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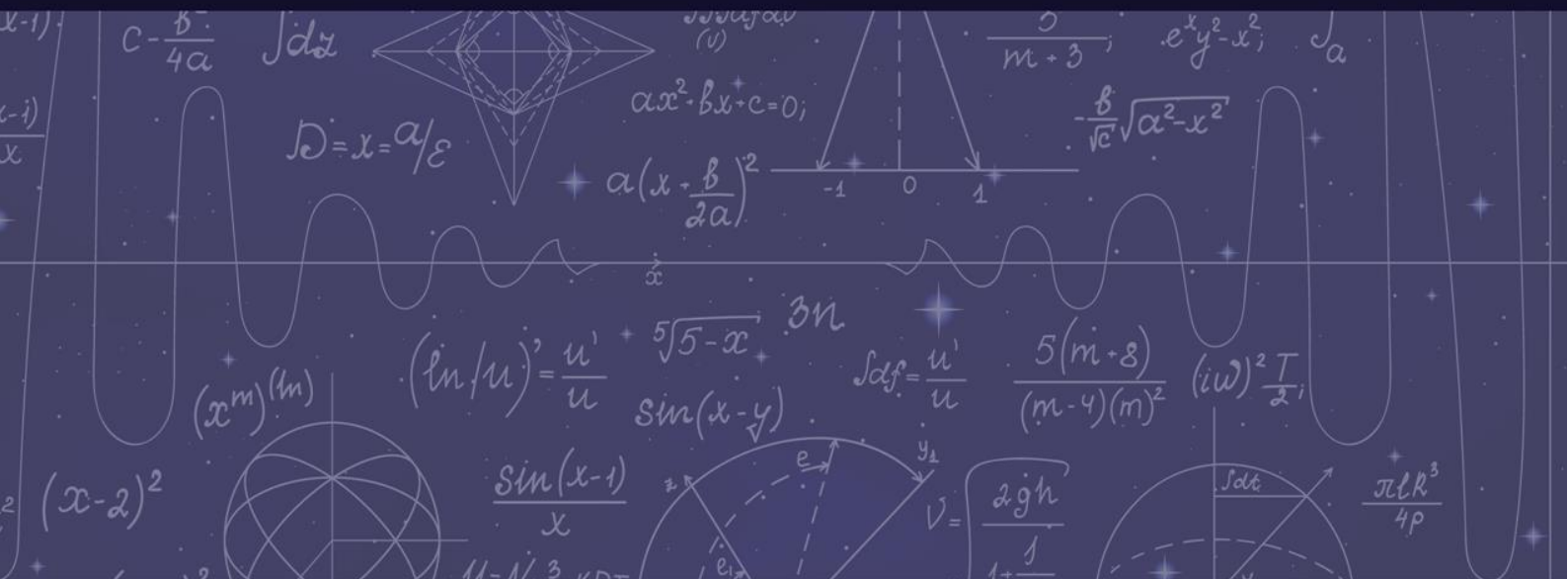
International scientific journal

# SCIENCE AND INNOVATION

## Volume 2 Issue 1



HISTORY  
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ARTS  
ARCHITECTURE  
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GEOLOGY AND MINERALOGY



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*In this scientific journal, in the form of scientific articles, the results of scientific research conducted by professors and teachers of the Republic of Uzbekistan and international higher educational institutions, independent researchers, doctoral students, undergraduates were published. In addition to higher educational institutions, the journal also includes scientific articles by employees working in other research institutes, production organizations and enterprises of our region and republic.*

*The materials of the journal can be used by professors, teachers, independent researchers, doctoral students, undergraduates, students, teachers of lyceums and schools, scientists and everyone who is interested in science.*

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**TURAKULOV KHOLBUTA ABILOVICH**  
**Professor, Doctor of Technical Science**  
**(1949-2023)**

Turakulov Kholbuta Abilovich was born in village Korli, Ishtikhon district of Samarkand region on May 15, 1949. He studied at the Faculty of Mechanics and Mathematics of Samarkand State University named after Alisher Navoi in 1967-1973. He continued his scientific-pedagogical activity as a teacher at the department of "Higher Mathematics" of Jizzakh State Pedagogical Institute since 1977. He defended his dissertation on the theme "Creating a mathematical model for the detection of visual disturbances (diseases) and putting it into practice with the help of modern computer technology" and received the scientific degree of Candidate of Technical Sciences on May 12, 1982.

For his achievements in this field, he was awarded the chest icon of Excellence of Public Education in 1986, and, he was awarded the title of associate professor of the department "General Technical Sciences" in 1987. According to the results of his preliminary research in this regard, he published manual book named after "Scientific-theoretical foundations of the application of new pedagogical technologies to the teaching of technical sciences in 1990. Now two areas have appeared in his scientific-pedagogical activity, that is, the first of them is the area of cybernetics, and the second is the improvement of teaching of certain subjects on the basis of information technologies.

He announced to the press some examples of creativity of the first direction. In this regard, as one of them, he managed to publish a monograph entitled "Systematic approach to the research of the visual system" in publishing house "Fan" in 1990. Thus, he carried out his scientific work in harmony with the leadership, and he was appointed to the position of dean of the current Faculty of "Technological Education and Physics" (at that time "General Engineering and Labour") in 1989.

He defended his dissertation work on "Automation of creation of mathematical models for finding optimal options for glaucoma diagnosis and treatment processes" and received the degree of Doctor of Technical Sciences on March 29, 2000.

He was awarded the title of professor of the Department of "The Methodology of Primary Education" in 2003, also he was a corresponding member of the International Academy of Pedagogic Education. And became a full member of this academy in 2005. Professor became a laureate of the A.G. Nebolsin International Prize in the fields of pedagogy and professional pedagogy in 2008, and he became an academician of the "Turon" Academy of Sciences in 2009. Approximately 500 scientific papers have published in the open press and he has participated in international (Moscow, Kyiv, Saint-Petersburg, Almaty, Dushanbe, Novokuznik, Voronezh) and national (Tashkent, Samarkand, Jizzakh, Fergana, Karshi, Navoi) scientific-technical and scientific-practical conferences with the results of his scientific research.

# A COMPARATIVE LEGAL ANALYSIS: SELECTED PECULIARITIES OF ENVIRONMENTAL IMPACT ASSESSMENT IN THE RUSSIAN FEDERATION AND SWITZERLAND

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**Abstract.** *The article describes the characteristics of environmental impact assessments and clarifies the function and significance of the fundamental legislation governing such assessments in the Swiss Confederation and the Russian Federation. By examining the environmental impact assessments in both countries, the study emphasizes the value and usefulness of comparative legal methods. The topic of comparativistics' impact on the evolution of contemporary environmental law, a sector of Russian law that is currently experiencing rapid development as well as the laws of Switzerland and the Russian Federation that govern several aspects of environmental impact assessment are also examined. In the process of the state's ecological infiltration, the environmental impact assessment is crucial. The objectives, participants, legal ramifications, and significance of environmental impact assessment are emphasized. The negative effects of legal regulation in the Russian Federation are listed.*

**Keywords:** *Environmental law of the Russian Federation, Swiss environmental law, comparative law, comparative legal analysis, environmental impact assessment, Swiss Federal Act on Environmental Protection, Russian Federal Act on Environmental Protection.*

## INTRODUCTION

The difficulty of preserving the environment is relevant to all countries of the world. It is estimated that about 50% of all pollution is the result of industrial activity. One of the largest environmental problems is air pollution caused by smoke and emissions from fuel combustion. For example, the U.S. Environmental Protection Agency (EPA) of U.S. tracks more than 80 different toxins that can be found from industrial pollution, from asbestos and dioxin to lead and chromium. In many countries of the world there are sanctions for environmental offenses and crimes. However, the sanctions are not always effective and proportional to the offense. In addition, most legal means are aimed at detecting already committed offenses and the elimination of negative consequences rather than prevention of offenses and determination of environmental risk of the subject's impending actions. The harm influenced nature is often difficult to measure in money, and it can take decades to restore the original condition. Environmental risk is now recognized as one of the tools for assessing the condition of the environment, including within the framework of environmental regulation. Therefore, a unique legal tool has been created to prevent or reduce environmental damage - environmental impact assessment. In this paper, I will try to acquaint with some features of environmental assessment in the Russian federation and Switzerland.

## METHODS



In this research, we are based on a method of comparative analysis. The articles from reputable publications around the world and key provisions from the Constitutions of both countries were chosen as the basis for this research. The two impact factors of the journal, IF, which apply to international journals, are currently one of the two significant indicators that scientists find interesting and utilize as the determining elements for evaluating and ranking scientific publications globally. They provide information about each scientific journal's reputation and growth over a period of time that fluctuates from year to year. Therefore, depending on the IF of the journals, the prominent journals were chosen. Journals were chosen for analysis using the Journal Rankings at <https://www.scimagojr.com>. Only Open Access Journals were chosen to simplify the search for results. We decided to include all of the journals in order of journal impact factor (IF), high to low.

**Data analysis:** By submitting, downloading, and analyzing the structure of journal articles from the journal's most recent three issues for structural analysis, we did data analysis of the article structure on the journal's website to corroborate the rate of use of IMRaD structure for publications in journals. The article's author is a member of the research team that took part in the document analysis.

The document analysis steps are as follows:

Step 1. The analytical framework of the articles is determined by the study team's analysis of the scientific literature using the IMRaD structure research.

Step 2. Consider conducting a sample analysis. The team as a whole selects a number of articles, makes type suggestions, and then makes comments.

Step 3. Every analysis group picks a different method to count, examine journal articles, compile statistics, and conduct analysis.

Step 4. The entire group meets, reviews each journal, and reassesses each individual's performance.

Step 5. Statistics, synthesis, analysis, and evaluation.

## **RESULTS AND DISCUSSION**

Leading scholar of comparative law Hein Kötz in the preface to the book "Introduction to Comparative Law in Private Law" notes the practical relevance of comparative law methodology. The application of this method in particular makes it possible to identify how a certain problem is solved in foreign legal systems and to determine to what extent its solution may be useful and applicable in the interests of the national legal system. A.H. Saidov, a domestic comparative law scholar, points out that the use of, on the one hand, it helps to take everything useful that has proved itself abroad on the one hand, it helps to take all the usefulness of foreign experience in solving similar problems and avoids the necessity to invent something that already exists. On the other hand, it makes it possible to take into account the negative aspects of foreign legal experience. Indeed, nowadays there is a trend of globalization, expressed in the creation of interstate and intergovernmental unions, the conclusion of a large number of international acts of cooperation of countries and other legal facts that contribute to the convergence, especially the legal families of today, as well as the joint search for ways to address the most important and controversial legal issues. All of the above provisions noting the relevance of conducting comparative legal studies are undoubtedly applicable to the study of domestic environmental law. In my opinion, these studies are the most interesting and promising due to the fact that the subject of environmental law is characterized by active development, in particular, the number of

environmental legal relations is increasing. In addition, a comparative analysis provides an opportunity for a comprehensive study of various aspects of domestic environmental law and the study of positive and negative foreign experience in the field of environmental legal regulation which will allow to implement the best legislative or law-enforcement examples.

The environmental legislation of Switzerland, regulating the legal aspects of environmental impact assessment, we have chosen for several reasons.

**Firstly**, the legal systems of the states in question (Russia and Switzerland) traditionally belong to the Romano-Germanic legal family with some historical, political, cultural and other features. This circumstance will make it possible to avoid significant distortions in the study of legal sources and understanding of legal technique in Switzerland as well as to ensure. A comprehensive comparative analysis, which may result in recommendations for improvement and actualization of the law in Switzerland, will be presented to the audience recommendations for improving and updating the existing Russian legislation.

