is often due to the fact that, due to the expansion of meaning, the name of the person move to a common name or other word group. For example: Newton (person's name) – Newtonian force, Om (person's name) – Om's law, Mercedes (person's name) – Mercedes (car model),

Khosiyatkhan (person's name) - Khosiyatkhan (atlas type); *Rentgen* (name of the person) –*rentgen apparatus* (medical device); Hatamtay (literary hero) - hatamtay (generous).

14. Birthday names: Hayitvay, Jumagul, Navruz, Yulchibay, Toychi, Charshanbibi, Bazarbay, Ramazan, Arafat, Safarbay, Adina, Altmishbay...

15. A person is named by the clothes they wear or the word that is repeated many times: *Qizil shapkacha yo'lga chiqdi* (The red hat is on its way). «*Navbatim sumka ko'targan «jinsi»dan keyin*» (xaridorning javobi: "It's my turn after the 'jeans' carrying the bag" (customer response). *Hey galstuk, bu yoqqa kel-chi!* (Hey tie, come here!) *Anavi ko'zoynakni tanisizmi?* (Do you recognize that glasses?) "*Shu-shu*"nikiga boramizmi? (Shall we go to "this-this"?) Such metonyms are, usually, observed in speech.

the name of the person is used instead of the common name

16. A well-known name refers to various objects, team names, films, channels with the same name: "*O'zbekiston*"ga qanday borsam bo'ladi? (How can I get to Uzbekistan? (Passenger at the station asks for a hotel). *Mirzo Ulug'bekdagi uyni ham sotdim* (I also sold the house in Mirza Ulugbek (the name of the district or metro station). "*Intellekt salohiyat*" (o'quv markazi)ni boshqaryapti (He runs the Intellectual Potential (Learning Center). "*Semurg*" "*So'g'diyona*"ni qabul qilib, ketma-ket beshta to'p kiritishga muvaffaq bo'ldi ("Semurg" took on "Sog'diyona" and scored five goals in a row). *Qachon televizorni qo'ysam, "Opa-singillar"* qo'yilayotgan bo'ladi (Whenever I turn on the TV, it's "Sisters"). "*Sevimli*"da turk seriallari ko'p beriladi / kanal ("Favorite" shows a lot of Turkish TV series / channel).

So, sometimes it is possible to understand the name of such a product, newspaper, magazine, transport, place. For example: "*Snikers*"ni to'xtatma (Don't stop Snickers (dessert). "*Taylalhot*"dan bering (Give from "Taylalhot" (medicine). "*Imtihon*"ga doimiy hamroh bo'ling (Be a regular contributor to the Exam (newspaper).

17. A car, a telephone, a TV, a refrigerator, a washing machine are all named after their brand or manufacturer: *Oldin "Prado"da edi, endi "Malubi" minib yuribdi* (It used to be in Prado, now Malubi is riding). *Senga "Samsung" yaxshimi yoki oldingi "Nokia" "yoqadimi" haliyam?* (Do you still like Samsung or the previous Nokia?) "*Roison*"lar "*Rassvet*"ni yo'lda qoldirdi (The Roison left Rassvet on the road). *Uyda "Ko'nig" bilan "Beko" borekan, ishim yengil!* (As long as Konig and Beko are at home, my job is easy!)

18. The name of a place or organization is mentioned and the people who belong to it are understood: *Siz hukumat emasmi?* (Are you not a government?) *Biz "Solig"dan keldik* (We came from Tax). "*Intellekt salohiyat*" (o'quv markazidagi abituriyentlar) *har doim birinchi bo'lib universitetga kirishlari kerak!* (Intellectual potential (applicants at the training center) should always be the first to enter the university!)

In the Uzbek language, in some cases, metonymy can be formed through the use of the possessive suffix in a figurative sense rather than a word: *Ichak-chavog'im tugadi, endi kallamni sotaman* (I have finished my intestine, now I'm selling head (from the butcher's talk) [2, 103-104].

Thus, we see the migration of different, colorful names based on metonymy (internal connection):

- an object, an event, or something inside it is transferred to an object whose name is understood;

- a particular action or the result of that action is replaced by the name of the weapon that performed that action;

- the replacement of something with the material from which it is made (item, fabric), the meaning of people living in a particular place, region, country, state, where it is transferred (city, village ...) to the country or state;

- abstract nouns are used instead of definite nouns.

Although metonymy has a wide range of possibilities in prose, in poetry, especially in lyroepic works, especially in modern poetry of the independence period, metonymic expressions such as metaphors also have their own peculiarities in the transfer of meaning.

Based on the concepts, objects, or actions and situations, summarizing the above ideas, metonymy can be briefly divided into three main types: 1. *Spatial migration*. 2. *The passage of time*. 3. *Renaming based on logical connections*. It is important to distinguish between them, to understand their specifics, and not to make mistakes in future practice:

1. *Spatial migration*. Such a metonymic transmission is based on the physical, spatial location of events or objects. The most common example of this type of metonymy is giving the name of a room (institution, etc.) to people who work or live in a particular house or business. For example, words like library, hall, publishing house, auditorium refer to the person (s) there. For example: *Butun zavod ommaviy ish kuniga ketdi* (The whole factory went on a day of mass work); *Butun uy uxlab yotibdi* (The whole house is asleep); *Barcha maktab musobaqada qatnashdi* (All schools participated in the competition); *Universitet foydasini ko'zladik* (For the benefit of the university). Here, place names have a metonymic meaning and are used figuratively.

Also, spatial metonymy is the naming of a container or ship. For example, "*Poseydon*" yo'lga tushdi (Poseidon is leaving (people are on the Poseidon) or *qozon* qaynayapti (the pot is boiling (the food in the pot is boiling)).

2. *The passage of time*. The numbers come from being used as a conditional name for different places, objects, and individuals: *Sakkizda keldim* (I arrived at eight / hour or transport number). *Mohinur universitetda ikkiga* (2-bosqichga) o'tdi (Makhinur moved on to the second /stage/ at the university). *Beshinchi* (xonada) *daman* keling, *hal qilamiz!* /bino qavati yoki xona raqami (I'm in the fifth / room/, come on! /building floor or room number)

3. *Renaming based on logical connections*. This species is very common. There are many examples of in Uzbek, it has its own peculiarities:

- the name of the dish or dish is transferred to the volume of the substance in this element: *bir qoshiq yalab ko'ring* / bir osh qoshiq murabbo (taste a tablespoon of jam / a tablespoon of jam), *ikkita kosani yeng* /ovqat (eat two large bowls / food), *bir qop sotib oling* /un (buying a bag /flour).

- transfer the name of the item or substance to something made of it: *2 ta oltin, 1 ta kumushni qo'lga kiritdik* (we won 2 gold, 1 silver (gold and silver medal), *qishda mo'yna, bahorda atlas kiyamiz* (we want to wear fur in the winter, satin in the spring (fur and satin clothes) , *keramika to'plang* (collect ceramics (ceramic items)).

- transfer the author's name to the work he created. For example: *Faxriyorni tushunmayapman* (I don't understand Faxriyor / Faxriyar's poems). *Kamoliddin Behzodni sharhlang* (Comment on Kamaliddin Bekhzad / photos by Kamaliddin Bekhzad). *Betxovenni eshityapman* (I hear Beethoven / music composed by Beethoven). We have mentioned many examples of this type above.

Now let's look at the main types of metonymy:

1. General language metonymy.
2. General poetic metonymy.
3. Newspaper (journalistic) metonymy.
4. Individual metonymy.

General language metonymy. One of the most common types of migration in the vernacular is metonymy. People who use it often don't notice that they are using metonymy in their speech. This metonymy is the result of a desire to be more concise in speech.

The following are examples of common language metonymy:

- The words silver, cast, crystal, porcelain in the designation of products. For example, a porcelain collector.

"Words like factory, attack, defense, which refer to people". For example: *Fakultet musobaqada qatnashdi* (The faculty participated in the competition / faculty students participated in the competition).

- Rabbit, fox, marten, etc. used instead of the product name. For example, *suv ko'ylagi* (wearing a water jacket /an item made of wet fur).

General poetic metonymy. The most expressive form is the general poetic metonymy. It is expressed through the use of artistic language, which is more common in poetry. Examples:

Shoir, So'z aytmakka sen shoshma faqat,

Ulug' Alisherning qutlug' tilinda.

(Poet, only you don't be in a hurry to speak
In the language of the great Alisher) [10, 5].

Yoki: *U qaytib kelmagay bu dunyoga hech,
Men uning qoshiga qayta olmasman.*

(Or: He will never return to this world,
I can't get back to his eyebrows [10, 8].

Thus, general poetic metonymy is a type of metonymy that is specific to use in artistic (often poetic) texts.

Newspaper (journalistic) metonymy. The metonymy of a word can sometimes be traced back to a particular style. In particular, in the language of the newspaper, the following words belong to such metonyms: fast ("fast seconds", "fast water"), green ("green nature", "green patrol"), gold ("golden flight", "golden jump"). These methods are mainly used in journalistic texts and can be considered as metonymy inherent in journalistic style.

Individual metonymy. These are metonyms that are unique to an creator's work and are not universally used. For example: *Men tinch uxlayotgan ertakni aytaman... Men uxlayotgan ertakni aytib beraman* (I tell of peacefully a sleeping fairy tale) (Block). *Uyning salqin yog'och tozaligidan* (From the cool wooden cleanliness of the house) (V.Solovev).

R.Suvanava notes that metonyms associated with place names occur in two forms: 1) *metonyms denoting place names*; 2) *the occurrence of metonymy in relation to place* [15, 81-82]. Metonymy in place names and place names is common in speech. This process is observed as a linguistic phenomenon, especially when metonymy occurs when the words denoting a place name refer to a product produced in that place. For example, the word Karakol is the name of a district in Bukhara. It now means curly fur made of lamb skin. These skinned lambs were originally bred in the area. The meaning of this product is derived from the relation of place. There are also place names such as Shivoron, Kattaurgan, Gulja, Uchqora. These names also refer to the varieties of grapes that are related to those places in terms of their origin, which leads to the phenomenon of metonymy. There is also a high variety named after the city of Samarkand. All of these examples are specific to metonymy, a linguistic phenomenon.

The metonymy also occurs by naming the place where the people live. But they are almost observed as a speech phenomenon:

*Zanjirmi Sharq qizining qo'llarinda,
Bir kuch topilmasmi, kishan sinmasmi,
Turkiston, Turkiston endi kulmasmi?*

(The chain is in the hands of the girl of the East,
If a force is not found, if the shackles are not broken,

Turkistan, isn't Turkestan laughing anymore? [10, 20] - (In the verses from Rauf Parfi's poem "The Eyes of Dilorom" the people of the East are expressed through the word Sharq, and the people living in ancient Turkestan are expressed through the word Turkistan. The word Asia in the following example can be interpreted as follows:

*Zabtga olib keng Osiyoni,
Bir zot chiqdi mag'rur, davongir*

(came out a proud warrior who would conquer great Asia
The conquest of vast,

Someone arrogant and arrogant) [5]. The name of a place can, in some cases, refer to a person belonging to that place:

In general, metonymy often occurs when place words refer to the people who live there. Rauf Parfi's "*Rusiya! Yig'lama, ko'z yoshingni sot*" (Russia! Don't cry, sell your eyes) [10, 27]. If the word Russia in the verse refers to the Russian population, it belongs to the pen of A.Aripov "*Saroy yo'lga chiqdi savlati bilan*" (The palace is in full swing) the word palace in the verse refers to the courtiers and metonymy is derived. In some cases, the name of the major ethnic group living in a particular area also means the name of that area. In the poem "Alexander Block" by Rauf Parfi: *O,*

Rus, sen—yorim, sen—sevgim, sen—Onam, Qanday olib chiqay men seni tundan? (Oh, Russian, you are my half, you are my love, you are my mother, How can I take you out of the night? This situation can be observed in verse) [10, 26].

Sometimes place names can represent not only the population of a place, but also any subject. The name of a place refers to the people who live in it, and as metonymy occurs, the name refers to a specific area. These include metonymy in the words city, village, district, valley, neighborhood, republic, region. Metonyms, which occur as a speech phenomenon, are also observed by expressing the meaning of words that denote a place name:

*Bu joyning bor erur na Qorabog'i,
Na O'zgan, na O'sh-u Farg'onasi bor*
(This place is not Karabakh,

There is neither Ozgan nor Osh Fergana) [1, 5]. The words Ozgan, Osh, Fergana, Karabakh in these verses have the metonymic meaning "Country".

Famous place names can be used in the sense of a sign pointing to a place - metonymy. The words Mirzachul and Jizzakh in the line "*Ana xaritada Mirzacho'l, Jizzax*" ("Mirzachul, Jizzakh on the map") [5] written by A. Aripov have a metonymic meaning, which is actually a place name, but a conditional sign indicating those places on the map. Although this appearance of verbal metonymy is common in our oral speech, it is almost never used in written speech. That's why there are very few examples of it in the material we have collected.

Depending on the location, metonymy is more common. Words develop lexically and form a placeholder. A place is represented by the name of a member. In this case, a member of a person represents the place where he is in contact with the place where he is located. The derivation of the meaning of a product denoting that place is a metonymy that occurs in relation to the place. For example:

*Oldindan bilgandek so'rardim bot-bot,
Ra'no, olib borgil otang qoshiga*
(As I knew before, I asked:

Take, Ra'na, to your father's eyebrows) [10, 8]. In poetry, the word "eyebrow" refers to the place close to the eyebrow, the side, the front and the figurative meaning is derived from the place.

There is also some cognitive-linguistic work on metonymy as a feature of style. Apart from a number of analyses in Fauconnier and Turner [3], attention may be drawn to two book chapters. Friedrich Ungerer has carried out a cognitive-linguistic investigation of the role of metaphor and metonymy in advertising [17, 40]. And Anne Pankhurst has examined the metonymic exploitation of an earring worn by the main character [9, 385-400], Pilate, in Toni Morrison's *Song of Solomon*. She deliberately seeks a connection with the structuralist tradition of metonymy research in the figures of Jakobson [6, 77] and Michael Riffaterre (Fictional, "Trollope") [11, 92], while also relating to the psycholinguistic views of Gibbs [4]. This type of synthesis between structuralist and cognitive-linguistic traditions is typical of the new approaches of cognitive poetics and cognitive stylistics (Stockwell [14]; Semino [12] and Culpepper; Gavins and Steen [13]). It is represented in this special issue by the article by Dan Strack.

In general, if Uzbek poetry is studied from the point of view of this topic, we can come across new methods and poetic discoveries. This shows that our language has a wide range of possibilities for creating figurative meanings.

Conclusion. This article is a step towards the analysis of the theoretical and pragmatic features of the metonymic phenomenon that characterizes the Uzbek language. Although the essence of metonymy is universal, that is, it is the same for all languages, the actualizers of its occurrence are national in Uzbek.

In order to consider the metonymic concept of words in our language, the study of the meaning of the product, its essence, etc., led to the following conclusions:

- The emergence of metonymy in modern poetry with the requirements of individual style, serves to determine the quality of the work;

- Metonymy is a semantic-methodological phenomenon inherent in language and speech, in which the development of a particular meaning, a new product is formed according to the relationship between the object and the meaning of the meaning;

- No matter how common speech metonymy is in oral speech, the Uzbek language cannot be included in the dictionary as a language metonymy;

- Metonymy is one of the most complex types of movement that occurs as a result of the desire to achieve brevity and conciseness in speech.

Theoretically, the emergence of a nomadic meaning under strict requirements is based on the similarity between the referent of the derivative and the derivative meaning, the metaphor, the synecdoche based on the relationship of the whole and the part, the name on the basis of the similarity of the function task (function) tolerance occurs when relying on migration. Each of these classifications is completely different from metonymy, which is based on internal relations in its own way.

Numerous scientific papers have been published on this subject, and crowds have been held. However, there is a lot of work to be done to develop a theory that is relevant to the development of language, to determine its cognitive function. Given the fact that in the definitions of metonymy it is still often associated with related phenomena, especially the problem of not distinguishing them as part of the synecdoche, we need to dwell on this issue here.

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**CREATIVE ABILITIES OF THE ARTIST IN THE APPLICATION OF THE ART
(ON THE EXAMPLE OF THE LYRICS OF OSMAN KOCHKAR)**

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Abstract:

Background. *The article examines the uniqueness of the lyrics of one of the great representatives of Uzbek poetry Usmon Kochkor and his mastery of the use of art, the poet's skill is illustrated on the basis of examples. In the seventies and years of independence of the last century, new voices, new spirit, new views appeared in Uzbek poetry. Among these young artists was Osman Kochkor, who in his poems searched examples from history, described world events in a unique way, and lived with the thoughts of his contemporaries. He was born in 1953 in Shafirkan district of Bukhara region. He studied at Tashkent State University (now UzNU). Poetic collections, epics, poetic dramas, journalistic articles and translations by Osman Kochkor defined his position as a person and his place as a creator.*

Materials and methods. *Changes and experiences in life and man are synthesized in the heart of the poet. The artist uses his artistic skills to take a unique approach to each reality, the reality of life. The uniqueness of the creator is also in the scope, vitality, impact, sincerity and authenticity of the images he creates and can find. The series of unique images created in the lyrics of Osman Kochkor proves this point.*

Results. *The poet puts new meanings in the image of each season, mountain, river, moon, star, cloud, herb, defoliation, garden, flower, bird, butterfly, sea, wind, expresses extraordinary thoughts and draws unexpected life conclusions. Following the reader in his own way, influencing his emotional, mental strength, he also shares in the general pathos of the lion. Therefore, it can be said that each new image created by the poet is a new unique creation.*

Conclusion. *The role of art in the poems of the poet is incomparable. The art of metaphor, allegory, tazad, talmeh, tajnis, aksimoron, exaggeration, used in each verse, increases the artistic value of the poem. The analyzed poems are included in the collections of poems by Usmon Kochkar "Аксиз садолар", "Оғир қарвон".*

Keywords: *poet, lyrics, figurative meaning, art, allegory, tashbeh, tazod, talmeh, tajnis, aksimoron, hyperbole.*

Introduction. Centuries-old Uzbek poetry still takes the lead in reflecting the spirit of the time, the births of contemporaries. It is still the leading type of our national literature. In the seventies and years of independence of the last century, new voices, new spirit, new views appeared in Uzbek poetry. Abdulla Oripov, Rauf Parfi, Erkin Vahidov, Omon Matjon, Halima Khudoiberdieva, Shavkat Rahmon, Usmon Azim, Ikrom Otamurod, Farida Afroz, Muhammad Yusuf, Usmon Kochkor, Zebo Mirzaeva, Iqbol Mirzo... in the works of poets look at world events and people's feelings was evaluated with.

"The creative activity of the generation that entered our poetry in the 1970s began somewhat freer than the ideological pressure that has long oppressed our literature, and since the mid-1980s it has largely got rid of it. The 70s are the current situation in our country, the tragedy of the people, the past and took a fresh look at the future. As a result, this generation, unlike its ranks, did not see the future of the Motherland in connection with the idea of communism. On the contrary, he felt that the idea had lived its life, that there was a deep chasm between the official ideological slogans and the real situation, and as a result he began to imagine the future of the country in connection with independence. "[11,192]

In the poems of the ideas of Vatan, Istiqlol, Erk, the first verses of Independence came into flames. They dreamed of ending oppression and achieving freedom and independence. The days

when the Cholpons, the Qadirs, and the Ottoman Nasir dreamed of approaching, were sung loudly and loudly. Although this theme is interpreted differently in each artist, one profession, one idea, one feeling united them, and that is Independence, Freedom, Independence! The pen of the creators was sharpened so that these ideas could enter the minds of the people.

There are many artists who have their own place in Uzbek poetry and are able to create their own style. Poetic description of the thoughts, dreams, aspirations, views, experiences of his contemporaries, expressing it in words, requires great skill from the creator. Usmon Kochkor is one of the artists who entered our poetry in the 70s of the last century with his unique skills. He was born in 1953 in Shafirkan district of Bukhara region. He studied at Tashkent State University (now UzMu). He taught Uzbek language and literature at Shafirkan High School. After that he worked in the publishing houses "Cholpon" (1968-1989), "Literature and Art named after Ghafur Ghulam" (1991-1997) and "Ma'naviyat" (1997-2011), magazines "Youth", "World Literature". Poetry collections such as "The world buried in excitement", "Sleeping tower", "Echoes without accents", "Heavy caravan", the fairy tale "Chamangul" (1989), the epic "Shirak" (1997), the epic "Persecution", Imam Bukhari "was published. As a translator, the poet translated into Uzbek the works of Azerbaijani writers such as Sayyid Imamiddin Nasimi, Hussein Jovid, Yusuf Samad o'g'lu, Anar, Sabir Rustamkhanli, Hidoyat. The poet was awarded the Order of Labor Glory (1997), the title of "Honored Worker of Culture of the Republic of Uzbekistan" (1999).

The style of Usmon Kochkor, one of the most talented representatives of Uzbek poetry of the XX century, is characterized by the bold use of unique metaphors. This peculiarity of the poet's style, on the one hand, is connected with the classical poetry of the East, with folk tones; on the other hand, it is explained by the influence of the translations made by the creator.

The main part: The use of words in the literature in their own and figurative senses gives rise to a number of arts. A metaphor means a transfer of meaning based on similarity. In the allegory, the word is used in a figurative sense, retreating from its meaning, and this migration occurs on the basis of the similarity between things-events (object-to-object, sign-to-sign, action-to-action). "The meaning of a metaphor is to take something from the Aryan, and this is the essence of the art," wrote the scholar and poet Rashid al-Din Watwat, "and the true meaning of every word is that the poet narrates the word from the point of view of that meaning.") uses. If the metaphor is natural, it gives beauty to the word. "[2,78-80]

Materials and methods. One of the most widely used arts in fiction is metaphor. Many of the poems included in the collection of poems "Aksiz sadolar" also contain many metaphors:

*Фалакларда чақнаб турсин ўт,
Қалдироқлар қалдираб турсин.
Йўлларинга сувсепсин булут
Йўлларингни шамол сунурсин.[9,43]*

Here, the word grass means the sun or the moon that illuminates the sky. Literary scholar Laylo Sharipova describes several meanings of the word grass as follows: "All types of fire are used in both folk songs and written poetry. In both literatures, the image of fire, first of all, means love, family, child, and sometimes means depravity. [6,133] The flash of grass in the sky, the scattering of water by a cloud, the sweeping of the wind by a broom instead of sweeping the roads, arose on the basis of the movement of the movement to another movement.

*Ижодкор деган хос мартаба йўқдир,
Ижод-қора меҳнат, аёвсиз меҳнат,
Истеъдод ижодни тутғувчи ўқдир,
Тагин сув-ҳаводек зарур ҳақиқат.[10,16]*

The dictionary "Explanation of the Uzbek language" contains more than ten meanings of the word black. Of these, in the figurative sense, "the word black means a negative sign in general, possession of a negative sign, bad meanings." [5,381] In these lines, taken from a series of poems such as "Navoi's lesson", "Bobur's lesson", "Qodiriy's lesson", "Qahhor's lesson", "The last lesson", the art of metaphor was created on the basis of the character's transition to another character. For every artist, the field of creation says that hard work is black labor, ruthless labor, but the fact that

this hard work is as necessary as water and air for the spirituality of the people is expressed in wonderful metaphors.

“If the image begins to fade, the metaphor may disappear, but they are often replaced by a new metaphor. Because "Poetry is an extended metaphor." For this reason, the poet manages to explain in detail the character and the situation in the poem, using several metaphors in each verse in order not to weaken the image and impression in the image.”[5,52]

*Ўнга боссанг –янтоқдир,
Сўлинг қийоқ севгилим,
Ёлғиз оёқ бу йўлда
Ёлғиз оёқ севгилим,
Елкасида сочлари
Майда тароқ севгилим
Қийогини ўргали
Топмас ўроқ севгилим.*

In the poem, every element of nature is animated. Dawn is lazy because it barely shines in the districts; the stalk (thin, long, sharp-leaved perennial herb) weeps - the leaves drown in the morning dew, the flowers smile - the morning sun loses its luster due to the morning sunshine, the plants are bathed - swaying with the action of bathing in the wind. All of this is one, which means that the morning is a period of awakening. Bathing plants in the wind is not a bad thing. After all, the herbs swaying in the gentle morning breeze are really reminiscent of the sea. At this point, as mentioned above, the thin leaves of the lyre are compared to the finely combed hair of the lyrical hero's lover.

It can be seen that in U. Kochkor's poems words with opposite meanings are also used. We all know that in fiction, this creates the art of tazad. “Contradiction is the use of words that express conflicting concepts for a specific aesthetic purpose. The scholar and poet Shaykh Ahmad ibn Khudaydad al-Tarazi reported in his Fununnu-l-balaga that he called tazad al-mutazad [1,380]. We can see vivid examples of this in the following verses:

*Навоийда неки сабоқ ўқидим,
Бу дунёда қаро недур, не оқ ўқидим.[10,13]*

“Black quality is also widely used in folk songs. It is known that black has long been associated with evil, death, horrors, the underworld, misfortune, suffering, unhappiness, disease, witchcraft, night, darkness, the secret of the soul, power, fear and excitement, hidden and unknown events. However, it can be observed that the emblems depicted in black represent both positive and negative expressive coloring”. [4,178]

In the Avesto, white is portrayed as a symbol of light and goodness. Also, in Uzbek folk mourning songs, white is interpreted as death and absence”. [7,120]

Hazrat Navoi, the sultan of the realm of words, interprets black in a positive way. Literary critic I. Hakkulov studies the positive qualitative properties of black in the example of Navoi's work. and the flag of the Abbasid caliph was also black, indicating that it was their particular color. Navoi also praised this color as "a blessed color" [12,18].

In these verses dedicated to Navoi, it is explained in black and white that he did not indulge in lust throughout his life, went to Samarkand to study, was not proud of the careers bestowed on him by his friend, and demonstrated the power of the Turkic language through his works. As Mawlana Jalaliddin Rumi said: "Everything is clear with its contradiction". So, in these verses, the words white and black create the art of tazad. From the opinions of the above scientists, it can be concluded that white and black colors are not always used in an anti-position relative to each other. The fact that these colors can have both positive and negative meanings has been substantiated through scientific research.

Results. The simplicity of the style in the poems of Osman Kochkar, the fluency of the language, serve as an important means of conveying his creativity to the people. The poet also made effective use of poetic elements in his poems, which directly help to observe the imagery in his work in bright, clear images.

*Энди ортиқ ғамдан сўйлама,
Қайғудан сўз очма ,Гулойим,
Мен бахтсизни зинҳор ўйлама,
Сен бахтиёр бўлгин илойим.*

The unhappy and happy words of the enamored, his devotion, courage, true and pure love, create only the art of tazad. “Tazad can be used in poetry, prose and drama. This art is widely used not only in the literature of the past, but also in our literature today. ”

*Дунёни сен рост деб айтдинг,
Асли дунё рост эмас,
Қўрганинг паст-у баландлар
Зинҳор баланд-у паст эмас.*

White - not white, high - not high, come – didn't come does not create antonymy from the point of view of linguistics, but it forms the art of tazod in literature. The poet was able to create wonderful examples of tazod, using words such as high-low, friend-enemy, less-more, false-true in one poem, talking about the transience of this inconstant world.

*Гоҳ ишондим, гоҳо тондим,
Гоҳо йиғлаб, гоҳ қувондим.
Бу ишқда мен андоқ ёндим,
Тутуним йўқ, қулим бўлмас.*

The fire of love, we used combinations of burning love, as described above. Osman Kochkor's poetic skill is that the smoke actually comes out of the burning body, and even if the smoke spreads to the entire being, it will eventually turn to ash. Appropriate and proportionate to each other words burns, the smoke and ash are used in verse quatrain creating art “tanosib”, which gives the quatrain a special artistic charm.

*Ватан эрки йўлимдирким,
Ўларман бу йўлда бир кун.
Бу шундайин ўлимдирким,
Бундан ширин ўлим бўлмас.*

As in our classical poetry, he gave a fine example of the art of aximoran in our modern poetry. The combination of "ширин ўлим (sweet death)" in this verse also revealed the feelings of the lyrical hero. Osman Kochkar's creative experience shows that the variety of aesthetic directions, the depth and variety of philosophical and artistic generalizations bring poetic art closer to life.

Let's look at the poem "Тушов узган от" :

*Кенг яйловда ўтлар эди от,
Бир қичқириб оромин бузди.
Оёғини кўтарди азот,
Шиддат билан тушовни узди.
Чўпон сапчиб турди ўрнидан,
Қани отга келолса яқин!
Пишқирди ўт чиқди бурнидан,
Туёғидан чақнади чақин.
Туёғидан чақнади чақин.*

The horse in “Тушов узган от” is not an ordinary horse. This horse, like the legendary Girat, that is, the horse of Guroglou, was grazing in a pasture, and its rest was disturbed by a cry. Raising his foot, he abruptly cut off the hitching post the shepherd saw it and in a daze stood up. But if only he could get closer to the horse now. The horse screamed so loudly that fire burst from its nose and shot from its hooves. Why is the horse so angry?

*Сарбастликнинг сармаст дунёси
Оғушига олар экан, от –
Ғирот деган номга муносиб –
Елкасидан чиқарди қанот.*

Images and motifs of folklore are often mentioned in modern Uzbek poetry. The image of a horse is one of these images. Girat, Girkok is a legendary figure in the epics of the cycle of "Gorogly". According to legends, the mare who breastfed Gorogly gave birth to a female foal from a stallion that came out of lake Khorasan. Gorogly raised this foal, and when she was three years old, took offspring from the Arab Tulpar Rayhan. Girkok - the image created in a fantastic style. When disaster strikes, the main character mourns, weeps, lands his master safely, guards him, and informs the wind if he is caught." The image of a horse compared to Girat, described in this poem, represents a person who loves his people, does not tolerate injustice and oppression. Using the names of the heroes of the Gorogly series of dastans, Gorogly, Avaz, and mentioning the singer-songwriter Ergash Jumanbulbul creates the art of talmeh.

*Бу Гўрўгли экан-ку ва ё
Бу-ку ҳали ёш бола – Аваз –
Энди отни ортига ҳатто
Жуманбулбул қайтара олмас.*

The poet describes the horse's nose as fire, flame soot wings on the shoulders, dagger - like ears, and the passage of air heavier than dough- all situations in the form of a "gulu". In the image of a horse whose heart is broken by involuntary, craving for independence, the poem reflects the supremacy of the spirit of freedom.

The history of great ancestors has always had an educational value, a status and an example. History is accompanied by such concepts as oppression, evil, science, enlightenment in the human mind. It embodies the blessed spirit of such great figures as Tomaris, Shirak, Najmiddin Kubro, Jaloliddin Manguberdi, Husayn Boykaro, Alisher Navoi, Abdurauf Fitrat, Cholpan, Abdulla Kadiri, Usman Nasir, Fayzullo, Sadrididdin Ayni. In the poems of Uzman Kochkar, too, these great people are full of pride, sometimes lament and regret, pride and humiliation.

One of the most important themes in the collection of poems by U. Kochkor is history. Let's take the poem "Bukhara triptych" dedicated to the memory of Sadrididdin Ayni from the collection "Akssiz sadolar". This poem consists of three parts, which describe the historical toponyms, historical anthroponyms, historical events of Bukhara and gave rise to the art of talmeh. He used folk melodies, folk sayings, proverbs and sayings in this poem, which gives magic from a long time.

*Вардонзени босди кум
Истамезни босди кум
Ўт балоси эмас бу
Сув балоси эмас бу
Бир балодир-қасди кум
Қочқо-қоч,қочқо-қоч. [9,4,5]*

Vardonze, Varzonze, Vardanzi is a monument known as "Vardonze Fortress" in Shafirkan district of Bukhara region (VI-XIX centuries). The fortress is 110 meters long, 60-70 meters wide and 45-50 meters high. It was the special residence of the Vardonkhudots. According to legend, the term Shopurkom (arik) is derived from the community of the Sosony prince Shopur. Shopur came to Bukhara, took land from the Bukhara gods, built a hut and a village and brought it a canal. There was a market one day a week, and Bukhara became a separate royal capital. At the beginning of the XVIII-XX centuries Shafirkan was one of the centers of Bukhara. The population lived in the Vardonze fortress until 1954, when they were forced to leave it due to the recent sand dunes. Now it is a hill in Shafirkan district. " [12,1]

Vardonze, like Istamzen, mentions the names of Shopur, the son of the ruler who created Shafirkan, in addition to quoting toponyms from the Shafirkan area, which remains in the sand octave and is now a hill.

There is a saying among our people: "Keep from the plague of fire, from the plague of water, from the plague of slander." In the first part of the poem itself, the miracles that befell the people were caused by a landslide, which was reflected in the poetic examples. The poet was able to skillfully find artistic findings, and the repetition of қочқо-қоч, қочқо-қоч also intensified the

impression. Proverbs and phrases such as “Тишни тишга босар ким”, “Кўкка кўлин чўзар ким”, in poetic rows have increased the artistic value of the poem. The conclusion of the first chapter also reflected the fact that the wandering homeless was able to express itself, revealing the resilience of the people.

Муножотнинг фарёди
Тангрисига етмади,
Бироқ ташлаб бу юртни
Ҳамма қочиб кетмади...

He describes the resilience of the people in the last sentence, " Ҳамма қочиб кетмади."

Part II itself is now interpreted in vital examples, as the sands swell and the people seek measures to bring water to the arid land. Now, instead of “Қочхо-қоч, қочхо-қоч” rows, using “Келхо-кел, келхо-кел” rows, the artist was able to find a new vernacular language to enter the hearts of the people.

Бағри кумларга тўлган
Кўхна рўдни етаклаб –
Халқ кўзғалди тағин сув
Келтирмақа етаклаб.
Қолиб кетма ковакда,
Келхо-кел, келхо-кел!

In the language of the people, who bravely set out with a hoe and a shovel, defeated the brave sand and realized their dream, it resonates with the traditions of folklore in the form of “Бўлхо-бўл”, “Ҳорма”, “Бор бўл” “People went to Zarafshan. “Зарафшонга чикди эл. Катта байрам зўр сайл Икки рўдга сув чикди... Очхо-оч, очхо-оч!

Part III aimed to the conquest of the Emirate of Bukhara by Tsar Russia is recorded.

Тортиб кетсанг от қўшиб,
Файтон эмас-ку Ватан.