**Secondly**, Switzerland is one of the countries where the implementation of regulatory environmental requirements is at a high level. This position is confirmed by the fact that Switzerland tops the list of countries where the state of the environment is close to ideal. For example, Switzerland ranks second in the rating of the most prosperous countries of the world, 10th in the rating of the most environmentally friendly countries and so on. In turn, the situation of the Russian Federation in these areas has a different characteristic. Let's refer to the official data: the Russian Federation ranks 58th among 142 countries in the rating of prosperity countries and 32nd place in the ranking of most environmentally friendly countries.

**Thirdly**, environmental law in Russia, like environmental legislation, emerged only in the second half of the last century and has gone through long stages of development, so at present this branch of law is subject to dynamic changes and reforms. Environmental legislation of Switzerland was emerged already in 1875-1877 and, in contrast to the Russian environmental law, is now a fully formed branch of law regulation, which contains a large number of imperative regulations, implementation of which in practice has a real result.

We should also pay attention to the fact that domestic environmental legislation still contains legal gaps and conflicts, the elimination of which is possible, in particular, when studying the environmental legislation and policies of foreign countries, their both positive and negative legal experience.

The circumstances above confirm the relevance and practical significance of the study of environmental law in Switzerland, in particular the EIA. To conduct a complete and qualitative study of the legal regulation of environmental impact assessment in the Russian Federation and Switzerland, we consider it necessary to study the basic theoretical and legislative provisions: the legal essence of EIA, objectives, objects, subjects, The legal essence of EIA, goals, objects, subjects, stages, public participation, the legal result of the EIA.

### **Legal peculiarities of the environmental impact assessment procedure in the Russian Federation**

So, let's review the basic legal requirements established by Federal Law № 7 and other environmental legislation of the Russian Federation, as well as some theoretical provisions. According to article 1 of Federal Law № 7, environmental impact assessment is a type of activity to identify, analyze and take into account direct, indirect and other effects of the planned economic and other activities on the environment, in order to make a decision on the possibility or



impossibility of its implementation. Concretization of the above-mentioned provision of the Federal Law № 7 is established by article 32, according to which EIA is carried out in relation to the planned economic and other activities which may have direct or indirect impact on the environment, regardless of the organizational and legal forms of ownership of legal entities and individual entrepreneurs. Thus, the presented norms of Federal Law №7 indicate that, in general, EIA is a process during which an environmentally oriented decision is made on the possibility or impossibility of carrying out planned economic activities carried out by various entities. However, regulation of the EIA procedure at the level of the federal law is limited by the above mentioned provisions and by the reference (see Clause 3) to the act of the executive authority, namely to the Order of the RF State Committee for Environmental Protection dated 16.05.2000 № 37214 "Adoption of the Regulations on Assessment of Impact of the Planned Economic and Other Activities on the Environment in the Russian Federation". The specified legal act additionally defines EIA as a process of contributing to making environmentally sound management decision on implementation of planned economical and other activities by means of identification of possible adverse effects, environmental impact assessment, consideration of public opinion, development of measures on impact mitigation and prevention.

The presented legislative positions on the content of the EIA concept, whether they are important stages, subjects, results, etc. Therefore, we consider it necessary to take all of the above norms-definitions for a more complete and in-depth study and understanding of the legal essence of EIA in Russia into account. The Regulation defines the main purpose of the EIA which is to prevent or mitigate the impact of this activity on the environment and its associated social, economic and other consequences. Thus, based on this goal, the EIA procedure can be considered as one of the practical measures to implement the basic environmental principle - the presumption of potential environmental hazard of any planned economic or other activities.

The next difficulty arising both in the sphere of legal regulation and in the field of theoretical study of environmental impact assessment is the definition of participants of the considered procedure. This fact is connected with, first of all, the fact that the Regulations do not contain requirements for the subjects participating in the EIA procedure. Based on the legislative norms, the following subjects can be identified: the customer, the performer of the EIA work, public authorities, whose competence includes various aspects of the EIA, and the public. In the text of the Regulation, the customer and the performer are indicated as entities exercising similar powers. However, in practice, the EIA subjects are: the initiator of activities, public authorities, the public and the executor. In this case, it is necessary to pay attention to the executor which can be represented by the customer and the developer of decisions on the project. Thus, according to the Regulations, the customer is a legal entity or an individual responsible for the preparation of documentation on the planned activity in accordance with the regulatory requirements for this type of activity and submits the documentation on the planned activity for environmental impact assessment. In this case, the customer's actions are only related to the order issued by the initiator. In general, the customer exercises such powers as the preparation and transfer of necessary documentation, organization of various activities within the framework of the EIA (public hearings, consideration of public opinion, etc.). According to the RF Government Regulation № 87 dd. 16.02.2008, "On the Composition of the Sections of the Project Documentation and the Requirements to their Content 17", one of the requirements to the composition of the project documentation, one of the requirements of the project documentation is the availability of the list

of measures to prevent and/or mitigate the possible negative environmental impact of the planned economic activity and to ensure the rational use of the natural resources during the construction and operation of the facility for the period of construction and operation of the capital construction facility. Only an organization licensed by the Federal Service for State Registration, Cadastre and Cartography can develop such project documentation in accordance with the Resolution of the RF Government of 07.12.2011 № 101618. Therefore, determining the subject composition of the measure under study is one of the most complicated aspects of conducting an environmental impact assessment.

**Further**, the following activities are performed, such as environmental impact assessment studies and preparation of a draft environmental impact assessment materials which include determination of characteristics of the planned economic or other activities and possible alternatives; analysis of the territory affected by the planned economic or other activities; identification of possible impacts of the planned economic or other activities on the environment with regard to the activities; determination of measures to reduce, mitigate or prevent adverse environmental impacts; assessment of their efficiency and feasibility.

The project is based on the following principles: identification of measures reducing, mitigating or preventing negative impacts, assessment of their effectiveness and feasibility of implementation, etc. **The final stage** of the EIA is the procedure for preparing the final version of the materials, which includes information on the consideration of comments and suggestions received, as well as minutes of public hearings.

**The results of the environmental impact assessment** are various environmentally significant information about the activities under study, such as the nature and scale of the environmental impact of the planned activity, alternatives for its implementation, the possibility of minimizing the impact. Moreover, the EIA also contributes to determination of alternatives for implementation of the planned activity or refusal from it taking into account the results of the environmental impact assessment. In addition, EIA contributes to decision making with regard to alternatives for implementation of a planned activity or refusal to implement it. Moreover, the results of the environmental impact assessment are documented in the impact assessment materials, which are the part of the documentation submitted for environmental review as well as used in the process of making other management decisions related to these activities.

**In conclusion**, I would like to say that there are legal gaps in the Russian environmental legislation regulating the specifics of the EIA procedure: the exclusion of a large number of objects that can have a negative impact on the environment, the lack of a clear enshrinement of legal requirements for the subjects or participants in this procedure, the lack of legally established legal responsibility for providing information for the EIA procedure, the establishment of legal ways to exclude the position of the public in the EIA process. The above circumstances may cause the violation of the basic principles of environmental law, in particular, the presumption of environmental danger, and allow for the possibility of harm to human health and the environment.

#### **Legal peculiarities of the environmental impact assessment procedure in Switzerland**

The main purpose of the EIA, according to Swiss law, is the compliance of the proposed activity with the environmental regulations established by state authorities, as well as cantonal regulations. In Switzerland, the scope of legal regulation of environmental relations in the field of EIA procedures is being expanded, resulting in a two-tiered legislation that establishes

requirements for any activity carried out both in the territory of the whole of Switzerland, and within the boundaries of a particular administrative-territorial unit - a canton.

The next legal act regulating the issue in question is the Resolution «The Federal Ordinance on Environmental Impact Assessment» the Environmental Protection Act of October 19, 1988, which substantially supplements and specifies the regulatory provisions of Chapter 3 of the Basic Environmental Law. Furthermore, the requirements for the subjects of the EIA in Swiss law are not established, but we can distinguish such subjects as the applicant, the competent state body and interested party.

In general, the environmental impact assessment procedure in Switzerland consists of several stages. *At the first stage*, it is necessary to determine the following provisions: *firstly*, whether the proposed activity falls under the scope of environmental legislation establishing the requirements for the EIA procedure, *secondly*, whether the proposed project may adversely affect the environment, and, *finally*, within the competence of which authority review of this project. As part of the **second stage**, it is possible to apply to specialized state authorities, as well as cantonal authorities for comments and clarifications on the preparation of the report, and the applicant has the right to apply to other competent authorities or organizations. The *third stage* is the preparation and submission of the report. According to the Federal Law "On Environmental Protection", the EIA procedure begins with the preparation and submission to the competent authority of the applicant's report, which contains the necessary information: the current state of the environment, the design of the facility, including a set of necessary measures to reduce environmental impact or alternative methods of the implementation of such an activity. At this stage, all the information obtained at the previous stage is taken into account. The applicant conducts a preliminary research, the results of which, together with the report, are submitted to the competent authority, the applicant is also responsible for the accuracy of the information provided. Any interested subject can get acquainted with the report, except for cases when the content of the report contains a secret protected by law. *The final stage* is the adoption by the competent authority of a decision to approve the report and permit the implementation of the planned activity or prohibit its implementation. At the same time, officials of the bodies have the right to request additional information or documents related to the object of the EIA. As a result of passing the above procedures, the competent authority determines the compliance of the submitted project with the requirements of environmental legislation. In case of non-compliance, a decision may be made to ban the activity.

In addition to the above legislative rules, the regulation of the EIA procedure in Switzerland is carried out by other regulations, in particular, the Federal Decree "Regulation on the study of environmental impacts" of October 29, 2014 (Règlement d'application de l'ordonnance fédérale relative à l'étude de l'impact sur l'environnement); Ordinance sur les études d'impact sur l'environnement et les procédures décisives (OEIEP) of March 15, 2010 on environmental impact studies and special procedures; Decree on environmental impact assessment on the environment 05.10. 2011 (Introductory Ordinance on environmental impact assessment (Environmental Assessment Ordinance), etc.

Hence, a comparative study of the environmental legislation of the Russian Federation and Switzerland in the field of the environmental impact assessment procedure makes it possible to identify both general and specific features of legal regulation and the mechanism for implementing regulations.

*Firstly*, in Switzerland and the Russian Federation there is a certain list of legislative acts, different in form and content, regulating the main provisions of the EIA. The normative legal acts considered in the article contain legal requirements regarding the procedure for conducting an environmental impact assessment. At the same time, the basic legislation of Switzerland does not contain the legal definition of "environmental impact assessment", however, this does not detract from the role of this procedure in the field of regulation of environmental relations due to the fact that in the Federal Law (Swiss Federal Act on the Protection of the Environment) of

7.10.1983, the legal features of the concept under consideration are quite clearly defined.

*Secondly*, both in the Russian Federation and in Switzerland, the EIA procedure is a documentary one, pursuing goals that are similar in content. However, in Switzerland, activities must be carried out in accordance with environmental legislation at various levels, while in Russia the main goal is related to the prevention or minimization of environmental impacts, in the absence of any connection with legal requirements. In addition, according to the legislative provisions of the Russian Federation and Switzerland, the EIA procedure is an independent procedure necessary for the implementation of certain activities that can have a negative impact on the state of the environment.

*Thirdly*, in the legislative acts of the Russian Federation and Switzerland there is no clear fixing of the requirements for EIA subjects, which may cause difficulties in interpreting legal norms and implementing them in practice. In addition, in the normative provisions of Swiss legislation, such an entity as the public has a broader interpretation than in Russian legal acts, since it is presented as "any interested person". Moreover, the regulations of Swiss law quite clearly fix the aspects of public participation in the EIA procedure.

Generally, the legal documents of both the Russian Federation and Switzerland regulate the procedure for preliminary preparation for the EIA procedure. It all starts with the preparation of the applicant's report, which indicates information about the nature of the planned activity, the state of the environment, possible adverse effects, methods and measures taken to eliminate it and other information. However, in Switzerland, the responsibility for the accuracy of the information provided is legally established. In my opinion, this provision is an excellent legislative experience, which can become an example of legal regulation in this area.