The invasion of Bukhara by the Red Army in 1920, the escape of Amir Alimkhan from the Emirate, the killing of the people by "I am a Muslim", the hypocrites who sowed the seeds of discord, the emergence of the people's hungry children as my homeland .

Инқилоб урҳосию
Файзулланинг нарасин
Эшитгач, битар бўлди
Халқнинг қадим ярасин...

He was able to use metaphors effectively, and Fayzulla became the ointment for the revolution. Indeed, as our great poet Muhammad Yusuf said, "You have fields as brave as Fayzullo's" he states the names of Uzbek patriots.

The peculiarity of Usman Kochkar's work is that he was able to find unique conclusions in each poem.

Қум келарди бир маҳал
Йўқ кулбанга бостириб,
Бугун борар чеваранг
Қизилкумга от суриб.

Discussions. In the first part, Independence described the system as a landslide, but today, the children of Freedom, the children of Sovereignty play on the sand without fear. The use of artistic elements in his poems, the idea to be expressed, the accuracy of the purpose, the deep reflections testify to the artist's ability to create an individual style.

The linguistic features of Osman Kochkar's poems are also noteworthy. Linguistic analysis: "As an aesthetic phenomenon, the study of the language of fiction also focuses on determining the author's individual methodological skills and the extent to which he used the system of language in writing a work of art." [1,52] The use of direct language units in fiction increases the value of poetic text. The use of elements such as words, types of semantic transitions, paraphrases, phrases, stable

conjunctions, dialectics in poetic verses in relation to form and meaning improves the aesthetic effect of the poem.

"Because the history of Uzbek literature is directly related to folklore, all literary figures were inspired by it, created immortal works and expressed their high universal ideas in it." [3,97] The use of folk proverbs and phrases in poetry requires great skill. I think that when the People's Writer of Uzbekistan Abdulla Kahhor chose the article "The sky is far, the earth is hard" as an epigraph to his story "Sick", he increased the value of the work ten times, maybe a hundred times. Osman Kochkar also uses this proverb in a unique way in a poem.

Ҳоли ҳилол фалакда
Қўхна сўроқ севгилим,
Ўша-ўша ер қаттиқ -
Осмон йироқ севгилим. [10,44]

In the poem "Халқ оҳангида" "In the tone of the people" Usman Kochkor speaks about the extremely difficult situation of the people while applying this proverb. The ground is hard - you hit him on the head and hurt only yourself; the sky is far away - oh — it won't reach you until you moan. This poor people have been left in such a state. There is no one and nothing to pity him, to regret him, to charity him, to help him ... The ability to express an idea clearly and succinctly in proverbs plays an important role in ensuring the effectiveness of speech. The use of proverbs in poetic verses creates the art of "parable".

In his poems, Osman Kochkar skillfully used phraseology as well as proverbs. "Each word in a compound does not retain its independent meaning, so it is a stable compound that forms a stable, indivisible semantic unit of words (components) in this compound." [3,69-70] Phraseological expressions are used in a variety of tasks depending on the appearance of the speech. The following poem also proves our point.

...Қочган сари ваҳмаси,
Тишни тишга босарким,
Ғичирлайди тишлари,
Кўкка кўлин чўзар ким.[10,5]

The phrase "Тишини тишига босмоқ" is used instead of the words endurance. He expresses pity for the oppressed people in the same way. Maybe he is strong, courageous, brave, but maybe not ... Some people's hands reach the sky, some do not.

In a single poem called "Abdulla Kadiri" from the collection of poems "Heavy Caravan", the poet used several stable combinations, as a result of which they were arranged like a necklace in poetic lines.

...Дунёда ҳақиқат бўлса бир қадар
Олам қуёш каби қалқиб турмасди.
Ойни,кавокибни ёмон кўрганлар
Юлдузни бенарвон уриб юрмасди.

Conclusions. Throughout the logic of this poem, he masterfully placed such phrases as "Тегиримондан бутун чикмоқ", "Сувдан қуруқ чикмоқ", "Туяни ютмоқ" ("Getting out of the mill whole", "Getting out of the water dry", "Swallowing the camel") into the poetic lines, which is also a testament to the poet's unique style. The conclusions drawn from the past reflect the darkest, most tragic truths that befell the Kadiri, Cholpon, and Usman Nasir. The poet uses these words and forms:

- to avoid monotony, to achieve diversity;
- to show the possibilities of the national language;
- dialects are also often referred to as part of the national language to demonstrate their ability to be used not only in live speech, but also at the level of the literary text.

It should be noted that the use of art in poetry has been studied for centuries. "Works devoted to the systematization of the arts and their in-depth scientific analysis first appeared in Arabic, and then in Persian - Tajik and Turkish literature" [3,53] - in the existing literature. Fine art enhances the poetic value of the poem, enhancing the aesthetic effect.

Osman Kochkor's poems make you think, it is painful and heartfelt. In the poet's poetry, words and forms of simple speech coexist with the literary language, with a high artistic vocabulary. In his poems, he demonstrates the diversity and unprecedented possibilities of the Uzbek language. Not only the artistic idea is important to the poet, but also his plan of language expression.

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SEMANTIC FEATURES OF THE WORD "ABRO" (EYEBROW) IN THE POEMS OF AMIR KHUSRAV DEHLAVI "TOHFAT-US-SIG'AR"

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Abstract:

Background. This article discusses the level of use of the word "abro" (eyebrow) in the dictionary of ghazals of Amir Khusrav Dehlavi "Tohfat-us-sig'ar" and the range of lexical, semantic, figurative and mystical meanings.

Methods. In Persian-Tajik dictionaries and ghazals of the first divan of the poet, the symbols of the term "abro" (eyebrow), a series of epistemological meanings, artistic and lexical interpretation, historical formation and lingopoetic interpretation of lexical interpretations are analyzed as a separate issue. And the new and unconventional meanings of this word in the poet's work have been proved.

Results. The results of the analysis of semantic, figurative and mystical meanings of the word "абрӯ" ("brow") in the text of the ghazals of Amir Khusrav Dehlavi "Tohfat-us-sigar" show that the word occurs three times in the ghazals of this divan as a "metaphor of beautiful and unique beauty", and a source of labor and a symbol of anger, wrath, obedience, and adversity." In the other six cases, the distance between the stages of mysticism and non-reality, "anger, rage, cruelty and ruthlessness", "attraction, appeal, captivity and charm", "symbol of beauty and grace", "the wonder of the sage and the amazing state and dream and hope was never used either lexically or in the original sense.

Discussions. The word "абрӯ" ("brow") is used in the gnosis meaning "to dream and hope, to be passionate and ambitious", as well as in the word "дилум" (my heart) and "қандил рӯшмасу" (thread of the candle) and "қошлар меҳробу" (the altar of eyebrows) is proportional to the content.

Conclusions. This meaning of the word "абрӯ" ("brow") is illustrated in the Tajik dictionary by many phrases: "абрӯи нурчин" (wrinkled brow), "абрӯ ба ҳам дар кашидан" (shifting the eyebrows), "абрӯ қач қардан" (curving the eyebrows), "абрӯ тофтан" (wrapping the eyebrows),

“абрӯ туруи кардан” (in the sense of anger), “ба абрӯ чин задан” (ringing in the eyebrows), and “ба абрӯ зуреҳ задан” (tying the eyebrows) and others.

Keywords: eyebrow, lexical, semantic, mysticism, gnosis, emblem, symbol, metaphor, artistic image, image, ghazal.

Introduction. The word “абрӯ” (“brow”) is less used in Tajik classical poetry than other common words for human organs, such as “дил” (heart), “жон” (soul), “зулф” (lock) and “лаб” (lip). In particular, this word is used 155 times in the ghazals of the three devons of Abdurakhman Jami, and the word “абрӯ” (brow) as an artistic symbol in the text of the ghazals of the devon Amir Khusrav “Тӯҳфат-ус-сиғар” has various figurative, semantic and mystical meanings, used it once. That is, the word is used 6 times in the form “абрӯ”, one time in the forms “абрувон” (brows), “абрӯят” (your brows) ва “абрӯй” (brow). This word is sometimes used in the poet's poems as a separate word, and in other places - in proportion to the content of words that are directly similar in meaning and style. At the same time, in the works of the poet, the word “абрӯ” (“brow”) means metaphorical or phraseological expressions such as [3,136-176] “абрӯи пурчин” (wrinkled brow) [52,1], “абрӯи худ” (brow of oneself) [76, 2], “абрӯи ту” (your brow) [79,5], “абрӯи пайваст” (accrete brow) [85,6], “абрӯйи кингӯз” (discontent brow) [111,4] and “меҳроби абрувон” (niche brow) [10,3].

The fact that the word “абрӯ” (“brow”) is used less in Persian-Tajik classical poetry than other artistic symbols does not mean that the word is not used as a figurative symbol in the works of classical poets, but rather that it has the same artistic and scientific meaning as other artistic symbols. However, the semantic meaning of the word “абрӯ” (“brow”) is already there. Consequently, the word “абрӯ” (“brow”) in the ghazals “Тӯҳфат-ус-сиғар” by Amir Khusrav Dehlavi in the devon this word rose from the level of a simple word to the level of an artistic symbol, and in the ghazals of the poet expressed such meanings as anger, gestures and consent, joy and happiness, joy and laughter and irony from the new moon: crescent”.

Methods. Before giving an interpretation of the lexical and semantic meanings of the word “абрӯ” (“brow”) in the poems of Amir Khusrav, we consider it appropriate to first consider the interpretation of the meanings of this word in dictionaries. In the Tajik dictionary, the word is used in the form “абрӯ” or “абру” (“brow”) to refer to “the arched behavior of the hair above the eyes and under the forehead”. You can also find 25 phrases and 5 complex words composed using this word to better understand the semantic and figurative meanings of this word [9,30-31]. The dictionary quotes four verses from the works of Amir Khusraw to explain some of the meanings of the word “абрӯ” (“brow”), but none of these verses are found in the Devon ghazals “Тӯҳфат-ус-сиғар”. Probably the only reason for this is that most of the poems of this devon are not included in other poetry collections of the poet and have not yet been published in Cyrillic.

The word “абрӯ” (“brow”) is given in “Farhangi ash'ori Jami” in three synonymous forms: “абрӯ”, “абру” and “абрув”- “bow-like behavior of hair on the eyes, eyebrows” [2, 21]. It should be noted that the word “eyebrow” in this dictionary is synonymous with the word “абрӯ” (“brow”), which is not found in many other authoritative dictionaries. The only exceptions are the “Rudaki Ashari dictionary” and the “Tajik language dictionary”. According to the dictionary of Tajik synonyms, the word “абрӯ” (“brow”) is widely used in both the biblical and colloquial languages. The word “brow” is present in almost all dialects of the language, and through folklore works it approaches the literary language and acquires a general character. These synonyms do not differ in meaning [4,7]. In fact, the word “brow” really belongs to the Turkic languages and has a dialectical character. Perhaps this is why the word “brow” was not found in the ghazals of Amir Khusrav's “Tohfath-us-sig'ar”. Another interesting fact: the word “абрӯ” (“brow”) is not mentioned as a separate word in such prestigious dictionaries as “Giyas-ul-lug'at”, “Burkhoni kote”, “Masnavii spiritual dictionary” and “Short dictionary of works of Uzbek classical literature”. In some of these dictionaries, only phrases appear. Most often, the phrase “қош уриш” (hitting with brow) can be found in the context of “irony of gesture and consent”. [6,68].

In mystical dictionaries, the word “абрӯ” (“brow”) is used in the form of "pair of eyebrows" *جفت ابروان* (ҷуфти абрувон), which means "the one falls below its level as a result of error and sin and returns to its status under the influence of divine grace and punishment" [7,20]. In dictionaries of this type, the lexical meaning of the word “абрӯ” (“brow”) is not in the focus of authors' attention, but more attention is paid to its non-natural and mystical meanings. On the other hand, the fact that this word occurs not in mystical dictionaries in the form of “абрӯ” (“brow”), but in the phrase "pair of eyebrows" (жуфти абрувон), embodies the real and present features of the word “абрӯ” (“brow”). Because in fact, the eyebrow is not one, but is present in pairs in all living creatures. Therefore, I can say that the semantic and epistemological meanings of the word “абрӯ” (“brow”), are based on the lexical content and appearance of the word.

Results. In addition, in epistemological dictionaries, the phrases "pair of eyebrows" (жуфти абрувон) ва “қоб (shell of small objects)-и қавсайн- قاب قوسين” are given proportionally to each other: “қоби қавсайн قاب قوسين bow ear and grip (the place where the bow is held by the hand) (distance between the middle and the eyebrows) status of ahadiyat-ul-jam '(infinite quality of Allah), summed between possible and mandatory brackets "[7,49]. That is, obviously, the distance between two eyebrows and, from an epistemological point of view, the space between the steps of the beliefs. In the first Divan ghazals of Amir Khusrav Dehlavi, the phrase “қоби қавсайн” was used to express this form and meaning in proportion to the word “абрӯ” (“brow”):

**Қоби қавсайни худоист камон абрӯят,
На камоне, ки ба дуккони камонгар ёбӣ [3,179].**

*(Translation: Add a bow brow to the bow of God,
Where can you find a bow and arrow shop)*

The fact that the word “абрӯ” (“brow”) in this verse is first compared to the “илоҳий қоби қавсайн”-“divine shell” in tasbeh art refers to the distance between two eyebrows. In other words, mysticism reflected the meanings of "last judgement and horror, the distance between the steps and the authority of the sect, and the existing difficulties and tribulations between this and that world." Second, the art of metaphor likens it to an "bow", the spiritual symbol of which is the phrase "add bowed brow". In this case, the word “абрӯ” (“brow”) is semantically equivalent to the word "bow" and the phrase "bowers store" and is described as a divine ore and a sacred source.

**То ту бар аҳли савоб тир занӣ бехитоб,
Ҳафт камони баланд абрӯи кинтӯзи ту [3,176].**

*(Translation: Until you shoot at the people of goodness,
Add a high bow to your discontent brow)*

The word “абрӯ” (“brow”) is used in this verse to refer to "anger and resentment of cruelty and ruthlessness, oppression and suffering". The phrase “абрӯи кинтӯз” (discontent brow) is used in the art of metaphor to denote revenge, enmity, hatred, and the preservation of power. The word “кинатӯз” is used in the form “кинтӯз” in accordance with the rule of the weight of the poem, and in the "Dictionary of the Tajik language" the word is given as "hatred and hate search" [9,553]. A striking example of this is the fact that in mystical dictionaries the word “кин” means "the manifestation of the qualities of anger and rage in the state of oneself". In other words, as a sign of the ones penchant for anger and rage, the phrase “савоб аҳли” is a source of lovers and sages on the path of the sect. The composition “тир уриш” is a symbol of the killer and stoneheart lover, as well as the blazing fire of love.

**Дил ниҳам дар тоқи чоңро қибла созам рӯи ӯ,
Чун назар дар тоқи он абрӯи пайваст уфтадам [3, 166].**

*(Translation: The heart of the mountain is turned to the Kabla,
It's as if I'm constantly on the top of brow)*

In this verse, the word “абрӯ” (“brow”) is synonymous with the words “назар”(gaze), “дил”(heart), “жон”(soul) and “пайваст”(jointed) which means "adorable and charming, attractive and captivating, exciting and mad". In other words, the phrase “пайваста қош” originally meant "jointed eyebrows" [9,30] and was used in this verse as a symbol of beauty and a source of unique beauty. The words "heart" and "soul" refer to the heart and soul of a lover, and the word "gaze" is

used to refer to capture and loss of love. On the other hand, it is a source of destiny and fate, fully dedicated to the path of Truth.

**Рӯи чун оташи ӯ аз абрӯ,
Моҳро наъл дар оташ кардааст[3, 137].**

(Translation: From the brow his fiery face,
the Moon horseshoe was made from the fire)

In this verse, the word “абрӯ” (“brow”) is engraved in the art of igrok and is used as “a source of beautiful and unique beauty, peerless and incomparable”. Its spiritual symbols are the words “рӯ” (face) ва “моҳ” (moon) That is, “абрӯ” (“brow”) is better than “moon” as divine beauty. The word “наъл” (horseshoe) is used in the Tajik dictionary to mean “a piece of iron that strikes the soles of the feet of horses and donkeys and the heels of shoes” [9,842]. In fact, the obvious similarity of the horseshoe to the new unfilled moon and the shape for the eyebrows led to a semantic balance between them. On the other hand, the phrase “set fire on the horseshoe” is a figurative “irony of destabilization and disaster” [9,842], a symbol of ones evasion, illness and frustration.

**Зулфат санамо бофта чандин чи нишинад,
В-он чашми ту бо абрӯи пурчин чи нишинад[3, 152].**

(Translation: Among the curls of beauty how much do you sit,
How to sit with a weak eyebrow in the eye of her?)

In the verse, the word “абрӯ” (“brow”) is used, first, in the epistemic sense of “beauty and elegance”, second, as a source of “wonder and amaze”, and third, as a symbol of “anger, wrath and rage”. This phrase is used in modern dictionaries to refer to “a wrinkled brow created by anger and tenderness” [9,30], and is used in verse to express the same meaning. In addition, the phrase “абрӯи пурчин” (wrinkled brow) and the word “чашм” (eye) are spiritually compatible with each other, indicating an amazing and surprising state of mind. Zero one is amazed that her lover's beautiful eyes and angry brows are joined together. This is because the word “eye” (چشم) in Sufi dictionaries means “the quality of vision, the source that guarantees that all is not lost, as a means of controlling all the good and bad, as well as the harm and benefit of the ones state” [7, 22]. In other words, the “eye” is a symbol of vision and control, thanks to which the one has the opportunity to see all the good and bad things that happen to him.

**Зи дил накши абрӯи худ бар магир,
Ба куштан зи қурбон камон бар мақаш[3, 162].**

(Translation: Don't take off the eyebrow pattern from the heart,
Do not pull the victim's bow when killing.)

The word “абрӯ” (“brow”) figuratively means “crushing and tormenting, devastating and suffering”, and in this verse it is synonymous with the words “heart”, “bow”, “sacrifice” and “murder”. Because the harmony of the words “eyebrow” and “bow” is a symbol of sadness, pain and suffering, and the words “heart” and “sacrifice” mean a faithful lover, devoted to love. The word “kill” is used to increase the meaning of these words.

**Гар дар абрӯи ту бинам мани беҳуш, маранҷ,
Чи кунам маст ба мехроби намоз омадам[3, 163].**

(Translation: If I see you in front of me, I will be unconscious,
What can I do? I came drunk to this prayer altar)

In the verse, the word “абрӯ” (“brow”) is close to the words “unconscious”, “drunk” and “prayer”, which means “mysticism and attraction, romance and charm, love and madness”. In other words, the harmony between the words “unconscious” and “drunk”, “namaz” is a sign that the person is free from human qualities, embodies divine qualities, and has the privilege of seeing the deity of his beloved. After all, in the science of the invisible, the word “unconscious” (بیہوشی) means “the manifestation of divine qualities in the body as a result of the loss of all human qualities” [7, 15]. This is proof of the above considerations.

The meaning of the words “абрӯ”(eyebrow) and “намоз”(prayer) is the same, because the word “prayer” is used in mystical dictionaries to denote “divine quality, power, perfection in the world of greatness and achievement of high positions” [7,60].

**Зи чашму абрӯи ӯ гӯшагир шав, Хусрав
Зи турки маст ҳазар бех чу дар камон овехт[3, 136].**

(Translation: *Khusraw, flee from his sight,
He Turk was a drunken and hung on a good bow.*)

In this verse the word “абрӯ” (“brow”) literally means phrases “маст турк” (drunken turks) ва “камонга осииш” (hang on the bow). In other words, the phrase “drunk Turk” refers to a cruel and ruthless lover, and the composition “hanged on the bow” is a sign of misdeeds, actions and infidelity of the mistress. The word “drunk” is used in dictionaries to mean “loss of balance of mind and consciousness in a state of unconsciousness” [9, 651], and in the verse it refers to a proud and selfish ego, because the lover acts according to the desires and wishes of the heart, not the intellect.

**Дилам чу риштаи қандил аз оташи рухи хеш,
Бисӯхтӣву ба меҳробӣ абрувон овехт[3, 136].**

(Translation: *Take my heart like a candle ring in the fire of your face,
You burned and hung on the altar of eyebrows*)

Discussions. In this verse, the word “абрӯ” (“brow”) is used in the gnosis meaning “to dream and hope, to be passionate and ambitious”, as well as in the word “дилим” (my heart) and “қандил риштаси” (thread of the candle) and “қошлар меҳробӣ” (the altar of eyebrows) is proportional to the content. Because through art tashbeeh comparison of tortured soil of one with a burning ring chandelier is a symptom of depressed state of mind of a sage. But the phrase “the altar of eyebrows” is the only source of hope for the lover on the path of love, and despite all the adversity and suffering, he is still firm and above his steady words. That is, a person can withstand all the hardships and trials of love in the hope of a divine lover.

The results of the analysis of semantic, figurative and mystical meanings of the word “абрӯ” (“brow”) in the text of the ghazals of Amir Khusrav Dehlavi “Tohfath-us-sigar” show that the word occurs three times in the ghazals of this divan as a “metaphor of beautiful and unique beauty”, and a source of labor and a symbol of anger, wrath, obedience, and adversity.” In the other six cases, the distance between the stages of mysticism and non-reality, “anger, rage, cruelty and ruthlessness”, “attraction, appeal, captivity and charm”, “symbol of beauty and grace”, “the wonder of the sage and the amazing state and dream and hope was never used either lexically or in the original sense. In this regard, the word “абрӯ” (“brow”) is not used as a simple word in the text of the poems of the poet's first divan, but has acquired new non-traditional meanings at the level of artistic symbolism, embodying the poet's advanced mystical ideas.

Conclusion. Another important feature of the word “абрӯ” (“brow”) is that it is constantly used in the poet's poems to express the figurative meaning of “anger, wrath and rage”. After all, the “eyebrow” is a means of expressing the state of anger of a person as an organ. This meaning of the word “абрӯ” (“brow”) is illustrated in the Tajik dictionary by many phrases: “абрӯи пурчин” (wrinkled brow), “абрӯ ба ҳам дар кашидан” (shifting the eyebrows), “абрӯ қач қардан” (curving the eyebrows), “абрӯ тофтӣн” (wrapping the eyebrows), “абрӯ туруш қардан” (in the sense of anger), “ба абрӯ чин задан” (ringing in the eyebrows), and “ба абрӯ гиреҳ задан” (tying the eyebrows) [9, 30-31] and others.

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JAMOLING MUS'HAF (MUS'HAF COUNTENANCE)

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Undoubtedly, Alisher Navoi is a great artist of words, who enriched the Uzbek classical literature with the world of various themes and contributed to the spiritual development of man. Themes of perfection, human divinity and dignity have a special place in the poet's work. One of them is the ghazals connected with the comparison of human beauty to mushaf (collection of books) in Navoi's lyrical heritage. It should be noted that poems on this topic are found in almost all of the works of the artist. The ghazal we are going to analyze below is given in the 232nd issue of the "Badoyi ul-bidoya" divan. The ghazal consists of 9 bytes.

Yuzungda zarvaraqlar yonki lutfi benihoyatdur,
Jamoling mus'hafida har biri go'yo bir oyatdur.

It is known that the Almighty created man, made him superior to all other creatures, and placed a crown of honor on his head. In particular, some hadiths have been created regarding his definition of divinity. In particular, "Allah created man in His own image. "Or its beauty is equal to the mushaf, the divine book. This is because the Mushafi Sharif reflects Allah's thoughts on the mysteries of the universe, the mysteries of the mortal and the eternal world, as well as his destiny on the face of man. Probably for this reason, the likeness of the human face to the mushaf is often mentioned, especially in the writings of the Huruf sect.

Influenced by this tradition, which was formed in the classical literature of the East, Hazrat Navoi created beautiful images. We can see this in the first verse of the poem. The poet points out that the divinity of man is reflected in his face, and likens his human face to a mushaf, and the members of his face to a verse. This is because in the history of our literature, letter forms have been compared to the parts of the face (eyes are simple, mimes are mouths, nuns are full of eyebrows or lom zulf is full of letters) and have created a separate book art.

It is well known that hair is a mystical term in literature in the sense of the mysteries of the world, the mysteries of theology and the attainment of them. In the next verse, Navoi identifies this term and its synonymous darkness and refers to the creation of man. In other words, even though a person's face is dazzling, his hair and misguidance are everywhere. Because the hair was a mystery, the evening was dark, and he needed a guide candle to find his way. That is why the light of the torch of enlightenment (guidance) served man:

Sochingda zarfishonchehrang zalolat shomida har yon
Tajallomash'alidin yorug'on sham'i hidoyatdur.

The poet continues his observations about the beautiful creation of man:

Yuzungda nil xoli ravza ichra nilufar shibhi,
Binafsha gulshan ichra yuzda nilingdin kinoyatdur.

Man is divine, with a nil spot on his face, which is like a lily (similar to a water lily) growing in a ravza (garden, paradise). In addition, the purple in the rose is a metaphor for the nil (surmachop) on your face (sarcasm, pitching, sneezing). The poet also emphasizes that the human face is the discoverer of beauty and secrets. However, in the next byte, the continuation of the facial expressions also addresses the issue of the mind:

Ko'ngul saydig'a ochma sunbulung domin, yuz ochg'ilkim,
Gul-o'q ochilsa, qayd etmakka bulbulni kifoyatdur.

Do not open the sunbulung (lover's hair) for the lover (hunting), because it is a trap for the lover. But you open your face, your face is equal to the answer to the total goals for the lover. The same consideration is supported by the parable in the second verse. That is, if a flower or an arrow opens, it is enough for the nightingale to record (enough). The nightingale's goal is to see the flower open, while the lover's goal is to reach the face.

The poet uses the name Layla as a talmeh to describe lover's face. The legend of Layla beauty is very popular among the people. However, Navoi expresses in the form of tajahuli arif (one of the literary verses) that there is no story to compare the beauty of his lover:

El ichra ko'pdurur afsona Layli husnidin, lekin
Sening husnungg'a tashbih etmak oni ne hikoyatdur?

The lover's heart is always full of blood when he is in pain, and because of the pain of love, he becomes bloodthirsty. The lover's statement of state of mind also captures the beauty of the outside world. In other words, if your face is pink (reddening of the face), pink is an infection of the blood of a lover (penetration, entry). The same reflections indicate the spiritual closeness of the lovers:

Ko'ngul qonin ko'p ul xunxorako'z ichti, emas, go'yo
Yuzung gulgunadin gulgunkim,ul qondin siroyatdur.

The Creator marvels at the power of Allah and His invisible work. Note that it is said, "Whoever is at the end of this fire, this fire is heresy (beginning, before)":

Dema, tush vaqtiul yuz kundinortuqtur, muniko'rgil,
Kim ulyondin nihoyat bo'lsa, buyondin bidoyatdur.

Continuing his philosophical observations, Navoi mentions his views on people, society, and the atheism in them in the following verse:

Erur bedod borinda tarahhumdo'stdin, yuz hayf
Angakim, shukr borinda ishi doim shikoyatdur.

Although there is cruelty (oppression, injustice) among people, the poet expects mercy from his friend and relative. But that friend's "case is always a complaint. "Thanksgiving is one of the most revered virtues in Islam. Navoi therefore calls people to gratitude in the byte.

Concluding his remarks, the poet said, "You gave Navoi your heart, one day you will die," because he is a buyer of love, affection, and soul. He is always ready to sacrifice his life for these aspects. Let us focus on the beauty of the parable as the basis of thought: its own benefit is the obedience (consideration) from the king to the citizen. That is, the mistress is the king, the lover is citizen. Of course, the king's benefit to the people is obedience:

Navoiyg'a ko'ngul berdingki, jonin olg'asen bir kun,
Erur o'z naf'ishahdin gar raiyatg'a rioyatdur.

Alisher Navoi is a great artist who sang about the divinity of man, his perfection, as well as his worries and anxieties. We have witnessed the same considerations during the above ghazal analysis.

In short, the ghazal, which began with the propagation of mystical ideas, ended with the socio-political ideas of the poet. These ideas promote human dignity, the interests of the people and their consent. These qualities are the main goal of our state policy.

FORMS AND HISTORICAL ROOTS OF THE MAKHALLA

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Abstract:

Background. *In the following article, the concept of makhalla, its essence, functions, the responsibilities and the duties of the elderman of the makhalla are studied from the viewpoint of historical trends. Also, there is a discourse on the types of the makhalla, the makhallas which are adjacent to the cities and their suburbs, their peculiarities, the makhallas which are based on different professions and different ethnicities, including the makhallas of the Jews, the makhallas in the steppes and desert areas, the peculiarities of their management is analysed.*

Materials and methods. *There is a scientific hypothesis that makhallas emerged long before the state. But this hypothesis is still waiting for its researchers who need scientific investigation and study. Sources found in Sopollitepa indicate that the place where 8 families stay is the makhalla. The eight families at this residence include more than a hundred couples of families, built according to the patriarchal order.*

Results and Discussions. *The internal rules of the makhalla, although not reflected in any official document, were strictly followed by everyone. This was an expression of respect for the majority, for their will. The creative activity of many has manifested itself in such activities as building houses, roads and bridges, and holding weddings. This will further have strengthened the social basis of the makhalla.*

Conclusion. *It was only thanks to independence that the makhalla acquired the status of a socio-demographic, cultural-spiritual and territorial-administrative unit, clearly defined in the concept of historical and developed countries. It has become a means of linking public relations of citizens, forming a unity of traditions and customs, human, economic, legal relations between citizens of their territory.*

Key words: *makhalla, local bodies of self-government, elderman of the makhalla, makhallas of the city, makhallas of the craftsmen, makhallas of the Bukharian Jews, villages, makhallas of the craftsmen.*

“We believe that in the implementation of the concept of further deepening democratic reforms and the development of civil society in our country, as before, an active role is played by citizens' self-government bodies, communities, as well as non-governmental organizations, independent and impartial media” [1-6].

SH. Mirziyoev

Introduction. The main goal of the concept "From a strong state to a strong society", implemented in our country thanks to independence, is to further deepen the democratic process by transferring some state powers to citizens' self-government bodies. This testifies to the fact that the democratic reforms being carried out in our country are based on universal human values, as well as on our national values.

Indeed, if we look at the history of our country, we will see that from the first years of the Uzbek national statehood, special attention was paid to local self-government. In cities and large villages, the makhalla functioned as a peculiar form, a manifestation of local self-government. The makhalla was managed at the community level and had its own procedures. Residents of the makhalla had to follow these rules. The opinion of the makhalla elder and the public was decisive.

The word makhalla came to us from the Arabic language and means a place, a dwelling. This does not mean that the makhalla was formed after the Arab invasion. As on the territory of our country the makhalla was formed a long time ago.

There is a scientific hypothesis that makhallas emerged long before the state. But this hypothesis is still waiting for its researchers who need scientific investigation and study. Sources found in Sopollitepa indicate that the place where 8 families stay is the makhalla. The eight families at this residence include more than a hundred couples of families, built according to the patriarchal order. The task of managing each large family community was in the hands of an senior elder chosen from among them. The eight senior elders of the family have joined the high council of elders.

The members of the Council of Elders are called Nmanapati, as stated in the ancient religious book of the Avesto. Nmana means a large family community. Nmanapati means the head of a large family. All important issues in the ancient state of Fergana (Parkan), which existed from the 3rd century BC to the beginning of the 5th century AD, were resolved by a council of senior elders. This included declaring a state of war, making peace, assigning duties and taxes, and mobilizing for public affairs.

Main part. Makhallas have a very long history, and when we talk about a mahalla, we mean a large family. Then it was understood as a community in territorial units, which included a large family or several families. This is a historical community formed at the initiative of the residents of the makhalla. Historical literature also shows that the makhallas have a thousand-year history. In particular, the historian Narshakhi in his work “History of Bukhara” notes that 1100 years ago there were several makhallas in Bukhara [8-16,17].

The development of makhallas was directly related to the development of national statehood. Therefore, during the reign of Amir Temur, when the Uzbek statehood was just forming and began to rise, makhallas became more prosperous and flourishing. This was noted by foreign travelers and historians, such as Ibn Arabshah, Ibn Khaldun, Clavijo. At the time of Amir Temur, even the military lived in the makhalla style.

However, during the post-Timurid crisis, especially after the division of Central Asia into three khanates, there was no significant shift in the development of makhallas. At this stage, officials in the government system, such as onboshi, ellikboshi, yuzboshi and amines, are given great powers. Their decisions were taken at the level of the law and unconditionally executed. However, no attention was paid to the formation of public opinion controlling the activities of these officials. In many cases, this has led to overreaction from local authorities, harassment of people and the imposition of inappropriate taxes and fees. As a result, the social situation of people has deteriorated, as well as the development of makhallas.

The internal rules of the makhalla, although not reflected in any official document, were strictly followed by everyone. This was an expression of respect for the majority, for their will. The creative activity of many has manifested itself in such activities as building houses, roads and bridges, and holding weddings. This will further have strengthened the social basis of the makhalla.

The opinion of the makhalla senior elder and the public was decisive. In cities and large villages, the makhalla functioned as a peculiar form, a manifestation of local self-government. The makhalla was governed by the community and had its own procedures. The residents of the makhalla had to follow these rules.

The rights and obligations of the head of the makhalla have been formed since ancient times. The elders of the mahalla and his assistants were elected. The elder was the official representative of the makhalla before the local authorities and had to be approved by them for this position. After the election, the selection is confirmed by the issuance of a written document to the elder. The elder also worked on the distribution of houses inherited from his father to people according to Sharia law. The elder was directly involved in the purchase and sale of apartments in his area. The elder settled disputes between the residents of the neighborhood and tried not to take the case to court. If the authorities found the person guilty, the elder was supposed to help him out whenever possible.

Materials and methods. Makhallas that existed on the territory of our country in antiquity and the Middle Ages can be divided into the following types.

1. Makhallas and neighborhoods in cities and adjacent urban-type neighborhoods. The elders who ruled them are called elders, babas. For example, according to the data, the capital of the

emirate of Bukhara is divided into two massifs, each of which is divided into six districts. Each array was ruled by a dakhboshi. The baba ruled the area, and his organization was called bobokhona. He had a special guard, who worked only at night, and they were called Shabguards. Shabguards (night wanderer) comes from the Persian-Tajik language, "shab" means evening, night and "gard" - to walk, wanderer.

In the ancient Türkic language, instead of the phrase makhalla, the word koi was used. This word is used in the context of the paired word makhalla-koi. In Tashkent, this word has two meanings - makhalla and dwelling. For example, in Tashkent there is a makhalla Hafizkoi (a hafiz is a reader who has learned the Koran by heart). In the same way, there is also the makhalla of Koi Orifon (Arifs are those who have sufficient religious and secular knowledge). In the Republic of Turkey, instead of makhalla, the term koi is officially used: Bakirkoi, Otakoi, Hudjakoi and others. The imam of the makhalla mosque was in charge of religious affairs. Imam khatib, mutavalli, and sufi worked in the mosque. Each makhalla had its own neighborhood. The neighborhood had a teahouse, a bakery, a grocery store, a butcher's, a mosque, a pond, a hairdresser's and a shoemaker's [3-8.9].

2. Makhallas of handicrafts working in certain industries in cities. The emergence of medieval craft workshops is associated with the second major division of social labor - the separation of handicrafts from agriculture. Artisans specializing in a particular area are the basis for the emergence of medieval cities and establish their own craft workshops in these cities. Craft workshops began to appear in Italy in the 9th-10th centuries, in France, Germany and England in the 11th-12th centuries [10-130]. In most Western European countries, the peak of the development of workshops falls on the XIII-XV centuries.

During this period, medieval craft workshops became widespread in the cities of Western Europe. For example, in the XIV century in Paris alone there were more than 300 craft workshops, uniting more than 5,500 artisans [4-271]. The activities of the craft workshops were organized in accordance with the regulations, which indicated the hours of work of the masters, the quality of raw materials, the production technology, the quality and quantity of finished products, the places and conditions of sale, as well as the number of assistants and machines that each master can use in his craft workshop.

The activities of the craft workshop were not limited to this, but also covered the personal, family and social life of artisans and served as a kind of self-government body for artisans.

The craft workshops also served as a self-help organization. Each artisan who became a member of the craft workshop, after becoming a member, paid an entry fee and a membership fee. Financial assistance was provided to the members of the workshop, who were less well-off, with the collected money and the funeral of the deceased members of the workshop was held [6-271]. The head of the shops was elected, and he was usually called the master. Supervisors were in place to ensure that the members of the shop met the requirements of the craft workshop. The craft workshop workers gathered at a general meeting to discuss the most important issues in the craft workshop life.

In general, the craft workshops protected and strengthened the legal and economic status of artisans, had a positive impact on the economic development of Western European countries in the XII-XV centuries. However, by the 16th and 18th centuries, that is, with the formation of capitalist relations, the order of regulation in the craft workshops was hampered by development, and the craft workshops lost their status.

It should be noted with pride that in the past, an administration system similar to Western European craft workshops prevailed in our country.

In most cases, some makhallas were inhabited by people who knew one craft - colleagues, and the makhallas were named accordingly: Zargaron, Misgaron, Konchilik, Parchabobo, Charigari, Sharbatdor, Sozangaron, Egarchi, Temirchi, Takachi, Oqchi, and so on. For example, in Samarkand, in makhallas such as Kulolon, Zargaron, Charmgari, Sharbatdor, Sozangaron, Tokumdozi, Galaosiyo representatives of various professions grow food, sweets, household and family items, tools for livestock, carpentry tools, raw materials for consumption and to meet the

daily needs of buyers and customers [9-52]. Such makhallas existed in all cities of the country and played an important role in the social and political life of our country.

The elders who ruled such makhallas settled disputes between artisans and regulated relations. It should be noted with pride that in the past, a management system similar to Western European craft workshops prevailed in our country.

The order of leadership of the masters of our country consists of a bobo, an elder, a master, a khalfa and an apprentice, each of whom performed his task. Bobo is the head of the association of craftsmen, whose task is to ensure unconditional compliance with the rules specified in the Risola (charter), control the production of quality products by craftsmen, manage all activities of the members of the association, and resolve disputes between craftsmen. Conduct a "binding the belt" ceremony for the mastery of an apprentice, admit craftsmen from other cities to the union, negotiate with the city authorities on various issues, participate in arbitration of disputes between buyers and artisans. Bobo does not receive payment for these services. Bobo has his own shop, khalfa, and his students, and like other masters, he earned his living by his own labor [6-39].

The elder was the next leader of society after the bobo, and the tasks he performed were more extensive than those of the bobo. The elder also took part in all family celebrations of the masters and touched upon the economic and social aspects of the life of the members of the association.

He overcame various disagreements between the masters and regulated the relationship between the master, khalfa, and apprentices. At the exhibition of folk crafts in the country, he organized the participation of craftsmen with their products in various festivals. Organized the ritual of "binding the belt" of the apprentice. The elder, like his bobo, was not paid for these services. In turn, he also had his own shop, khalfa, apprentice and earned his living by his profession [6-39].

As a result of the colonial policy of tsarist Russia and the Soviet government, they gradually lost their place in society.

3. Makhallas formed according to race, ethnicity and nationality. In some areas, there were also makhallas formed along ethnic, tribal or ethnic lines. The proof of our opinion can be the makhallas of the Jews of Bukhara.

According to historical data, the first Jews came to Central Asia after the conquest of Babylon by the Persian king Cyrus (539 BC). The first information about the Jews who lived in Central Asia dates back to the 8th-9th centuries AD. Early Islamic sources mention Jews living in Central Asia. Jews are the only nation in Central Asia who did not convert to Islam. According to available data, in the 9th-12th centuries, Jewish communities in Balkh, Khorezm and Samarkand flourished.

Until the 16th century, the Jews of Iran, Central Asia and Afghanistan lived as one community. As a result of disagreements, they split into two groups - the Jewish communities of Iran and Central Asia and Afghanistan.

By the middle of the 18th century, the deterioration in relations between the Emirate of Bukhara and the Kingdom of Afghanistan led to the severing of ties between the Jews living in these areas, and since then the Jews living in Central Asia became known as Bukharian Jews.

Information about the first Jewish communities in Bukhara dates back to the 8th century. By the 16th century, Bukhara had become the center of Jews in Central Asia, and the first Jewish mahalla was formed, the old (old) mahalla. Jews were forbidden to live outside the area. In the first quarter of the 17th century, a synagogue was built, the only one of its kind in the area [7].

At the beginning of the 19th century, another Jewish makhalla was founded in Bukhara - Makhallai Nav. In the middle of the 19th century, another region of Bukhara, Amirabad, was created for Jews to live. Thus, there were three Jewish makhallas in Bukhara - the Eski makhalla, the Yangi makhalla and the Amirabad makhalla (founded by Amir). In the 60s of the XIX century, such mahallas functioned in Samarkand, Karshi, Merv, Khatyrchi, Katta Kurgan, Karman, Margilan, Dushanbe.

In the mid 18th - early 19th centuries, attempts were made to convert the Jews of Bukhara to Islam on a mass scale. As a result of this policy, a group of Bukharian Jews "Chala" was formed. Although they officially professed Islam, they were in fact secretly practicing Judaism. The Jews of Bukhara had to wear clothes different from the clothes of the Muslims. Their 13-year-old men had

to pay a separate tax. Traditionally, the tax collector hit a Jew who paid taxes twice. The main occupation of the Bukhara Jews was textiles. They produced horns, tinsel and traded. Shoe repair and hairdressing were among the favorite activities of the Jews. They were also the first in Central Asia to start sewing European men's clothing.

A secular leader - kalontar (foreman) was elected at the head of Bukhara Jewish makhallas. His task was to understand and solve problems in trade, public life and household small criminal cases. He was also considered to be the representative of Jews before the official government.

After the beginning of the colonial policy of tsarism and the establishment of a governor-general of Turkestan, the Jews of Bukhara living in these regions became part of this governor-general. The Jewish makhallas in the area were inaugurated as a rabbi, elected by the local makhallas and approved by the colonial policy authorities. This undermined the independence of the Jewish community and ensured its dependence on the government of Tsarist Russia. Jews living in the territory of the Bukhara Emirate were given the opportunity to obtain Russian citizenship on condition of joining a merchant guild.

In Soviet times, Bukhara Jewish makhallas, like all other makhallas, lost their essence and remained as a union of neighbors who organized various religious ceremonies and holidays. Due to the migration of many Bukharian Jews to their historical homeland and to the United States, purely Jewish makhallas have no longer survived.

4. Villages as a kind of mahallas. Rural areas are the first major social division of labor - the product of the separation of agriculture from livestock, a historically formed unit of people after the family. The first villages were formed in the form of places prepared by nomadic pastoralists for the winter. The fact that the word "winter" underlies the word "spend the winter" confirms our ideas.

Rural communities with a very ancient history improved at different stages of the development of society and were enriched with a new essence. This is also reflected in the rural community management system. The rural community coordinated and monitored the implementation of legal, economic and social norms and obligations.

See the ancient society in rural communities with a history of crashing went to different levels of iodine improved and enriched with new essence. This rural community management system, yes its mark. The village community coordinated and monitored compliance with legal, economic, and social norms and obligations.

Results. Historical sources indicate that large villages were divided into mahallas and were ruled by amines. Small villages were ruled by a village elder. The Uzbek rural community is governed by an advisory council. The council consisted of a bureau of composed of elders, mirshab and clergy. "Maslakhat" is the main government body. His responsibilities included discussion of important issues and issues related to the life of the team, and the search for an appropriate solution. In search of a solution to the problem, the participants in the meeting relied on historically established customs and traditions. Decisions were taken by a majority vote and carried out unconditionally. Those who violated community traditions were deprived of a share of water. In many areas of the Lower Zarafshan oasis, some manifestations of the rules related to counseling can still be found. For example, the fact that until recently (in some places and still) weddings and similar large ceremonies were held before Maslakhat Oshi is proof of our opinion.

Problems related to the activities of villagers in the rural community were solved. Among these problems, the use of water resources was critical. The share of water in the community was given to those who reached puberty in the community, and from the second half of the nineteenth century only to men who were married and could perform irrigation duties. This is due to the peculiarities of farming. It is known that there was irrigated agriculture in the East, which required the solution of many problems associated with the construction and maintenance of hydraulic structures. So the men who could do the job were given a share, and all the team members did the job together. For this reason, in many parts of the oasis of Lower Zarafshan, activities related to the repair and cleaning of hydraulic structures, ditches and canals are still called "hashar". Until the end of the 19th century, one of the tasks of the rural community in the economic sphere was to regulate

issues such as the division of labor, compliance with labor procedures. The harvest was distributed according to the means of production and labor.

5. Management of the population in desert and steppe regions. These lands also belonged to the Elbegs, the elders, the chosen people. Elbegi's activities are determined on the basis of the use of pastures allocated for animal husbandry, Elbegi's relatives, distribution between relatives and communities on the basis of organizing tax collection from livestock.

Thus, the lowest system of local self-government was organized on the basis of democratic principles and served to ensure social justice, prosperity and well-being of the folks among the people.

With such a long history and very rich traditions, the system of local self-government lost its status, first as a result of the colonial policy of Tsarist Russia and then the Soviet government, and turned into an organization without powers, acting only by name.

Conclusion. It was only thanks to independence that the makhalla acquired the status of a socio-demographic, cultural-spiritual and territorial-administrative unit, clearly defined in the concept of historical and developed countries. It has become a means of linking public relations of citizens, forming a unity of traditions and customs, human, economic, legal relations between citizens of their territory.

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UDC: 3

ANCIENT AND ETERNAL BUKHARA IS ONE OF THE CENTERS OF WORLD CIVILIZATION

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Abstract:

Background. *Bukhara has a number of dynasties and kingdoms in its ancient history: the Kushan Empire, the state of ephtalites, the high status and prestige of the city during the Turkish Khanate, the arrival of the Arabs and its selection as one of the centers of their religious power. It is to show that the material basis of the Renaissance-Renaissance became its economic, political, spiritual basis. It is planned to report on the study of the place of ancient and eternal Bukhara as one of the centers of world civilization by UNESCO.*

Materials and Methods. *The article focuses on the United Nations (UN) education in the study and glorification of the history and cultural heritage of Bukhara, a beacon on the Great Silk Road, at a time when the trend of a civilized approach to the study and research of world history, statehood, governance, culture and politics. , the work of UNESCO, an organization engaged in science and culture, as well as the recognition of the importance of the scientific activity of Bukhara scholars abroad on the basis of comparisons, comparative analysis, methodological approaches.*

Results. *Information about the contribution of the history and cultural heritage of ancient and eternal Bukhara to the development of world civilization will be brought to the attention of young people and the scientific community. Today it serves as a model for creating a solid spiritual foundation of the Third Renaissance in Uzbekistan. It teaches to respect the ancient and eternal Bukhara, one of the centers of high civilization and spirituality, as a sacred land where the rich scientific and cultural heritage of our people is concentrated.*

Conclusion. *The birth of Bukharai Sharif's famous scholars in the East and the West, who amazed the world with their religious and secular knowledge and became a role model for the younger generation in today's creative work, the world fame of Bukhara's unique architectural monuments, as well as information about the uniqueness of the role is given.*

Keywords: *Civilization, governance, politics, history, trends, culture, UNESCO, creativity, religious, secular, scientific, regional, scholar, Renaissance, Silk Road, science, architectural monuments, world community, tourism brand.*

Introduction: The contribution of Bukharai Sharif to the world civilization is determined by the specific historical development of the city during the reign of various kingdoms, the focus of political, social, cultural, scientific life, its influence on the peoples of the East and West. In the following years, the trends of the civilization approach have been prioritized in the study and research of the contribution of countries and cities to the development of world history and culture. "Different peoples, periods and countries experienced different development events of their own. But the number of independent and serious civilizations in all respects does not exceed ten, "[1] says the famous philosopher Arnold Toynbee. Among these famous civilizations is the ancient Central Asian civilization. Ancient and eternal Bukhara is also recognized as one of the centers of world civilization.

In fact, Bukhara has seen a number of dynasties and kingdoms in its ancient history. The status and prestige of this city was high during the reign of the Kushan Kingdom, the eflatite state, the Turkish Khanate. It is also not surprising that the Arabs came and chose it as one of the Centers of their religious authority. After all, Islam was created in Saudi Arabia and became a science in Bukhara As early as the ninth century, Bukhara, with the honorary title of "Qubbat-ul Islam" ("Dome of Islam"), became the basis of a number of states in the Central Asian region and the material, economic, political and spiritual basis of the Eastern Renaissance.

The contribution of Uzbek thinkers to world civilization at the international conference "Scholars of the Middle East and their historical heritage, its role and significance in the development of modern civilization" in Samarkand was once again recognized by prominent scientists from 50 countries, including America, Europe, Japan and China confirms our above views.

Materials and Methods. At a time when the civilized approach to the study and research of world history, statehood, governance, culture and politics has prevailed in the last centuries, the United Nations (UN) education in the study and glorification of the history and cultural heritage of Bukhara, it is important to study the work of UNESCO, an organization engaged in science and culture, as well as the recognition of the importance of the scientific activity of Bukhara scientists on the basis of comparisons, comparative analysis, methodological approaches.

According to the sources, many scholars have worked in our country to develop Islamic teachings and practices. Most of them worked in Samarkand and Bukhara. The fact that they have made a worthy contribution to the development of Islamic sciences such as tafsir, hadith, fikh (jurisprudence) and kalom spread the fame of our country throughout the Eastern world, confirms that Bukhara is one of the cradles of spirituality in the Islamic world.

In the ninth century, the star Muhammad ibn Ismail al-Bukhari, who shone in the sky of Bukhara, was awarded the honorary title of "Amir al-Mu'minin in the science of hadith", "Leader of the Hadiths", and in the tenth century Bukhara became the famous capital of the Samanid state. The introduction of fair laws and the tax system, trade, science, Bukhara architecture, embellishment gave the enviable, high examples of Muslim statehood in other countries. This practice was widely

used in Eastern countries in the following centuries. At this historical stage, Bukhara became one of the centers of the Muslim Renaissance. The fame of Abu Ali ibn Sina, the son of Bukhara, passed from the borders of the East to the lands of the West. The interest in studying the scientific heritage of the great scholar Abu Ali ibn Sina was much stronger in distant European countries. It is noteworthy that in the XII century Gerard Kremonsky translated the book "Laws of Medicine" by the great Bukhara scientist into Latin.[2] In 1284, Doctor Armango translated Ibn Sina's other works on medicine into Latin. The laws of medicine were used as textbooks in European universities until the 17th century.

The evidence testifies that the famous scientist of his time, the French surgeon Gi de Sholiak (1300-1368), considered Ibn Sina as his mentor. Promoting his legacy extensively, he mentions the name of Ibn Sina 600 times in his medical works[3]. Another French scholar, Nicola Oresi (1323-1382), acknowledged Abu Ali Ibn Sina's pioneering work in the treatment of mental illness. The fact that the "Laws of Medicine" existed in the curriculum of the University of Brussels until 1909 shows that Europeans deeply valued the scientific heritage of scientists.

According to the wise words of the famous Italian architect and poet Michelangelo, Ibn Sina's scientific legacy was considered a symbol of special respect for Europeans. That is why Michelangelo writes: "It is better to follow Galen and Avicenna to make a mistake than to trust others."

The first madrasah in the Muslim East was founded in the 10th century, and in the 12th century the Madrasah of Fikh began to function. People from all over the world began to come to Bukhara to study science, Islam and its vital teachings. Studying in Bukhara madrasahs has always been an honor.

Amir Sayyid Olimiy in his work "Bukhara - the cradle of Turkestan" (translated from Persian by H. Turaev. Bukhara. "Bukhara Publishing House, 2004) notes the ancient names of Bukhara and writes that even the Prophet Muhammad (peace and blessings of Allaah be upon him) paid special attention to this city. "Bukhara is proud of the number of martyrs lying in its bosom compared to other cities."

In fact, the recognition of Bukhara as one of the most important centers of the Muslim world in the world, in the Eastern region, is recognized as "Qubbatul Islam" in the IX century, ie "the dome of Islam" and "the religion power of Islam" in the words of great scholars.

Thanks to the activities of Sheikh Sayfiddin Boharzi (1190-1261), a great representative of the Kubravi spiritual path, the fame of Bukhara spread even more in the Islamic world. According to Abdurahman Jami, Sayfiddin Boharzi was sent to Bukhara by his teacher Najmiddin Kubro and lived in this city for more than 40 years. He strongly resisted the Mongol invasion. Fearing his strong influence among the people, the Mongol rulers were forced to reckon with him. The khan of the Golden Horde, Berkakhan, came to Sheikh Boharzi, became a murid, converted to Islam in the 1250s, and introduced Islam and built mosques and madrasahs in a vast state stretching from the North Caucasus to Siberia. It is no coincidence that Sayfiddin Boharzi was given the title of "Sheikh of the World" ("Sheikh of the World"), and the city of Bukhara was given the status of "Bukhara Sharif". At various times in the history of mankind, only seven cities on earth have been given such a high status, the title of "Sharif City".

In the 14th century, Bukhara Sharif, who gave humanity another great scholar, Hazrat Bahauddin Nakshband, rose to prominence during the reign of Amir Temur and the Temurids. In the following centuries, Bukhara had a high position and prestige among Movorounnahr, as well as among the countries and cities of the East in general. The construction of 10 madrasahs in the city in the second half of the 16th century alone shows that the level of economic-cultural and spiritual-scientific life has increased. Although this development was relatively slow in the XVII-XIX centuries, in Bukhara in this period can be seen high examples of science, culture, crafts.

From the Shaybanid period to the beginning of the 20th century, Bukhara was one of the main cities of Central Asia. It is known from history that in Russia and other countries it was customary to call the Central Asian region "Bukhara". During the reign of Russian Tsar Peter I, this large region was named Bukhara ("Bukharia") and admired the culture of this country from Siberia to the

Volga region. Bukhara science, especially literature and historiography, handicrafts, music, architecture were epic in languages, and even the traditional procedures of ordinary life were exemplary for others.

In the late 19th and early 20th centuries, interest in studying the history and cultural heritage of Bukhara increased in European countries. The famous French geographer and sociologist Elise Recluse (1830-1905), a member of the Paris Commune, praised the role of Bukhara in the East, calling it "Islamic Rome"[4] and emphasizing the power of mosques, madrasas and minarets attracts the attention of the scientific community not only in France but also in the world.

The history and cultural heritage of Bukhara in the early twentieth century attracted the attention of the French scholar Joseph Castanet, and the collection of materials on the ethnography, history of crafts, archeology of Bukhara is also mentioned in historical sources.

Kastane was one of the first foreign authors to study Bukhara before the October Revolution, and in his article "Through the holy places of Bukhara" he provided interesting information about the famous mausoleum of Ismail Samani[5]. During his stay in Central Asia (1912-1920), J. Kastane became acquainted with the famous Russian orientalists V.V. Bartold and V.L. Vyatkin. Collects interesting information on the history of Turkestan and Bukhara.

J. Kastanie notes that when he was in Bukhara, he was informed that his companion, Mirza Ghulam, who had been specially assigned to him by the Emir's government, as well as progressive Jadids such as Mirza Nasrullo, Mirza Shah, Haji Abdusattor, had been victims of horrific politics[6].

The famous medieval historian of Bukhara Abu Bakr Muhammad Narshahi's work "History of Bukhara" was published in 1892 by the French historian Ch. Schaefer. It is worth mentioning that it was published by Schaefer in Paris. Because Schaefer's edition was perfectly executed and was highly praised by European orientalists. The fact that the Parisian edition was one of the main sources in the preparation of Abu Bakr Muhammad ibn Ja'far Narshahy's book for publication in Uzbek in 1966 shows the high level of interest in the history and cultural heritage of Bukhara in France. The work of the great scholar, the Sultan of Hadith, Imam Ismail Bukhari, "Al Jami al-Sahih" has also been translated into French[7].

The role of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in the study and glorification of the history and cultural heritage of Bukhara, a guiding light on the Great Silk Road, has been enormous. The study of the history and cultural heritage of Bukhara has been of interest to the world community since the Soviet era. It has been the focus of UNESCO.

Since 1960, UNESCO has initiated a large-scale international study entitled "History of Central Asian Civilization." The first volumes of this book also analyze the handicrafts, culture, and art of Zarafshan in ancient times.

In 1980, UNESCO dedicated the November issue of its courier magazine, the Courier, to the 1,000th anniversary of the great Bukhara scholar Abu Ali ibn Sino. It published articles, reports, and rich illustrations by scholars from different continents on the rich scientific heritage of Ibn Sina.

Results. Information about the contribution of the history and cultural heritage of ancient and eternal Bukhara to the development of world civilization will be brought to the attention of young people and the scientific community. Today it serves as a model for creating a solid spiritual foundation of the Third Renaissance in Uzbekistan. It teaches us to respect the ancient and eternal Bukhara, one of the centers of high civilization and spirituality, as a sacred land where the rich scientific and cultural heritage of our people is concentrated.

After independence, the attention of the world community to the study of the history and cultural heritage of Bukhara has increased. In November 1991, an independent UNESCO expert, John Warren, arrived in Bukhara. He got acquainted with the architectural monuments of the city and sent a conclusion to UNESCO on the need to include Bukhara in the list of cities of world importance. From the very beginning of independence, the history and cultural heritage of Bukhara, one of the ancient cities of Uzbekistan, was raised at international congresses initiated by UNESCO. On November 14-18, 1992, at the First International Congress on Cooperation in the Study of Central Asian Culture and Science in Tehran, UNESCO Head Director F. Mayor, French professor

Ballon, Uzbek scientist, academician Ahmadali Askarov[8] spoke about the history of Bukhara and its role should be revealed as a center of science in the Muslim world through historical research.

After gaining independence, Uzbekistan became a member of UNESCO on October 29, 1993. After that, the attention of this authoritative international organization to the study of the history and rich cultural heritage of the ancient cities of Uzbekistan Bukhara, Samarkand, Khiva increased. In the autumn of 1993, ancient Bukhara was given the status of an "Open-air museum city."

In the fall of 1995, Bukhara was included in the UNESCO World Heritage List. The 28th session of UNESCO held on October 25 and November 15, 1995, played an invaluable role in spreading the world fame of ancient Bukhara among the peoples. At the session, the 2500th anniversary of Bukhara will be included in the list of events to be held by UNESCO in 1996-1997. In August 1995, the International Institute for Central Asian Studies was opened in Samarkand under the auspices of UNESCO [9]. General Director of UNESCO F. Mayor attended the opening of the institute and described Bukhara, Samarkand, and Khiva as "cradles of human civilization [10]." According to him, in 1995, Uzbekistan was the greatest discovery for UNESCO [11]. At the heart of this discovery is the worthy contribution of Bukhara to world civilization, which naturally evokes in every Bukharian a sense of pride in its ancient city.

The 28th session of the UNESCO General Assembly, held in October-November 1995, decided to celebrate the 660th anniversary of the birth of Amir Temur worldwide. In this regard, on the initiative of the First President of the Republic of Uzbekistan Islam Karimov, it is planned to hold a "Week of Science and Culture in the Timurid period" in Paris. General Director of UNESCO F. Mayor consistently supported this. In a letter to Islam Karimov, he wrote: "My trip to Samarkand, Bukhara, and Khiva was an exciting stage in my life. Those places are as legendary and historical as in fairy tales. I tried to imagine that the Silk Road passed through these places, that cultures and religions came into contact with each other, and that the East and the West facilitated communication. The places I visited were great cities where human destinies crossed [12]."

Taking into account the special role of Bukhara in the development of world culture, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan adopted in accordance with the decision of the 28th session of the UNESCO General Conference in Paris in October-November 1995 to widely celebrate the 2500th anniversary of Bukhara. Until 1997, when the 2,500th anniversary of the city of Bukhara was celebrated, it provided for the restoration and embellishment of unique historical and cultural monuments located in the ancient center of Bukhara and the main tourist route, as well as many other activities. A special resolution of the governor of Bukhara region on the historic anniversary was published in the press. The work planned until September 1997 also focused on the history of Bukhara and its study.

Representatives of the United Nations and UNESCO, ambassadors and representatives of foreign countries, foreign guests, all participants of the anniversary, who took part in the anniversary event in October 1997, witnessed the transformation of the city of Bukhara.

That is why the sacred history of Rome and Samarkand, the equivalent of Bukhara Sharif, has a miraculous power that excites the heart of every person.

The head of a prestigious international organization visited Bukhara Sharif on August 27, 1995, and got acquainted with its world-famous monuments. F. Mayor visited the rich exhibitions of local handicrafts at the Nodir Devonbegi Madrasah [13]. There is no doubt that the rich cultural heritage of Bukhara surprised the head of an influential international organization.

On February 21-22, 1996 in Bukhara "Silk Road. An international conference on "Development of educational tourism and the restoration of the cultural heritage of Uzbekistan" was held. Such an international conference was held in Bukhara for the first time among the countries and cities of the Great Silk Road. The conference noted the great contribution of the ancient city of the East to the agreement of peoples and nations in ancient times, the development of trade and culture. At the conference, UNESCO Deputy General Director T. Keller solemnly presented the Bukhara regional administration with a certificate of inclusion of the old city of Bukhara in the list of world cultural values [14].

UNESCO has devoted great importance to the restoration of historical monuments in Bukhara within the framework of the International Program "The Great Silk Road-Dialogue Road", which lists and takes care of such masterpieces of world architecture in ancient Bukhara as Ismail Samani, Minorai Kalon. The company "Arthur" in Paris undertook the repair of caravanserais built in the old part of the ancient city. In August 1994, a group of specialists from the company set off from Paris to Bukhara, covering a distance of seven and a half thousand kilometers by car and arriving in the ancient city [15]. In an interview with a local correspondent, Jean-Pierre Algeres, the General Secretary of the "Arthur Association", said: "The repair work in Bukhara will be carried out in collaboration with local masters. We want to establish our own independent construction base here and lay the foundation for the Paris-Bukhara route. Paris and Bukhara held out their hands to each other. I wish both sides fruitful cooperation [16]."

Thus the local masters, together with the French guests, began the repair of the ancient caravanserais. French craftsmen have been actively involved in securing ancient caravanserais for four years.

At a conference dedicated to the 2500th anniversary of the cities of Bukhara and Khiva on June 16-12, 1997 in the French capital, the Uzbek delegation was received on June 16 at the UNESCO headquarters by its General Director F. Mayor and other officials accepted. The exhibition dedicated to the jubilee of Bukhara was opened in the big hall. The exposition dedicated to Bukhara includes models of Ismail Samani Mausoleum, Kalon Minaret Ensemble, and other historical monuments, copies of murals in Varakhsha Fortress, iron, ceramics, copper carvings, and gold embroidery found during archeological excavations in Shakhristan to determine the age of Bukhara.

On June 16, the Marini Theater hosted a performance of The Great Silk Road by the famous Uzbek director Bakhodir Yuldashev. In this play, using the opportunities of music, choreography, and singing, the masterpieces of ancient history are skillfully revealed in the image of Bukhara, one of the shining example cities on the Great Silk Road.

Discussion. The role of ancient and eternal Bukhara as one of the centers of world civilization has not led to any conflicting views in the scientific literature. After all, the ancient Central Asian civilization originated in the form of morality, embracing all aspects of the philosophy of life, the logic of life, and the human world within the framework of spiritual and moral criteria such as the triumph of good and evil, noble and wicked, love and hate. Spiritual and moral criteria, rules, and norms, which embody the essence of the whole human phenomenon, form the basis of this civilization [17]. The well-known political scientist, sociologist Narzulla Juraev's opinion shows that the history and cultural heritage of ancient and eternal Bukhara is also full of virtues and plays an important role in the development of world civilization.

Conclusion. President Shavkat Mirziyayev speaking about the city of Bukhara and its contribution to the world civilization with a high level of recognition, he added: "Indeed, the old trade routes, located at the crossroads of cultures and civilizations writers, experienced, science, education, religion, known for creative people deserves all the respect and attention [18]."

It is significant that the President of the Republic of Uzbekistan Shavkat Mirziyoyev, thinking about Bukhara and the people of Bukhara, called his speech at the meeting with the electorate of Bukhara region clearly confirms that "a nation famous for science, enlightenment, religion, and creativity. In fact, as the President said, "In this beautiful oasis on the banks of the Azim Zarafshan River, the hearths of ancient civilizations such as Varakhsha and Narshakh, the ancient Ark, the Samanid mausoleum, Chashmai Ayub, Minorai Kalon, Chor Bakr and dozens of unique architectural monuments have their roots [19]."

The world community pays constant attention to the fact that the ancient and sacred land of Bukhara has produced scholars who are famous in the East and the West, who amazed the world with their religious and secular knowledge, and who today are a role model for the younger generation.

That is why today "the names of such great thinkers as Imam Bukhari, Abu Ali ibn Sino, Muhammad Narshakhi, Abdukhalik Gijduvani, Mir Said Kulol, Khoja Arif Revgari, Bakhaiddin

Nakshband, whose rich heritage grew up in this blessed land, are known all over the East and West [20].

The great geniuses who grew up in the land of Bukhara played an important role not only in the history of Islam but also in the history of world civilization. At the meeting of the Ministers of Foreign Affairs of the Organization of Islamic Cooperation in Tashkent, Uzbekistan's proposal to establish an international research center to further study the sacred heritage of the great muhaddith Imam Bukhari was met with great interest and goodwill. Today, the work of the international scientific center is attracting the attention of the world community.

During her visit to Bukhara, the current General Director of UNESCO, Audrey Azule, also praised the contribution of this sacred city to the development of world culture. Today, Bukhara attracts the attention of the world community with its unique tourism brand and attractiveness. In 2018, more than 1.9 million tourists visited Bukhara, of which 161,000 were foreign tourists. By 2019, the number of tourists visiting Bukhara will reach 3 million, more than 601,000 of them were foreign tourists. It is obvious that the ancient and eternal Bukhara, the center of world civilization, still attracts the attention of the world community.

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CIVIL SOCIETY IS THE ENACTMENT OF LAW IN THE COUNTRY AND THE BASIS OF ENSURING HUMAN RIGHTS

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Abstract:

Background. *The article discusses the fact that important work is being done under the leadership of President Shavkat Mirziyoyev, important work is being carried out in Uzbekistan to build a democratic state and civil society based on the rule of law. At the solemn ceremony dedicated to the 27th anniversary of the adoption of the Constitution of the Republic of Uzbekistan, in his speech entitled "The Constitution and the rule of law are the most important criteria of a democratic state and civil society," put forward conceptual ideas on this issue. We need to have a broad understanding of the priorities outlined in the information and prepare the ground for young people to understand the concepts of the rule of law, the regulation of act and civil society.*

The concept of civil society has its own historical roots. As each state chooses its path of independence and development, it enshrines in its Constitution - the Main Law - the most important goals and objectives that serve the well-being of the people. Consequently, a country with a

Constitution that is in harmony with the will, language and noble intentions of its people will always move forward, never deviating from the condescending goals it has set.

If we look at history, we see that the spiritual and moral values formed over the centuries and the natural rights of man have taken the form of the Constitution as a result of the processes of civilization. During the long history of Uzbekistan, our ancestors have left a great scientific legacy of building a just society and shaping the characteristics of civil society.

This article studies a detailed study of the scientific research of such thinkers as Abu Nasr al-Farabi, Abu Ali ibn Sino, Abu Rayhan Beruni, Alisher Navoi, Hussein Waz Kashifi on building a prosperous society, the importance of applying their results and conclusions to modern strong society reforms - civil society itself determines development on the basis of specific nationality.

Methods. *Based on the analysis of a significant array of normative legal acts, the author examines the institutions of civil society from the standpoint of the law, noting that the rule of law is an institution of civil society since an organized civil society is the fundamental principle of the formation of the state.*

Results. *Civil society realizes the everyday interests of people. Day after day, it creates conditions for the self-realization of individuals and groups, to meet their needs. At the same time, civil society restrains the state's desire to concentrate on the political state.*

Conclusions. *Civil society institutions are not directly subordinate to the state, but actively interact with it. Civil society is a necessary intermediary, a "layer" between the individual and the government. It does not allow the state to turn from a servant of the people into a sovereign. At the same time, a characteristic feature of any institution of civil society is its alienation, independence, but in no way opposition (confrontation) to the political will of the state.*

Keywords: *law, independence, consciousness, culture, society, legal norms, social relations, national security, legal consciousness, civil society institution, pluralism.*

Introduction. The concept of civil society can be used in a broad and narrow sense. Civil society in the broadest sense is the part of society that is not occupied by the state and its structures, in other words, the part that is not occupied by the state. Such society develops as an autonomous, not directly dependent on the state.