*Finally*, it should be noted that Swiss legislation regulates aspects related to transboundary impact in more detail as well as defines the procedural provisions for facilities funded by the state or other grants.

### **CONCLUSION**

Thus, it can be concluded that at present the environmental legislation of the Russian Federation and Switzerland which regulates the specifics of conducting an environmental impact assessment, has a fairly large number of similar regulations, however, the domestic legislator should pay attention to some policies established in Swiss environmental law, for example, an individual approach to each object of EIA, the responsibility of the customer for the information provided, etc. The conducted comparative legal analysis allows us to note that the legislative experience of Switzerland in regulating the specifics of EIA is positive, in this regard, some legal provisions could be considered and implemented in Russian environmental legislation.

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**SIGNIFICANCE OF JUDICIAL PSYCHOLOGICAL EXAMINATION OF  
DEALABILITY IN UZBEKISTAN**

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**Abstract.** *This article discusses issues related to the ability to deal, due to a defect in the will of the subject of research in civil proceedings. The article reveals the psychological and legal mechanisms of the concept of bargaining power, taking into account the individual psychological characteristics of the subject under the circumstances of a legally significant period of its behavior.*

**Keywords:** *transaction, forensic psychological examination, mental state, individual psychological characteristics, bargaining power, expression of will, delusion, deceit.*

From a psychological point of view, it should be noted that when the question of the invalidity of transactions arises, it implies the solution of issues related to the deformation of the volitional self-regulation of the behavior of a person in a legally significant situation [1, p. 135-142].

A person's volitional actions are associated with his specific behavioral characteristics, here we always mean any mechanisms due to physiological or psychological factors of human nature. According to E.P. Ilyina, "Human behavior is determined by various physiological and psychological mechanisms. These are, on the one hand, unconditioned reflex and conditioned reflex mechanisms that determine the involuntary activity of a person, and, on the other hand, voluntary control associated not only with physiological, but also with psychological mechanisms" [2, p. 12-13].

These mechanisms not only determine the activity of a person, but are themselves determined by a number of factors, where the first of them is a combination of psychological properties. In particular, according to V.I. Selivanov, "The will of the individual is nothing but a certain set of properties that has developed in the process of life, characterizing the level of conscious self-regulation of behavior achieved by the individual" [3, p.132].

Considering this phenomenon within the framework of general psychological theory, one should keep in mind both possible violations of a person's intellectual capabilities, and disorders of volitional self-regulation of behavior in a legally important period of time - when making a particular transaction. The psychological parameters of the deformed will are determined by a diverse range of psycho-emotional states: mental tension (fear, stress), frustration in a hysterically accentuated personality, and also quite often a personality asthenization syndrome as a result of a somatic disease that weakens psychological compensatory mechanisms that affect adequate adaptation in the social environment.

At present, taking into account the formed methodology of this type of examination, the subject of forensic psychological examination in cases of recognition of a transaction as invalid is the assessment of the mental state of a person at the time of its completion, taking into account a combination of clinical, personal, social and somatogenic factors [4, P. 93-100].



It should be noted that the significance of a forensic psychological examination in determining the ability of a research subject to deal lies in the fact that without it it is impossible to determine the leading individual psychological characteristics of a person who has made a transaction. Only when a certain set of motivational, cognitive and emotional disorders is identified, one can testify to the deformation of volitional regulation of behavior in the context of a legally significant transaction. In addition, these violations are somehow determined by the biographical scenario of the subject, his psychological resistance to stressors [5, p. 220-239] and deliberate psychological impact [6, p. 378-398], which are important factors in the study.

In recent years, in the Republic of Uzbekistan, "judicial practice" is expressed in the fundamental disregard for the need to conduct homogeneous forensic psychological examinations in civil proceedings related to bargainability. This circumstance actualizes the need for theoretical substantiation and practical development of the issues of competence and competence of an expert psychologist in civil proceedings, where cases of negotiability are considered.

In the practice of expert institutions in the Republic of Uzbekistan, examinations are often assigned exclusively to psychiatrists, although in each such examination there is, of course, the subject of psychologists' work. One of the reasons for this is that the courts sometimes do not have information about the competence and competence of an expert psychologist. Psychological criteria, in spite of their importance, inherent in the very norms of the law and recognized by many researchers abroad, in Uzbekistan remain unspecified.

As for the transaction, it can be declared invalid according to three civil law norms: Art. 121, 122, 123 of the Civil Code of the Republic of Uzbekistan. Practice shows that the most common is the appointment of a forensic psychiatric examination in a civil case on the recognition of a transaction as invalid under Art. 121 Civil Code of the Republic of Uzbekistan. This register considers a violation of the subjective side of the transaction in the form of a transaction by a citizen, although capable, but in a state where he was not able to understand the meaning of his actions and manage them.

Also, taking into account civil law, when declaring the invalidity of transactions in the Republic of Uzbekistan by a court. provided for by Art. 122 of the Civil Code of the Republic of Uzbekistan. (delusion) and 123 of the Civil Code of the Republic of Uzbekistan (Invalidity of a transaction made under the influence of deception, violence, threats).

In science, the grounds for the invalidity of transactions have been studied quite well. So, K. Annenkov, analyzing the volitional process under delusion, noted that a person, "making an expression of will, although he wished that it entailed a certain legal consequence, but in fact expressed his will not about the consequence to which it is directed, but about another, the onset of which it did not want, not realizing that the consequences were undesirable for it" [7, p. 47].

Both delusion and "fraud" are an attribute of the invalidity of transactions when considering the issue of negotiability. In the position of Y.S. Gambarov, every dishonest act can be considered a reason for deception, and not just the "action or inaction" of the counterparty of the transaction. In the present understanding, deceit (dolus) is opposed to the concept - bonafides, i.e. good conscience [8, p. 761]. Any immoral and evil behavior that aims to influence another's will by false ideas is the result of deception.

Hence, deceit is understood as the deliberate misrepresentation of the other party in order to persuade it to complete the transaction. From a psychological point of view, "deception" is characterized by the conscious creation of a false idea about certain circumstances of reality in the

mind of another subject. The deceiver acts intentionally, i.e. not only conveys false information, but also hides its true intentions.

Based on the foregoing, it should be noted that conducting a psychological study of the motivational sphere of the parties will undoubtedly facilitate the court's legal assessment of the actions of the transaction counterparty. And this is important, because the distinction between negligence and intent is important for the correct qualification by the court of the factors of imposing liability on the counterparty of a civil law transaction.

In the Decree of the Plenum of the Supreme Court of the Republic of Uzbekistan dated December 22, 2006 No. 17 “On some issues arising in judicial practice in connection with the application of the norms of legislation governing transactions” in paragraph 11 “When challenging the validity of a transaction on the basis of a citizen’s inability to understand at the moment transaction value of their actions and manage them, the courts should, based on the rules of Art. 59 of the Code of Civil Procedure on the admissibility of means of proof to discuss the issue of conducting an appropriate (psychological) examination in the case” [9].

At the same time, in the Resolution of the Plenum of the Supreme Court of the Republic of Uzbekistan dated 12.12.2008 No. N 24 “On some issues arising in judicial practice in connection with the appointment, production of a forensic examination and the assessment of the conclusion of an expert in civil cases” notes: “in all cases when, due to the circumstances of the case, it is necessary to ascertain the mental state of a person at the time he committed a certain action, a forensic psychiatric examination should be appointed, for example, when considering cases on invalidating transactions based on the motive of their commission by a citizen who is unable to understand the meaning of his actions or manage them (Article 121 of the Civil Code)” [9].

A comparative analysis of the above resolutions allows us to conclude that the provisions of the resolution of December 12, 2008 contradict the provisions of the resolution of December 22, 2006, since the concept of “inability” for a subject of civil procedure is considered in the context of research by specialists of various competencies. This circumstance leads to vagueness of court decisions and delays as a result of terminology not specified in the legislation on the subject of research when conducting an “appropriate” (psychological? or psychiatric?) examination.

In the context of our expert research and conceptual directions abroad, the appointment of forensic psychological research should be legally justified, taking into account scientific data of a purely psychological direction. Despite the set of circumstances under which a person cannot make the right decisions due to individual psychological properties, identified signs of a psychological impact on them, psychosomatic disorders or diseases, age, etc., through which legally significant situations are refracted, such subjects, as a rule, are recognized by psychiatrists as allegedly “capable”.

In our opinion, in this context, attention should be paid to the essential moment of identifying the ability (inability) of the subject of civil proceedings to fully understand their legally significant behavior and guide to action. This circumstance depends not only on the presence (absence) of pathological changes in the psyche, but, to a greater extent, on external and internal psychological factors that determined the behavior of the individual in a legally significant period of time [11, p. 881-887].

As you know, the absence of any mental disorders (mental illness) and dementia for psychiatrists is the only criterion on the basis of which a conclusion is made about the capacity of

a legal entity. Solving the issues of "incapacity of capable subjects" is included in the research parameters of psychological symptom complexes, the identification and justification of which is within the competence of forensic psychologists, who consider both the circumstances of the life of the subject of the study, and various psycho-emotional states leading to a change in personality parameters in non-pathological subjects. In this context, both somatic and age, external and internal criteria are taken into account, which largely determine the outcome of events of a legally significant period. These parameters are found in the process of psychological research using the biographical method and a set of psychodiagnostic tools.

Thus, the inclusion of psychologists in the composition of the commissions of comprehensive examinations of the ability to deal should increase the validity of the conclusions regarding the identification of the ability or inability of the subject to make the right decisions in legally significant situations, which is essential when making court rulings in such cases.

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## FROM THE HISTORY OF UZBEK NATIONAL MUSIC ART

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**Abstract.** *This article discusses the significance of six maqams, that is, "Shashmaqam", which have come down from ancient times through the tradition of a mentor-student of the Uzbek people, in enriching the spiritual worldview of the younger generation, and the rich and long history of our national musical art.*

**Keywords:** *chang, qanun, harp, master Usmon Zufarov.*

In the rich musical history of the Uzbek people, musical instruments play a very important role. One of the reasons for this is that it develops in a monophonic form. According to Al-Farabi's musical treatise, musical instrument performance is divided into two directions: accompaniment and solo performance. Farabi claims that music accompanies the voice or leads the voice.

The musical art of the Uzbek people has not only preserved its traditions, performance rules and artistic essence throughout its centuries-old history, but now it is developing and enriching itself with a new interpretation.

As with all musical instruments, there is no exact date of invention of the ancient chang instrument. But, Harp (chang) depicted in monuments found in archeological excavations indicates the antiquity of this instrument. According to them, this tune was initially a musical instrument played with a small scratch, it was distinguished by its sonority and richness of sound freshness. This instrument is called "Qanun" in Arabic music, "Santur" in Iran, and "Chang" in Uzbek and Tajik. For many years, the homeland of the harp (chang) instrument was considered to be Egypt, and it was reflected in ancient monuments (3000-2500 BC). It has been proven by experts that there are five types of Harp (Chang), i.e. three angular and two arc-shaped forms. In 1940, a frieze of a woman playing a harp, an ancient form of chang instrument, was found during archeological excavations in Ayritom Kurgan near the city of Termez, Surkhandarya region. This instrument was triangular in shape and had thirteen strings. As noted by historian K. Trever, "All the friezes found in Ayritom fortress were made by local craftsmen and date back to the 18th century BC." In this sense, the performance of chang instruments has a very old history in our music.