When the concept of civil society is interpreted in a narrow sense, it is the other side of the rule of law that they cannot live without each other. Civil society consists of pluralism in the interaction of free and equal individuals who are not governed by the state in a market economy and a democratic state governed by the rule of law.

In the process of forming the foundations of civil society in Uzbekistan, the following has been done.

1. Institutional changes in the social system took place during independence;
2. The conceptual principle "From a strong state to a strong civil society" has been implemented;
3. The main reforming role of the state in the formation of civil society has increased.

These processes became the basis for building a democratic state and civil society based on the rule of law. Today, the most important criterion of a democratic state governed by the rule of law and civil society is to ensure the well-being of our people by ensuring the rule of law enshrined in the Constitution.

Important conditions for civil society decision-making are:

1. The principle of division of state power into three. (Specified in Article 11 of the Constitution of the Republic of Uzbekistan).
2. Existence of political pluralism (expressed in Article 12 of the Constitution of the Republic of Uzbekistan).
3. Recognition of democratic principles that ensure human rights and freedoms as the basis and highest value of the organization of state power and public life (reflected in Articles 29, 32, 43 of the Constitution of the Republic of Uzbekistan).

The seven-article chapter of the Constitution of the Republic of Uzbekistan "Public Associations" has created the necessary legal and political conditions for the establishment of civil society institutions in the country.

It clarifies the concepts of "public association", "employment union", and "political parties", which are now defined on the basis of democratic interpretations.

Article 58 of the Constitution states: "The state shall ensure the observance of the rights and legitimate interests of public associations, create equal legal opportunities for them to participate in public life ...".

The expression of such democratic principles in our Main Law testifies to the existence of the constitutional basis of a democratic state and civil society in Uzbekistan.

The thorough creation of the constitutional basis for increasing the freedom and activism of citizens in society will also contribute to the further development of a democratic state governed by the rule of law and civil society. (Articles 24, 25, 27, 31, 33, 36, 37-44, 46 of the Constitution of the Republic of Uzbekistan guarantee these processes.)

The process of liberalization of the political sphere of society also plays an important role in the further development of a democratic state and civil society. The role of the multiparty system as an institution of civil society is great. According to Article 56 of the Constitution of Uzbekistan, political parties are "recognized as public associations. Article 58 of the Constitution states that "state bodies and officials shall not interfere in the activities of public associations, as well as public associations shall not interfere in the activities of state bodies and officials."

The UzLiDeP, National Revival, People's Democratic Party of Uzbekistan, Adolat Social-Democratic Party and Ecological Uzbekistan parties operating in the Republic of Uzbekistan today have the same conditions for the development of their activities in society. Existing political parties in Uzbekistan are taking advantage of the ongoing reforms to liberalize the activities of political parties in Uzbekistan.

Parliamentary reforms also play an important role in liberalizing civil society institutions. This is because it will be difficult for political parties to achieve their common goals without actively participating in parliamentary activities.

Therefore, in the first direction of the "Strategy of Action", entitled "Improving the system of state and society building", it is planned to fulfill 3 priorities. All three tasks serve to improve the rule of law and civil society:

1. Strengthening the role of the Oliy Majlis and political parties in modernizing the country and deepening democratic reforms;

2. Public administration reform;

3. The improvement of the system of public administration.

It is obvious that political parties need to be more active in the activities of the Oliy Majlis.

The democratization of the electoral system also plays an important role in further improving the rule of law and civil society. In this regard, the new "Election Code" signed by the President of the Republic of Uzbekistan on June 25, 2019 was another important step in this direction. Chapter 18, 103 articles on the adoption of a new "Electoral Code" in Uzbekistan and in 2019 "New Uzbekistan - new elections!" The holding of democratic elections under the sponsorships of the party has deepened these processes. In the elections, political parties won the following seats in the Legislative Chamber of the Oliy Majlis:

UzLiDeP - 53 seats;

"National Revival" - 36 seats;

Adolat SDP - 24 seats;

People's Democratic Party - 22 seats

The Ecological Party of Uzbekistan will gain 15 seats.

The activity of the system of non-governmental and non-profit organizations (NGOs) also plays an important role in the development of civil society institutions in Uzbekistan.

The establishment of the National Association of Non-Governmental Organizations of Uzbekistan on June 10, 2005 plays an important role in the development of non-governmental non-

profit organizations (NGOs) in Uzbekistan as an institution of civil society. At that time, there were 402 non-governmental public associations of republican significance. 81 of them had the status of international organizations.

The Makhalla Charitable Foundation of Uzbekistan was established at the source of our national independence. Over the past period, the International Non-Governmental Charitable Fund "For Healthy Generation", the International Fund for Ecology and Health "Ecosan", the Fund for Support of Veterans of Uzbekistan "Nuroni", the Chamber of Manufacturers and Entrepreneurs, the International Cultural Center and others have been established.

There were also non-governmental organizations representing the interests of women, such as the "Women Entrepreneur" of Uzbekistan, the "Children's Fund of Uzbekistan", "Women and Health", "Kindness", and the "Women's Society".

The Fund for Support of Non-Governmental Organizations of Uzbekistan was established on July 26, 2005 to form independent, stable, civil society institutions supported by various segments of the population, to strengthen the role of citizens in solving social problems and increasing socio-political activity.

The organization has also begun to attract grants from local, foreign, international organizations and financial institutions to encourage the development of NGOs.

In addition, dozens of foreign non-governmental organizations have established their representative offices and other representative offices in Uzbekistan on the basis of UN development programs. These include the United Nations Children's Fund (UNICEF), the United States Agency for International Development, the British Council, the Konrad Adenauer Foundation's Office for Central Asia and Kazakhstan, the American Councils for International Education (ACCELS), and UNESCO., the environmental organization KOFUTIS.

Materials and methods. Reforms in Uzbekistan to liberalize the activities of local self-government bodies also play an important role in improving the rule of law and civil society. The powers of the system of makhalla, aul, village, township citizens' assemblies on self-government are constantly expanding. Based on the goals of building civil society in the country, Article 1 of the Law "On Citizens' Self-Government Bodies" adopted on April 14, 1999 (new edition) defines the legal concept of citizens' self-government as follows:

"Citizens' self-government is an independent activity of citizens to address issues of local significance, guaranteed by the Constitution and laws of the Republic of Uzbekistan, based on their interests, historical features of development, as well as national and spiritual values, local customs and traditions."

In fact, local self-government bodies, with the involvement of not only citizens and deputies of local councils, but also deputies of the Legislative Chamber of the Oliy Majlis and senators, are active in expressing views on important issues of public life and their implementation plays an important role in improving society.

Results. Any state relies primarily on the Constitution (the Main Law), while the legal democratic aims at restoring the state and civil society.

For the first time in the life of mankind, the Constitution raised the human rights, freedoms and freedoms such as free and unrestricted living, possession of property, education, work, voting and election to the highest level of value.

The Constitution adopted in the first period of our independence clearly defined mutual rights and obligations and their guarantees in the relations between a person, society and the state.

Regardless of gender, race, nationality, language, religion, social origin, the prime minister recognized the guarantee of equality of citizens of our country and laid the foundation for modern democratic development.

It is for this reason that it is necessary to glorify the Constitution with reverence, to study in every way, to follow it consistently, to break into the hearts of our young people the great heritage and universal values of our ancestors, which are embodied in our basic law.

Sahib Amir Temur grandfather had stated that "**since the state is not a device on the basis of laws, then the glory, power and composition of the kingdom are lost.**" In this context, ensuring

the Constitution and the rule of law is the main criterion of the democratic legal state in which we are building. The effect of any democratic reforms, the main guarantee of peace and development, is also directly related to the provision of the Constitution and the rule of law.

The rule of law is that the documents issued by the state authorities and management bodies, the actions of officials are mandatory only and only in accordance with the Constitution and laws.

Therefore, we need to create an environment in which all the personnel in the whole level, whether it be ministers, governors or ordinary citizens, must be able to thoroughly know the Constitution and laws, properly organize their implementation, and, first of all, the members of the society must strictly follow these rules.

The concept of "Constitution and rule of law – a guarantee of a comfortable life" showed the solution of the following contentious issues in order to take a deep place in the minds and hearts of our citizens and become a social need.

1. Effective organization of the implementation of laws;
2. Public control in the achievement of the Constitution and the rule of law;
3. The media is really "a reflection of society" in the decision-making of legitimacy";
4. To be in harmony with our reforms, which carry out the laws adopted;
5. Raising the legal knowledge, awareness and culture of citizens;

Our president considered it necessary to carry out the following tasks.

First of all, the formation of a system aimed at effective organization of the execution of laws, foreseeing systemic problems, the fight against the negative consequences of the violation of the law, as well as the early elimination of such a situation, is especially relevant. Unfortunately, we cannot say that these requirements are still fully met by US.

This year, more than 70 laws, more than 350 presidential decrees and resolutions were adopted. For whom and for what purpose are these legislative acts adopted? Of course, they noted that it is for the good of our people.

For example, it has been seven months since we passed the law "on Public-Private Partnership", which is an important condition for the rapid development of our economy. We have worked for a long time on this long-awaited, life-demanding Bill. This document is an impressive document on the implementation of the constitutional right of citizens to perform State and public functions.

Secondly, there is no more effective tool than public control in achieving the supremacy of the Constitution and the law.

Aflotun, a great Greek scientist, said: **"If the people need laws and carefully study them, it will only benefit him. Otherwise, the goal of the law cannot be achieved."**

Indeed, as long as our people do not stand firm against the violation of the law, it will be difficult to ensure the rule of law, no matter how hard state agencies and officials try.

Today, our public is literally awake, now our people are learning to freely express their opinion, giving direct assessments of the behavior of individuals of different positions.

Discussions. Dear President Shavkat Mirziyoyev, in a solemn ceremony dedicated to the 27th anniversary of the adoption of the Constitution of the Republic of Uzbekistan, in his speech titled "Constitution and rule of law - the most important criterion of the legal democratic state and civil society", they also pointed out that increasing the legal consciousness and culture of our people is the basis of

It is necessary to start legal education from the pre-school education system, and the first skills in this regard will take a place in the hearts of our children like Mother lullaby.

Our Constitution should become a real-life institution that takes a deep place in the minds and hearts of every citizen, fully guaranteeing their rights and freedoms.

For each sphere and direction, all stages of Education, a scientifically based program of raising legal culture should be prepared. It is necessary, first of all, to take a serious approach to the study of the Constitution. I believe that for secondary schools it is necessary to create textbooks such as the "Constitutional Alphabet", "constitutional lessons", "constitutional basics". The

ministries of Justice, Pre-School Education, Public Education, Higher and secondary special education have indicated that they will be responsible for this work.

Particular importance should be attached to their political, legal and spiritual level in the preparation of teachers who will teach in these subjects. It is also of great educational importance to create interesting shows, serials, feature films, theatrical works about the triumph of justice in life, the restoration of legal rights.

In general, people who fight for the honesty of law and justice should be the heroes of this day. The life of such people will be a creative subject for poets and writers, directors, journalists.

Ensuring the observance of human rights and freedoms, respecting the dignity of each individual is an integral feature of an open, free and fair society in which we are restoring. Such a principle is strictly defined in our basic law.

The Constitution is sealed as a single source of people's state power, and there is a deep meaning in it. These rules mean that democracy in our country is based on universal principles, the state carries out its activities only in the interests of the well-being of Man and society.

Only this in the last period of this year

More than 880 thousand appeals received at the people's reception rooms confirm the positive solution of more than 510 thousand.

It is not surprising that in our Constitution "President Shavkat Mirziyoyev" embodies the supreme value of a person, his life, land, honor, dignity and other inviolable rights. We have a firm Political Will and sufficient opportunities to carry out this print-out. To do this, we must first solve the following important tasks, " they said.

Firstly, the need for our national strategy to further enhance the effectiveness of ensuring human rights;

It is necessary to form a culture of respect for Human Rights and freedoms in society, thereby further raising the international prestige of our country.

Secondly, we should turn law-enforcement agencies into agencies that serve only and only in the interests of the people, without any deviations.

Over the past three years, a system of protection of victims, witnesses and other participants of the criminal process has been created. Non-governmental judicial expert organizations were allowed to operate. Priority directions and necessary measures for the development of the industry were approved.

You have a message that the condition for recording processual actions, such as the search process in the past years, the verification of the received instructions at the place of the accident, the investigation experiment, through a video image, was established on a legal basis.

However, the dialogue with the population shows the need to take such measures in other cases, where there is a risk of violation of the law. In particular, it was noted that it is necessary to establish such a procedure as holding a person, explaining to him his processual rights, and if he refuses the defender, then this condition is also mandatory in the video footage.

Members of his family should be notified about this immediately after the person detained by law enforcement bodies "president" is brought to a special building. I propose this to be clearly defined in the law as an obligation of the investigator, investigator and other authorized person", - they said. In addition, it is necessary to switch to the electronic system of taking into account the circumstances of the detention of a person and the application of other processual accountability measures that limit his right. The participation of the human factor in this process should be reduced as much as possible.

In the current year, according to Article 46 of the Constitution, laws "**on guarantees of equal rights and opportunities for women and men**" and "**on protection of women from harassment and violence**" were adopted. In the consistent implementation of these laws, parliament and public control are extremely necessary.

In the future, the protection of motherhood and childhood, the solution of social problems of women and girls will be the focus of our state.

At the next moment, many of our women are promoted to responsible leadership positions in the fields of public and public administration, economy, finance, education, health, culture and other spheres.

There is no doubt that the role and impact of our sisters in identifying social problems and solving them in a timely manner, increasing the effectiveness of management is enormous.

Therefore, we will continue to more actively pursue a policy aimed at increasing the role and status of women in society, trusting in them various responsible tasks.

Thirdly, the right of citizens to property established in the Constitution is inviolable and always protected by the state.

Over the past years, we have carried out significant work to eliminate excessive restrictions on the way of entrepreneurship, to strictly limit the illegal interference of government agencies in their activities. In particular, the practice of land allocation paving the way for corruption has been radically reformed. This process is now carried out through the electronic system of land allocation.

Since 1 January this year, the powers of the governors on the seizure of lands intended for agriculture have been given to the councils of people's deputies. This change is also one of the serious steps towards ensuring property inviolability. In addition, a new procedure for the seizure of land and the payment of compensation, rules for the receipt of land only with the consent of the owner, were introduced. At the same time, in relation to officials who did not comply with the laws on property inviolability, responsibility was imposed on them, regardless of what position they were in.

Also, if there is a disagreement in the parties about the amount of compensation, now such cases are solved only through the court.

It is known that until that time, the governors themselves made decisions that gave them the right to use the land, and when the time came, they could also abolish them themselves. Now has the opportunity to limit this competence. Because there are many examples that such authority will only be given to the governor, causing various injustices. Such issues are now resolved only in court order. In the event that the business Ombudsman determines cases related to the illegal restriction of property rights of business entities, it is necessary to grant him the right to apply to the court in the interests of the entrepreneur.

Conclusion. Under the leadership of our esteemed President Shavkat Mirziyoyev, we are restoring the state and civil society of legal democracy in our country. The speech of President Shavkat Mirziyoyev at the ceremony dedicated to the 27th anniversary of the adoption of the Constitution of the Republic of Uzbekistan on the topic "the Constitution and the rule of law - the most important criterion of the legal democratic state and civil society" and other works based on the concentrated conclusions on this issue can be cited as follows:

➤ Ensuring the rule of law and the rule of law is the basis for building a democratic state and civil society;

➤ It will be possible to build and further improve a democratic state and civil society based on the rule of law based on mutual pluralism of non-governmental organizations, political parties, associations, media, NGOs, self-government bodies and other free and equal individuals;

➤ Only in a country with strong public control, where every citizen understands his duties and responsibilities, a high level of legal consciousness and legal culture, the ultimate goal can build a democratic state and civil society and further improve it;

➤ Only in a democratic state governed by the rule of law and civil society can the state become an expression of the sovereignty and will of the people.

These processes are evident in the experience of Uzbekistan. In the process of building and further improving the democratic state and civil society in Uzbekistan, which is an important factor in improving the political culture of citizens, enriching their political and social consciousness on the basis of democratic values, developing public participation in public administration and political decision-making. It also plays an important role in building and strengthening a democratic state and civil society based on the rule of law, such as facilitating the acquisition of the practice of expression and implementation through institutions, and the formation of a sense in which each

individual can express their interests in common with national interests. Most importantly, only if we follow the conceptual guidelines put forward by our President, we will achieve the lofty goal of building and further improving the rule of law and civil society.

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UDC: 323.2

THE ROLE OF WOMEN IN THE SOCIO-POLITICAL LIFE OF SOCIETY

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Abstract:

Background. *At a time when the pace of life in the world is accelerating, the issue of women has become one of the global problems. In some countries, the transition to a market economy is making life difficult for citizens, but also has a negative impact on women's lives. Even in the developed countries of the world, despite the fact that women make up one third of the official labor force, ensuring women's political, economic rights and gender equality remains a challenge. It should be noted that in recent years, the achievement of gender equality, the formation and further improvement of legal systems that provide greater opportunities for women is one of the most pressing issues today.*

Methods. *Research methods such as complex approach, analysis and synthesis, historical and logical, systematic, interrelated, comparative analysis, survey, statistical data analysis, interview.*

Results. *The significance of the results of the study is that the scientific conclusions and practical recommendations of the work can be used in the development of targeted state programs aimed at further strengthening the socio-political status of women, improving the regulatory framework for their social protection and increasing their socio-political activity in the social sciences and humanities.*

Conclusion. *It is impossible to force people, especially women, to be trained in socio-political activities, in the management of state and public affairs. Socio-political activism is essentially a voluntary type of activity. He does not expect any benefit from it, but wants to use his strength, knowledge and experience to solve problems quickly, effectively in the place of residence, work community or country. In addition, socio-political activity, public administration, a certain professional knowledge, experience in working with people, based on the art of organization. The management process requires new tools and methods, the use of colorful communication technology.*

Keywords. *politics, law, economics, women, elections, equality, women's rights, peace, harmony, social development.*

Introduction. *Scientific research is being conducted to raise the status of women in the world, to protect their interests, to increase their place and role in the family and society, their active integration into governance processes in state and non-state structures. Research in this area emphasizes that women's socio-political activity in the state and society is largely based on their individual efforts, and in some countries there is no conceptual approach or special state and society programs to help enhance their social status. At present, the socio-political analysis of political, economic and spiritual factors affecting the participation of women in the life of the state and*

society, the study of problems and the search for solutions is a topical issue. In the developed countries of the world, the training of specialists through the education of women in such areas as the International Federation of Women's Studies, the International Federation of Business and Professional Women, the International Commission on Women's Health is one of the factors determining the future of society. Therefore, today there is a growing need to conduct research on the involvement of women in the management of public and state affairs, increase their socio-political activity, the effective use of their intellectual potential and experience.

After gaining independence, Uzbekistan began to make great strides in the socio-political sphere. In the social life of the state policy, which provides for the implementation of various reforms for the development of our society, women, as well as men, have been given ample opportunities to freely express their abilities and talents. As the President of the Republic of Uzbekistan Sh. Mirziyoyev noted, "Respect for women, respect for women is a noble value of our people. We are all indebted to you, dear women, for all the virtues in our hearts and souls, no matter what profession or position we work in" [1]. From this point of view, one of the most pressing issues today is to increase the role of women in the socio-political life of our society.

The degree to which the problem has been studied. The conceptual ideas for the development of the social sphere in the "Strategy for further development of the Republic of Uzbekistan", developed under the leadership of the President of the Republic of Uzbekistan, served as a scientific and methodological basis for this research.

According to the first socio-philosophical analysis of the role of women in society, feminism, which emerged in the nineteenth century, sought to ensure the equality of men and women in the United States and Europe, and later in the world. Today, femininity can be found in all countries of the world.

Fundamental research in foreign scientific research (in the West) on the socio-political equality of men and women, measures to overcome the existing problems in this area (K. Amundsen, P.J.Buchanan, O. Weininger, G. Ploss, O. Kardavi, Dj. Landram, A.Piz, B.Piz, B.Friedan, Z.Freyd, K.Flint, E.Fromm, L.Haber, Elizabeth Parks), some related to Western feminism and Eastern feminism (O.Kardavi) problems studied. However, they do not adequately take into account the impact of mentality, ethnocultural traditions and stereotypes on women in national research.

The issue of women is widely studied in the CIS. These include scientific and rational research (T. Bendas, A. Babich, Yu. Bezelyansky, A. Veselovsky, V.A.), aimed at finding ways and mechanisms to ensure the active participation of women in state representation, ranging from approaches that support radical feminism and sexual freedom. Geodakyan, E.P.Ilin, E.I.Kalinina, I.S.Kletsina, S.P.Korolenko, N.A.Usacheva, N.Xamitov, L.I.Shinelova, S.V.Polenina, B. Tugelbaeva, A.Tabishalieva, A.Karasaeva, T.A.Mashika, G.G.Sillaste, T.N.Sidorova, E.A.Ballaeva, E.Zdravomislova). It is true that they do not directly address the issues of women's socio-political activity, but their study of gender equality, psychophysiological characteristics of men and women, family relationships, the impact of traditional lifestyles on women's mentality and social activity. conflicting views are revealed.

We know that the Republic of Uzbekistan, as an equal member of the international community, has become one of the active subjects of international law, including women's rights, and has ratified 69 international human rights instruments (including six major UN conventions). Most of them are related to ensuring the rights and freedoms of women. The UN Declaration on the Elimination of Discrimination against Women has been ratified by the Oliy Majlis of Uzbekistan. According to Article 1 of this Declaration, discrimination that results in the denial or restriction of women's equality with men is in itself an injustice, a crime against human dignity [2].

Uzbekistan is one of the first Central Asian states to accede to the UN Convention on the Elimination of All Forms of Discrimination against Women. Many decrees and resolutions of the head of our state on improving the activities of the Women's Committee of Uzbekistan, social protection of women, special programs have been adopted and implemented.

As a result, women of our country are now actively involved in all spheres of state and public life. According to the results of the 2014 elections, 17% of the members of the Senate of the Oliy Majlis and 16 % of the deputies of the Legislative Chamber were women [3]. In the 2019 elections to the Oliy Majlis of the Republic of Uzbekistan, 32% of women were elected deputies and senators [4]. During the years of independence, 14 women activists have been awarded the highest award of our country - the title of Hero of Uzbekistan. At the initiative of first President, the Zulfiya State Prize has been established to award talented girls who have demonstrated their unique talents with excellent behavior, ingenuity, academic achievements and initiative.

The Oliy Majlis of the Republic of Uzbekistan also ratified the UN Convention on the Elimination of All Forms of Discrimination against Women, which adopted international standards for equality between women and men.

Materials and methods. Research methods such as complex approach, analysis and synthesis, historical and logical, systematic, interrelated, comparative analysis, survey, statistical data analysis, interview. The conceptual ideas for the development of the social sphere in the "Strategy for further development of the Republic of Uzbekistan", developed under the leadership of the President of the Republic of Uzbekistan, served as a scientific and methodological basis for this research.

Results and discussion. Women were given equal opportunities with men for education, occupation, employment, equal pay, active participation in political and social life, and certain privileges. Uzbekistan is one of the leading Central Asian countries in the protection of women's rights and freedoms and their involvement in public administration. More than 80 pieces of legislation adopted in our country during the years of independence are directly related to the protection of women's rights, interests and freedoms.

In these laws, women's rights were recognized as an integral part of human rights. The Constitution of the Republic of Uzbekistan embodies the principle of equality of women, Article 46 of which is the democratic principle "Women and men have equal rights", Article 18 is the equality of all citizens before the law, regardless of gender, socio-economic, religious and ethnic differences. Article 16 stipulates that the observance of the Constitution and laws, the obligation to respect the rights, freedoms, honor and dignity of others, and Article 65 stipulates that motherhood and childhood are protected by the state [5].

During the years of independence, Uzbekistan, as an equal member of the United Nations, acceded to a number of international instruments, including the Convention on the Elimination of All Forms of Discrimination against Women, adopted for the first time among Central Asian states on 18 December 1979 in New York. As a logical continuation of the work done in this area, cite the Conventions on Maternity Protection, the Vienna Declaration (1993), the Beijing Declaration of 1995 and the Platform for Action, as well as other international and national legal instruments of which Uzbekistan is a member.

In our country, 1999 was declared the "Year of Women", and appropriate measures were developed and fully implemented under the State Program to enhance the role of our sisters in the family, state and society, to strengthen their legal, social and spiritual protection. Such practical works include the Year of Healthy Generation (2000), the Year of Mothers and Children (2001), the Year of Respect for the Elderly (2002), the Year of Health (2005), the Year of Youth (2005). 2008), "Year of harmoniously developed generation" (2010), "Year of the Healthy Child" (2014).

At the initiative of the First President of Uzbekistan Islam Karimov, 2016 was declared the Year of Healthy Mother and Child in our country, and the State Program developed on this basis focused on strengthening women's health and promoting a healthy lifestyle among them. The idea of improving women's health and promoting a healthy lifestyle was incorporated into large-scale projects covering all segments of the population.

In addition, the implementation of the Resolution of the First President of August 1, 2014 "On the State Program for further strengthening the reproductive health of the population, protection of maternal, child and adolescent health in Uzbekistan for 2014-2018" is being implemented. At the same time, the necessary conditions have been created in the country for women to receive

education and improve their skills. Today, one in two specialists with higher or secondary special education in Uzbekistan is a woman.

In recent years, special attention has been paid to improving the socio-economic status of women living in remote areas. In particular, the ranks of women entrepreneurs have expanded. The support of the Women's Committee of Uzbekistan is invaluable. In particular, the committee provides practical assistance to our sisters in finding their place in society, demonstrating their talents and skills, doing business and obtaining soft loans for this purpose.

Therefore, in order to involve women in addressing issues of socio-economic and cultural development of the country, to strengthen social support for family, motherhood and childhood, to coordinate the activities of ministries, organizations and other regional authorities in these areas, a new Deputy Prime Minister - Woman - The post of chairman of the girls' committee was established. In turn, the relevant positions were introduced in all regional, district and city khokimiyats (administration).

Non-governmental non-profit organizations operating in our country also have a special role in promoting the rights and interests of women in society, creating favorable conditions for them to demonstrate their capabilities and potential. As of July 1, 2016, the number of such NGOs was 295. Most of them operate in the Republic of Karakalpakstan and the regions [6].

Over the past two years, the activities of the Women's Committees of Uzbekistan and its regional branches have been radically changed and specific tasks have been defined.

In order to strengthen the activities of the Women's Committee, 4 Resolutions of the President of the Republic of Uzbekistan, 6 Resolutions of the Government, 4 decrees and 12 programs of measures were adopted within the framework of the Decree.

In our country, the legal framework for increasing the socio-political activity of women, their equal work in all spheres has been created.

Today, 159 Rehabilitation and Adaptation Centers for Victims of Violence have been established in the regions. The Women's Committee has set up a single hotline (1146) in the country, a system for receiving women's appeals 24 hours a day, and to date has received more than 12,000 appeals.

In 2018, the central office of the Women's Committee of Uzbekistan received a total of 7296 applications from individuals and legal entities.

In addition, 803 citizens were received by the Chairman of the Committee every Thursday of the week, as well as 1,870 citizens were received on a mobile basis on topical issues related to women and family issues, and clear and effective results were achieved.

As a result of preventive work to reduce women's crime in the country, women's crime in the country decreased by 5% in 2016, 11% in 2017 and 35.7% in 2018, respectively.

As a result of the introduction of a system of participation of committee members in court proceedings to protect the rights and interests of women, in 2018, 113 women who committed crimes and 780 offenders were released on bail [7].

At present, the population of our republic exceeds 34 million people [8]. Women of Uzbekistan fully express themselves in all spheres and spheres of public life. He makes a worthy contribution to the development of our country by working effectively in government and administration, representative bodies, production, entrepreneurship and farming, social spheres. President of the Republic of Uzbekistan Shavkat Mirziyoyev noted that "currently there are 514 women doctors of sciences, 6 academicians, 15 Heroes of Uzbekistan, 17 senators, 15 deputies of the Legislative Chamber, as well as more than 23% of deputies of local councils. it should be noted that women are organized. Dozens of our sisters have been awarded high honorary titles of our state, such as "Scientist of Uzbekistan", "People's Poet of Uzbekistan", "People's Teacher of Uzbekistan", "People's Artist of Uzbekistan". Among them, 240 young talents have been awarded the Zulfiya State Prize, and this year 15 more talented girls are joining them" [9].

Nevertheless, concrete measures have been taken to provide social and legal support to women, to protect motherhood and childhood, to raise the professional, physical, spiritual and

intellectual level of women, to ensure their social, socio-political activity and active participation in state building.

In our country, a large-scale work is being done to increase the socio-political activity of women, to create conditions for them to realize their abilities and potential in various fields and sectors, to ensure unconditional respect for their rights and legitimate interests, as well as to strengthen the family. One of the most important directions at the current stage of democratic renewal of our country is the gradual democratization and liberalization of the judicial system, aimed at strengthening the rule of law and the rule of law, reliable protection of individual rights and interests. In short, further improving the foundations of the rule of law in our country and raising the legal awareness and culture of the population remains a crucial task for us. In our country, the activities of law enforcement agencies in the fight against crime and its early prevention have been radically reformed to meet modern requirements.

At the same time, the state of affairs in this area indicates that there are a number of systemic problems and shortcomings that hinder the full support of women, the organization of targeted work with them, the strengthening of the spiritual and moral environment in families and the creation of effective mechanisms [10]. Including:

First, there is no targeted support system for women in need and in difficult social situations, there is no practice of individual work with unemployed and socially inactive women, employment promotion and entrepreneurship development among women activities are inefficiently organized;

Secondly, no targeted work is being done to prepare young people for family life, to form a modern exemplary family, to strengthen its spiritual and moral foundations and traditional family values, the effectiveness of measures to prevent early marriages, family conflicts and divorces remains low;

Third, women's reproductive health is not adequately organized, and there is no effective system for the prevention and treatment of maternal and perinatal diseases, especially in remote rural areas;

Fourth, there are no effective measures to prevent delinquency and crime among women, the mechanism of improving the legal culture of women, providing them with legal advice does not meet modern requirements;

Fifth, the wide-ranging functions of women's committees do not allow them to fully mobilize their efforts and capabilities to address the most pressing issues of women in the absence of the necessary competencies and organizational and staffing units;

That is why, from the first years of independence, our country has paid special attention to this area of reforms. As a result of such an approach, the scale and effectiveness of the work in this area has greatly expanded in recent years and reached a new level. Currently, the participation of women in government has increased significantly.

The process of modernization of society in Uzbekistan has led to a radical change in the "platform of action" for women. Specific measures have been developed to implement a national policy aimed at social and legal support of women, raising the professional, physical, spiritual and intellectual level of women, ensuring their social, socio-political activity, active participation in state building. During the years of independence, more than 80 normative and legal acts on human rights, in particular on women's issues, have been adopted.

The Uzbek parliament has a committee on women and children. The share of women in the executive branch is 3.4%. The post of Deputy Prime Minister of the Republic of Uzbekistan for Women's Affairs was established in 1991, and she is also the chairwoman of the Women's Committee. There are more than 8,500 non-governmental non-profit organizations in Uzbekistan. In all of these organizations, the interests of women and the family are reflected as a separate direction. In addition, the number of registered women's non-governmental organizations is 295 [11].

A program has been developed to address the issue of women's employment, especially in rural areas, to improve their working and study conditions, and to involve women in entrepreneurial activities. The activities of women's non-governmental non-profit organizations were coordinated.

The permanent population of the country as of July 25, 2020 is 34 million 239 thousand 364 people. Of this 17 mln. 218,977 or 50.2 percent are men and 17 020 390 or 49.8 % are women. Today, 72 % of those working in science, education, health, culture and arts in our country are women [12].

At the same time, there is no active, political leader in Uzbekistan who comprehensively covers the ongoing socio-political processes in terms of national democratic development, creating theoretical concepts that will help modernize our country. Even among the women deputies of political parties elected to the Oliy Majlis, there is no female leader with a scientific concept that covers the problems of society, the development of civil society. Our women have a predisposition to performance, they prefer to follow the ideas, suggestions and initiatives put forward by men.

Making women active participants in market relations and socio-economic reforms in the country is a task at the level of state policy. It is universally acknowledged that no one can stand in the way of this political task. Public administration systems are tasked with supporting women's activism, providing them with soft loans, creating jobs and making effective use of women's initiatives to fulfill this political task. However, there are barriers to a particular ethnocultural and ethnopsychological nature in this regard. They are mostly more common in family relationships. Segregation can be overcome by government decree and special laws, but with them, barriers cannot be removed by managing gender relations in the family.

It is obvious that women are not indifferent to the ongoing socio-political processes in the country, they are in favor of improving the functioning of the state and public administration.

Conclusion. In socio-historical processes, such as the development of society, the transition from one system to another, the problem of women arises in different forms. For this reason, it has led to the development of scientific-theoretical approaches in the socio-political sciences that support their active participation in the life of the state and society on an equal footing with men without social barriers. During the analysis of the previous approaches, social stratification, which is an important element of the social structure of society, defines the patterns of human social life. It is concluded that Women still need to rise from the professional ladder, gain prestige, break down stereotypes that are rigid in their ability to gain objective recognition, achieve gender sensitivity, and tolerate male androcentrism. Therefore, in the study, the elements of traditional stereotypes, defined by the position of women in society, the level of family status (hence the level of masculine status), retained the elements of traditional social stereotypes in modern society. It was concluded that it requires the ability to overcome artificial barriers in ensuring mobility. The article depicts a portrait of a socio-political activist. It includes, first of all, spiritual and moral qualities and leadership qualities. Spiritual and moral qualities have long been characteristic of our women, formed in the process of socio-historical and cultural development, have become our national values, and still determine the behavior, lifestyle and attitude of women to social existence. This means that without certain moral, ethical and leadership qualities, it is impossible to engage in socio-political activity, management of state and public affairs. At the core of these qualities is service to the interests of the people, altruism, initiative.

In conclusion, we must say that every citizen should contribute to the development of our country. This is manifested primarily in the fact that they come out on their own initiative and make suggestions and recommendations.

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IMPLICATION OF INFRASTRUCTURE DEVELOPMENT ON RURAL WOMEN'S WELFARE: CASE OF UZBEKISTAN

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Abstract:

Background. Lack of water supply and sanitation infrastructure in rural areas affects people's health, welfare and living conditions, negatively impacts the rural environment, and can stall rural development and prosperity. Improving equitable and sustainable access to safe and improved water supply and sanitation in rural areas is therefore an important national development objective. This article presents to what extent the welfare level of the rural women in Uzbekistan correlates with socio-economic factors such as access to water supply and sanitation services in Uzbekistan.