About chang instrument. The information is given in the musical treatises of medieval scholars. For example, according to Abu Nasr Muhammad al-Farabi, the founder of the science of musicology, this instrument was invented in Sogd by Hulays ibn Akhwas from Samarkand, and then spread to Baghdad and other countries. In general, "chang" is different in Arabic, Persian and Turkish literature and is given under the terms egri, chang, choghona, shudurgu, yaturghon. We find the name "Chang" in the 13th century. Qutbiddin Shirozi (13th century) in his treatise "Durrat-ut Taj" (A major work on music) mentions the Chang instrument among the works of ancient instruments such as qanun, nuskha, and navkhi, and includes it as "instruments with sounds from open strings". In his treatise "Jama al-alkhan fi-ilm al-musiqiy" (Collection of Melodies in the Science of Music) Abduqadir Goyibi (Maroghiy), who despite being born in Marog, Azerbaijan

at the end of XIV -at the beginning of XV centuries, spent the second half of his life in Timur's palace-Samarkand and died in Herat, describes the instrument of qanun – as a trapezoid-shaped sounding box with a total of stretched and tuned seventy-two triple copper wires, and the sound line consisting of 24 keys. In the treatise of Darvesh Ali Shangi, who lived and created in the 17th century, he discusses not only the theory of music, but also about the tanbur, chang, flute and qanun, which were musical instruments widely used by the courtiers and the performers of different times.

Darvesh Ali-ibn Mirza Ali ibn Khoja Mahmud Marwariz was a skilled performer of this instrument. He fell in love with singing from a young age and later gained fame. Maulana Zainuluddin Rumi was another master of this era. As Darvesh Ali claims he composed a lot of peshraws and tunes. The most prominent of them were 3 peshraws: 1) Includes the veils of the Husaini maqam, 2) Created on the basis of the veils of the Saqil-Iraq maqam, 3) The Peshrawi Ufor. It was composed of the rooms of Hosseini's maqam. And Darvesh Ali Changi writes about the origin of chang from ancient times: Chang is an ancient musical instrument that covered a great distance from Mesopotamia to China. In Bukhara (16th century), Khojai Kalon (Great Khoja, Sheikh Khoja Sa'd), a contemporary of Abdulla Khan, from the Shaibani family, fell ill. The doctor Sultan Mohammad treats him and recommends to listen to chang exercises to overcome his illness. The chang instrument has been improved over the centuries and has been passed down from generation to generation, i.e., to us, and due to the demands of musical life, there was a need to modernize Uzbek folk instruments. In the 1940s, special workshops for making and improving folk instruments were opened. The famous folk musician Usta Rozmat Isaboyev (1885-1964) headed the music workshop in Namangan. He made several copies of semi-chromatic chang widely used by performers. Usta Usman Zufarov (1899-1981), a famous instrument maker, created new copies of chang instrument in the workshop in Tashkent. In Khorezm, the famous folk musician and composer Matyusuf Kharratov worked tirelessly to improve chang. As a result of the research, Matyusuf Kharratov, in cooperation with his son Fazil Kharratov, musicians Fakhriddin Sadikov and Akhmad Odilov, expanded the upper curtains of chang at the expense of additional strings and kharraks. These changes are approved by the musicians. Thus it is applied to executive practice. Another innovation introduced to the instrument is that the instrument has been adjusted to be tuned up an octave. This caused some compaction of chang. The creation of new copies of chang instrument is entrusted to the masters of the music workshop of the Institute of Art Studies: U. Zufarov, Z. Zokirov, S. E. Didenko. The new version was tested and approved by the famous performer and researcher - Ashot Ivanovich Petrosyans at the Tashkent Academy of Music and the Uzbek Folk Instruments Orchestra of the State Philharmonic of Uzbekistan, which he led (1943). As a result, dust was introduced into the education system. Shoakbar Shoakramov, Abdusamat Ilyasov, Ashraf Ashrapov, Mahammadjon Rasulov and Akhmad Odilov were among the first performers who studied at the educational organization, and this performance style system was established, the intended goal was confirmed. The specially created chang instrument soon began to be used in performance practice and became widely popular. The masters who make musical instruments put their heart, eyes and experience into the sound of chang and began to make decorative chang. Chang's sound quality, sonority and diapase, charm of chanting attracted the attention of a large number of listeners. This type of chang instruments found its place in the musical ensemble of the Radio of Uzbekistan, in the musical ensemble of the Muqimi Republican Musical Drama Theater, and in the ensembles of Uzbek folk instruments under the



control of the State Philharmonic of Uzbekistan. According to the main type of the improved chang, a family of chang belonging to high, medium and low sounds was created: chang -prima, chang -piccolo, chang -tenor, chang -bass instruments. The performance capabilities of existing chang have been expanded, and new ways of producing sound have been created. New ways of producing sound on chang instrument, performance styles were expanded and formalized in the "Textbook on chang" by A. Odilov and A. Petrosyans. Now there are four ways of sounding in chang. These are: the main percussion way of producing sound, creating sound by hitting sticks of dust on the strings one after another; clicking a stick. Pizzicato col legno (pizz.col legno)- playing sticks with the back flat part; 3. Finger clicking. Pizzicato (pizz.)- gently tapping the dust strings with the fingers; 4. A wooden stick. Col legno (col leg.)- beating with the flat back of a stick to make chang strings pop out. It is recognized in various sources that instruments similar to chang instrument have been repaired and improved from time to time in the musical practice of the peoples of the world. Nowadays, instruments like chang are widely used in orchestra and ensemble performances. It is appropriate to indicate the names of some of them: 1. Simbal (Musical instrument of the peoples of Hungary, Poland, Ukraine, Belarus); 2. Santur (a musical instrument found among the peoples of Iran and beyond the Caucasus); 3. Gusli (Russian folk instrument); 4. Kokle (Latvian folk instrument); 5. Kantele, kankles (Lithuanian folk instrument); 6. Kannel (Estonian folk instrument); 7. Koto (Japanese folk instrument); 8. Yochin, yatag (Buryatia folk instrument). In the mentioned instruments, there are also ways to strike the strings with sticks, to make sounds by clicking the strings with fingers or special clickers. The schools of performing them have also been created. As a result of the formation of the "Chang school" of a new direction, the improvement of chang instrument gave the opportunity to create unique chang ensembles in performance practice.

In general, musicians in the East give priority to the performance of female musicians. For example, the following words of the famous Islamic musicologist Ishaq Mawsili are well known: "Men create the melody, and women decorate it", which means that women are skilled in their performance because of their delicate taste, feelings (emotions) and patience. That's why when skilled female musicians perform chang, "the whole world burns", says Navoi: Zuhra, bir lahza cholma soz ohir, Chekmagil lahni dilnavoz ohir.

Here, "lah" is the climax of the melody. Navoi perceives music so deeply that in his opinion, "if the melody played by a skilled musician is dilnavaz (the melody of the heart), then the world will burn." It turns out that the thinker used the word "Navo" as a nickname not for nothing. In addition, Abdulla Oripov (1941-2016), who was influenced by Navoi's opinion, wrote in his poem "Munajat" "If the melody is like this, how can mankind endure grief?". Navoi, describing the "party" in the palace of Shah Bahram, shows the skill of the musicians in this way:

Tushgan ahli navo cholib derga,  
Zuhrani ko'rdin indurib yerga.  
Ikki yo'din mug'anniy ikki hayl,  
Jong'a tandin chiqorg'a solib mayl.  
O'ngda turinavoz urub doston,  
Qo'zg'onib har navoda Turkiston.  
So'l sori forsi surudu nig'am,  
Fitkai Fors, bar Iroqu Ajam  
Kavkabiyy Jom aksi kam'afitan,



Tob aro o‘ynaki suhayli Yaman.

Meaning: "At the party, the musicians are playing music and sitting as if they brought Zuhra from space to Earth; on both sides (facing each other) there is a group of muganniys (musicians); the artists on the right sing a melody and epic that stirs up the whole of Turkestan; the artists on the left are performing songs and melodies of the peoples of Persia (Iran), Iraq and non-Arabs in Persian; it is as if the stars had fallen to Yemen (that is, the place of pearls on the earth) under the leadership of Suhai. So, the group of artists in the palace of Husayn Boyguro (1436-1505) was located in the same way, but Navoi describes it by transferring it to the palace of Shah Bahram. Also, note the three points that Navoi emphasizes: 1) The leader of the ensemble was a performer of chang ("Zuhra fell to the ground"); 2) Melodies and songs in different languages were performed at the gathering in Sultan Hossein Boykara Palace; 3) Even during Navoi's time, artists were called stars ("kavkab").

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## ENGINEERING ANALYSIS OF STRUCTURES AND ASSESSMENT OF THE TECHNICAL CONDITION OF ARCHITECTURAL MONUMENTS

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**Abstract.** *Historical monuments that have survived to this day are considered a precious source that reflects the knowledge, experience and development of the handicraft tradition of our people. The contribution to the creation of the invaluable art of the architecture of the East of our ancestors, their mind and efforts deserve respect. Thus, historical monuments created from simple bricks make the whole world admire for many centuries their unique skill of erection and grandeur. The secrets of the longevity of ancient monuments that have been preserved for many centuries, the details of their construction have come down to our times from the rich heritage of history.*

*Admirable are the decorations of domes and vaults, their coverings, which still have not lost their brilliance and attractiveness, as well as testifying to the unique and eternal achievements of the ancient art of architecture. In connection with this, the preservation and preservation of historical monuments is considered an important task, which is of great importance for the cultural heritage of the whole world. Unfortunately, the technical condition of most of the monuments today is unsatisfactory.*

*The emergency state of architectural monuments occurs due to the impact on them over a long period of time of various factors (earthquakes, various man-made, climatic changes), as well as due to the weakening and change in the composition of the soil under the foundation of the monument.*

*For the reconstruction of architectural monuments, monitoring of structures of the technical condition and the use of non-destructive methods for this purpose are used. The composition of such studies includes certain stages: the space-planning system of the building, constructive solutions for elements, description of damage, study of the composition of the foundation, determination of the previous and current seismicity of the territory, numerical studies of structural movements and their monitoring.*

*This article provides an assessment of the technical condition of the Kok Gumbaz mosque located in the city of Shakhrisabz based on instrumental checks and visual observations. Suggestions and recommendations for the elimination of certain defects, damages and deformations are given.*

**Keywords:** *art, mosque, galleries, reconstruction, dome, drum, brick, monument, portal, earthquake, foundation, cracks, damage*

### Introduction

Survey of modern the state of functioning historical architectural monuments located on the territory of the republic annually indicates an increase in the number of monuments that are in the process of destruction and have received unacceptable deformations and damage. A deep

analysis of literary sources, archival materials and the study of architectural monuments in nature shows that the issues of archeology, architecture, history and art history are quite well studied in these structures [2] .

Unfortunately, the design features of these structures, on which the stability and durability of structures mainly depend, have been little studied. Therefore, for various reasons (technogenic impacts, raising the level of groundwater, violation of operating conditions, etc.), it greatly worsens the condition of architectural monuments. For specific objects, there is no documentation and data on space-planning and design solutions, engineering and geological conditions. These documents are often developed in cases where unique architectural monuments are in disrepair. For example, the destruction in 1995 of one minaret of the Chor-Minor complex in Bukhara, the extremely emergency state of the structures of the Tilla Kori mosque in Samarkand, the Oksaroy palace, Dorus Saodat and Dorut Tilovat in Shakhrisabz and the inclination of two in Khiva, etc.

This article discusses the criteria for visual inspection for the examination of the current state of domed and vaulted historical monumental stone structures in Uzbekistan. Part of the data presented is based on the author's PhD research. Examination of the state of the Kok Gumbaz mosque given as a building.

### **Methods**

From 1925 to the present , significant research work has been carried out on the study of archeology, history, art and architecture of the Kokgumbaz mosque.

As is known from archival materials, the real mosque built in the time of Ulugbek has survived to this day in the form of a main array without galleries adjoining it from the north and south sides (Fig. 1) [3] .

In 1947-51, under the leadership of the architect A. Vinogradov, during the reconstruction and restoration work, the constructive outer side of the dome, as well as the coatings of the remnants of the drum, were covered with bricks and covered with lime cement. These measures prevented the destruction of the drum and the penetration of moisture into the dome.

According to the remains of bricks found during excavations carried out in the mausoleum of Qozizoda-Rumiyy in the city of Samarkand, it can be concluded that the outer dome, as well as the dome of the mausoleum, was blue. The very name of the mosque Kok gumbaz testifies to the blue flowers in the dome [4] .