Methods. This article is based on comparative analysis of the gender aspects of welfare of rural women in Bukhara region. The gender aspects assessment of the water supply and sanitation sector identifies that rural women experience the unequal access to infrastructure in comparison with urban population and urban women. The utilizing of the concept of analysis based on identification of inequalities by going "beyond income, beyond averages and beyond today" demonstrates that there is no direct impact of the socio-economic factors on poverty rate of the family [1;6].

Results. The survey revealed that the poor access to affordable and reliable potable water and sanitation services negatively impact on household budget of their families and sustainable development of communities. The significant expenditures for water supply services are revealing unequal opportunities of the rural women to healthcare, education and business development. However, the results of the surveys conducted in the frame of the international projects in the rural areas of Bukhara region of Uzbekistan identified strong interconnections of the rural women's welfare at the micro level with their access to water supply and sanitation services. The research conducted in 2019 in the Bukhara region presents what is going "beyond incomes, beyond averages and beyond today" [2;5].

Conclusion. The improvement of the water and sewerage systems in Bukhara region will positively impact on gender issues of rural women by reducing their time for housing services and taking care for family members infected by water born diseases.

Keywords: rural women, welfare, infrastructure, socio-economic factors, gender, water supply and sanitation, Uzbekistan.

Introduction. Nowadays government of Uzbekistan has been focused on development and implementation of the infrastructure investments programs in the fields of water supply and sanitation services specifically in remote areas. This policy is going in compliance with realization the Sustainable Development Goals (SDGs) which enshrined the principles of gender equality and inclusion as essential for long-term and people-centered development. Many of the SDGs address the situation of rural women, particularly the goals relevant to ending poverty (Goal 1), achieving food security, improving nutrition and promoting sustainable agriculture (Goal 2) and achieving gender equality and empowering women (Goal 5). Thus, The Government of Uzbekistan (GoU) integrates and mainstreams “a gender perspective in all agricultural and rural development policies, strategies identified in the National Action Plan. The objective of such gender mainstreaming is to enable rural women “to act and be visible as stakeholders, decision-makers, and beneficiaries” [3;13].

The Government of Uzbekistan (GoU) has a long-term program to increase the provision of high-quality water supply sanitation services, and transport in Bukhara strengthen the institutional base and physical infrastructure of operating organizations, improve the sanitary and environmental situation in the regions of the Republic. The existing water supply and sewage systems in Uzbekistan requires extensive reconstruction since it suffers from a worn-out infrastructure, unstable financial condition and weak institutional capacity. The coverage of water supply services to the population of Uzbekistan is about 68 % and of Bukhara region is about 52 % [4;59]. The pipes in the distribution system have been damaged by corrosion because of being used over a long period of time. The outdated equipment is sometimes filled with water, a situation that again leads to corrosion of the pipes and valves and their rapid collapse. Water is supplied to the network 3-4 times a week for several hours per day. As a result, the population experiences difficulties with the access to water, especially in the summer. Lack of funds, high cost of electricity and high costs of repair, maintenance and materials are among the typical problems for Bukhara region water supply organizations.

Wastewater treatment plants in the region were built mainly in 1970-1980 and are currently worn out and mostly do not work. The existing equipment is outdated and operates with low efficiency if at all. Because of lack of financial resources, adequate and timely reconstruction of the water supply and sewerage systems has not been carried out. Only about 57 % of the Bukhara city population and about 9 % of the Bukhara region are provided with the water and sewerage services. Wastewater treatment plants in the region were built mainly in 1970-1980 and are currently worn out and mostly do not work. The existing equipment is outdated and operates with low efficiency if at all. To address these issues, the water supply and sewage systems in Bukhara region require extensive reconstruction, modern and efficient equipment, stable financial condition and strong institutional capacity. The Government of Uzbekistan (GoU) through the Ministry of Housing and Communal Services (MHCS) plans to initiate the Bukhara Region Water Supply and Sewerage Project (BRWSSP) and seeks financial assistance from the Asian Infrastructure Investment Bank (AIIB) for this purpose. In line with the GoU regulatory and AIIB policy requirements, MHCS has commissioned a study to address the environmental and social impacts of this project. The proposed project has been conceived to address the above-mentioned problems and aims to modernize water supply and sewerage systems for improving living standards and wellbeing of the population of Bukhara region. The water supply sub-projects include mainly construction and rehabilitation of well fields and intakes, main water lines, distribution networks, power transmission lines and pumping stations.

Methods of the survey. Both quantitative and qualitative methods of data collection were used for the socio-economic survey. This included a review and analysis of available information about the sub-project area (using official statistics in the first instance), findings from the extensive household survey, in-depth interviews with key informants and focus group discussions. It was planned to conduct 12 FGDs in the nine districts of the Bukhara region of the Project’s first priority phase. Two out of the 12 FGDs were conducted in the Bukhara and Kagan cities which are covered with centralized water supply systems. Six female and four mixed FGDs were organized for

population in rural districts of the Bukhara region. In average 12 women (two elderly, four middle aged, four young mothers, two adolescents) participated in the each female FGD. The representatives of the healthcare, education, small business and local authorities participated in the mixed FGDs as well. In addition, face-to-face interviews have been taken from the officials of project stakeholders and Bukhara region Suvoqava department.

In compliance with the goals and objectives of the socio-economic survey, in December 2019, 300 households were interviewed within nine districts of the Bukhara region, including Bukhara, Kagan, Peshku, Rometan, Qorovulbozor, Jondor, Karakul, Olot, Gijduvon and also Bukhara and Kagan cities. Selection of makhallas for social assessment was conducted based on the problems associated with water supply and sewerage systems and their location. Local makhallas located in the central parts of the Karakul, Olot, and Gijduvon districts were chosen for the identification their challenges with water supply and sewerage systems. In the rest of the districts makhallas located in the central and remote areas were chosen. Because Bukhara and Kagan cities are covered by water supply for almost 100%, 15 respondents in each city were selected for the interviews (**Table 1**).

Table 1

The number of respondents by districts

| | District/City | Population | Number of Respondents |
|-----|---------------|------------------|-----------------------|
| 1. | Bukhara | 163,000 | 40 |
| 2. | Jondor | 170,158 | 42 |
| 3. | Rometan | 138637 | 34 |
| 4. | Qorovulbozor | 18000 | 24 |
| 5. | Peshku | 120190 | 30 |
| 6. | Kagan | 81472 | 20 |
| 7. | Karakul | 25,830 | 30 |
| 8. | Olot | 13,790 | 30 |
| 9. | Gijduvon | 45,490 | 30 |
| 10. | Bukhara city | 278500 | 15 |
| 11. | Kagan city | 60700 | 15 |
| | Total | 1,389,374 | 300 |

Source: Feasibility Study of the Design Institute, 2019.

Findings of the survey. The population of the region was about 1.9 million residents by October 1, 2018. Representatives of more than 100 ethnic groups live in the region. The majority of the population is Uzbek, with a large group of ethnic Russians and Kyrgyzs. The average population density is 47,1 people per km². According to preliminary data, as of January 1, 2019, the number of permanent populations of Bukhara region was 1899,5 thousand people (5.7 % of the Republic's total population). Thus, the number of urban population was 706,1 thousand people (37.1 % of the total population), rural population (as of January 1, 2019). The priority sectors of the economy in the region are agriculture and sectors such as oil production and refining, as well as textile and clothing production. The share of small business in the Bukhara region was about 41 % (of the total industrial volume). About 2,600 registered and 545 newly established enterprises exist in the region. Bukhara region occupies the 4th position in the Republic by the volume of investments in fixed resources per person for January-December 2018 - 4162,9 thousand sums (or 49,7 % of the corresponding period of the previous year).

The Table 2 presents the share of population covered by the centralized water supply by districts. The majority of the population is connected to the inter-regional Damkhoja and Bukhara Kuyumozar systems, while another part of the population uses alternative sources of water supply, mainly wells, where water does not always meet the requirements of the State Standard for drinking water (FS 2019).

Table 2

Population covered by water supply

| District/City | Population size | Number of local makhallas | Population with water supply, persons | The share of population, % |
|---------------|-----------------|---------------------------|---------------------------------------|----------------------------|
| Bukhara | 163000 | 15 | 101875 | 62.5 |
| Jondor | 170158 | 51 | 11328 | 6.6 |
| Kagan | 76079 | 24 | 34768 | 45.7 |
| Qorovulbozor | 18596 | 5 | 14738 | 79.3 |
| Peshku | 120190 | 10 | 54362 | 45.2 |
| Rometan | 138637 | 7 | 47063 | 33.9 |
| Bukhara city | 278500 | 65 | 277580 | 99.6 |
| Kagan city | 60700 | 20 | 60700 | 100 |

Source: Book1.1 Technical feasibility study by PIU «O'zbekkommunalloyihaqurilish», 2019

Although number of people in rural areas is more than in urban areas, they have less access to potable water and their water consumption is much less in comparison with urban residents. This factor negatively impacts on incomes prevalence of water borne diseases among remote population. The FS presents that the highest rate of the per person water consumption observed in Bukhara city (117.7 liters/day/person) and Kagan city (114.7 liters /day/person), and the lowest consumption in Jondor (18.2 liters /day/person) and Peshku (18.9 liters /day/person) (Table 3).

Table 3

Water consumption per person by districts (2018)

| | Description | Water consumption (liters/day/person) |
|---|-----------------------|---------------------------------------|
| 1 | Bukhara Region | 62,7 |
| 2 | Bukhara city | 117,7 |
| 3 | Kagan city | 114,7 |
| 4 | Bukhara district | 45,4 |
| 5 | Jondor district | 18,2 |
| 6 | Kagan district | 101,4 |
| 7 | Qorovulbozor district | 99,5 |
| 8 | Peshku district | 18,9 |
| 9 | Rometan district | 20,2 |

Source: Book1.1 Technical feasibility study by PIU O'zbekkommunalloyihaqurilish, 2019.

The survey revealed that in 2019, there was a significant increase in acute intestinal diseases and Hepatitis A in the Jondor and Olot regions, where people have more challenges regarding access to centralized water supply and sanitation services. In 2019, the incidence of acute intestinal diseases in the Jondor region increased by 20 % and 30 % for Hepatitis A in the Olot district, compared to 2018 (Table 4). According to the number of treated patients with infectious diseases Bukhara region is on the 4th place out of the 13 regions in the Republic.

Table 4

Water Borne Diseases in Bukhara region (2018 and 2019)

| Description | Intestinal diseases | | Viral hepatitis A | | Dysentery | |
|-----------------------|---------------------|------|-------------------|------|-----------|------|
| | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 |
| Bukhara city | 438 | 398 | 163 | 172 | 0 | 0 |
| Kagan city | 22 | 23 | 9 | 11 | 0 | 1 |
| Olot district | 105 | 110 | 44 | 113 | 0 | 0 |
| Bukhara district | 70 | 56 | 80 | 58 | 0 | 1 |
| Vobkent district | 45 | 29 | 47 | 32 | 4 | 0 |
| Gijduvon district | 211 | 90 | 80 | 58 | 0 | 1 |
| Jondor district | 171 | 214 | 44 | 61 | 0 | 0 |
| Kagan district | 64 | 73 | 20 | 20 | 1 | 2 |
| Qorakoldistrict | 137 | 77 | 47 | 52 | 1 | 0 |
| Qorovulbozor district | 15 | 16 | 36 | 16 | 2 | 1 |
| Peshku district | 86 | 55 | 23 | 23 | 0 | 0 |
| Rometan district | 146 | 135 | 20 | 28 | 4 | 2 |
| Shofirkon district | 97 | 73 | 108 | 59 | 3 | 3 |
| Bukhara region | 1607 | 1349 | 721 | 685 | 15 | 10 |

Source: State Statistics of Bukhara Regional Center of the State Sanitary Epidemiological Center, 2019.

According to the State Statistics Committee of the Republic of Uzbekistan, despite the fact that in 2018, the number of children under 5 first-time infectious and parasitic diseases in the Republic remained the same as in 2017, but the data on the same diseases in Bukhara region increased by 80 % respectively (Table 5).

Table 5

Incidence of infectious and parasitic diseases in children under 5 for the first time in their lives

| Area | Absolute number | | children under 5 (per 1000) | |
|------------------------|-----------------|-------|-----------------------------|------|
| | 2017 | 2018 | 2017 | 2018 |
| Republic of Uzbekistan | 71564 | 71432 | 20,8 | 20,6 |
| Bukhara region | 1440 | 7012 | 7,8 | 37,7 |

Source: State Statistics Committee of the Republic of Uzbekistan, 2019.

Discussion of the survey results. The household survey covered 300 respondents (households) with about 1636 inhabitants living in their households. From the total number of respondents, 65 % were men and 35 % werewomen. Almost 53 % of households have a family size between four and six members, whereas about 3 % are families have 10 or more members. These data coincide with the results of FGD, where the family size in urban areas is smaller than in rural households. It should be noted that out of the total number of the population in households (1636), children under 19 years old make up about 30%, the same general structure of the population in demographic indicators is confirmed by the general republican statistical indicators. According to the survey results, the percentage of women who retired is slightly higher than that of men, which is 41.9 and 58.1 % respectively.

In total, 18 FGD (two FGDs in each district) as well as face-to-face interviews have been undertaken from the officials of project stakeholders and Bukhara region Suvoqava department in the nine districts of the Bukhara region and Bukhara and Kagan cities.

More than 300 participants took active part in the FGDs in December 2019 within nine districts of the Bukhara region, 241 of them were women [5] (Table 6).

Table 6

Number of Focus Group Discussion Participants

| City/districts | Date | Total participants | Women participants |
|--------------------|------------|--------------------|--------------------|
| Peshku | 30.11.2019 | 48 | 36 |
| Jondor | 30.11.2019 | 34 | 24 |
| Qorovulbozor | 31.11.2019 | 24 | 13 |
| Karakul | 31.11.2019 | 31 | 23 |
| Bukhara district | 01.12.2019 | 31 | 27 |
| Bukhara city | 01.12.2019 | 34 | 31 |
| Kagan city | 02.12.2019 | 20 | 18 |
| Kagan district | 03.12.2019 | 22 | 22 |
| Olot | 03.12.2019 | 20 | 16 |
| Rometan | 04.12.2019 | 22 | 12 |
| Gijduvon | 04.12.2019 | 19 | 19 |
| Total participants | | 305 | 241 |

Source: Socio-economic Survey in Bukhara Province, 2019.

Occupational details. According to the survey results, the percentage of women who retired is slightly higher than that of men, which is 58.1 % and 41.9 %, respectively. The survey revealed that majority of female and male respondents are employed in the public sector and constitutes around 48 % and 39 % respectively. The share of men who have their own business/or self - employed (10 % /13 %) is two times more than females (5 %/ 7 %). The number of unemployed women is significantly higher than men and composed 23 % and 6% respectively. This is explained by the reason that women mostly occupy professions of teachers and nurses. Because the number of vacancies in the healthcare and education sector are limited, specifically in rural areas, the number of unemployment among women is significantly higher than men. That is why the share of men (23 %) in transport, construction, communication services is relatively higher than women (10 %). (Table 7).

Table 7

Number of employed women and men

| | Women | | Men | |
|---|-------|------|-------|------|
| | Total | % | Total | % |
| Agriculture | 20 | 5,1 | 31 | 7,8 |
| Non-Agricultural Sector (transport, construction, industry, communications, trade, services, etc.) | 40 | 10,3 | 92 | 23,3 |
| Public Sector (health care, education, management, law enforcement agencies, etc.) | 186 | 47,7 | 153 | 38,7 |
| Have their own business / business / private enterprise | 18 | 4,6 | 39 | 9,9 |
| Self-employed | 29 | 7,4 | 52 | 13,2 |
| Unemployed | 91 | 23,3 | 22 | 5,6 |
| Others | 6 | 1,5 | 6 | |

Source: Socio-economic Survey in Bukhara Province, 2019.

The survey revealed that type of water and sanitation challenges have strong correlation with type of accommodation. According to the survey results, 88 % of respondents live in detached houses and 12 % in the apartments of the multi-story houses. The section on Income and Expenditure should come here; In this section we need to define “Poor” and “vulnerable”. The residents of the detached houses have problems with access to potable water, its saving, high cost of the water delivery services whereas respondents from apartments encounter with 2-4 hours access to the water, have no additional space for its saving, and low water pressure in the tubes. The vast majority of the both group respondents stated that the quality of the water in the entire region is very poor. The survey revealed that, in average, each household used 54 liters/per person/per day including watering gardens and livestock. This figure is lightly lower than official data of Suvokova provided in the FS by Institute in 2019. (Table 8). Participants of the Kagan district FGDs stated that, in average, a family of five people consumes 50-80 liters of water per day. Depending on the area, the cost of daily water consumption varies from 5,000 to 24,000 sums per day. The monthly expenditure on water consumption ranges from 150,000 to 700,000 sums. In the case that household is located far from the Water delivery service unit the cost has been proportionally increased.

Table 8

Average daily water consumption by household (Liters per Day)

| | |
|--|------|
| Drinking, cooking | 6.4 |
| Household needs (cleaning, bathing, washing, washing machines) | 16.7 |
| For flushing | 5.6 |
| Watering the yard/plot | 18.3 |
| For feeding the livestock | 6.9 |
| Total | 54.2 |

Source: Socio-economic Survey in Bukhara Province, 2019.

Challenges of the water supply

The survey examined that respondents have major problems with access to water supply as well as encountered with poor quality of water. For example, from those who have access to the centralized water supply 38% are suffering from frequent water interruptions, 47 % from low water pressure and 21% answered that have no access to water supply for more than a week. The vast majority of respondents (100%) stressed that the water quality is unsatisfactory because of the specific smell (29%), salty taste (29%), external substances (29%) and cloudy tint (29%) of the water. This data correlates with high number of Water Borne Diseases (WBD) in the Bukhara region and particularly in the rural areas. (Table 9).

Table 9

Status of Water Supply Problems

| Description | Total Respondents | % |
|---|-------------------|------|
| There were no problems | 28 | 9,3 |
| Frequent water supply interruptions | 114 | 38 |
| Water supply stopped for more than a week | 62 | 20,7 |
| Low water pressure | 142 | 47,3 |

Source: Socio-economic Survey in Bukhara Province, 2019.

In addition, this survey revealed that centralized water supply system operates mostly 2-4 hours per day. Heads of the local WSS systems shared that cannot provide the 24/7 water supply because of worn out pipes and equipment at the WTP, WWTP, WDU and WIU. Almost 40 % from those who have an access to centralized water shared that water is available for 2-4 hours per day whereas only 26 % (mostly live in Bukhara and Kagan cities) have permanent water supply. (Table 10).

Table 10

Hours of water supply (hours/ per day)

| Hours | Total | % |
|-----------|-------|------|
| 1-2 hours | 15 | 5,0 |
| 2-4 hours | 118 | 39,3 |
| Half day | 20 | 6,7 |
| 24 hours | 77 | 25,7 |
| 0 hours | 70 | 23,3 |

Source: Socio-economic Survey in Bukhara Province, 2019.

Water quality is one of the main concerns of the respondents, participants of the FGDs as well as of staff of regional departments of Suvokova. During FGD in Peshku district residents noted that the district Water Distribution Unit "Sadir" is located in Dehdaroz mahalla, and is the main source of drinking water for district's residents. Due to lack of finance for maintenance, repair and old technical equipment the quality of water is unsatisfactory. There are external algae in the buildings and reservoirs, and chlorination is practically not carried out. This does not meet the sanitary hygiene requirements of the storage facility, therefore, various herbs and weeds appear in the water. The data obtained from the survey correlates with results of the Feasibility Study conducted by the Design Institute in 2019 which stressed the quality of the potable water does not satisfied to the state sanitary norms.

During FGDs, participants expressed different opinions about water quality. For example, in Karakul, Olot, Peshku and Korovulbazar districts , potable water supplied by tank trucks is satisfactory and suitable for drinking, cooking and so on. However, the water quality of tanker trucks in Jondor and Kagan districts is very poor and not suitable for cooking and drinking. For this reason, people buy drinking water in gallons from private providers. However, this water is also characterized as poor quality. Residents of Bukhara, Kagan cities and visited districts emphasized that the centralized water supply system by 80-90 % is provided through iron pipes 30-35 years old which is also one of the reasons of the poor water quality. Because of poor water quality respondents stated that they need provide additional time and resources for cleaning water which negatively impact on economic status of the family. For example, in average 53 % from interviewed stressed that they boiled and 20 % filtered for cooking and drinking water. The same water is using for bath purposes too. As result the households will spend additional amount for the power and gas supply. See Table 11 for details.

| | Cooking | | Drinking | | Bathing | |
|--------------|---------|------|----------|----|---------|------|
| | Total | % | Total | % | Total | % |
| Chlorination | 0 | 0 | 0 | 0 | 0 | 0 |
| Boiling | 158 | 52,7 | 177 | 59 | 146 | 48,7 |
| Filtering | 60 | 20 | 60 | 20 | 62 | 20,7 |
| No | 82 | 27,3 | 63 | 21 | 92 | 30,7 |

Source: Socio-economic Survey in Bukhara Province, 2019.

The survey explored that the residents of the detached houses have more opportunities for collecting and saving big volume of water. Almost 77 % of respondents who is living in the detached houses answered that they regularly storage the potable water for their household consumption. About 23% of surveyed answered that they have no opportunities for water storage. This data was confirmed by the participants of the FGDs in the rural and urban settlements. Mostly residents from of the apartments and detached houses stated that they have no financial opportunities for construction of the storage water tanks.

Conclusion. The modernization of the water and sewerage systems in Bukhara region has been conceived to address the above-mentioned problems of water supply and sewerage systems with aim of for improving living standards and wellbeing of the population of Bukhara region. In addition, the improvement of the water and sewerage systems in Bukhara region will positively impact on gender issues of rural women by reducing their time for housing services and taking care for family members infected by water born diseases. In overall, the results of the big scoping project in Bukhara region will increase the welfare of the whole population including rural women.

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LEGAL AND ETHICAL RESPONSIBILITIES OF JOURNALIST IN THE COVERAGE OF ISSUES OF COMBATING HUMAN TRAFFICKING

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Abstract:

Background. According to the legislation of the Republic of Uzbekistan, human trafficking is classified as serious and especially serious crimes and entails criminal liability. But it should be recognised that media representatives can also bear administrative, civil-legal or criminal liability as a result of unlawful coverage of acts of human trafficking in the media. The article discusses the legal and ethical framework of the activities of journalists in the coverage of the topic of human trafficking, analyzes the materials of Uzbek and Russian publications – “Narodnoye Slovo” (“People’s Word”), “Pravda Vostoka” (“The Truth of the East”), “Huquq” (“Law”), “Qalqon” (“Shield”), “Arguments and Facts”, and “World of News” for compliance with legal and ethical standards of journalism.

Methods. Theoretical and empirical methods were used in the course of the study. In particular, in the course of the empirical research the method of comparative analysis, systemic and logical methods were applied.

Results. It was revealed in the course of the analysis of the empirical base of the study that the majority of journalists match the accuracy of the facts provided in the materials, the names and surnames of the victims have been changed in them. However, it has been established that some Uzbek and Russian journalists violate the norms of professional ethics by using negatively colored phrases and expressions in their texts.

Conclusion. It is believed that it would be advisable to develop a national Charter of Judicial Journalists (Reporters), in which a separate place will be given to the principles of reporting on human trafficking.

Keywords: human trafficking, victim, mass-media, press, legal responsibility, ethical responsibility, rights and duties.

Introduction. According to the legislation of the Republic of Uzbekistan, human trafficking is classified as serious and especially serious crimes and entails criminal liability. But it should be recognized that media representatives can also bear administrative, civil-legal or criminal liability as a result of unlawful coverage of acts of human trafficking in the media. “The language/style of the text of the publication, the image in it can cause moral/material damage to the personality of the heroes of the publication, incite hatred in society or take root stereotypes about this phenomenon” [52]. In order to prevent such consequences, it is worth considering that “freedom is always accompanied by responsibility” [53, p. 49]: legal and ethical.

To be responsible means to have a list of rights and obligations. In this regard, it is advisable to distinguish journalistic activities in three aspects: the rights of journalists; duties of journalists; legal liability of journalists in violation of their duties.

Methods of the research. Theoretical methods (methods-actions: problem statement, proof; methods-operations: analysis, synthesis, comparison, concretization, generalization, induction, deduction); empirical methods (methods-operations: the study of literature, documents and results of activities) are used in the course of the research. The method of comparative analysis, systemic and logical methods are applied in the course of empirical research. In particular, legal and journalistic documents of international and national character are subjected to scientific analysis, and a row of legal and ethical obligations of journalists when covering facts of human trafficking is built on their basis. The resulting list served to analyze the materials of the press of Uzbekistan for compliance with legal and ethical standards of journalism.

Results. The legal activities of journalists are coordinated by international and national legislation, namely the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the Helsinki Final Act, the Document of the Copenhagen Meeting of the Conference on the Human Dimension of the CSCE, the Charter of Paris for a New Europe, the Istanbul Document 1999 and other international documents; The Constitution of the Republic of Uzbekistan; 10 media-specific laws [30; 22; 20; 25; 34; 32; 28; 31; 27; 33; 29] and others [35; 26; 21; 24; 9; 3; 40; 41].

Freedom of the media is enshrined in the Constitution of the Republic of Uzbekistan (Art. 67), the Laws of the Republic of Uzbekistan "On the Mass Media" (Art. 5) and "On the Protection of the Professional Activity of a Journalist" (Art. 5, 7) [11; 30; 22]. Freedom of the media is directly related to freedom of information, which is enshrined in the Laws "On the Mass Media" (Art. 2), "On Guarantees and Freedom of Access to Information" (Art. 3), "On Openness of Activities of the Government Bodies and Governance" (Art. 17), "On the principles and guarantees of freedom of information" (Art. 4, 8), "On the protection of the professional activity of a journalist" (Art. 5) [30; 20; 35; 25; 22]. Individuals who violate the right to freedom of information are liable on a legal basis.

In order to obtain information a journalist can submit a request to state bodies to obtain data on their activities, freely use the information contained in the materials of the criminal case on facts of human trafficking and distribute it. It is noteworthy that "a journalist is not responsible for disseminating information which does not match the reality if it has been exhausted from official communications, normative-legal acts or data of official statistical reporting, or received through information agencies or press services of government bodies and governance, and also their official websites" and others [22].

However, when analyzing data on human trafficking, a journalist must take into account their errors as well. Due to the latent nature of crime, not all cases of human trafficking are detected or disclosed, and not all victims contact the justice authorities.

Freedom of information is limited by the law. Information is not considered mass if "it is confidential or as a result of its disclosure, damage may be caused to the rights and legitimate interests of an individual, the interests of society and the state" [25]. This list includes "personal data of individuals" [24] and "three categories of state secrets" [21]. More precisely, Appendix No. 2 to the Resolution of the Cabinet of Ministers dated November 7, 2011 No. 296 [23] provides a list of information classified as confidential information.

In this sense, the Law of the RUz "On the Protection of the Professional Activity of a Journalist" states: "A journalist cannot ... publish facts about the private life of an individual, as well as use audio and video recording media without the consent of the source of information or the author" (Art. 6) [22] ... It is important to note that "physical, mental illness or disorders of people are also included in the sphere of their personal life" [43, p. 5]. It follows from this that data on victims of human trafficking sent to a rehabilitation center are not freely available. And violation by journalists of legislation on personal data is punishable by a fine of up to 50 minimum wages or deprivation of a certain right for up to 3 years or correctional labor for up to 2 years in accordance with Art. 141² of the Criminal Code of the RUz [41]. There is also a more severe form of punishment under the relevant clauses of the same article of the Criminal Code of the Republic of Uzbekistan [41]. In addition, the punishment for violating the secrecy of correspondence, telephone conversations, telegraphic or other messages is considered Art. 46 of the Code of Administrative Responsibility of the RUz, Art. 143 of the Criminal Code of the RUz and Art. 10 of the Law of the RUz "On Communication" [9; 41; 29].

These legal norms apply to the process of preparing materials on human trafficking from the courtroom as well. That is, the journalist should be aware that if at an open court the persons between whom personal correspondence, telegraph and other messages took place, do not agree to their mass publication, then these messages will be examined in a closed court session [3]. However, a journalist should know that in all cases the decision of the court is announced publicly (Art. 12 of the Civil Procedure Code of the RUz).

Other rights of journalists are detailed in Art. 5 of the Law of the RUz "On the Protection of the Professional Activity of a Journalist". For example, this is "conducting a journalistic investigation, writing in the prescribed manner, including using the necessary technical means, to be present at open court, in war zones, at public events, to demand that the source of information or the name of the author be kept secret", etc. [22]. However, it is established with the Civil Procedure Code that photography, audio and video recording of the court session in the media is permissible after obtaining the consent of the parties and the permission of the judge (Art. 208 of the Civil Procedure Code of the RUz) [3]. One more fact should be taken into account: law enforcement officers who arrived at the scene of the crime may prohibit the journalist from taking photos (video) and distributing the footage if they have initiated a criminal case. Since the secret of the investigation is valid from the moment a criminal case is initiated.

The next important right of a journalist is the safety of his life, in other words, a legal guarantee of its inviolability, as well as the protection of his honor and dignity, which is enshrined in Articles 8 and 10 of the Law of the Republic of Uzbekistan "On the Protection of the Professional Activity of a Journalist" [22]. This is especially important when a reporter conducts a journalistic investigation or divulges the details of the crime, identifying information about criminals or victims of human trafficking.

The exercise of legal rights means the fulfillment by the journalist the duties imposed on him as well. The Law of the RUz "On the Protection of the Professional Activity of a Journalist" enshrines such an obligation as "to check the accuracy of the materials being prepared and provide objective information" [22]. In addition, Article 67 of the Constitution of the RUz, the media are obliged to bear "responsibility for the accuracy of information in the prescribed manner" [11]. Distortion and falsification of data are inadmissible. The Law of the RUz "On the principles and guarantees of freedom of information" states that "responsibility for the accuracy of data is borne not only by the media, but also by the source and author of the information" [25]. In our opinion, it is this approach that protects the journalist from unfounded accusations against him, the desire of information sources to distort information for mercenary purposes.

In addition, a journalist must "adhere to the principle of the presumption of innocence" [22], that is, an accusation of a person unproven by a court is inadmissible in media materials. In particular, Art. 11 of the Universal Declaration of Human Rights, Art. 14 of the International Covenant on Civil and Political Rights, Art. 26 of the Constitution of the RUz unanimously guarantee the right of a person "accused of committing a crime ... to be considered innocent until his guilt is not established by legal procedure through a public trial, in which he is provided with all opportunities for defense".

All media workers must adhere to the principle of the presumption of innocence. In this regard, prior to a conviction by a court, a journalist should use "verbs that more accurately reflect the situation: "...suspected...", "...accused", "...charged with human trafficking", "...detained" and etc." [14, p. 116]. For example, in the note "The Code of Honor rests here" [37, p. 1] the professional balance of the author is ensured: "The press service ... reported on the arrest of a suspect in human trafficking by the officers of DGIA"; "... a suspect in committing a crime has been detained ..."; "... A criminal case has been initiated", etc.

In addition, a journalist has no right to "divulge a journalistic secret" [22]. This is the content Art. 10 of the Law of the RUz "On the Mass Media" [30]. In other words, the journalist is obliged to keep the source of information secret at his request. The confidentiality of victims of human trafficking is especially important. Otherwise, their lives may be in jeopardy. "The source of information or the name of the author can be disclosed only by a court decision" (Art. 13 of the Law of the RUz "On the principles and guarantees of freedom of information" [25]).

A media representative also needs to "observe the rules of professional ethics of journalists, but also respect the rights and freedoms, honor and dignity of the individual" [22]. The second point contains a wide range of duties of a journalist, since the citizens of the RUz have personal, socio-economic and political rights. Thus, a media representative does not have the right to encroach on a life of person, express offensive or degrading words and expressions, discriminate against him in

any form, interfere with private life, distribute personal data without his consent and illegally collect personal information about him; unreasonably provide anxiety during the rest period, etc.

The Constitution of the RUz guarantees judicial protection of the rights and freedoms of the individual, the right to appeal to the court against illegal actions of state bodies, officials, public associations (Art. 44) [11]. It is stated in Art. 18 of the Constitution [11] that all people are equal before the law and have the right to equal protection from any kind of discrimination and from any form of incitement to such discrimination. In particular, when covering human trafficking, the reporter should not take a one-sided view of the topic, focusing solely on the sexual exploitation of women and children, blame them for happened situation, allow himself to express discriminatory views when discussing labor relations between different segments of the population, separate persons with disabilities or citizens in old age, etc.

If a journalist violates a right of person to privacy, this entails administrative liability under Art. 461 of the Code of Administrative Responsibility of the RUz [9] in the form of a fine or criminal liability under Art. 1411 of the Criminal Code of the RUz [41] in the form of a fine or the use of compulsory public or corrective labor. If this violation entailed grave consequences, was committed out of selfish motives or was carried out by a dangerous recidivist, then restriction or imprisonment may be applied.

If the law is designed to regulate the activities of the media, then “ethics is aimed at their self-regulation” [42, p. 115]. Professional standards of ethics of journalists are reflected in a number of international ethical declarations and principles [18, p. 1-4; 5], in national charters and codes [45; 48; 10]. It should be noted that the moral and ethical principles specified in these documents have recommendatory character. And the professional rights and obligations of journalists, enshrined in legislation, are mandatory for every media representative.

In accordance with the International Principles of Professional Ethics, the fundamental values of a journalist when reporting on human trafficking should be “the reliability and objectivity of information; social responsibility and honesty of the journalist; ensuring public access to information and participation in the media; struggle against wars and other troubles that threaten humanity, etc.” [18, pp. 1-4]. In this sense, we agree with the opinion of the researcher K. Nazaretyan that “consistent objectivity in journalism is impossible due to the specifics of the profession” [19, p. 17], which is why it is advisable to add the principle of impartiality, which “implies a balanced presentation of information, the lack of interest of a journalist in presenting the situation in one way or another and a clear distinction between facts and opinions” [19, p. 17].

In the Declaration of Principles on the Conduct of Journalists, the primary duty of a journalist is “respect the truth and bring it to the public; further operating only with the information, the source of which is known to him; the extraction of information exclusively in good faith; timely correction or refutation of information; refusal to receive material compensation in any form for the publication or non-publication of material” [5].

For example, it is ethically wrong to rely entirely on an investigator or a lawyer as sources of information, since both parties are interested parties (if the lawyer and the investigator (prosecutor) present different versions of events, then it is better to present both); to use secret methods of collecting information only in extremely exceptional cases [45], etc. in the Charter of the print media and the information agency of Uzbekistan. And in other cases, it would be ethically correct to inform sources of information about the interview recording in advance.

The Ethical Code of Journalists of Print Media and Information Agencies of Uzbekistan states that “a journalist should not act as a defender of criminal elements, defend the interests of nationalist, extremist, terrorist organizations and groups, distorting information in a favorable light for them” [48]. Failure to comply with this principle endangers the security and stability of society and the state.

Of course, the above ethical norms of journalists are universal in nature. And the topic of combating human trafficking requires a lot of special ethics. In particular, interviews with victims of human trafficking have a special technology. In addition, media representatives are advised to refuse “the details of scenes of violence and cruelty, not to disclose the details of the crime,

especially the shocking elements of the crime, the transformation of the criminal into a national celebrity, interviewing witnesses" [43, p. 8]. A journalist should also refuse to show close-ups of corpses, to describe in detail of the real picture of crimes, for example, rape, grievous bodily harm, etc.; not to justify the crimes committed; not to consider the issue one-sidedly, blaming the victims; not to discuss relatives and friends of criminals.

As stated in the Ethics Guidelines of the Ethics Advisory Committee of the CAJ, journalistic materials are not provided in advance for consideration by interested third parties, especially official bodies, prior to their publication, as this may lead to bias in the information [51].

Then we look at examples from practice. One of the primary legal and ethical requirements of journalism is the reliability of the facts provided in the material. For example, the report on the conference "Rabota – stabilnaya, bezopasnaya, legalnaya" [38, p. 3], which deals with issues related to a radical change in methods and approaches in the activities of labor bodies, it contains a lot of factual data on the work of the Ministry of Employment and Labor Relations of the RUz. The reader is passive in such action as fact-checking. However, the author manages to present them convincingly, since the information was provided by the competent authority. In the same vein, the materials "Noqonuniy migratsiya: uning sabablari va salbiy oqibatlari", "Noqonuniy migratsiya profilaktikasi" [4, pp. 19-23; 47, pp. 35-37]. The principle of objectivity is also observed by the author of the material "Na kogo rabotayut surrogatnye materi?" [44, p. 6], dedicated to the state of surrogacy in Russia. The journalist provides the reader with the opinion of different people: a member of the Federation Council, a surrogate mother, director of the European Center for Surrogacy, which contributes to a multidimensional disclosure of the topic.

In an interview with Nodira Karimova, Chairman of the Istiqbolli avlod RISC, "Sovremennoe rabstvo: kak ustanovit' trgovlyu lyud'mi?" [50, pp. 1-3] describes the scale of the problem of human trafficking in Uzbekistan, measures to eradicate it, as well as the "living" stories of the victims. In order to keep the personal data of the victims confidential, their names and surnames have been changed, which is correct both from an ethical and legal point of view. This tendency is also observed in the materials «Toshbag'ir ayol», «Xatoning mevasi achchiq bo'ladi», «Benomuslar», «Nafsig qul ayollar», as well as "Ostat'sya v zhiviyh" [16, p. 10; 46, p. 7; 17, p. 11; 39, pp. 43-44; 8, p. 24].

The confidentiality of information sources is maintained by the authors of the articles "Tilanchilik kasbmi yoki ayb?" and "Na kogo rabotayut surrogatnye materi?" [1, p. 3; 44, p. 6]: "An anonymous police officer shared some information about the beggars with us in an interview"; "One of these surrogate mothers, a citizen of Kyrgyzstan (name has been changed), on condition of anonymity, told MN her story". This demonstrates the professionalism of the authors who care about the safety of the heroes.

Meanwhile, the authors of a number of materials violated the ethical principles of journalism. In particular, it is told the story of the detention of officials who are charged with collecting funds from migrant workers sent to the Republic of Korea in the article "Neuzheli chinovniki obirali migrantov?" [49, p. 3]. The author uses the phrases "there is no limit to indignation", "causes indignation". We believe that news of this nature should be impartial. But at the same time, the author observes the principle of the presumption of innocence: "... from the point of view of the secrecy of the investigation it is inappropriate to disclose information on the case"; "Of course, one should not rush to make specific accusations".

Negative emotional and expressive coloration of certain expressions in the publications of the Uzbek press - "*odamlarga surbetlik qilgan tilanchi qonun bo'yicha jazolanadi*" ("... a beggar who showed arrogance to people will be punished by the law"); "...*oramizda aysh-ishrat, kayf-safoga mukkasidan ketgan inson qiyofasidagi benomuslar, oriyatsizlar hamon uchrab turibdi*" ("... among us there are still those who do not have a sense of their own honor and dignity, in human form"); "...*ba'zida odam deyishga ham tiling bormaydi*" ("... you can't even call them people") [1, p. 3; 17, p. 11; 46, p. 7; 15, pp. 40-41] - clearly violates the principle of impartiality. Here, female victims are victimized.

In the publications "Zarabotaet li Rossiya na migrantah?", "Kak byt' s ponaekhavshimi?», «Ochen' temnye sily» [36, p. 10; 13, p. 7; 7, p. 26] the authors use the words "gastarbeiter", "wetbacks", "illegals", which can cause a negative reaction from potential labor migrants and be considered as an insult. The title of the material is "Ochen' temnye sily" [7, p. 26] on migration processes in South Africa with the image of the black population, in our opinion, contains signs of racial discrimination, which is categorically contraindicated. An element of religious discrimination can also be found in the article "Evropa v osade" [12, p. 13]: "... Today's (mainly) migration to Europe is not adaptive, but confrontational". This kind of material can contribute to racial and religious confrontation.

The "headscarf debate" is examined in Russian periodicals that erupted in Germany on the example of a citizen of the Federal Republic of Germany F. Ludin, who was denied the opportunity to work as a school teacher because she wore a hijab. In delivering a message to the audience, the author presents the course of events in a neutral manner. But at the same time, his position on the discriminatory policy of the government is incomprehensible: "... the representative of the CDU noted that the hijab is "a symbol of political Islamism, cultural isolation and a long history of discrimination against women ", " ... about the prohibition of teaching Muslim teachers wearing a headscarf in schools " , "... proposed to introduce a complete ban on wearing Muslim headscarves for schoolgirls under the age of 14" [2, p. 23].

Discussion and Conclusions. We distinguish journalistic activity in three aspects: the rights of journalists; duties of journalists; legal liability of journalists in violation of their duties. And the ethical responsibility of journalists has not legal character.

The structure of legal obligations of journalist when covering the topic of human trafficking includes: checking the reliability of materials and providing objective information; observance of the principle of the presumption of innocence; non-disclosure of journalistic secrets; respect for the rights and freedoms, honor and dignity of the individual. In addition, it is unacceptable to violate the right of people to equal protection from discrimination, secrecy of correspondence, telephone conversations, etc., to slander and insult the heroes of the publication, to cover events that promote the cult of violence or cruelty; to incite national, racial, ethnic or religious hatred. And the ethical standards of journalists are also their social responsibility and honesty; operating only with information the source of which is known to him; double checking sources; timely correction or refutation of information; refusal to justify the crimes committed; from the use of stereotyped images of human trafficking and its victims; representation of diversity of opinions and cultures. It can be seen that the system of both legal and ethical obligations of journalists complements each other. And at first glance, they are universal, but ethical duties are the most specific.

It was revealed in the course of the analysis of the empirical base of the study that the majority of journalists match the accuracy of the facts provided in the materials, the names and surnames of the victims have been changed in them. However, it has been established that some Uzbek and Russian journalists violate the norms of professional ethics by using negatively colored phrases and expressions in their texts.

It is believed that it would be advisable to develop a national Charter of Judicial Journalists (Reporters), in which a separate place will be given to the principles of reporting on human trafficking.

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**PROSPECTS OF MONITORING GRADUATES' EMPLOYMENT
IN DIGITAL TECHNOLOGIES**

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*We need to develop a national concept
of the digital economy, which implies
the renewal of all spheres of the economy
on the basis of digital technologies.
On this basis, we need to implement the program
"Digital Uzbekistan-2030" into life.*

Sh. Mirziyayev

Abstract:

Background. *In the article the authors stated about the need to use digital technologies that provide opportunities to improve the quality of education in the educational system and improve the effective management of competitive personnel training process, to make drastic quality changes in higher education and increase the indicators of employment of graduates, improving the quality of employment monitoring in higher education and other organizations.*

Materials and methods. *The further development of our country, the formation of a high-tech economy, the rapid development of industrial sectors, small and medium-sized businesses provide new opportunities for the realization of the potential of citizens. The main purpose of all stages of education is aimed at providing excellent and high-quality training and service of competitive young specialists.*

Results. *Wherever the transition to the "Digital economy" and "Electronic government" is taking place, it is clear that the burden on the people is reduced, government expenses is reduced, and corruption is prevented.*

Discussions. *In the implementation of youth policy, in order to ensure their employment and take comprehensive support measures, it is first necessary to have a realistic definition of their employment indicators on an individual basis, that is, to have accurate data on employment monitoring.*

Conclusion. *This technology will give a strong impetus to our people to take bold steps to promote the benefits of digital information systems and increase the number of options related to the digital economy in education, while increasing the level of transparency in any industry, reducing corruption.*

Keywords: *digital economy, graduate employment, monitoring system, labor activity, higher education system, modern information technology, the third Renaissance period.*

Introduction. *In the period when science is developed, the digital economy is entering into practice, information technology covers all spheres as a whole, Uzbekistan is building the foundation for a new period of revitalization. In his speech at a solemn ceremony dedicated to the twenty ninth anniversary of our independence, the head of our state noted that " It is exact to say that a glorious power of our people is creating the foundation for a new revitalization - the third Renaissance period in Uzbekistan at the present time. Because today's Uzbekistan is not yesterday's Uzbekistan. Today's people are also not yesterday's people," he emphasized. Indeed, the processes of developing, which are taking place in our rapidly emerging life, manifest themselves in all spheres. In particular, essential reforms are being carried out in the educational system. We are well aware that lots of important decrees, decisions and programs have been adopted in this regard.*

The “Law on Education”, which was approved recently, will undoubtedly open new horizons in the development of this period. According to the law, distance and inclusive forms of education were introduced, educational organizations were allowed to establish joint faculties and educational centers with foreign institutions. Also, teachers were given the right to freely choose the author's program and methods of teaching, modern pedagogical systems, methods of teaching and learning. As a result, thanks to large-scale democratic changes, including educational reforms, the period of a new Revitalization in Uzbekistan, that is, the main goals of creating the foundation of the third Renaissance, was defined.

The fact that the year 2020 in our country is called the year of "Development of Science, Education and the Digital Economy" indicates that in our country special attention is paid to the transition to the digital economy and the development of information technologies. Undeniably, this is a positive revolutionary turn for a new era in the interests of our people.

Particularly nowadays, digital knowledge and modern information technology are considered to be one of the important conditions for progress. And digital technologies improve the management of the state and society, creating great convenience in the social sphere. It also lays the way for economic growth, improving the quality of products and services, reducing excessive costs. Another important advantage - puts an end to corruption. The further development of our country, the formation of a high-tech economy, the rapid development of industrial sectors, small and medium-sized businesses provide new opportunities for the realization of the potential of citizens. And this will be the basis for the creation of the foundation for a new historical period in our stability and development – the third Renaissance period, which we have stated above.

Materials and methods. In his Address to the Oliy Majlis, the President said: "In order to achieve progress, it is necessary and essential that we possess digital knowledge and modern information technologies. This gives us the opportunity to go through the shortest path of ascension. It is not surprising that the creation of a comprehensive and effective management system is the main condition for the fulfillment of the enormous tasks that stand before us." Furthermore, the wide introduction of digital technologies into all spheres of economic and social life was shown as the most priority task. In this regard, a number of significant tasks have been defined in the state program on the implementation of the year of "Development of Science, Education and the Digital Economy" in order to ensure the implementation of the tasks established and sustainable improvement of quality of life, as well as the adoption of state programs with wide coverage in the implementation of digitization reforms. A favorable environment for the development of the "Digital Economy" was created. As we know, the digital economy is an activity based on digital technologies, the economy leads to labor productivity and competitiveness of the product, a decrease in production costs, the creation of new job places through the development of such technologies in the sectors. Wherever the transition to the "Digital economy" and "Electronic government" is taking place, it is clear that the burden on the people is reduced, government expenses is reduced, and corruption is prevented.

It is necessary to note another aspect, modern scientific approaches and innovations in the digital economy are important and priority, and this is the development of industries with high scientific capacity. Higher education is no exception. We explain in practice the application of digital technology in the system of Higher Education. For example, the laws of the market economy - from the preparation of training curriculums to the training of qualified specialists for a particular field, that is, it determines its requirements for the entire educational system as a whole. The state and society, as well as in the management of the social sphere, can realistically study the market requirements, that is, ensure the consistency of reforms and implement them based on the principles of Marketing Management. In developed market conditions, marketing becomes an effective means of solving the issue of quality and competitiveness of goods and services. In the formation of the labor market on the basis of digital technologies in the conditions of socio-economic changes taking place in the Republic, training, employment and public administration of the employment process are of great importance.

In the educational system, there is a need to improve the quality of education and effective management of the process of training competitive personnel, to increase the level of sharp quality changes in higher education and the indicators of employment of graduates, to increase the quality of employment monitoring and to use digital technologies that provide opportunities for graduates to record their successful steps in the career ladder.

In his recent speech at the 75th session of the United Nations General Assembly, the head of our state among with many important issues drew the attention of the world community to Uzbekistan's initiative to adopt the International Convention on the Rights of the Child. In his speech, "When we say the right of young people, we understand, first of all, their full right to live peacefully and healthy and to receive education. Therefore, it is always a priority for us to ensure the harmonious development of our growing younger generation, quality and excellent education," he expressed confidence in the opportunities created for the youth of Uzbekistan.

And it is no secret to us that this is a very topical issue of the first level in improving the quality of education and ensuring the competitiveness of personnel, the mutually beneficial cooperation between the full-fledged training and production of specialists in this field. The main purpose of all stages of education is aimed at providing excellent and high-quality training and service of competitive young specialists.

However, today the process of applying tested methods of quality management in practice to determine the best system of education organization remains relevant. One of the main factors determining the competitiveness of graduates of educational institutions is their level of employment and success in employment.

So how is the employment of young people or the effectiveness of their labor activities controlled today? Are they always helped in their employment on time? How is their employment status monitored? Is employment monitoring transparent? We wanted to share our research and studies to find answers to such questions.

If we look at the example of higher education institutions, it is an urgent issue to meet the demand of personnel customers for graduates of higher education institutions, as well as to create opportunities for adaptation and employment of graduates of regional higher education institutions in the regional labor market (Bukhara region), as well as real recording of their employment indicators and analysis of the situation in this direction in other regions, unfortunately, is the same.

For several years, the process of studying the employment of graduates of higher education institutions of the Republic of Uzbekistan has traditionally been the same, carried out by teachers visiting the graduate's place of work or residence. As a result of this type of general monitoring, statistical data is formed on the basis of formalized acts, and the data of the State Statistics Committee are formed on this basis.

It can be concluded that in the traditional way, firstly, the study data are formed under a completely subjective influence, and secondly, the increase in material and pedagogical time spent on employment monitoring (employment monitoring of graduates of 4 higher education institutions in Bukhara region in 2018-2019 academic year) As a result, about 160105.3 thousand soums were spent by teachers), which makes it necessary to digitize this process.

Results. We will try to justify our opinion based on the experience of the Russian state. Monitoring of the employment status of graduates of all higher education institutions operating in the Russian Federation is carried out on the basis of a centralized automated system. In this case, the employment status of graduates is determined by processing data from two separate sources. These are:

1. Data of the Pension Fund of the Russian Federation.
2. Federal Register of Education Documents (FRDO).

The Federal Register of Educational Documents is the only electronic register in which all educational institutions (including higher education institutions) must provide information on the documents (diplomas, certificates) issued to graduates within 60 days from the date of their issuance.

At the initiative of the ministry of education and science of the Russian Federation, these processes will be covered on the Internet portal "Monitoring the employment of graduates" and the results of monitoring will be available. The main purpose of employment monitoring is to assess the effectiveness of employment of graduates.

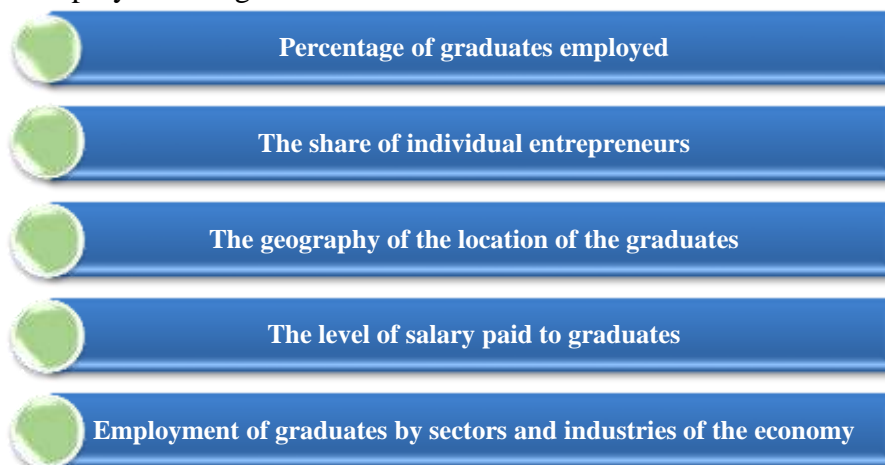


Figure 1. Indicators identified and analyzed by the automated portal "Monitoring the employment of graduates" of the ministry of education and science of the Russian Federation

Based on the analysis of these indicators, employment monitoring includes the following tasks:

- Processing of information on the employment status of graduates provided by the Pension Fund of the Russian Federation, the federal service for supervision of education and science of the Russian Federation and educational institutions;
- Analysis and assessment of the demand in the labor market for graduates of higher and secondary special vocational education;
- Providing reliable information on the results of employment of graduates to applicants and their parents.

The process of monitoring employment through an automated system is carried out in the following stages:

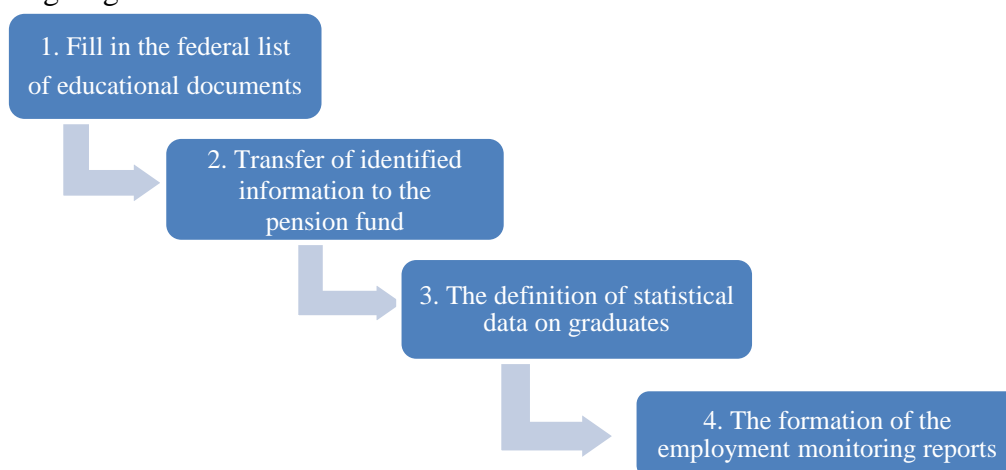


Figure 2. Stages of implementation of employment monitoring of graduates of educational institutions (experience of the Russian Federation)

Discussions. Employment monitoring of graduates of educational institutions of the Russian Federation is carried out in four stages. The Russian experience allows graduates to conduct employment monitoring at low cost in a short period of time and several times a year, but some graduates (including those working in law enforcement and similar agencies, on maternity leave, conscription, working abroad or studying) ongoing graduates). This is because the data is

determined on the basis of the contributions made by the graduate to the pension fund. Allocations by graduates of the above category are not calculated and are not transferred to the pension fund. However, graduates belonging to this group cannot be included in the category of unemployed.

With the improvement of databases and platforms at various levels, supported by ministries, committees and agencies of the state structure in the Republic of Uzbekistan, firstly, it is possible to conduct quality employment monitoring using data from these databases (platforms), and secondly, in addition to determining the employment status of graduates opportunities will also be created for research and analysis on indicators that are useful for a number of different analyzes.

Currently, the “Bukhara experience” is approved by the decision of the Regional Interdepartmental Council on Youth Affairs of the Bukhara regional administration, and the Youth Employment Center (Call-center) has been established under the Bukhara Regional Youth Agency. A number of specialists of Bukhara State University and the regional Youth Agency are working together to create an electronic platform for the center, integrated with the databases of public administration of the Republic of Uzbekistan.

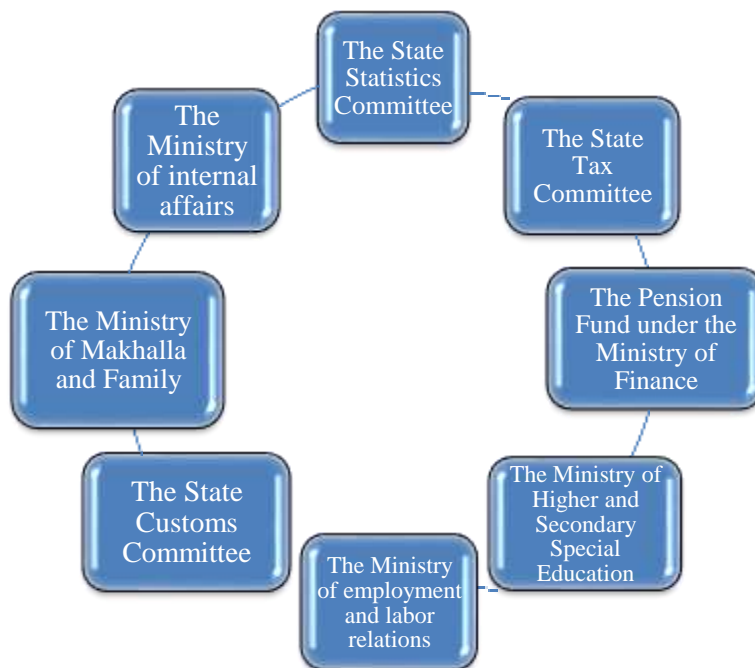


Figure 3. Integration of databases in the creation of automated monitoring of youth employment in Uzbekistan

The following information is available for use in the database of government agencies shown in the figure:

- The Ministry of Internal Affairs - passport information and identification of young people will be formed;
- The State Statistics Committee - the distribution of labor resources by sectors and industries of the economy;
- The State Tax Committee - information on income tax deductions (for STIR (INN) and JBPJ (INPS));
- The Pension Fund under the Ministry of Finance - allocations from the salary fund to extra-budgetary pension funds;
- The Ministry of Higher and Secondary Special Education - information and identification of the educational document issued to the graduate;
- The Ministry of Employment and Labor Relations - information on graduates registered as unemployed;
- The State Customs Committee - relevant information on entry and exit from the Republic;

- The Ministry of Makhalla and Family - there will be an opportunity to obtain holistic and reliable information through the processing and integration of data on child care, conscription or graduates who have gone abroad.

In the implementation of youth policy, in order to ensure their employment and take comprehensive support measures, it is first necessary to have a realistic definition of their employment indicators on an individual basis, that is, to have accurate data on employment monitoring.

Created as the experience of Bukhara, this platform covers these areas. The software covers the employment and monitoring of all young people in the region, including secondary schools, colleges, academic lyceums, technical schools and higher education institutions, including unorganized youth, registered with the police, in need of social protection, the disabled and the inclusion of young people with disabilities. It is also planned to create opportunities for graduates to refer to databases of employers and vocational and professional retraining centers (training centers, mono-centers, IT training centers, training courses, entrepreneurship courses, business accelerators).

Conclusion. Developed countries (Spain, Italy, Austria, etc.), as well as in the Russian Federation, the above-mentioned state and budgetary organizations, including higher education institutions, in their activities to integrate information systems through service-level data exchange in public administration databases easily created opportunities. Factual, there are also concepts of data security and confidentiality, but this should not mean that public authorities do not have access to databases. The capabilities of digital technologies in this area will further accelerate the process of digitization of state, budgetary and public organizations through a single identification of data. Therefore, in order to accelerate and effectively implement the digitization process, it is expedient to solve the problem of integrating the information system through the exchange of data at the service level to the databases of management. Because without digital knowledge and modern information technology, growth cannot be achieved. This technology will give a strong impetus to our people to take bold steps to promote the benefits of digital information systems and increase the number of options related to the digital economy in education, while increasing the level of transparency in any industry, reducing corruption.

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GAME TECHNOLOGIES IN THE LESSONS OF RUSSIAN LANGUAGE

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Abstract:

Background. *This scientific paper shows in Russian language lessons the types of gaming technology that are built to enable the learning process, make it more efficient, and also shape and further improve the inspiration for learning. Examples of experience in the application of gaming technology are given in the lessons..*

Methods. *It explored and formed the nature of the principles of technology and gaming innovations. The essence of the pedagogical method separates different sports. Role-playing games were included in the lesson for this reason.*

Results. *The aim of using the types of didactic games in Russian language lessons turned out to be a guiding force in teaching students, as problems such as filling out and learning words and terminological phrases on subjects are posed, the degree of readiness to find ways to achieve the objectives of the lesson is clarified. The gaming technologies applied are intended to enable the learning process, shape and improve learning inspiration. During preparation, a thorough and methodically thought-out game is such a strategy in which complicated tasks are solved, both functional and instructional, developmental and instructional in nature. And educational, emotional, reproductive, artistic, communicative and diagnostic games are differentiated by the essence of the pedagogical process.*

Discussion. *The topic draws the implementation of game plots to active focus. The didactic game is used to explain, consolidate and put into the framework the information gained, as well as to improve the skills and abilities of students.*

Conclusion. *The use of gaming technology leads to the growth of the academic desires and abilities of students. In this structure, it is possible to train a professional who is trained for the future, who wants to address challenges and make concrete decisions.*

Keywords: *investment attractiveness, innovative technology, interactive training, professional skills, global changes, gaming moments.*

Introduction. In one of the parts of the Concept for the Growth of the Republic of Uzbekistan 's Higher Education System up to 2030 of October 8, 2019, the Decree of President Shavkat Mirziyoyev provides for the implementation of advanced higher education levels, in particular increasing the attractiveness of higher education spending, attracting international educational and science innovations; bringing into motion five programs, including a package of steps aimed at developing additional conditions for training and educating young students, including, of course, the use of advanced gaming and gaming innovations in Russian language classes.

Gaming technology is very important at the moment, taking into account the nature of the principles of gaming.

(a) a collection of forms of processing , manufacturing, changing of state, assets, types of raw resources, materials or semi - processed in the production phase, e.g. metal engineering, therapeutic approaches, construction technology; (a) a range of types of processing , manufacturing, shifting of state, properties, types of raw materials, components or half-finished products in the production process; b) science of the processes by which raw components, components or semi-finished goods are influenced by suitable manufacturing tools. The following definition is given in SI Ozhegov's Explanatory Dictionary of the Russian Language: 'Technology is a collection of production processes in a certain sector, as well as a scientific explanation of production methods' [1, p. 750].

This idea was linked to engineering at first and emerged with the growth of technological advancement. A modern technological solution to the construction of the instructional method has emerged since the mid-50s of the 20th century, and it was from this time that a new definition of "teaching technology" entered pedagogy and was connected with the use of technical teaching aids (TCO). These terms, such as "educational technology" and "educational technology" are also used along with the concept of "teaching technology". So we'll concentrate on technologies for gaming.

Methods. It is not possible to exhaust the essence of the game and believe it to be fun and recreational. This is why her paradox is made, that she can evolve into research, into imagination, into therapy, into a model in the likeness of human relationships and manifestations of labor, becoming a rest, entertainment.

Gaming innovations are possibly old in both schooling and preparation. As a consequence of this, it is possible that didactic play remains a very productive means of enhancing and strengthening children's emotional, intellectual and artistic skills. The game shows to the child the unfamiliar limits of the science learned, can assist the student to take a look at the normal task, encourages the presence of the interest of teenagers to the subject, which means that the procedure becomes more effective. In the tutorial, the aim of communication is to learn those functional skills, strengthen them at the level of motor skills, and convert information into skills. Educational exercises are often carried out by using didactic games, such as the education of perseverance and tolerance, the collection of neatness and the desire to put the job to an end; in mass job - the development of the desire to work together, responding to other students' views, condescending to personal feedback, subtly speaking about their own comrades' errors. The game has the potential to freeze up a very serious activity in the lesson. In this scenario, the extensive preliminary work of the instructor is behind the obvious simplicity of using in the lesson the components of gaming technology. The notion of play has been interpreted in a different way, as a psychological, serious category, in recent years and in research. Maybe that is why games are beginning to become more involved in the practice of language teaching. It is recognized that one of the most powerful, portable and scalable teaching strategies was and is the game. It is intended to intensify the learning process, making it more efficient, as well as shape and grow the learning incentive further. A well-thought-out and methodically well-organized game is a teaching technique that helps you to solve both practical and educational, developmental and educational issues in a systematic manner.

Play is relational in essence and is reflected into the adult world's reflection and in its immediate saturation. The game is defined as an occurrence that occurs at a certain point, as the cognition of the adult environment by a child, naming the game "the arithmetic of social relations".

Games are differentiated by the essence of the pedagogical process: instructional, instruction, power, generalization, perceptual, instructional, developmental, reproductive, artistic, communicative, diagnostic. The following kinds of lessons can be distinguished by using gaming technologies: [2-90]

- classroom role-playing games;
- organization of the game by means of game activities (lesson-competition, lesson-rivalry, lesson-ride, lesson-KVN);
- the organization of the teaching method by means of activities normally given in a typical lesson (finding a pronunciation, doing one of the study types, etc.);
- Various forms of extracurricular events in the Russian language (KVN language classes, grammar races, excursions, evenings, Olympics, etc.), which can be carried out in tandem between students.

Main objectives of the lessons in the game: [3-153]

Didactic: broadening one's horizons, mental engagement, the development of those abilities and knowledge needed in practical practice, the growth of labor skills.

Upbringing: knowledge, will, collaboration, collectivism, sociability, contact, liberty.

Development: memory development, focus, voice, feeling, intuition, intuition, ingenuity, capacity to compare, contrast, optimal solutions to find.

Educational, logical, associative, contextual, vocabulary, and imaginative games are used in Russian language lessons. As in the conventional class, in the use of game technology, there are 3 cycles of lessons (especially if a big game is kept for the whole class). For example, a lesson on "Oil and gas deposits" (direction-Petrochemical industry technology).

- Preparatorial. Students regularly partake in it, together with the author.

They are divided into classes, teams, carry out those activities that need to be done prior to the lecture, plan the requisite educational material on the origin of oil and gas, on the method of oil field production.

- The lecture of its own. Problems emerge in remembering and understanding words and terminological phrases on a new subject (reservoir, screened lithology reservoir, etc.), clarifying the degree of preparation to find ways to meet the goals of the lesson, that is, using new vocabulary to render sentences, which team can have more sentences, etc. etc. The better the preliminary tasks are done by the pupils, the more successful the lesson would be. At any step, control in this lesson is carried out.

At the present moment, the main challenge of state educational officials is to create a criterion for the development of a new level of education in line with the exciting demands of a progressive life, ensuring that all children have access to education.

The most fundamental developments taking place in contemporary education have placed the question of the use of digital learning and curriculum innovations as a priority. The instructor has the ability to select research approaches and technology that are, in their view, more suitable for the construction and design of the instructional process.

Gaming innovations are possibly old in both schooling and preparation. As a part of this, it is possible that the didactic game remains a very successful means of enhancing and strengthening children's emotional, intellectual and imaginative skills. The game shows the unfamiliar limits of the learned science to the pupil, it can help the student to take a look at the regular mission, encourages the presence of the interest of teenagers to the subject, which means that the learning process becomes more effective. In the Russian language tutorial, the aim of appealing to gaming technology is to learn those realistic skills, improve them at the level of a system, and convert information into skills.

In the lessons of the Russian language, the implementation of gaming technology will help, to some degree or another, to eradicate a variety of problems related to the memorization of the content, to perform study and to improve the content at the level of sensory comprehension, which undoubtedly leads to the growth of cognitive attention to the Russian language as an academic topic. It is also relevant because, in fact, playing in Russian language lessons contributes to the enrichment of students' vocabulary, broadening their horizons. She holds for herself a great sensory fee, determines not only general educational and developmental issues, but also encourages the qualities of an imaginative personality: initiative, assertiveness, purposefulness, the capacity in an odd tale to reach a conclusion.

In fact, it follows in the footsteps of suggesting that didactic games have long occupied a solid room in the practice of teaching Russian. Time does not stand in vacuum, however. Increasingly, progressive life puts the highest demands on the student as an individual. This suggests that, to structure it creatively, you need to shift the didactic game to a superbly modern degree.

As a teacher, I try to see in each of my students a potential authors, poet, or an elementary good-natured, caring person, being in constant quest, I will try to be imaginative in the educational process. For this, in my inimitable edition, I teach my own students to perform tasks, to grow what is most individuality, capacity, initiative, i.e. properties that follow innovation and to decide the creation of creative possibilities. I will strive to incorporate these types of work in the assignment, which will not only foster imagination, but would be open and enjoyable to everyone. There are a vast number of these types, but one of the most fertile has been and remains a match. The game must fulfill the child's age, be exciting and, most importantly, lead to intellectual and spiritual growth.

1. Play instructions intended to carry out widely agreed orthoepic steps

The study of the Russian language includes not only establishing widely agreed written language standards, but also commonly acceptable pronunciation standards. Therefore, deliberately looking for a possibility of carrying out the widely agreed pronunciation requirements at every lecture. It has the power to "speak Russian properly." In what cases will children be given assignments? Here are only a handful of the possible varieties that have the opportunity to give the instructor a clue of how to differentiate the duties.