In 1973, with the assistance of a group led by the architect of the main department for the protection of historical monuments Sobirov V.G. measurement and research work was carried out in order to develop a project for the restoration of the mosque. And in 1976, under the guidance of architect Aronov A. and engineer Goldenstein Yu.E. a technical project for the restoration of the portal and the drum part of the Kok Gumbaz mosque was developed and implemented.

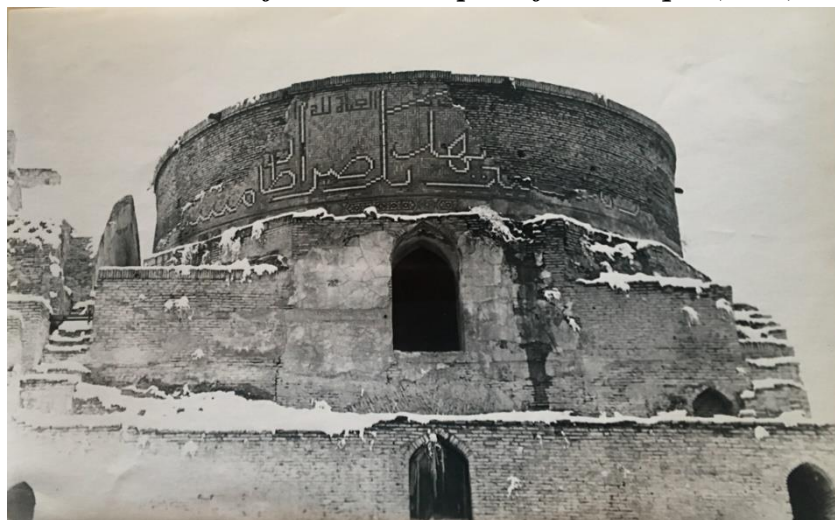
### **Results**

The dimensions of today's mosque, if measured from the outer walls, are 38.7x84.0 m, in terms of the average mosque has a square shape and dimensions of 20.7x24.0 m, the internal dimensions of the room are 12.5x12.5 m, there are openings in all walls dimensions 4.6x4.6 m, depth up to 3.0 meters. The entrance to the mosque is made with a portal. The height of the entrance portal is 22.38 m. The roof of the mosque is designed with an inner and outer dome, the diameter of the inner dome is Ø13.5 meters, the outer one is 16.92 m. The total height (the highest point of the dome) of the monument is 31.65 meters. The dimensions in the balcony in the right wing are 21.10x24.0 m. The balcony in the left wing is in the shape of “L” and has dimensions in terms of

39.85x38.70 meters. The prayer room of the mosque is rectangular in plan and has large gates and 4 auxiliary entrance doors on three sides [5] .

1 fig.

*Facade of the northern part of the mosque (1976)*



Judging by archival materials, in ancient times, the side parts of the mosque were destroyed under the influence of earthquakes and due to the fact that the density of soils in the surrounding area was low. In 1993-1994, these parts of the mosque were rebuilt. But the study revealed that the columns were erected on unfinished foundations, soft soils.

Mosque building structures. Mosque walls - from dense Muslim brick, 250x250x50 mm in size, the walls of other galleries are made of bricks made of M-75 cement and M-25 sand.

The walls between the doors and columns are brickwork in the shape of an arch.

Covers - domes

Around the structure - there is a masonry of limestone, concrete and sand 250x250x30.

Windows: only in the mosque, fences with national ornaments are installed.

The foundations of the mosque are brickwork on stucco mortar with dimensions of 250x250x50 mm and 300x150x50 mm. With high humidity, the foundation can be seriously jeopardized. Soil moisture increased by 37-48%. The foundations of the gallery parts are made at different heights and are located on the surface of construction debris. After a certain time, this circumstance can lead to trouble. The parts of the mosque erected in antiquity were destroyed under the influence of external forces. For several years, the foundations have been adapted to reduce the impact of a constant load. Not taking into account this circumstance, an additional load was added to the gallery of the monument during the reconstruction. When studying cracks, cracks and damages were found in the outer southern part of the drum (Fig. 2).

The foundation of the building "Kuk Gumboz Mosque" is made of brickwork. At the base of the foundation there are loose clastic soils, consisting of fragments of bricks, ceramics, sand with sandy-loamy aggregate. These soils are distributed to a depth of about 1.8-2.0 meters on the western side of the facade and 4.0-4.2 meters on the eastern side of the facade. Below lie loams with inclusions of sand and gravel. The soils of this layer have low density ( $\rho_{sk}$  - 1.47-1.59 g/cm<sup>3</sup>) and strength ( $\varphi$  - 190) indicators.

The groundwater level lies at a depth of 4.5 meters at the western facade and 7.5 meters at the eastern one. Mineralization of groundwater is

2.66 g / l and water are characterized by a high content of nitrates, sulfates, hydrocarbonates, high hardness.

Of particular interest are the western and eastern facades.

On the western side of the façade, a waterlogged zone in the near-surface layer, up to 45 meters wide, was revealed, which adjoins directly to the dome. Within the same area, under the foundation, a zone of very weakly compacted rocks was revealed to a depth of about 4.5 meters.

On the eastern side of the facade, two waterlogged zones were also identified, adjacent to the structure, one 25 meters wide and the other 15 meters wide.

According to seismic tomographic data, the soils lying on the side of the eastern facade, to a depth of 4.0-4.5 meters, are in a very weakly compacted state. Based on the results of seismological observations, it was revealed that the seismicity of the territory is very high and is in the stage of seismic activation. An example is the 2016 Kitab earthquake with a magnitude of M-5.1, the source of which was located 15-20 km from the structure and caused a 6-point shaking in this area. It has also been established that the greatest risk is not distant, but near seismic events with a frequency of about 2.5-3.5 Hz. The natural oscillation frequency of the structure is 2.48-2.65 Hz. The frequency of short-range seismic events varies within 2.5-3.6 Hz, hence the probability of the occurrence of the resonance effect, which will lead to an increase in the amplitude of the vibrations of the structure, which, in turn, will give impetus to the development of deformation processes [6].

The mosque consists of two domes and no cracks were found during observations on the second floor, which means that these changes relate to cracks that appeared on the colored coating installed above the dome. There are 3-4 cracks on the surface of the southern wall. There are serious cracks in both balconies and they mainly appear from the shrinkage of the columns (3-fig.). Of the four parts of the mosque, pits were drilled and studied, on the basis of these studies it was found out that the foundations were built from various building materials over construction debris and at different heights.

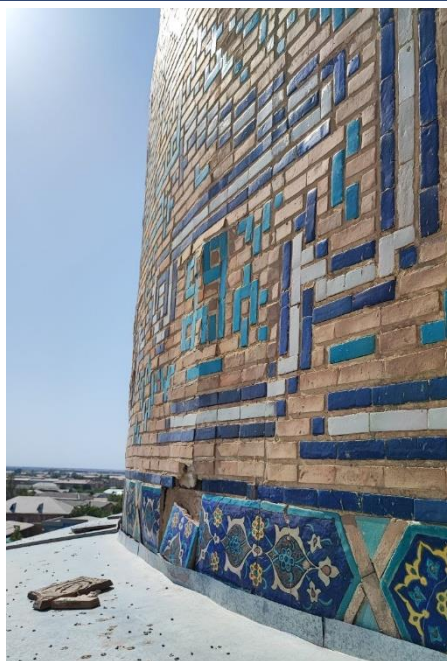
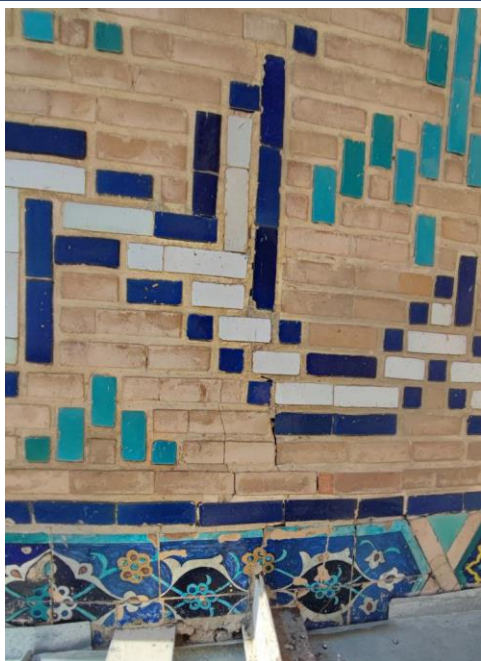
The territory of the mosque is completely concreted, as a result, the evaporation that appears from underground moisture changes its direction, rises between the walls of the mosque and the walls of the entire historical monument are completely moistened (Fig. 4).

At a distance of 1.20 m from the western side of the mosque, pipes 300-D were laid, this pipe broke right under the mosque building, as a result, the surface under the foundations was filled with water. Under the strong influence of moisture, the soil under the platform began to change its position and settlement occurred.

*2 fig.*

*Crack and deformation in the south outer side of the drum.*





The back part of the arch of the historical monument, a certain part of the inner dome, as well as the octahedron are in a deplorable state, due to improper organization of wastewater drainage, for many years this water penetrated through the walls and managed to get moldy (Fig. 5). During the restoration work, the ventilation hatches intended for ventilation were closed, due to the lack of ventilation, the humidity had a serious impact on the brick and clay walls. Humidity on the walls had a negative impact on the finishing work of the interior of the mosque building and, as a result of damage in the exterior finishing parts, ceramic tiles were displaced from their original positions (Fig. 6).

There are cracks along the entire length and from bottom to top on the arches (chillakhons) of the room for the solitude of a Muslim for the purpose of fervent prayers and spiritual practices, in the side part of the mosque wall niche, indicating the direction to Mecca (qibla) (Fig. 7).

**3-fig.**

***Cracks in the building of the mosque and between the galleries adjacent to it.***



**4-fig. Coverage on the territory of the mosque and its impact on the mosque**





5-fig.

*Mold caused by the accumulation of moisture on the walls of the mosque*



7-fig.

*Cracks that appeared on the arches are a room for the solitude of a Muslim for the purpose of fervent prayers and spiritual practices*



### Discussion

Although space-planning and constructive solution The buildings of the mosque were created to perfection, but due to the fact that, to date, due attention is not paid, the lack of control

and insufficient protection from external climatic factors had a strong negative impact on the complex.

As a result of studying changes in the prayer and gallery parts The main reasons for the appearance of cracks in the walls are the following:

- increasing the humidity of underground soils ;
- the hanging wings of a gallery built in 1944 over the walls of the mosque;
- uneven erection of the columns of the gallery and the foundation of the outer wall, as well as errors made in constructive solutions.

Several factors influenced the development of deformations in the mosque building.

The first factor is natural, these include long-term atmospheric precipitation, the location of groundwater close to the surface of the earth, loose tamping of soils under the base of foundations, and seismic activity of the territory.

The second factor has a technical characteristic, that is, poor sewage disposal due to malfunctions in structures, improper direction of sewage disposal, water leakage from underground utilities, irrigation of trees and green spaces on the territory of the structure, poor quality of work carried out on reconstruction.

### **Conclusions**

By eliminating these negative factors, the stability of the structure can be ensured.

It is necessary to take measures to reduce the level of underground water in the territory of the structure by creating a horizontal or vertical drainage.

Tidy up the drainage system from surface runoff from the roof and surrounding area. Drains are recommended to be diverted outside area mosques.

To put in order the system of underground communications (water supply and sewer) With purpose exceptions leaks.

Limit irrigation of plantings through the use of water-saving technologies.

To control the condition of the foundation soils of the structure and the hydrogeological conditions are recommended:

to organize an observation network of wells for carrying out regime measurements level positions ground waters;

organize a monitoring system for monitoring the condition, moisture, soil compaction grounds foundation;

organize regime seismometric observations for the purpose of monitoring level seismic impacts and estimates them consequences.