"Make it up and voice a word"

A collection of texts that have every chance of posing any pronunciation issues are given to students. Printed on the board are the messages. Students' job is to write and read a folding word (using these words) in 2-3 minutes, following normally agreed orthoepic norms. The tutor has the opportunity to appoint practitioners who are expected to listen closely to the word and draw a decision about conformity with commonly agreed norms of pronunciation. (In this scenario, two students automatically receive the evaluation.)

A version of a phrase that is made up of the texts proposed.

Help [shn] nickname of the driver picked up the phone:

- What are you calling?

- An incident occurred on the tenth km of the highway. We are the closest of all the teams of drivers. Get ready for the flight. Help [shn] nick of the chauffeur hung up and started packing. He took a mosquito repellent, a bunch of sorrel, poured Ukrainian borscht cooked by his wife into [te] rum, put on his suite [te] r, shine [i'e] l, grabbed a toolbox and hurried to the garage.

A similar role has the potential to be changed somewhat: the tutor invites students to a subject (for example, "Chemical Study" or "Menu"), students are expected to write a word on this subject in the direction of a certain period, using the text from the spelling dictionary contained in the textbook.

"Invite to Lunch"

Objective: To sound the lunch ration to which you want your own friend (colleague, acquaintance) to be welcomed. Naturally, the rations must contain meatballs, sorrel, pies of cottage cheese, plum or pear compote, etc. (other texts which commonly cause problems with pronunciation).

"On the air - news"

This picture of the challenge involves forming a word with texts representing particular difficulties with pronunciation. Subject of the word: (country, region) behavior taking place in the world. A similar activity encourages not only the pronunciation of commonly recognized norms to be carried out, but also to attract students' attention to the activities taking place around the world and thereby provide an extension of horizons. The consistent use of a related role converts adolescents into television audiences, as the skill shows.

The 'Announcer Rivalry' has the authority to freeze a variation of the instruction given.

The "Announcer Rivalry" has the capacity to freeze a version of the provided instruction.

The job of the member is to read the word indicated, handing the fear over to the word removed. "Debates are being held in the State Duma on how to meet the President's orders. Naturally, in society, the initiative to intensify the social changes that started a couple of years ago is favorably judged. A number of hesitations and complaints were triggered by the data presented on the percentage of the increase in the well-being of the citizens of the Russian Federation. The general desire resulting from the amendments, however, is bound to simplify the consideration of contentious topics.

A petition was planned so that the approaches laid down for the areas would sail away to the spaces in a lightweight version within the context of the restructuring of the public domain. The Heads of Areas with their professional execution is required to be compensated. An observation group must be formed for forecasting and monitoring. Indeed, it is expected to be established in a phase from the 3rd decade of the current month to the end of the quarter. Without incident, the discussion was carried out. In Russian tutorials, crosswords, chainwords, fragments.

In Russian language classes, this photo of assignments is still very commonly used. Creative ways of checking the assimilation of factual content will help me resurrect the study survey and enable the work of students in the Russian language lessons. These are crosswords.

In order to actualize knowledge or present the complexity of a new lesson, the crossword puzzle has the ability to be provided by the instructor to the class at the beginning of the lesson. The crossword puzzle, presented at the end of the lesson, has the opportunity to freeze the results of the work in the lesson with a particular summary. In situations where children need to be equipped with a special moment of fun, crosswords and other puzzles are irreplaceable: changing curiosity, the possibility of gazing at language appearances from a certain perspective - a successful way to help the students' analytical energies in the class.

Furthermore, at some stage in the study, crosswords have every chance to freeze up as a means of power. In this case, it is possible not only to give students in a completed form, but also to construct a crossword puzzle on the learned (learned) subject matter for the students themselves.

Crosswords should not leave teens of all ages with phlegma. The inclusion of these crossword puzzles, as they are based on the key program content with encrypted viewpoints and meanings, is considered pedagogically justified. The text has every probability of being encrypted for every rule in crosswords, taught by the guys and studied in the repetition class. The teacher would not need any extra initiative to work on a crossword puzzle. You will eventually owe the children all great freedom until you have demonstrated to the students how they need to be settled, and the results will not cause them to wait for a long time: the children are very nimble in this task, the substance of competition is found, and, as a result, the children begin to formalize their own personal crosswords.

A remarkable characteristic of crossword puzzles is that, in reality, at every stage of the lesson, they have every chance of being introduced and are ready to engage the consideration for educational practice, even even the most hard-working pupils. (Appendix 3)

Results. In Russian classes, let's discuss the types of didactic play.

Lesson in Flying. Welcome to a Russian-language nation. There are most commonly intermediate or final courses. Travel notes can accompany such trips, setting out the laws, meanings and other wisdom. So in the lesson in Russian language while moving grammar. We take a trip to the Russian language's enchanted land and explore its capital, Spelling, stroll around the streets of the city (Graphic, Pristavkina, Glasnaya, etc.), cross the bridge over the pine river Crista. They fell on the Great Word Creation holiday, where parts of a word form a number of words, specifically meaning that there is no error creeping into the word. The rules in the nation are strict: errors are punishable by a fine. Often during travel, students move from station to station, completing assignments. When repeating the material about the verb, they will visit the stations "Type of verb", "Transitive and intransitive verbs", "Conjugation of verbs", "Verb-worker", "Verb-magician". For example, at the Conjugation station, they answer the questions:

- What is conjugation?
- What verbs belong to the 2nd conjugation? Give examples.
- Determine the conjugation of the verbs: drive, think, shoot.
- Do verbs 1 and 2 of the conjugation have different endings in all persons?
- Form from these verbs the form of 3 persons pl. h.: grind, weed, prick. What conjunction do they refer to?
- Work on punch cards: we distribute verbs 1 and 2 of the conjugation in 2 columns, writing them out from the proverbs: a) The world is kept true. b) No wind, and the grass does not sway. c) Lay gently, but hard to sleep. d) The heart sees before the eyes. e) A good deed praises itself. f) You can't keep up with the wind, etc.

At the station "Verb-wizard", the tasks are differentiated: students of the 1st group are invited to write a miniature essay on the topic: "Now, if I were a wizard ...", and then read several versions of the written. 2 group perform creative tasks of a developing nature: at the station "The verb-worker" is selected by proverbs including the verb 2 persons sing. h. In the lesson, in a playful way, students' knowledge of the verb was tested, practical and creative tasks were completed, work was

carried out to develop speech, enrich vocabulary, since it is very difficult for students with a non-Russian language of instruction to memorize the rules. Many tasks were differentiated and performed in groups.

Lesson Excursion. Extramural tours that take place in the classroom enrich with awareness and allow you to repeat the content covered concurrently. Students very much like this kind of game. This can be achieved in the country's various cities, in art galleries, in museums, etc. In these classes, students learn a lot, leading to their academic development.

I assume that, when systematizing what was taught in the lectures, assessments, generalizing repetition, it is advisable to execute those lectures. A didactic game is a game of understanding. It is used to explain, consolidate and carry the information learned into the framework, as well as to improve students' skills and abilities. The presentation of the game plot encourages you to attract the group's active interest. The good thing is that the foundation of the lesson is shaped by thematically linked instructional texts that allow oral and written speech and phrases to be produced in various directions: electricity, oil and gas, building, architecture and others. These lessons open up broad possibilities for the use of computer technology: interactive resources for instruction, produced by the students themselves, presentations.

Language games are categorized into phonetic, lexical, grammatical, syntactic, stylistic, and help assimilate different types of language (phonetics, vocabulary, grammar, syntax, stylistics). In some forms of speech activity, speech games are targeted at improving skills, i.e. teaching, listening; technical monologue and dialogical speech; reading, writing. [4 to 232]

Discussion. The use of playful ways of education makes the educational method of better quality, we agree. The game draws independently and all together into the productive cognitive behavior of each pupil and is thereby an efficient way of handling the instructional process. Learning in the game is carried out in the process by the students' own practices, which have the character of a single form of practice, assimilating up to 90% of the results. Game is a free play that provides the players with the ability for preference, self-expression, self-determination and self-development; the game has a definite outcome and allows the student to accomplish the goal (victory) and to consider the way the goal is accomplished. In the structure of active learning, play occupies a special place: it is synthetic, because it is both a tool and a way of organizing learning, synthesizing nearly all methods of active learning in itself. The use of the teaching game approach also leads to the execution of critical methodological activities, such as: creating students' psychological readiness to express skilled expression. [5-54]

Conclusion. The use of gaming devices leads to the growth of the cognitive ability of students. They feel safe in classrooms where these technologies are used, share their feelings openly and perceive feedback calmly, since they are active participants in the instructional process. It is easy to make discoveries in an environment of confidence and mutual assistance, to understand the value of the information acquired. It is under those situations that it is possible to train a practitioner who is trained for the future under order to address challenges and make specific decisions.

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TEACHING METHODS AT OPTIONAL MATHEMATICS

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Abstract:

Background. *The article discusses the problems of introducing optional classes into the secondary school — a fundamentally new mass form of education, examines the methods and techniques of teaching and their appropriate use in optional classes. It is necessary to take into account the fact that the choice of students in elective classes is based on the principle of voluntariness.*

Methods. *The article expresses the importance of focusing mathematical electives on the development of teaching methods for topics and sections of mathematics that are included in high school programs.*

Results. *1. It should be noted that the students of mathematical electives themselves prefer creative forms and methods of teaching and strive not to be passive listeners. 2. Characterizing the whole complex of teaching methods used in elective classes in mathematics, it should be noted that in the proper sense of the word teaching methods are used here the same as in teaching the basic course of mathematics.*

3. In the general course of mathematics, the teaching method is used only fragmentarily, the essence of which lies in the independent disclosure of new content by students with the unobtrusive help of the teacher.

Conclusion. *What is described in this article should not be understood as a decisive rejection of lectures in general. On the contrary, under certain conditions, a lecture method of presentation (say, a survey lecture on a complex problem) can be useful. We only object to the substitution of the creative teaching method by the manner of lecture presentation of the material in all cases without exception.*

Keywords: *optional classes, teaching methods, the choice of math electives, students' propensity for mathematics, creative forms and teaching methods.*

Introduction. The introduction of optional classes into secondary schools - a fundamentally new mass form of education - posed important questions for scientists and teachers of the specifics of teaching at optional courses. What teaching methods and techniques are advisable to use in optional classes, what combinations, what are the similarities and what is the difference between the methods of compulsory and optional classes - these questions arose and were solved simultaneously with the tasks of selecting the content of mathematical electives.

During the formation of mathematical electives, teachers and teachers of elective groups often used traditional, "earned" combinations of teaching methods and techniques that were not related to the specifics of elective classes. The elective was built as a lesson, or better to say, as a continuation of the lesson, or as a traditional type of math circle. In the first case, electives turned essentially into a kind of additional classes aimed at eliminating the gaps of students in knowledge of the general course of mathematics. At the same time, many electives had a pronounced tutoring bias. In another case, the elective was superficial, lightweight and did not achieve the goals of increasing the level of mathematical development of students through in-depth study of mathematics. At the same time, in the practice of the work of advanced teachers - leaders of electives - already in the initial period, there appeared and multiplied the shoots of the teaching methodology that should meet the goals

and objectives of elective classes and take into account the characteristic features of mathematical electives.

An important feature of this period was the orientation of the mathematical electives towards the development of teaching methods for such topics and sections of mathematics, which subsequently entered the new secondary school programs. Therefore, a certain focus on the use of methods and techniques designed for the general course of mathematics at an elective was even useful then. It was on the electives that the methods of presenting such important and key questions of the new school mathematics course as "Sets and operations on them", "Derivative", "Integral" and others were worked out, which made it possible to rightfully consider optional classes as an effective development laboratory content and methods of a new course in mathematics. Nevertheless, it is impossible to imagine electives only in this aspect, one cannot ignore the presence of electives with specific goals and objectives, which should be reflected, in particular, in the choice of appropriate teaching methods and techniques. Therefore, the questions posed at the beginning of the article are still relevant. Below we will try to tell you what answers to these questions modern methodological science offers, based on theoretical research itself and an analysis of the now ten-year pedagogical experience of teaching in elective classes in mathematics.

Methods. Characterizing the whole complex of teaching methods used in elective classes in mathematics, it should be noted that in the proper sense of the word teaching methods are used here the same as in teaching the basic course of mathematics. The specificity of electives is manifested not in the fact that there are some "optional" teaching methods, but in non-traditional combinations of teaching methods and techniques, the use of these teaching methods in unusual contexts. What factors regulate this process? In other words, what features of extracurricular activities make it possible and necessary for a non-traditional combination of teaching methods?

The choice of optional classes by students is based on the principle of voluntariness. The student chooses whether he will participate in the elective classes, for example, in mathematics. However, he can be guided by a variety of motives. It is clear that the motives of students' choice of an optional course should be taken into account when developing teaching methods, since for the teaching method to work in the sense put forward in the works of the largest Soviet teachers, it is necessary to combine the teacher's goal with the student's goals. (We will leave aside the question of managing student motivation, that is, the question of choosing pedagogical influences, the result of which would be a conscious and socially significant system of students' motives, manifested when choosing an elective.)

There is a widespread opinion among teachers that when choosing optional classes in mathematics, students are primarily guided by purely utilitarian considerations related to the need to prepare for competitive exams in universities, or with a desire to fill the gaps in knowledge of the compulsory mathematics course. The importance of these motives for students when they choose an elective in mathematics is indisputable. Thus, according to a special study of the motivation of students when choosing electives in mathematics, it turned out that about 70% of students of electives in mathematics, when choosing an elective, took into account their desire to prepare for competitive exams in universities.

Results. At first glance, it seems that the figure cited serves as a convincing confirmation of the discussed utilitarian concept. However, as shown by the data of the same study, there is truth in the statement that when choosing a mathematical elective, students are guided by the desire to prepare for competitive exams, there is truth, but not the whole truth. The fact is that if a student loves mathematics and is interested, then it is natural for him to strive to continue his mathematical education. A student interested in mathematics chooses a mathematical elective, guided by his interest, love for mathematics, and the desire to learn it better. At the same time, he, of course, remembers the need to pass competitive exams. Which of these two motives - the love of mathematics or the desire to enter - is more significant for students when choosing electives? It turns out that the overwhelming majority of students give priority to the motive associated with having an interest in the subject, love for mathematics and a desire to learn more about it. Thus, a sustained interest in mathematics is the cornerstone of student motivation when choosing a

mathematical elective, while other motives and aspirations (related to this) are subordinate in nature. On the face of that is the coincidence of the goals of the student and the teacher, which is necessary for the successful implementation of the learning process, which consists in deepening knowledge in physical and mathematical, natural and humanitarian sciences, developing the versatile interests and abilities of students.

Opera on the student's persistent interest and inclination to mathematics is that fundamental feature that should significantly influence the choice of teaching methods and the development of methods used in optional classes.

Discussion. An active interest of students in mathematics directly by the desire to learn more. Any teacher understands how math classes can be transformed if students show an obvious interest in science. For elective students, mathematics cannot be boring, classes are not on duty. And this significantly expands the methodological capabilities of the teacher.

Here are just two examples showing the new role of teaching methods in electives in mathematics. It is useful to consider the extent to which these methods are applicable in teaching the general course of mathematics, whether they can play the same role in it as in the elective.

In the general course of mathematics, the teaching method is used only fragmentarily, the essence of which lies in the independent disclosure of new content by students with the unobtrusive help of the teacher. This teaching method has different names in different classifications of methods. In relation to mathematics, its essence is splendidly expressed by the outstanding mathematician and teacher D. Poya, and following D. Poya, we will call this method heuristic.

The heuristic method of teaching in a regular classroom is cumbersome and takes a lot of time and effort for the teacher. At the same time, in the presence of interest and a conscious attitude of students to learning, the heuristic method can become decisive in the study of many topics and sections of mathematics, since in these conditions it is not necessary to stimulate students to activity, but it is only necessary to direct and control this activity. That is why a peculiar form has developed in the practice of extracurricular classes in mathematics: students are offered a number of sequential tasks, during which the students themselves "discover" new mathematical content. So, for example, the entire presentation of the topic "Additional questions of arithmetic of integers" in the optional mathematics course for the VII grade is built.

Another example illustrates the possibilities associated with the conduct of students, albeit small, but complete independent research. It is clear that in the general course of mathematics such an opportunity arises extremely rarely. At the same time, the implementation of this opportunity, directly aimed at assimilating the experience of creative activity at the highest level, is already included in the daily practice of the best teachers of electives in mathematics, the implementation of research assignments by students on complex issues that require long and focused work is typical for electives in programming, computational methods, etc.

A number of teachers practice significant amount of assignments in their work with students in extracurricular activities. In this case, the task is naturally divided into stages, when the students first, for example, study the necessary literature before starting to develop an algorithm for solving the problem. The report on the knowledge gained is deserved in the classroom. Then the students select or develop a suitable algorithm for solving the problem and talk about it. They then implement the solution as, say, a program for a computer program, debug the program, and count. In the absence of a computer, the teacher selects a problem that can be solved by the capabilities of small computers. Finally, students analyze the solution and the answer received from the point of view of the real meaning of the answer and its interpretation in terms of the original problem. This approach is applicable when it comes to solving a practical (industrial, economic, etc.) problem, and is typical when studying applied mathematics at an elective.

One should not think that the implementation of this method is necessarily associated with the use of computer technology. Even when solving applied problems, the algorithms that arise in them are not necessarily implemented on a computer. For example, when studying the topic "Elementary Graph Theory", the construction of simple network traffic and the calculation of the critical path at different stages of the modeled process, students carry out without a computer, "on their fingers.

Students who have begun to study mathematics in extracurricular classes have increased opportunities for intensifying their learning, and their ability to work in the course of classes increases. This largely determines the teacher's approach to concept management. Hence the need to use such techniques that help to increase the effectiveness of training. The experience of working with students shows that in the arsenal of the teacher of the optional group those teaching methods and techniques that lead to the greatest activity of students are successfully applied. That is why, in optional lessons, you can raise the question of accelerating the study of the material.

An increase in the pace of learning can be achieved due to the fact that a certain part of the material is worked out by students independently. As it were, independent research training sessions are formed, addressed to the entire optional group. The content of these assignments is an organic part of the teaching material at the elective. Such educational research sessions are "programmed" in the methodology of the new elective course "Selected Mathematics Questions" for all topics and sections.

The above examples show that the reliance on the sustained interest of students in the study of mathematics is an essential factor that expands the methodological capabilities of the teacher and allows him to use teaching methods and techniques in fundamentally new contexts than in a regular mathematics course. However, with an uncritical approach to the matter, with the inability or unwillingness of the teacher to use the whole gamut of teaching methods, a kind of exploitation of the interests of students arises, in which the methodological imperfection of teaching a certain section of mathematics is compensated by the interest of students in the study of mathematics.

In the practice of teaching, unfortunately, one has to meet a one-sided passion for reproductive teaching methods on electives. Sometimes it is considered good form to conduct an elective as a lecture at a university, ignoring other forms and methods of teaching. Of course, a student who is interested in mathematics will withstand such a teaching method, which breaks so sharply with the idea of developing students' creative activity and independence. However, the teacher misses many methodological opportunities.

What has been said should not be understood as a decisive denial of lectures in general. On the contrary, under certain conditions, the lecture method of presentation can be useful (say, a survey lecture on a complex issue). We only object to the substitution of the creative teaching methodology by the manner of lecture presentation of the material in all cases, without exception.

It should be noted that the students of mathematical electives themselves prefer creative forms and methods of teaching and strive not to be passive listeners.

Elective lessons in mathematics should be structured in such a way as to be interesting, exciting, and sometimes entertaining for students. It is necessary to use the student's natural curiosity to form a stable interest in his subject. The famous French physicist Louis de Broglie wrote that modern science is "the daughter of surprise and curiosity, which are always its hidden driving forces that ensure its continuous development."

The main forms of conducting elective classes in mathematics are currently the presentation of the key issues of this elective course by the teacher (lecture method), seminars, interviews (discussions), problem solving, student essays (both on theoretical issues and on solving a cycle of problems), mathematical essays, student reports, etc.

However, the teacher should not give preference to any one form or method of presentation. At the same time, keeping in mind that students' independent work should take a leading position in optional mathematics classes, one should nevertheless more often use problem solving, essays, reports, discussion seminars, reading educational and popular science literature, etc.

One of the possible forms of conducting elective classes in mathematics is to divide each lesson into two parts. The first part is devoted to the study of new material and independent work of students on theoretical assignments. At the end of this part of the lesson, students are offered homework on the theory and its applications. The second part of each lesson is devoted to solving problems of increased difficulty and discussing solutions to especially difficult or interesting problems. Solving successively all problems on their own or with little help from a teacher,

schoolchildren gradually study the course with a lot of personal participation, showing activity and independence, mastering the technique of mathematical thinking.

In essence, extracurricular activities are the most dynamic type of learning differentiation.

In whatever form and by whatever methods the elective classes in mathematics are conducted, they should be structured in such a way as to be interesting, exciting, and sometimes entertaining for students. It is necessary to use the student's natural curiosity to form a stable interest in his subject. The famous French physicist Louis de Broglie wrote that modern science is "the daughter of surprise and curiosity, which are always its hidden driving forces that ensure its continuous development."

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One of the possible forms of conducting elective classes in mathematics is to divide each lesson into two parts. The first part is devoted to the study of new material and the independent work of students on tasks of a theoretical and practical nature. At the end of this part of the lesson, students are offered homework to study theory and its applications. The second part of each lesson is devoted to solving problems of increased difficulty and discussing solutions to especially difficult or interesting problems. This form of conducting extracurricular activities can contribute to a successful transition from the forms and methods of teaching at school to the forms and methods of teaching in higher educational institutions.

It is also natural, when conducting optional classes, to mainly use the methods of studying (and not teaching) mathematics, as well as the problem form of teaching.

In particular, it can be accomplished by presenting the elective course being studied as a series of sequential tasks. "Solving successively all the problems on their own or with little help from the teacher, students gradually study the course with great personal participation, showing activity and independence, mastering the technique of mathematical thinking. Theorems have the form of problems. If the theorem that students must prove is large or difficult, then it is divided into several tasks so that the solution of the previous one helps to solve the next one. Definitions are either included by the teacher in the text of the problem, or are communicated separately. If necessary, the teacher conducts a preliminary conversation or makes generalizations. Leaflets with assignments, reproduced on a typewriter, are given to everyone students "

It is also useful to widely use problems of a problematic nature.

Currently, electives in mathematics are conducted in two main areas:

a) studying courses under the program "Additional chapters and questions of the course of mathematics"; b) studying special mathematical courses. The content of the program "Additional chapters and questions" of a systematic course of mathematics allows you to solve and deepen the study of program material, to acquaint students with some general modern mathematical ideas, to reveal the application of mathematics in practice, prepares the teacher to work on a new program. "

As a concrete example of setting an optional course, let us consider the combined topic "Sets and operations on them. Infinite sets". The content of the program on this optional topic is clearly oriented towards the fact that general concepts of sets, elements of a set and operations on sets arise from the consideration of specific examples of sets of solutions of equations, inequalities and their systems.

This formulation of the question does not correspond to the role played by the concept of a set outside the framework of the theory of equations and inequalities both in mathematics and outside of this science. Therefore, it is possible that after studying this topic, students will not notice the initial objective source of the emergence of the concept of a set and will not understand the

fundamental meaning of this concept for all mathematics. In order for this topic to most fully contribute to the deepening of students' mathematical knowledge, they must have formed an idea of the concept of a set as an initial concept of mathematics, from which the science-mathematics develops. This is not about the rigorous rationale of mathematics. It is enough to show with specific examples how the concepts of a set, relations between sets and operations on sets manifest themselves in various branches of mathematics - arithmetic, algebra, geometry, in the doctrine of functions, equations and inequalities.

The main forms of conducting elective classes in mathematics are currently: lectures, practical work, discussion of assignments for additional literature, student reports, writing abstracts.

The use of the lecture and seminar system in the study of a number of topics of the course allows you to present educational material in large blocks and, on this basis, free up time for students to work independently to consolidate and deepen the theoretical material presented in the lecture.

In practical classes, purposeful work is carried out to develop students' abilities and skills for solving basic types of problems.

Seminars are devoted to repetition, deepening and generalization of the material covered. According to their didactic goals, they also serve to acquire new knowledge, teach the independent application of knowledge in non-standard situations. It is natural to take advantage of the relationship between the main and optional courses for the development of students' thinking, if at appropriate moments they pay attention to the nature of work with the material. For example, you can not only make a systematization, but also draw the attention of students to the systematization as such, explaining its goals, the mathematical means used. The impact of the optional course on the development (in particular, mathematical) of the thinking of schoolchildren will be even stronger if the connections between it and the main course become two-way. To achieve this will help the presentation in mathematics lessons of the results related to the problems posed in the main course, but obtained in the elective.

A useful form of work is the preparation of abstracts. The fulfillment of such tasks is important, first of all, in relation to the development of self-education skills, satisfaction of the individual interests of students. One should strive to ensure that the reports prepared are heard and discussed. To prepare the report, you can involve several children who have studied it in advance. They can play the role of assistants, lecturers, or opponents. For abstracts, you need to select topics for which there are readily available sources. You can invite the student to draw up an essay plan on their own, then check it and give recommendations for working with literature.

However, the teacher should not give preference to any one form or method of presentation. At the same time, it must be remembered that in the extracurricular classes in mathematics, the independent work of students should take a leading position.

When choosing methods and techniques of teaching in optional classes, it is necessary to take into account the content of the optional course, the level of development and preparedness of students, their interest in certain sections of the program. One of the most important requirements for the methods is the activation of students' thinking, the development of independence in various forms of its manifestation.

The selection of tasks is very important for the success of the assimilation of the material. Introductory tasks in elective classes are aimed at including students in independent creative work; sometimes the teacher can deliberately lead a problem that can confuse students. Problem tasks, cycles for independent solution, tasks for consolidating and developing skills, research tasks should also be provided in the right places in the presentation. The time allocated by the program for solving problems of increased difficulty can be distributed throughout the academic year. More complex tasks can be explored in the final topic-based sessions. In the same classes, it is advisable to acquaint schoolchildren with the entrance examination programs and the peculiarities of education in universities.

Conclusion. Thus, elective classes in mathematics are a natural field for using a variety of methods and techniques of teaching in new, more flexible combinations and in contexts unusual for

the general course of mathematics. The theoretical development of these richest opportunities, characteristic of the practice of the best teachers of elective groups, should become the property of all teachers of mathematics, should be reflected in the new teaching aids for elective courses. In this article, we deliberately left aside the important issue of the relationship between teaching methods and the content of an elective. This issue is covered with sufficient completeness in the methodological literature.

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QUESTIONS OF PHYSICAL CULTURE IN THE WORKS OF ALISHER NAVOI

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Abstract:

Background. *The article reveals the physical culture in the works of Alisher Navoi, reveals their moral education of the participants, the roles of games for the generation. In these works Alisher Navoi mentioned the importance of physical culture, physical education, folk games to strengthen human health. It is proven by the work “Lyson ut-tayr” which is described the games of chess. It is substantiated that the study of the work of Alisher Navoi in the future can lead to an increase in the moral education of our young generation.*

The standard of living of people, the development of science and culture. This development depends on the educational work. Education and upbringing of young generation can be improved by teaching the works of Alisher Navoi.

Thirdly, Alisher Navoi, as a thinker who introduced the Uzbek people to the world, expressed our nationality, justified the possibilities of the Uzbek literary language, described the harmony of teachings, Islam and mysticism with harmonious physical education.

Fifth, the works of our great ancestor, in essence, serve to form in young people a sense of national pride and national pride. If we study his works again and again, it becomes clear that there are more and more undiscovered aspects.

The reason for independence is the analysis of the means of spiritual and physical education in the formation of harmoniously developed young people with their own thoughts, views and civic position in the epics of Alisher Navoi, whose work has acquired a completely new meaning.

The scientific significance of his work The results of this article can be used as a scientific source in the conduct of educational work in educational institutions, such as ethics, literature, national ideas and spirituality, etiquette, sense of homeland, as well as spiritual and educational activities.

Methods. *The article is wed component, differential semantic, observation methods to determine the place of Alisher Navois works in the education for the children.*

The relevance of the topic is reflected in the following: firstly, the spiritual, moral and socio-political views of Alisher Navoi instill in people universal human qualities, such as patriotism, self-awareness, humanity, honesty and purity, self-control, patience and maturity, the spirituality of a harmoniously developed generation. It is important for him to realize that high spirituality is an invincible force.

Results. *It is necessary to pay attention to the moral education to learn humanity and courageous white reading about the games chess, horseback riding, javelin throwing, chawgon, wrestling, horse riding and fencing. The readers can improve not only physical but also moral education.*

The connection between physical education and spiritual development is analyzed in the works of Alisher Navoi. The connection between the concept of a healthy person and physical perfection has been investigated.

Conclusion. *Education is the most important part of our life, so the works of Alisher Navoi are also necessary for education. Every social system is directly related to the future, the future of humanity.*

Keywords: *patriotism, self-awareness, humanism, common sense, brilliant generation, archery, chess, horse racing, javelin throwing, chavgon, wrestling, fencing, horse riding, strong, persistent, enthusiastic, brave.*

Introduction. Every social system is directly related to the future, the future of humanity, the standard of living of people, the development of science and culture. The development of science and culture depends on the level of educational work. This philosophical belief is a social law of state importance.

Therefore, after independence in our country, "Education and upbringing has been identified as a priority in the field of social development of the Republic of Uzbekistan." [7]

One of the urgent tasks facing our society and state is to take care of people, to bring up and bring up the younger generation as a mature person, modern, educated, highly spiritual, strong-willed, strong-willed person. As the first President of Uzbekistan Islam Karimov noted, the most important task before us now is "... - to put them at the center of educational work, to raise them to a new level, to educate our young generation to be mature thinkers with independent thinking in all respects. [3. 4 p] It is known that the upbringing of young people is the product of our national traditions, customs, love for our immortal heritage, the spirit of devotion to them, the work we do for each of us. In the current era of globalization, it is important to form immunity against foreign ideas, to use the spiritual heritage of our great ancestors, to improve the methods of ideological education, which are widely used today, to form a culture of effective use of the Internet. The faith of the people and its spirit have such a powerful influence that it creates the basis for creative work of every sane person, for the honesty of his profession.

Methods. The Uzbek people have such a divine blessing, they have their own national faith. We can see this in the image of great people, thinkers. Because the spirit of the people and the faith in it are expressed by the most advanced representatives of the nation, the thinkers.

Results. The work of Mir Alisher Navoi, the sultan of the poetry garden, the great thinker and statesman, which is an expression of the potential and opportunity in the psyche of our people, is also an immortal example of the people's faith. We are always proud of the great name of the thinker, the immortality of his creative heritage, the fact that his artistic genius knows no bounds of time and space. In the words of our first President Islam Karimov: "If we call this great man a saint, he is a saint of saints, a thinker, a thinker of thinkers, a poet, a sultan of poets." [3. 47 p]

Discussion. First of all, Alisher Navoi's spiritual-moral and socio-political views show that people acquire universal qualities such as patriotism, self-awareness, humanity, honesty and purity, self-control, patience and maturity, the strength of the spirituality of a harmoniously developed generation. is important in the deep realization that it is an invincible force. Secondly, various destructive ideas such as fanaticism, terrorism, religious extremism, "mass culture" are having a negative impact on the minds of young people. As the first President of our country Islam Karimov acknowledged, "... in these difficult and dangerous times, the growing number of attacks on our national identity, alien to our ancient values, selfish aspirations to capture the minds and hearts of our youth, naturally urges us to be more vigilant. [3. 75 p] The idea of a perfect man and the values of humanity in the works of Hazrat Navoi broaden the worldview of young people, help to educate

them as harmonious human beings, in ideological education, to protect the minds of young people from the influence of harmful teachings. [3. 4 p]

Thirdly, Alisher Navoi, as a thinker who introduced the Uzbek people to the world, expressed our nationality, justified the possibilities of the Uzbek literary language, described the harmony of teachings, Islam and mysticism with harmonious physical education.

Fifth, the works of our great ancestor, in essence, serve to form in young people a sense of national pride and national pride. If we study his works again and again, it becomes clear that there are more and more undiscovered aspects.

The reason for independence is the analysis of the means of spiritual and physical education in the formation of harmoniously developed young people with their own thoughts, views and civic position in the epics of Alisher Navoi, whose work has acquired a completely new meaning.

The objectives of the study are:

- To study the issue of physical and spiritual harmony in the education of young people.
- To study the direct harmony of the idea of the perfect man with physical perfection:

To show the continuity of spiritual, physical and mental upbringing in the image of Farhod. The works of Alisher Navoi and the advanced social, political, moral and spiritual ideas put forward in them are the object of the work.

The subject of research is the life and work of Alisher Navoi, the factors influencing Navoi's work, the role of Navoi's works in the ideological education of young people, the practical significance of educating a mature person and the younger generation as a harmoniously developed person.

There is a lot of scientific research on the life, creative heritage and worldview of Alisher Navoi. In particular, scientists N.Kamilov, M.Oripov, H.Alikulov, I.Haqqul, Sultanmurod Olim, O.Ergashev, S.Karimov, B.Eraliev, A.Zohidov, M.Muhiddinov, M.Pardaeva and others in their works expressed certain aspects of the ideological significance of his work. [4. 264 p] After independence, a deep and comprehensive study of the creative heritage of Alisher Navoi, a new approach to it began. [9. 65 p] In recent years, a number of studies have been conducted on some aspects of the literary heritage of Alisher Navoi, in which the research of Navoi scholars, especially N. Kamilov, I. Haqqul, M. Pardaeva and others has scientific value. [8. 198 p] In our research, we consider it expedient to take a positive approach to the study of Navoi's work, especially in the study of educational ideas in the works of thinkers by young people, making positive use of the scientific works of our scientists. Within the framework of the history, development, description and classification of national games, which are an integral part of our national and spiritual values, Uzbek scientists T.Usmankhodjaev, F.Nasriddinov, U.Karabaev, A.Pulatov, Sh.Isroilov have published information about Alisher Navoi. In particular, the manual "National and Moving Games" discusses the history of the games, analyzes some aspects of the work of Alisher Navoi, including Ibn Sino, Kaikavus, including some folk games.

Novelty of the scientific article:

- Proposals and recommendations for the study of Navoi's works have been developed.
- In the works of Alisher Navoi, the connection between physical education and spiritual development is analyzed.
- The connection between the concept of a perfect man and physical perfection has been studied.