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# MECHANISMS AND TECHNOLOGIES FOR THE FORMATION OF THE LEGITIMACY OF POLITICAL AUTHORITY

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**Abstract.** *In this article, the author revealed a conceptual analysis of the important political mechanisms that manifest a unique form of the state administration system: the content of the concepts of legality and legitimacy, the specific technologies of the formation of legality and legitimacy in ensuring the stability and integrity of political power and the need for long-term existence. Also, he showed the effective directions of legal and legitimate relations in the support of the political power by the society as well as strengthening of trust in its activeness.*

**Keywords:** *legitimacy, legality, political power, state management, administrative personnel, administrative staff, human resources, government system, leader.*

## Introduction

The issue of applying institutional mechanisms for harmonizing individualism and collectivism and establishing legal and legitimate political power in a democratic form for the countries that have chosen the democratic path of development is one of the current directions of modern scientific research. Difficulties in the practical solution of this issue largely depend on the development of specific directions of legalization and legitimization of political power and political regime. Because the development and implementation of socio-political, economic and legal development goals by the political system, which reflects the state's management system, represents the basis of the state's effective reforms. Today's practice shows that the main form of legalization and legitimization of state power and political power is the political regime.

Due to its ontological and social nature, political power has a need for legality and legitimacy, which in practice provides it with a desire for stability, coherence, connectedness, cooperation and long-term existence. Concepts of legality and legitimacy are not only related to the system of state power, but also reveals the qualitative aspects of the implementation of the political-legal relations, application and subordination of mutual functions between employees and managers in any organization. The relationship between legality and legitimacy is stability, and stability is the basis of development. Therefore, it is necessary to study the factors of legitimacy and legality as the most important basis for ensuring the stability, development and efficiency of the state and society. As the President of the Republic of Uzbekistan, Sh.Mirziyoyev, stated, the relationship between legality and legitimacy is an important socio-political and legal mechanism for “implementation of an effective decision-making system based on transparency in public administration”[1].

## Analysis of literatures on the topic

By the middle of the 19<sup>th</sup> century, representatives of the German research school began to pay serious attention to the study and scientific analysis of the issue of the formation of legality and legitimacy of political power in connection with the theories of the origin of the state. The problem of legality and legitimacy of political power in European political theory is discussed by

M.Weber, R.Aron, K.Schmitt, J.Habermas, M.Heidegger, K.Jaspers and other scientists “existence of modern political power”, “democracy and legal legitimacy”, “revealed through scientific theories” such as “public consensus” and “normative value” [2].

The dynamic development of the concepts of legalization and legitimacy of political power mainly coincided with the 20th century, and the interpretation in accordance with the traditions of liberal-democratic thinking based on the idea of consensus and Western European political philosophy became popular during this period. Currently, many countries, according to the traditions of their political development, find it useful to study the question of legality and legitimacy - as components of the content, method and level of the exercise of political power. This formed the interpretation of the theory of legality and legitimacy as “a special political theory that reveals the management technology based on achieving social agreement and cooperation between political power structures and ensuring their support by society”.

### **Research methodology**

It is known that based on the functional nature of state power, its main features can be shown below:

publicness - the state authority acts on behalf of the entire society, the people and has public sources of its activity;

ownership of a special apparatus - the state power exerts its influence through state bodies that form an integrated vertical and horizontal management system;

the highest authority - state power is the highest form of political power;

sovereignty - state power is considered independent in internal and external relations, in the sphere of implementation of state functions;

legitimacy - represents the recognition of state power by its people, as well as the international community;

legality - indicates that state power is formed legally (on the basis of the constitution and laws) [3].

What is the main criterion of legitimization? Two important approaches collide in answering this question.

1. According to the liberal-democratic approach, political power formed only as a result of democratic procedures should be recognized as legitimate and legal. Any political power established as a result of force and violence is not recognized as legitimate and legal.

2. According to the pragmatic approach, the main criterion is determined not only by the formation of political power through election, but also by the ability of this power to maintain socio-political, economic, and legal stability in society.

### **Analysis and results**

In particular, sociologist M. Weber, who made a great contribution to science with his views on political power at the beginning of the 20th century, put forward important scientific and practical proposals on the formation of the legitimacy of political power in his works. According to him, the formation of the legitimacy of political power can be effectively implemented through the following mechanisms:

- 1) on the basis of affective-emotional loyalty;
- 2) on the basis of dignity and expediency;
- 3) on the basis of interest[4].



According to M. Weber's recognition, there are also internal bases that describe legitimacy, which are the institutional and functional status of political power; leadership characteristics of state managers; is a rational management organized on the basis of legality and competence. With this, M.Weber introduces two main directions into the scientific theoretical concept of the formation of the legitimacy of political power:

- the level of recognition of political authority by society;
- to create an obligation to obey the political authority for the governed class in the society.

In our opinion, the principle of legality and legitimacy of political power is a political process aimed at ensuring the voluntary consent of citizens to obey management decisions and recognizing the right of political power to exert influence. The legitimacy of the demand for political power by citizens and the entire world community can be effectively realized only if the government shows its commitment to democratic ideals, if its activities are based on the principle of respect for values and traditions. With this, the issue of legitimacy can be considered the most important feature of democratic political power.

According to M.Weber, “dominion is an opportunity to reform obedience to a specific order[5]”. Through the prism of “motives of obedience”, M.Weber distinguishes three ideal types of legitimacy:

- traditional legitimacy;
- charismatic legitimacy;
- rational-legal legitimacy.

Today's practice shows that the above selected types of legitimacy are not opposed to each other, but they are even interconnected and complementary processes.

At the current stage of rapid modernization, the main political technologies that ensure the legitimacy of political power should be focused on the following processes:

- formation of a policy consistent with national-cultural interests, values and needs;
- effective implementation of administrative management methods, personnel policy in state administration, and use of organizational, legal and political technologies of communication with the public in the provision of public services;
- ensuring national security, human security, public security, national and cultural security as political mechanisms for adequate response to threats and emergency situations;
- ensuring cooperation of political institutions with state administration bodies and participation of citizens in political processes;
- in the process of transformation of the political system, increasing the loyalty of the state and society to national and universal values.

Along with M.Weber's concept of legitimacy of political power, American political scientist D.Easton's scientific and theoretical approaches are also very popular in modern political science. For D.Easton, legitimacy is an opportunity that can ensure the stability of all components and elements of the political system.

D.Easton states that “the legitimacy of political power is a process that depends on people's adherence to moral principles and ideas about the justice and correctness of the decisions introduced by the authorities”[6].

D.Easton as sources of legitimization of political power:

- ideological-ideological processes;
- the political regime established in the country;

- connects with the management skills of the political leader.

The higher the level of legitimacy in the factor of interaction between the state and society, the freer the independent action of the political leader in the internal and external political activities of the state. Because legitimacy is the equality of all political forces operating within the law. In particular, constitutional legitimacy is the result of the long-term socio-economic, cultural evolution of the entire state and society, humanistic principles and human freedom, becoming the basic feature of the people's prosperous lifestyle. Regarding the legitimization of political power, another French political scientist, J.Chabot, defines the theory of legitimacy as “legitimacy is the recognition of the true qualities of the governing leaders by the governed and clearly expressed consent[7]”. He also distinguishes four types of legitimacy: democratic, ideological, technocratic, ontological.

According to J.Shabo, the most widespread form of legitimacy is democratic legitimacy, which he explains by the fact that it is based on the will of the majority, individual and freedom of speech, and collegial decisions, which have become an integral part of the culture of today's Western European countries.

Technocratic legitimacy is understood as the professional skill and high level of competence of managers in the management system.

Ideological legitimacy is the ideological form of the political regime of the state.

Ontological legitimacy has a political-philosophical meaning and depends on the domestic, scientific and technological characteristics of the level of understanding of political processes by a person.

Due to its socio-political nature, political power needs legitimacy, which provides it with stability, repeatability and long-term existence. Therefore, the phenomenon of legitimization of political power was formed as a result of a long historical process within the framework of all civilizations. When it comes to the legitimization of political power, we summarize the conceptual views of researchers who have conducted scientific research in this direction, and divide them into two directions: We witness the tradition of explanation in connection with the authority of subjects of political power, recognition as a system based on trust, and loyalty to political power, compliance with the requirements of political power by subordinate subjects, the ability and desire to fulfill unconditionally.

In our opinion, the process of legitimizing political power simultaneously expresses functions in the legal and political spheres. By this, the process of legitimization should be understood as an objective assessment of the right of management of political subjects on the basis of the current legal requirements of a particular country and the voluntary recognition of these legal norms by the citizens of society.

S.M.Lipset, another American sociologist and political scientist, made a great contribution to the development of the concept of legitimacy. In his views, he revealed in detail the role and importance of legitimacy in the process of maintaining the stability of the political system. S.M.Lipset states that political legitimacy is “the quality of the political system that is most suitable for the society is the ability to maintain the belief that the interests of the population, different social groups and political institutions are compatible with each other” [8].

Legitimacy cannot be imposed on any political subject through manipulation, external influence. Legitimacy is achieved in the process of communicative and perceptive action between the political authorities and the population.

Today, the most common source of forming the legitimacy of political power is the democratization of the political system and compliance with public opinion.

### **Conclusions and suggestions.**

In conclusion, it should be noted that the category of legality and legitimacy is a mechanism for justifying and objectifying the activity of state power, and it creates an opportunity to analyze the way political power is exercised.

The quality of the most important determinants of the formation of legality and legitimacy of the political administration: establishing an agreement between the state and society on a single political system; to ensure the active participation of the masses in supporting the established political regime; is to create social, political, legal and moral resources to increase and maintain the influence of political power.

These political mechanisms are aimed at rationally establishing the system of relations between people, society and political power, and the state, with the help of its government, creates the possibility of trust and recognition of its people through the signs of involvement, responsibility and citizenship in the reforms. Consequently, the legitimacy of political power, its functioning and the fact that it is expressed in the ability to follow laws serves as the basis for both the legality and legitimacy of power.

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## THE USE OF MEDICINAL PLANTS IN LANDSCAPE ARCHITECTURE PROJECTS IN OUR COUNTRY AND ARTISTIC SOLUTION OF IT

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**Abstract.** *This article will be devoted to the improvement of town planning in our country using landscape architectural ornamental and medicinal plants.*

**Keywords:** *landscape, natural landscape, anthropogenic landscape, landscape architecture, landscape design, Introductory.*

We can see that the need for aesthetic, ecological approaches to the city is increasing significantly nowadays. Toxic gases and climate factors emitted from industrial enterprises and vehicles cause damage to living organisms, significant poisoning of water, soil and biology, and foul odors emitted from waste have a serious impact on atmospheric pollution and human health remains one of the most actual problems of today. If we continue to be careless and apathy to such happenings, it will lead to the poisoning of the clean air which we breathe, causes various diseases of our children and to the occurrence of various changes in their bodies. At this point, if we remember the immortal words "If there were no dust and smoke, mankind would have lived for a thousand years" of our great grandfather Abu Ali Ibn Sina, one of our ancestors who made his unique contribution to the world medicine and known in Europe as Avicenna, we realize that environment is a priceless blessing which is given to mankind.

The absence of an ecologically perfect natural landscape in an urbanized environment does not help to restore the mental and physical balance of humanity, but on the contrary provokes mental illnesses.

After studying these problems based on the decision №322 of the Cabinet of Ministers of the Republic of Uzbekistan which was adopted in December 29, 2010 the program of strengthening the material and technical base of cultural and recreation centers for 2011-2015 and further improving their activities was approved by higher organizational institutions. According to the program for 2011-2015, it is envisaged to create conditions for cultural recreation of the population by gradually reconstructing cultural and recreation parks, which are necessary for cultural recreation of the population, especially for children and youth. In this regard, according to the decision of the Cabinet of Ministers №223 of August 13, 2013, the program for the development of landscape design in the Republic of Uzbekistan was approved. The purpose of this program is to improve the architectural and artistic appearance of settlements and inter-residential areas.

Greening of the city plays a major role in establishing ecological, planned urban planning, socio-economic and aesthetic relations of landscape architecture. Since the art form of landscape architecture is considered a new concept for us, it is clear that some questions will arise such as what is the landscape itself in many people's minds? What subjects does it include? What is its

task? Let's first talk about the word Landscape: The term Landscape appeared a hundred years ago. Associated with the emergence of national parks in the United States. The word **Landscape** is a German word, **Land**-land,ground, **schaft** –landscape,scenery, which means the scenery of earth(landscape) or scenic land. Landscape consists of natural elements in an open environment and is related to climate, topography, water, soil, flora and fauna.

Typically, landscapes are divided into **natural** and **anthropogenic** landscapes. A **natural landscape** is a landscape that is formed or being formed only under the influence of natural factors, which is not affected by human activity. **Anthropogenic landscape** (landscape affected by human activity) is a landscape formed and being formed under the influence of natural and anthropogenic factors. In landscape architecture, engineering structures, artificial water bodies, roads, pavements, boulevards, objects of artistic and decorative arts, construction technology, agrotechnics and artificial elements of the landscape are widely used, which are closely connected and form integrated compositions. Two types of lighting are used in landscape composition: Solar and artificial lighting. Planted plants must also be placed in their order: flowering season, color, height, etc. are should be taken into consideration.

**Landscape architecture**-is the formation of an artistic appearance of the environment with the help of natural and artificial architectural devices and elements, theoretical basis of architectural activity and landscape creation.

**Landscape design** - a project designed to create landscape objects of various appearance; it is a type of creative activity aimed at creating artificial elements of landscape objects according to specific functions based on artistic aesthetic and ecological conditions. Landscape architecture works together with floristry, soil science, geology, climate, relief, watersheds, geography, sculpture and other sectors. Landscaping and Landscape Architecture will be better by improving the environment, increasing economic stability, ensuring population growth, improving the habitat change. The creation of a whole composition by combining landscape architecture with relief, water, plants and decorative means was included in the experiments carried out in foreign countries. Similar experiments are being carried out in our country, and the result shows that the main goal of landscape architecture is to harmonize the functional, ecological and aesthetic qualities of the city. In the use of Introductory (Acclimatization of plants which were brought from foreign countries) plants and plants with a medicinal aspect greatly contributes to the economic stability of our country and a more attractive appearance of the city. Medicinal plants are not only for pharmaceutical purposes, but also attract people with their unique flowers and scenic views. Our Uzbekistan has very fertile soils and we can meet various types of local plants. More than 1200 medicinal plants grow in our country and they are widely used in traditional medicine. According to the World Health Organization, 60% of the available medicines are preparations obtained from medicinal plant raw materials.

At present measures have been taken to increase the species of medicinal plants and protect them, and laws and decisions have been adopted by higher organizations. If we make it a tradition to use medicinal plants in urban landscaping, it would be good job. Such plants consist of trees, bushes, semi-shrubs and ground covers.

In order to preserve the diversity of the species composition of the flora in Uzbekistan, a number of laws and decisions were adopted by our state: laws such as on December 9, 1992 "On the protection of nature", May 7, 1993 "On extremely important protected natural areas", December 26, 1997 "On the use of plants and their protection"; the decision of the Cabinet of



Ministers of the Republic of Uzbekistan №508 adopted on October 28, 2004, "On strengthening control over export and import outside the territory of the Republic of Uzbekistan, rational use of biological resources" and others.

Ensuring the implementation of 19 paragraph of Memorandum of the meeting of the Cabinet of Ministers of the Republic of Uzbekistan № 40 dated on February 17, 2014 "On the role, personal responsibility and accountability of all heads of state administration in ensuring the implementation of the laws of the Republic of Uzbekistan, decrees, decisions and orders of the President of the Republic of Uzbekistan" and 1.12 paragraph of the memorandum of the meeting dated on January 2015, № 5 "On measures to further expand the development of the forestry system, cultivation, preparation and processing of medicinal and nutritious plant raw materials in 2015-2017", Description, distribution, preparation of raw materials of medicinal plants that exist naturally and culturally in the Republic, and the suggestion of wide use of medicinal plants and herbs in urban landscaping in our country, to increase their chemical composition and use in medicine, and to get the best results in the future. It would be expedient to introduce the use of local decorative medicinal plants in urban landscaping. One of the main reasons for this is to illuminate the landscape composition solution of the city from medicinal plants that are disappearing and are not used in medicine and to present the tourists visiting our country the medicinal and decorative plants, to rejuvenate our city and increase the number of beaches, to promote medicinal plants in foreign countries as much as possible.

Using medicinal plants we can create landscape compositions that supports people with high spirits . For example, it is possible to create shapes from the boxwood plant in the tapiar method, and to create elegant compositions using the landscape or satiler methods from plants such as ordinary Igir, *origanum vulgare*, Medicinal marigold, and medicinal chamomile. It is worth praising such beauties created by the unceasing research of man and the hard work of his hands. Landscape architecture has a special place in the prosperity of our city.

In conclusion, it is worth mentioning that according to the information of psychologists, with the intention of increasing and preserving such decorative and at the same time medicinal plants, the creation and reproduction of landscape design compositions of various forms, with the intention of preserving them, it has been found that it can have a great positive effect can relieve a person of stress, give birth to a healthy child, and increase the age of the population . In this context, the creation and construction of cultural recreation grounds is considered one of the most important tasks being carried out nowadays.

Engineering structures, artificial water bodies in landscape architecture, roads, pavements, avenues, objects of artistic decorative art, construction technology, agrotechnics and artificial elements of the landscape are widely used, they form a whole composition if they are closely connected. Landscape Two types of lighting are used in the composition: Solar and artificial lighting. Planted plants must also be placed in their order: flowering season, color, height, etc. are taken into account.

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## THE PLACE OF NATIONAL INSTRUMENTS IN THE ART OF MUSICIANS

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**Abstract.** *The role of musical instruments in the musical and performing arts, the history of the emergence of musical instruments, the introduction of new musical instruments in the performing arts into the Uzbek musical art, the unique performance capabilities of each instrument are discussed.*

**Keywords:** *heritage, contemplation, miracle, musician, performance, national, intangible, sophistication, love, foundation, criterion, confidence, future, living, society.*

The meaning of human life is measured by the product of his creativity. A nation with a long past, rich spirituality, and boundless heritage certainly has a promising future and a great future generation. Creativity is a blessing that beautifies life, reveals the secrets of the universe, and expresses human thinking. But all of them are based on one criterion, that is, nature and the attitude towards it. And on its base, love, sophistication, trust and thinking achieve their own freedom and discover their miracle in the living process. At a time when a free civil society is being built in Uzbekistan, as in all types of our national art, the intangible heritage left to us by master musicians serves as the main source for preserving the peculiarities of the art of music, developing it and giving it a new color.

Performance styles with the participation of single, two or more instruments formed in the Uzbek national musical art, their various national and general forms are being improved, and various currents with new performance styles are being formed.

The modern performance art of Uzbek folk instruments is developing on the ground of centuries-old traditions of its development. The role of national musical instruments in the performance of folk instruments is incomparable. According to literary sources, it is assumed that the first musical instruments appeared in the XIII millennium BC. Percussion instruments first appeared in music. Later, noisy musical instruments appeared. The performers emphasized the rhythm by clapping, and increased the effect of noisy instruments. Later, folk craftsmen made trumpets, whistles, flutes (longitudinal, transverse, many-way), flute-like whistles, rattles, chiltars (harp, lyre) and kifaras from reed or bamboo stems. Over time, those musical instruments were further improved, and flutes appeared. Later, stringed mizrab and stringed bow musical instruments appeared. They were used in courtiers' ceremonies and military campaigns. Uzbek folk instruments were formed in the development of ancient Eastern culture. They have preserved their unique characteristics and tone during centuries of development. Due to their unique structure, nay, trumpet, tanbur, dutor, rubob, gijjak, qabuz came down to us in traditional forms. At the end of the 9th century, the types of vocal-instrumental music, including soloist, ensemble musicianship and dance, were formed in Central Asia. At that time, it was formed by the simultaneous playing of several instruments, i.e. karnay, surnay and percussion instruments, i.e.

drums, chindovul instruments. At that time, dutor performance had acquired only a camera character, and this performance art was mainly occupied by women.

One of the distinctive features of medieval music performance culture is that musicians not only played several types of musical instruments, but also composed music themselves. The musicians were also mature musicians and poets of their time. In the conditions of the Middle Ages, musical specialization led to the emergence of special musical workshops. Here the tradition of master-disciple developed. At the same time, the performance of the ensemble improved, the main forms of musical art were formed, and the discovery of new models of musical instruments dates back to those distant times. The theoretical views of Eastern scientists were formed on the basis of the existing experience of performing arts, and in their treatises, detailed information was given about the role and importance of music in society. The human voice has always been considered the most perfect instrument. The performers of musical instruments with strings and bows have always tried to make the melody they created more impressive, sincere, and smooth for the human voice. The oud and rubob, instruments whose melody is very close to the human voice, were described in detail. In this case, under the concept of rubab, it is meant music that is similar to a zigjak, whose strings are played with a bow. In the late 19th and early 20th centuries, the performance capabilities of Uzbek folk instruments constantly expanded and improved. The organization of various folk instrument ensembles, the development of solo instrumentalism required music masters to further improve the instruments. In the 19th century, in performance practice, instruments such as flute, koshnai, surnay, karnay, bolaman, chang, kashkar rubob, afghan rubob, tanbur, dutor, dombira, gijjak, sato, doira, qayraq, safayil were firmly established. The introduction of new musical instruments has taken a firm place in ensembles. Music was widely used by musical instruments to accompany songs and dances, and the impressiveness of the melodies was complemented by various musical accompaniments. During this period, other positive events took place in the musical life of Turkestan. European musical instruments began to enter Central Asia. Examples of these are the musical instruments of the symphony orchestra, brass and percussion orchestra, piano, and drum instruments. A harmonica instrument imported from Russia appeared in Khorezm. In Fergana and Tashkent, the gijjak began to be replaced by the violin. At the same time, based on the iconography of Uzbek folk musical instruments, new versions of Russian melodies, sometimes with modifications, have appeared. In the second half of the 19th century, serious changes took place in the performance of Uzbek folk instruments, new forms appeared. Based on the traditions of folk performance, new, relatively complex and perfect tunes and songs illuminating various aspects of people's life began to be created. Well-known dutor player, tanbur player, doira player, nay player, surnay player, bolamon player, gijjak player, Kashkar and Afghan rubob players appeared. Restoration and development of the maqam genre in the art of music performance continued. Maqom was inextricably linked with folk songs according to its tone and rhythm laws, and differed only in the breadth of its scope. Usually, each maqam is divided into two large parts. The first is a part performed only by instruments, called mushkilot, and the second is a part of a song sung with the accompaniment of instruments, and it is called nasr. Nasr also includes a dance melody. Singers and Uzbek musical ensembles of various composition took part in the performance of maqams. The ensemble of musical instruments included the tanbur and doira in Bukhara, and the dutor, gijjak, bolamon, doira or tanbur, harmon, rubob, and doira in Khorezm. In the regions of Fergana and Tashkent, the ensemble consists of 8-10 performers, including the flute, koshnai, chang, rubob, dutor, tanbur, doira and gijjak

instruments. In addition, small ensembles consisting of 3-4 people, namely, included nay, chang, rubob, dutor, tanbur, doira and gijjak, sometimes two instruments, i.e. two tanbur, two dutor or two g'ijjak, two rubabs. After all, the attention paid to national music in the period of independence, in particular, the local manifestations of the musical genre, the form, texture and tone aspects of the tunes, the local and artistic criteria of music performance, and finally, makes it possible to perform it in an authentic way.