The scientific significance of his work The results of this article can be used as a scientific source in the conduct of educational work in educational institutions, such as ethics, literature, national ideas and spirituality, etiquette, sense of homeland, as well as spiritual and educational activities.

It is noteworthy that in his works "Khamsa", "Lison ut-tayr", "Mahbub ul-qulub" and a number of other works he treats folk games with affection, describes them one by one, uses special terms and phrases depending on their use. In particular, his pandu advice on the importance of physical culture, physical education, folk games to maintain and strengthen human health is commendable.

The emergence and development of national folk games in those days was a requirement of the time for people to be strong, resilient, agile and courageous. National folk games have become more complex over the centuries and have become a special sport. From time immemorial, national games such as walking, running, tyranny, horseback riding, fencing, and wrestling have attracted the attention of many kings, especially generals. Many lyrical and epic works of Alisher Navoi clearly describe the analogy of the terms of folk games and types of competitions or the description of the types of games, the plates associated with this type of game, the image of the contestants, the biography. We see the harmony of physical and spiritual upbringing in the image of Farhod in Navoi's "Khamsa". Farhod has positive qualities as a child. He grows up to be a very smart, intelligent child. Farhod studied with great enthusiasm, studied medicine, mathematics, logic and other sciences, and soon mastered a number of sciences, improving his abilities and skills. Farhod not only mentally educates, but also engages in physical and military exercises. Swimming, horseback riding, fencing and more will remain his daily routine. At 10, he will have the strength of a 20-year-old. He amazes people with his mental and physical strength, skill. According to Navoi, on the first day of his study, Farhod learned the alphabet, memorized the Qur'an in a year, and at the age of 15 became strong enough to grind stones with one hand: "He was able to shoot a bow like a rainbow with force and hit the West from the East. When he fired, the fighting star of the sky, Mirrix, would untie his knots of fear and say goodbye. Before the blow of the sword, any ground would crack and resemble the pits formed when water washed away. If Elbrus attacked Mount and struck a hammer, it would go up into the sky in a swarm. As he turned his spear like a spear over his head, the revolving sky served as a shield for him. With a nail in the heel of his boot he pierced the underground fish, and with the tip of his arrow he pierced the flange of the sky" (6. 98 p). Farhod is described as a skilled rider, swordsman, master of martial arts, very humble, pure in heart, eyes and words. If he rode a horse to the field, everything under the horse's hooves would be shattered: His straw horse rode faster than the sky horse, and the rope thrown from the horse was wrapped around the neck of the star Mirrix, who looked like a warrior in the sky" [1. 381 p].

As Farhod grows older, he becomes dissatisfied with his work. He strives to be the head of some great work, to serve more in the way of people's happiness. Hakan begins to build four towers suitable for the four seasons of the year to please Farhad. Farhod sets himself the task of learning the craft and art of the masters, not because these castles are being built for him. He befriends architect Boni, painter Moni and stone mason Qoran. He eagerly follows and masters the craft of the masters.

Farhod initially grew up to be an educated, skilled, creative man. He connects science and profession with life. One believes that one's knowledge and profession should serve the public interest. This is especially evident in Farhod's activities in Armenia. Farhod goes to Armenia in search of Shirin, where he sees thousands of people working hard to dig a canal in the mountains: After all, I took the soil and went away! that helps them, works as a boss for them, and works miracles. Farhod uses his knowledge and craft to ease the labor and hardship of thousands of people. Farhod's hard work and ability are especially evident in digging pools and digging canals.

Navoi used the term "Zori" for the types of games associated with wrestling. For example, Farhod has been interested in and engaged in all military exercises since childhood. After mastering, reading and studying Ulum, Farhod aspired to master the art of dilovar. Farhod amazed everyone with his shooting skills, such as tyrantozlak, javelin, shield. Navoi expressed in it the qualities of intensity, strength, precision, entrepreneurship and dexterity in the use of military weapons. However, Farhod, despite his great strength and mastery of the "excellent beandoza", behaved very politely and calmly in such competitions, and did not brag in front of the weak and defeated. Navoi likened his humility to that of a child who now picks up a book and begins to read the alphabet.

Along with the promotion of physical training, Navoi also paid great attention to the moral education of the participants. Navoi's ghazal, which begins, "Chobukikim, the months between the fields are in a hurry ..." describes the ancient game of the people "Pumpkin". They fired a shot from a bow at a squash that had been thrown into the sky or hung high. This game helped to cultivate

qualities such as anticipation, clear targeting from a distance. The winner is the one whose arrow hits the pumpkin and pierces it, or stabs it. The sultan of the Ghazal kingdom praised the sharp young men for their skill in targeting in this ghazal, and said that the sniper was impressed by the sun in the sky and was ready to put himself in the place of that pumpkin:

Knowing the shape of a bullet pumpkin that will suddenly pass, The sun shines on the square every day.

In the works of Alisher Navoi, Chess, one of the ancient national games, is most often mentioned. In his epic *Lyson ut-tayr*, the poet tells a wonderful story about the game of chess and its rules: "Two chess masters open a chessboard and sit on either side, and in the middle they pour a chessboard grave - big chess pieces. A king was assembled on each side of the throne, and they had servants and armies like the real kings. Each had a straight-walking minister, and one had a crooked-walking fard. There were great, interesting games in the middle, but there were also tricks and activities. In doing so, the pahlavi and the commanders also attacked each other. It is as if two heroic horns were pulling armies and waging war against each other. There were so many armies and swarms, castles, squares and cavalry, battles, retreats, fighting on the right flank, on the left flank, and in the advanced part of the army, with the same tumult. So much creativity, so much field, so much animosity, and so much fighting, that if a player decides to pick up pieces and lift one end of a chessboard, it all rises in the middle and disappears! " he draws conclusions from this game that has attracted all of humanity, it is the hostility on the board that the parties completely forget their hostility once the game is over. Navoi himself was very interested in chess and played it well.

Thus, we witness that the genius, thinker Alisher Navoi is a unique connoisseur of the types of folk physical culture. In particular, his use of the terms "physical science" or "physical science" or "mental education" to describe national sports, such as "zori", "dilovarlig", "guy", "silaxshurlik" is a bright page for the science of physical education. In particular, he skillfully describes in his lyrical and epic works such ancient folk games as "chess", "dirandozlik", "horsemanship", "spearmanship", "chavgon", "pumpkin", "kurash", "fencing".

The great poet-humanist, like other great people of the medieval Renaissance, showed what a real person should be like throughout his life. He fought against the injustice of his time and expressed this in his works. Probably for this reason, the fact that the poet was a personal example, in turn, led to the appearance in his works of a unique interpretation of the ideas of humanity and goodness.

If we look at Navoi's worldview in "Khamsa" as a whole system, at its center, no doubt, lies the world of man, the poet's fiery humanism, the concept of humanity, his thoughts on justice, generosity and love, the world of good thinking.

Prior to the creation of "Khamsa", Navoi was constantly thinking about this, that is, his great future work, the plot, the composition of each epic, the ideas of the main character, and cooked many parables. That is why when the poet started this work, the work went very fast and smoothly. He began writing the first epic of his "Khamsa" of more than 50,000 centuries, "Hayratul Abror" in 1483, and completed his last epic - "Saddi Iskandariy" in 1485. Although Navoi officially resigned from the ministry at the time, he is still one of the most influential figures in the affairs of state, one of the most influential figures in the Sultan Hussein Boykaro Palace. he also dealt with matters of life day and night. Nevertheless, the completion of such a short work as Hamsa in such a short period of time was a testament to Navoi's unique epic talent.

The main ideas of the epic "Khamsa" glorify honesty and justice, courage and humanity, patriotism, patriotism and enlightenment, love and loyalty, life and beauty, friendship and loyalty, righteousness and honesty, oppression and injustice, betrayal and betrayal. it consists of condemning, abruptly exposing, and denying darkness, plunder, and aggression. These ideas are a red thread throughout all of Hamsa's epics. The images of the protagonists in "Khamsa" were created on the basis of these progressive and noble ideas, dreams and hopes of the working people. That is why the epics of "Khamsa" are to some extent ideological and artistic melody and connection with the best folk epics, which are the oral creations of the working people.

Navoi, who fought for the highest ideals of his time, in his epics "Khamasa" condemned oppression and injustice in a variety of artistic forms with boundless anger and hatred. He contrasted his dreams of a bright future with feudal reality. Although the poet did not rise to the level of denial of feudal society as a system, he completely rejected feudal views, but his ideas on the improvement, upbringing and health of the social strata of life at that time, especially through vivid images, has been able to make the progressive significance of the century extremely wide and deep and very impressive.

Navoi put a new vital problem in each of his epics and, along with an artistic solution, sought and found a unique form for each of his epics. Although this form had some traditional features, it was essentially new and, in terms of Uzbek literature, truly innovative.

In "Khayratul-abror" Navoi, the first friend of "Khamasa", as a wise philosopher, poet, public figure and scientist with rich life experience, wrote in a didactic and satirical style, describing the pros and cons of life, people and social groups. contrasting with each other and reflecting on every aspect of improving the structure of society.

The humanist views of the thinker, which have a universal meaning, are nourished by Islamic philosophy, and in his works, the scholar has comprehensively developed his religious and secular aspects, outward and inward. Before analyzing the scholar's views on man and humanity, we think it is expedient to dwell on his relation to God and nature. According to him, God is the beginning of all beings. Everything in the world is transitory, temporary, and God is eternal, whatever happens in existence is done by His will. According to the thinker, "with the help of the intellect, man cannot comprehend the secrets of all things, the changes in the world, their essence. It makes the mind weak. For human knowledge and mind are limited. He doesn't fully understand the truth. " Nevertheless, Navoi does not imagine man as insane. The idea that no matter what a person does, he must believe in reason, in thinking, in his power, is an important aspect of a thinker's work.

Conclusion. Alisher Navoi not only promoted the types of exercises, but also paid great attention to the moral education of practitioners. In the works of Alisher Navoi, Chess, one of the ancient national games, is most often mentioned. In his epic poem "Lison ut-tyr" the poet tells a wonderful story about the game of chess, its rules. It is noteworthy that in his works "Hamsa", "Lison ut-Tayr", "Mahbub ul-kulub" and a number of other works, people love folk games, describe them one at a time, use special terms and phrases depending on their use. In particular, his advice on the importance of physical education, folk games for maintaining and strengthening human health is commendable.

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SCIENTIFIC AND HISTORICAL SIGNIFICANCE OF THE BOOK BY ABDURAUUF FITRAT "UZBEK CLASSICAL MUSIC AND ITS HISTORY"

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Abstract:

Background. *Makoms form the basis of the music of the peoples of the East. Therefore, a comprehensive study of the status is important in the history of our musical culture. Shashmakom consists of about two hundred and fifty melodies and songs and is a significant part of the musical heritage of the Uzbek-Tajik people. The article is dedicated to the essay of Abdurauf Fitrat entitled "Uzbek classical music and its history", dedicated to the analysis and translation of classical eastern music and song tradition Shashmakom which consists of about two hundred and fifty melodies and songs, and is a significant part of the musical heritage of the Uzbek-Tajik people. The problem of Shashmakom is one of the least studied areas in the history of our musical culture, and the author gives his own interpretation of the solution to this issue.*

Methods. *In the very research work descriptive, comparative, conceptual analysis methods were used, as well as scientific methods in music theory, the theory of intercultural communication.*

Results. *The issue of Shashmakom is one of the least studied areas in the history of our music culture. The study of them and the work of theoretical analysis is a very complex problem. In this regard, it is no exaggeration to say that Abdurauf Fitrat's essay "Uzbek classical music and its history" is a field of extensive research for music historians and researchers. This book was the beginning of research on Uzbek music.*

Conclusion. *Makoms are a genre of music that has existed among the peoples of the Orient since time immemorial. They were created by professional musicians and singers on the basis of the unique musical riches of these peoples and emerged as an independent music genre in the process of long cultural and historical development. This booklet is a valuable material for pupils as a history of Uzbek music to study a certain period in the history of Uzbek music.*

Keywords: *brochure, classical music, scientific and historical, poppy seed, East, cultural, progress, melody, song tradition, research, Young Bukharan, makom, statesman, encyclopedic, field.*

Introduction. Makoms are a genre of music that has existed in the East nations since time immemorial. They were created by professional musicians and singers on the basis of the unique musical riches of these peoples and emerged as an independent music genre in the process of long cultural and historical development [1; 2; 6; 8; 12, p.5-6].

Makoms play a very important role in the musical heritage of the Shark peoples. Therefore, the issue of makoms has long attracted the attention of musicologists and orientalists, and has become one of the most important historical, scientific and practical issues in the musical culture of the peoples of the East. Many historical and literary sources on the Oriental music culture of the IX-XIX centuries pay special attention to the issue of makoms [4; 7; 9; 15; 16]. In recent times, many musicologists have expressed their views on makoms [3; 9; 12; 16]. Makoms form the basis of the music of the peoples of the East. Therefore, a comprehensive study of the status is important in the history of our musical culture.

In this regard, Abdurauf Fitrat's essay "Uzbek Classical Music and Its History" is valuable because, as it is stated in the preface, " Although the Committee for the Study of Uzbeks has in recent years been able to gather considerable information on the Uzbek language, literature, and history and to produce good scientific results, no research has been done of this kind before." The reason for this is the lack of musicologists who know the theory of music in the original sense and

are well versed in the features of oriental music. Naturally, even though young independent Uzbekistan has a rich history of many thousands of years, there were many problems in the field of art and music, because in the new era of the Uzbek statehood, classical music, including shashmakom, was far from the secrets of music. Therefore, it is impossible to determine the foundations of Uzbek music, to identify the elements that make it up, to clearly define the periods, for all reasons, and as a result to draw an objective, scientific conclusion, "until we have enough musicologists" trained (p.3).

However, according to Fitrat, at the same time, musicologists say that we need to start scientific and historical research in the field of national music, to work in this field as much as possible, to publish the information collected and processed so far. Although there is a lack of scientific methods in the collected materials, "there may be shortcomings, but these materials collected in time will be of great help for future work, we believe," said the conclusion of the Committee for the Study of Uzbeks in September 1926 (10, p.3-4).

Material and methods. Abdurauf Fitrat's essay "Uzbek classical music and its history" is a field of extensive research for music historians and researchers, and we have chosen it as a valuable and unique source gaining rich material on the history and theory of national Uzbek folk music. In the very research work we used descriptive, comparative, conceptual analysis methods, as well as scientific methods used in music theory, the theory of intercultural communication.

Results and discussion. Shashmakom consists of about two hundred and fifty melodies and songs and is a significant part of the musical heritage of the Uzbek-Tajik people [5; 6; 9; 11; 14]. The issue of Shashmakom is one of the least studied areas in the history of our music culture. The study of them and the work of theoretical analysis is a very complex problem. In this regard, it is no exaggeration to say that Abdurauf Fitrat's essay "Uzbek classical music and its history" is a field of extensive research for music historians and researchers.

Abdurauf Fitrat is a statesman, Uzbek writer and scientist, professor (1924). His encyclopedical knowledge, extensive scholarship and contemporary thinking can be proved by the following: He was a member of the Chigatay group (1918-1924), one of the great representatives of the Jadid movement, worked at the Moscow Lazarev Institute of Oriental Languages (later the Moscow Institute of Oriental Studies) (1923-24). The fact that he worked at the Uzbek State Research Institute (1926), the Pedagogical Academy in Samarkand, the Teachers' Institute in Bukhara and Tashkent, and the Institute of Language and Literature under the Science Committee is a clear proof of this opinion. In addition, Fitrat is a bright publicist, author of poems and prose works.

Abdurauf Fitrat (pseudonym; first and last name Abdurauf Abdurakhim ugli) was born in 1886 in Bukhara. He first studied at the old school, then - Mir Arab Madrasa. In 1902-1903 he visited Turkey, India and Arabia, as well as the cities of Central Russia such as Moscow and St. Petersburg. In 1909-1913, Fitrat went to Turkey to study at the "Voizon" Madrasa in Istanbul where he founded the Bukhara Education Society with the help of the Bukhara Youth Movement - the then flourished movement in Turkey [12].

While studying in Turkey, Fitrat was also a prolific writer. In 1909, in Istanbul, his Persian-language poetry collection called "Munozara", "Sayha", and in 1912 his prose called "Sayehi Hindi" ("Baenoti Saehi Hindi") "Indian Traveller" were published. After returning to his homeland, Fitrat taught in various districts of Bukhara and widely propagated the ideas of Jadidism.

From 1915 he headed the left wing of the Young Bukharan movement. After the events of February 1917 he moved to Samarkand and worked as an editor of the newspaper "Hurriyat". After the Kolesov incident in March 1918 he moved to Tashkent where he worked as an interpreter at the Afghan embassy in Tashkent in 1919-1920. He is the founder of the "Chigatay Gurungi"/ "Chigatay group Talkings" Enlightenment and Literary Association, as well as the "Tong"/"Early Morning" magazine.

With the establishment of the Bukhara People's Republic, Fitrat served in 1921 as Minister of Education, in 1922 - as Minister of Foreign Affairs, Chairman of the National Economic Council, Deputy Chairman of the CEC and the Council of People's Ministers, and in other positions. He was

the initiator of the establishment of the School of Oriental Music in Bukhara, and of the collection of unique poems on the history of science and culture, scattered in the ashes of the people of Bukhara [5; 6; 9; 12].

From 1923 to 1926 he went to Moscow and worked at the Institute of Oriental Studies. Returning to his homeland in late 1926 and early 1927, Fitrat worked at the Higher Pedagogical Institute in Samarkand and the Institute of Language and Literature in Tashkent until his arrest in 1937. Fitrat's literary heritage is rich and many-fold. As a writer he created in all kinds of art. In the early period of his literary career he wrote mainly in Persian. His poems in Uzbek date back to 1917 and beyond. Fitrat is the author of the poems "To the star of Mirrix", "East", "Poet", and he is considered to be the editor and the main author of the poetry collection entitled "Young Uzbek poets".

Presented as a stage play in the 10s of the XX century, "Мунозара"/"Debate" is Fitrat's first work in prose. Both "Debate" and "Saehi Hind" are the bright samples of Fitrat's journalism. By the mid-20s of the XX century he created "pure" prose works: "Kiemat" (Judgment Day), "Me'roj" (Ascension to heaven), "Ok mazar" (White tomb), "Zayd and Zaynab", "Faith of Zahra" and others.

Since 1916, Fitrat has created many works for the Uzbek theater. However, not only his plays such as "Begijon" (Beloved), "Kon" (Blood), "Abo Muslim", "Temur Saganasi" (Temur's tomb), "Ugizkhan" which he created in 1916-18, but even the opera libretto "Tulkin", which he wrote in the 30s of the XX c., have not reached us.

Fitrat is the author of such plays as "Abulfayzkhan", "Satan's God", "Lion", "Shurishi Vose", "Tulkin". In socio-legal, religious and enlightenment spheres he published such works as "Leader of Salvation", "Family", "Mawludi Sharif or Murati Hayr ul-Bashar", "Sleep", "Oriental Policy" and "Cry, Islam", and in 1925 "Mukhtasat Islam" history" was published. In 1918 he worked out the 13-chapter program of the Young Bukharan Party. In this program, the social, political and legal views of the scientist found their deepest expression.

Fitrat began to study the grammar of the Uzbek language and made a significant contribution to the development of this field. He is the author of works on theoretical and methodological issues of the Uzbek language and literature. In 1918, in collaboration with K. Ramazan and Sh. Rakhimi, he created a textbook "Mother tongue". For the first time he studied the works of the great representatives of Uzbek literature and wrote such works as "Bedil", "On the Persian poetry of Navoi and his Persian office", "Kutadgu bilig", "Ahmad Yassavi", "Persian poet Umar Khayyam", and also he wrote essays dedicated to Firdavsi, Mashrab, Muhammad Salih, Turdi and others. created pamphlets and articles of great scientific value on the work of other writers. Fitrat is known as a famous translator.

Fitrat founded the Eastern School of Music in Bukhara in 1921, and was its first director. Along with classical music scholars, he invited musicologists such as V.A. Uspensky to the school. At the initiative of Fitrat, Bukhara Shashmakom from Ota Jalal and Ota Gies was published for the first time. Fitrat began the XX century Uzbek musicology with the articles "Shoshmakom", "On Uzbek music" and the essay "Uzbek classical music and its history" (1927) [8; 6].

The historical roots of Uzbek music go back to ancient times [12, p.5-6]. It is known from the various images of the art of music that the art of the Uzbek people developed before the arrival of the Arabs in our land, more precisely before Islam. Since the conquest of Movarounnahr by the Arab invaders, they has burned, sanded and lost almost everything related to culture and art. However, its traces and influence could not be erased from the hearts of the people [6; 9; 15].

While writing the book "Uzbek classical music and its history" (1927), Fitrat tried to turn the reader's gaze to these golden traces. Prior to the publication of his essay, he was deeply troubled by the lack of any research that could reveal the practical, theoretical, and historical aspects of folk melodies. He repeatedly states in the essay that he is not a musician, that he does not have a deep knowledge of the theory, and says, "I have decided to include possible information, my own ideas in this essay, the conclusions I have drawn from the essays I have heard from the teachers." In our opinion, the purpose of this booklet is, firstly, to inform the public about the basic concepts of folk

melodies, secondly, to direct the thoughts about Bukhara Shashmakom, and thirdly, to scientifically and theoretically express our musical instruments and their properties.

In our opinion, it is safe to say that this booklet entitled "Uzbek classical music and its history" was a golden foundation for the development of the theory of Uzbek music. After all, the author has paid great attention to the melting of the internal and external aspects of musicology in the interpretation of his thoughts.

At the beginning of the XX century in our republic in all spheres of science and culture there was a growing need for research, publication of books, essays, scientific articles in the new modern Uzbek language. They published scientific and educational articles in various fields of science, including literature, geology, linguistics. In those years, a number of scientists, such as Gulom Zafari, V.A. Uspensky, published a number of articles and scientific works in the field of music. The book "Uzbek classical music and its history" by the encyclopedic scholar Abdurauf Fitrat [1927] was one of the most important and good works in this field for his time.

The value of Fitrat's essay "" is that the author was one of the first in the history of modern Uzbekistan to talk about Uzbek classical music, its rich heritage and history of several thousand years and the place of this unique heritage in today's and tomorrow's culture, i.e. he emphasizes the importance of music for further development of musical culture in the country. And he foresees that bright future to a lonely fall. Let us come to the interpretation of Fitrat's thoughts directly in the essay as evidence of these thoughts.

Although the essay " Uzbek Classical Music and Its History" is only 53 pages long, its evidence suggests that Fitrat was an encyclopedically educated scholar as it contains the valuable information on not only music, its history and roots, but also the history, culture, and khans and emirs ruled in our ancient land.

Speaking about the historical roots of Uzbek classical music, Fitrat stated the following: "Before Timur, there was a musical art in Central Asia that had its roots in Arabia and Iran. However, by the order of Timur, with the efforts of specialists from all over the world, this art suddenly came to life and flourished" [p. 40]. Indeed, the musical instruments brought by all of the Islamic East, the instrumentalists, have served to elevate and develop further the classical music to this day. From them grew great musicologists. For example,

According to Hafiz Darvesh Ali, the author of famous book called "Tukhvatu-s-surur", Ulugbek Mirza himself was one of the renowned music scholars of the period [p. 40]. Moreover, in the time of Timur's children ruling, grew up and served for the well-being of our music the following famous personalities of the period like Samarkand's legislator Darvesh Ahmadi, Samarkand's flute player Sultan Ahmad, Hisami of Karakul, who had a treatise on music with two books in Turkish and Persian, Abdulvafo of Khorezm, who wrote a book on music, and Mavlono Sokhib of Balkh, a doctor and musicologist of Balkh, Abulbaraka from Shakhrisabz, who was one of the well-known composers. Fitrat also mentions that Kadimi, who was a musician and a poet, Huja Yusuf Burhan, a music teacher of Alisher Navoi, and Muhammadali Garibi, Navoi's uncle, were also famous musicologists of that time.

This booklet is a valuable material for pupils and musicologists as a valuable history source of Uzbek music to study a certain period in the history of Uzbek music. In this regard, the author himself describes the importance of the publication of the essay "Uzbek classical music and its history" as follows: "European music has reached its most recent period. It can't go any further. European musicologists try to suppress their work looking for different ways to understand. Many of them refer to our oriental music and say that they have no choice but to use its basics" [10, p.52].

As a result, Fitrat concludes that "the importance of oriental music is growing day by day in the circles of science and art in Europe" [ibid., p. 53]. This is because, according to Fitrat's humble opinion, "the important place of our music among oriental music, and its historical richness, must have been little understood from this priceless essay" [10, p.53].

In addition, another group of well-known musicologists is listed separately by Fitrat. These are Mahmud Ishaq ugli from Bukhara, Amir Fatkhi from Tashkent, Mavlono Boki Zarduz from Samarkand, Khojagi Jafar Konuni, Hafiz Tanish - a man who wrote the history of Amir

Abdullokhon, Hafiz Turdi Konuni, Mirzaarabi Kungiro, Hafiz Poyanda, Sheikh Abdullo Mirmash, Sheikh Ahmad naychi, tanburchi Xuja Navruz, Husayn udiy, gijjakchi Ustod Uzbek and others.

Fitrat writes based on historical sources that during the reign of Ulugbek, there was a period of depression in the field of music. This was due to the emergence of the movement "religious reversal" (aksu-l-harakat) under the protection of the religious leader Khoja Ahror. Following Ulugbek's death, the center of fine arts was moved from Samarkand to Heart where the golden age of Chigatoy period of literature and music began to flourish under the protection of Hussein Boykaro as a ruler and Alisher Navoi as his favored emir.

Here, Fitrat pays special attention to Alisher Navoi, founder of the Uzbek national literature and his contribution to the development of music and art. In particular, Navoi himself confirms that he learned music from a well-known scholar named Khoja Yusuf Burhan [10, p. 41]. In his famous work, Babir Mirzo enumerates Navoi's works and shows Navoi as a master composer. According to Fitrat, Alisher Navoi was a man who brought up his greatest masters of music, his most talented music students. This was reported by Babur Mirzo in his famous work "Boburnoma".

At the same time, Fitrat enumerates the most famous of the other musicologists of the time of Hussein Boykaro. These are Mirkhashim, Mawlana Yusuf Bai'i, Mahmud Shaybani, Khabibulloyi Changi, Muharrami Changi, Alishunkoa Mehtar Shmsuddin, Ahmad Nogorachi, Alijon Gijjaki, Usto Shadi and one of his disciples. And finally, Hussein Boykaro himself says that he learned music from Master Shadi [10, p. 44].

Fitrat mentions Kavkabi in a special way and says, "As in the time of Timur, Marogali Khuja Abdulkodir is like Kavkabi in the time of the Uzbeks" [10, p. 45], because his students were the most famous musicologists of his time. Among them Fitrat mentions the following of them - Huja Hassan Nisari, Mawlana Hassan Kavkabi, Huja Muhammad Kavkabi, Rizo from Samarkand and Boki Jarrokh. Fitrat gives information about another famous master like Kavkabi. This is the famous master Hafiz Akhi, who was transferred from Herat to Turkestan. The most famous of his students in Turkestan are Khoja Bobo Changi from Tashkent, Hafiz Hamza and Darvesh Maksud from Andijan.

Fitrat mentions many famous musicologists in the treatise. In particular, he mentions musicologists who were famous from the time of Abdullah Khan to the time of the Imamkulikhan. These are Mahmud Ishaq ugli from Bukhara, Amir Fatkhi from Tashkent, Mavlono Baki Zarduz from Samarkand, Khojagi Jafar Konuni, Hafiz Tanish, Hafiz Turdiy Konuni, Mirzaarabi Kungiro, Hafiz Poyanda, Sheikh Ahmad, Mirmastiy, Ustad Abdullo from Balkh region, gijjakchi Ustod Uzbek and others.

Of course, much can be said about all the information in the brochure. Because in a single booklet the author spoke about the history, culture and spirituality of our country for several thousand years in clear, fluent and convincing words. This is proof of the fact that Abdurauf Fitrat was an encyclopedically educated scholar and a selfless enlightened man.

Another valuable aspect of the treatise is that Fitrat gives historical sources about the art and music that flourished in Khorezm region, about the mature musicologists of his time, and provides unique information about them. Fitrat talks about Bekjan, one of the most zealous educators in Khorezm, and Muhammad Yusuf Devon, a well-known musicologist. They together wrote in 1925 a book named "A Small History of Khorezm Music", and edited it in Moscow.

The book gives valuable information on Khorezm shashmakom roots. For example, Fitrat states that during the reign of Khiva khan Muhammadrayimkhan (1921) the famous Khiva musicologist Niezkhanhuja went to Bukhara where he learned to play the shashmakom with a tanbur and returned to Khiva. The disciples blushed at him and began to train the shashmakom secrets there. Mahsumjon Kozi, Usta Muhammadjon sandukchi, Abdusattor Mahram are among those who have reached the level of a mature musicologist in this "Niezkhanhuja school" in Khiva.

This movement continued and flourished during the reign of Muhammad II. ... Polvonniz mirzaboshi Komil, the greatest musicologist of the time, tries to find a convenient way to study music. After a long turned period he invented the note called "Khorezm line" of shashmakom [10, p.49].

Indeed, to advance our music, to examine its foundations in a scientific way, to bring it to the forefront of the world, I hope that these points will be kept in the mind in order to continue our fruitful service to the international art world: If we can't enlarge number of our musical schools, let us not think of their reduction, let us set our work in motion by giving them material and spiritual support" [10, p.53].

Fitrat puts forward very important and the necessary idea for that time and says that "let's send our graduates to music colleges in Russia, and then - to music institutes. Because the place of our music in today's world of culture is possible only through the services of these very students" [10, p.53].

Another important point is put forward by Fitrat, that is, in order to achieve this goal, we need to introduce music lessons in Russian in our national music schools, because in this regard, the richness of Russian art experience, including methods of working with notes, is of great importance. That is why "Eastern Music School in Bukhara created its own program in this way" [10, p.53]. At the same time, Fitrat warns: "Let us not follow the melodic methods of European music to the notes of our musicians with the help of European music scholars, until we have such students who are well-versed in European music. Let's be very careful to assimilate the European melodies and try to keep our melodies in their originality" [ibid, p.53]. Fitrat also mentions the use of the experience of Russian composers in the process of doing this work, and he states that "V.Ya. Uspensky has a great deal of experience in this area" [ibid, p.53].

At the end of the treatise, Fitrat speaks with pleasure about the people who played a great role in the recording of shashmakom melodies: I – Ota Jalol Nosir oqli who who knows perfectly well shashmakom's essential part called "nasr", and who is well aware of all nuances of its melodies as well as the century and a half years history of the Bukhara style of music, II - Giyos Nabi ugli, who is perfect in difficult nuances of shashmakom, III - free musician and composer V.Ya. Uspensky who took note of shashmakom» [10, p.53].

This book was the beginning of research on Uzbek music. Previously, the essays focused one's attention on makom and makom songs. In this short booklet, Fitrat, in addition to shashmakom, tried to collect valuable information about folk songs, Uzbek musical instruments, and the art of bakshilik (style of oral folk singing) from the point of view of the time. With this effort, the scientist expanded and enriched his understanding of music that existed at that time. The essence of the booklet is that Uzbek music, especially the method of melting makoms like *usul* (different ways) and *parda* (level of voice), which is the key to traditional performance, is based on ancient treatises. Speaking of makoms, Fitrat admits that there are six rows of main voice levels at their base. He says these basic melodies are *Buzruk*, *Rost*, *Navo*, *Dugoh*, *Segoh*, *Irok*.

He records other songs of Makom and it's essential part *Nasr* as united melodies and songs under the banner of *Shashmakom*. In our opinion, it is not surprising that Fitrat has always dreamed of writing a book about Uzbek classical music.

Fitrat had a special respect for the Uzbek musical heritage, especially the makoms. He opened the first national music school in the Bukhara People's Republic during his tenure as a supervisor. At school, he set out to teach music theory, Russian, and notation. One of the greatest works of that period was the transfer of the Bukhara *Shashmakom* to modern music. Fitrat invites V.A. Uspensky and explains to him how important it is to move *Shashmakom* to the modern notation. V.A. Uspensky gladly accepts the offer. Of course, the process of notarization of makoms was not easy for a representative of another nation who had never heard of makoms in his life.

As we look at *Shoshmakom*'s note in the fall, the expression of complex methods such as *Talkin* (Interpretation) in the note has caused a number of misunderstandings. The fact that the 3/8 part of the *Talkin* method is given in the form of a triol strengthens our opinion to some extent. It would not be a mistake to say that the melody and songs in the maqoms recorded by V.A. Uspensky are the only source that clearly preserves their original form [V.A.Uspensky. "Shashmakom", Bukhara, 1924].

In carrying out this work, Jalal Ota Nosir ogli, who knew the history of our music having a century and a half of its history, for and Gies Ota Nabi ogli, who knew the difficult part of shashmakom, rendered invaluable assistance to V.A. Uspensky.

These measures taken by Fitrat, in turn, became the cornerstone of the publication of the booklet "Uzbek classical music and its history." From this booklet a number of exemplary works on Uzbek music have been done. In particular, the book "Musical history of Khorezm" was published. Special expeditions were organized by V.A.Uspensky and Romanovsky, and dozens of folk melodies and songs were recorded.

Conclusion. In short, makoms are a genre of music that has existed among the peoples of the Orient since time immemorial. They were created by professional musicians and singers on the basis of the unique musical riches of these peoples and emerged as an independent music genre in the process of long cultural and historical development. In this short booklet, Fitrat, in addition to Shashmakom, tried to collect valuable information about folk songs, Uzbek musical instruments, and the art of bakshilik (style of oral folk singing) from the point of view of the time. With this effort, the scientist expanded and enriched his understanding of music that existed at that time.

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This booklet is a valuable material for pupils as a history of Uzbek music to study a certain period in the history of Uzbek music.

Due to the fact that Bukhara, Khorezm, Fergana and Tashkent, the ancient centers of makom art, entered the territory of Uzbekistan, the generalization of Bukhara-Khorezm and Fergana-Tashkent styles and their recognition as a common tradition began with Abdurauf Fitrat. This is evidenced by the fact that Fitrat's book, published in 1927, was entitled "Uzbek classical music and its history."

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