At the present time, the art of Uzbek group musical performance in the style of badiha (improvisation) has appeared. This stream is composed of musicians who are well aware of the nature of our national music, have theoretical and practical observations, and have high performance capabilities - People's Artists of Uzbekistan Abduhoshim Ismailov on gijjak, Abdulakhad Abdurashidov on nay, Honored Artist of Uzbekistan Abdurahmon Kholtojiev on qanun, Umarali Bulturov on udda and Kochkor Saidov on doira instruments cooperated. The formal structure, intonation features, and set of methods of the works performed by them were created in a manner specific and appropriate to the traditions of Uzbek musical performance, with the participation of untempered voices. In the course of the performance, various "accompaniments" used by the musicians in a sudden, free, (improvised) way during the accompaniment of some tracks, starting with purely instrumental works, have become a habit in the practice of this group. It was this event that became the basis for the formation of the badiha style as a result of the full disclosure of the technical capabilities of the gijjak, nay, and qanon instruments. In the performance, together with the accompaniments, small music sheets were used. As a result, the national musical-aesthetic standard reflected by the group plays an important role in raising the badiha process to the level of spectacle. Among the group's activities, we can mention especially "Toyzona", "Dil Bayram", "Big Maple", "Akhmad Fargani" and many other works created by the People's Artist of Uzbekistan Abduhoshim Ismailov.

It is worth mentioning that in the present period, the art of music was formed on the basis of the idea of simple musical performance and has been functioning as an important factor in ensuring the national and cultural development. Therefore, this type of art is a positive example of the result of artistic activity that combines all forms of Uzbek national music enriched in form and content on the basis of social and spiritual stability in our country.

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## STUDY OF INTERNATIONAL ECOLOGICAL RELATIONS IN UZBEKISTAN HISTORIOGRAPHY

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**Abstract.** *This article illustrates that the issues of studying the aspects of international cooperation of the Republic of Uzbekistan related to ecology and environmental protection are analyzed during the years of independence. In particular, studies on the improvement of the environmental situation in the Aral Sea area, climate change, water resources management, biodiversity conservation, and the development of regional cooperation on environmental protection in Central Asia have been reflected. At the same time, the historiography of the research on cooperation relations of the Republic of Uzbekistan with international organizations is widely covered. Foreign publications covering some aspects of the activities of international organizations such as International Fund to Save the Aral Sea, the Interstate Water Management Coordinating Commission, the Central Asian Regional Ecological Center, were also analyzed.*

**Keywords:** *Uzbekistan, Central Asia, international cooperation, ecology, transboundary rivers, historiography.*

### Introduction

During the years of independence, the Republic of Uzbekistan, as an equal subject of international relations, has been paying attention to the improvement of important directions and legal foundations of international environmental political relations. In particular, in the Republic of Uzbekistan, organizational, legal and socio-economic measures to ensure environmental safety are consistently implemented. Implementation of international legal agreements and conventions into national legislation has become one of the main issues. International cooperation on ecology and environmental protection in the Republic of Uzbekistan is determined by the foreign policy strategy of the Republic of Uzbekistan.

### Analysis and methodology of literature

The role of the Republic of Uzbekistan in the system of international relations, environmental issues in the internal and external political activities of the country, issues related to the protection of the environment in the Central Asian region on the basis of international cooperation, including the improvement of the environmental situation in Uzbekistan are considered to be one of the new directions of modern historiography of the history of Uzbekistan. Considering the scope of the researches and the created literature, it is appropriate to study them conditionally in two groups.

Among the literature belonging to the first group, a number of works and dissertations created in the years of independence in Uzbekistan are important. Among these are A. Kasimov, A. Kholiyev, Sunn Don Gi, D. Misharev, M. Rakhimov, E. Nuriddinov, Kh. Gulomov, A. Kholiyev, A. Kyrgyzboev, A. Sultanov, R. Asadova, D. Rahimbaeva, N. Gofurov and other authors of the country works related to the history of the development of political activity can be

included. In these works, the formation of the foreign political activity of the Republic of Uzbekistan, which is an equal member of international relations, and the development processes in the first decade of independence are covered.

The second group consists of works by foreign authors. Among them are A. Akimov, I. Zvyagelskaya, V. Belokrinitsky, A. Kurtov, A. Perepelkin, D. Trofimov, S. Panarin, E. Safronova, historians, political scientists and other scientists of the CIS countries who conducted research related to the Central Asian region. The works of O. Tikhonov, A. Kazantsev, A. Vlasov, D. Nishanov, S. Yun, E. Troitsky, A. Bogaturov, A. Taylakova are particular interest in studying the problem.

The application of the principle of objectivity in research allows to minimize and eliminate the impact of subjective views on the research and its results as much as possible in the interpretation and assessment of evidence. From this point of view, the principles of historicity, scientific and impartiality, which constitute the dialectical foundations of scientific knowledge, are the theoretical methodological bases of the research, and the methods of historical-comparison, systematization, problem-chronological and interdisciplinary approach were used.

### **Analysis and results**

To date, in various fields of social sciences, including history, law, philosophy and political sciences, development of regional cooperation on environmental protection in Central Asia, strengthening of good neighborly relations with countries in the region, elimination of transboundary problems, improvement of the environmental situation in the Aral Bay region, climate change, a number of researches focused on global environmental problems, such as water resources management, biodiversity conservation issues, were carried out.

It is important that a group of literature covers various aspects of the ecological situation in Uzbekistan. For example, publications published in the areas of ecology, law, and political science provide information on Uzbekistan's environmental policy, fulfillment of obligations under international agreements, and Uzbekistan's foreign policy. There are a number of sources related to ecology and environment in the coverage of issues related to international ecological cooperation of the Republic of Uzbekistan. In particular, D. Bobojonova's "Aholi salomatligi va ekologik muammolar (Population health and environmental problems)", Kh. Tursunov's "Ekologiya asoslari va tabiatni muhofaza qilish (Fundamentals of Ecology and Nature Protection)", B. Kalonov, B. Ziyamuhamedov's "Ekologiya va madaniyat (Ecology and culture)", J. Kholmominov's "Ekologiya va qonun (Ecology and law)", A. Tokhtaev's In the books "Ekologiya (Ecology)", "Ekologiya nima? (What is ecology?)" by A. Nigmatov, "Ekologiya iqtisodiyoti (Ecology Economics)" by T.M. Jumaev, "Mintaqa ekologiyasini tartibga solish muammolari (Problems of regulation of regional ecology)" by N. Ikramova, and "Inson ekologiyasi (Human ecology)" by A. Ergashev, the impact of environmental problems on public health, environment - the role of the human factor in environmental protection, the legal solution of environmental issues in the legislation, the issues of cooperation carried out by social institutions and non-governmental non-profit organizations in stabilizing the environmental situation are covered in detail. In recent years of research in this direction, the current ecological situation in the country and the environmental problems that have arisen in this process have been discussed.

Political science scientific literature, monographs, doctoral theses, and scientific research papers reflect on the current environmental situation in the country and the global environmental problems that have arisen in this process. J. Kholmominov, D. Umarov's book "Uzbekistan

Ekologik harakati va saylov qonunchiligi (Uzbekistan Ecological Movement and Electoral Legislation)", Sh. Babaev's "Inson va ekologik omillar (Human and ecological factors)", B. Aslonov, N. Karimova's "Ekologicheskaya politika i bezopasnost", E. Danilova's "Ekologicheskiy monitoring nekotoryx rayonov Uzbekistana i zaboлеваemost", Sh. Fayziev's "Ekologicheskaya politika gosudarstva. Konsepsiya pravovogo obespechenia", A. Sanginov's " Aholi o'rtasida ekologik madaniyatni targ'ib etish chora-tadbirlari to'g'risida (Measures to promote environmental culture among the population)", comments on the international ecological relations of the Republic of Uzbekistan were expressed.

Legal aspects of tasks related to the protection of nature, environment, improvement of sustainable ecological situation in the country are covered in legal studies. Among the representatives of this field are the study guide "Ekologiyaga doir qonunlar ijrosini tekshirish va qonunlar buzilishiga barham berish (Checking the implementation of ecology laws and the abolition of laws) " by T. Mirzaev, the book "Ekologiya nazoratini amalga oshiruvchi davlat organlari va ularning vakolatlari (Government agencies and their powers that carry out environmental control)" by B. Kalonov, "O'zbekiston respublikasida ekologik qonunchilikni tizimlashtirish va kodifikatsiyalash masalalari (Issues of systematization and codification of environmental legislation in the Republic of Uzbekistan)" by D. Safarov and J. Kholmo'minov's articles entitled "Ekologik xavfsizlikni ta'minlash va ekologik tahdidlarni oldini olishning huquqiy asosi (Legal basis for ensuring environmental safety and prevention of environmental threats)" within the framework of his research on the current issues of the history of Uzbekistan, focusing on the political, economic, cultural life of the country and the issues of international cooperation in these areas. - those who analyzed the historical foundations of environmental problems, their causes. At the same time, some information on the issues of international environmental cooperation can be found in the published scientific and popular works.

At the same time, from publications published in our republic in the fields of economy, the articles entitled "O'zbekistonda ekologik turizmni rivojlantirishni boshqarish mexanizmini takomillashtirish (Improving the mechanism of management of ecological tourism in Uzbekistan)", F. Valieva's "Globalnye problemy ekologii" and N. Samigova's "Ekologicheskie posledstviya urbanizatsii i industrializatsii i sovremennosti", A. Umarov's "Mintaqa iqtisodiy salohiyatidan foydalanish samaradorligini oshirishning ekologik jihatlari (Environmental aspects of increasing the efficiency of the region's economic potential)" and G. Rakhimova's scientific research work "XX asr 50-90 yillarda Farg'ona vodiysi sanoat rivojining ekologik holatga tasiri (In the 50 century the Fergana Valley, the Fergana Valley affect the environmental situation of industrial development)" environmental policy of Uzbekistan, fulfillment of obligations in international agreements, information on Uzbekistan's foreign policy in economic studies also reflected.

In the historiographical analysis of the subject, it is important to highlight the researches of the historians of the country dedicated to various issues of the new and most recent history of Uzbekistan. In these scientific studies, they analyzed the historical foundations of the socio-ecological problems that have arisen in our republic, their causes and solutions.

D. Bobojonova's "O'zbekistonda millatlararo munosabatlar rivojining ijtimoiy-iqtisodiy omillari (Socio-economic factors of the development of interethnic relations in Uzbekistan)" [1], H. Yunusova's "Sotsialno-ekonomicheskie protsessy i dukhovnaya jizn Uzbekistana v 80-x godax XX veka" [2] and B. Isakov's "O'zbekistonda 80-yillarning ikkinchi yarmi-2000-yillardagi tarixiy



o'zgarishlarning demografik jarayonarga tasiri (The second half of the 80s in Uzbekistan, Influence of historical changes in the mid-2000s on demographic processes)" [3], demographic processes of Uzbekistan, i.e. issues of changes in the spheres of birth, natural population growth and migration, issues of external labor migration in connection with the increase in the number of labor resources, internationalization of the perfect generation in Uzbekistan reflects the issue of education in the spirit of harmony and tolerance. After all, the main directions of international cooperation on nature protection are determined by the principles of the foreign policy strategy of the Republic of Uzbekistan (nation-state interests of the country, norms of international law, non-interference in the internal affairs of other countries, peaceful resolution of all controversial issues).

In the scientific research work of O. Komilov entitled "O'zbekistonda irrigatsiya tizimini rivojlantirish va uning oqibatlari (Development of the irrigation system in Uzbekistan and its consequences) (1951-1990)" [4], during the years of Soviet rule, the construction of many hydrotechnical structures in Uzbekistan, the fact that they mainly served to improve the republic's cotton industry, and the policy of cotton monopoly is at the heart of it taking into account the growing shortage of water resources, rational use of water from transboundary rivers in Central Asia, improving the efficiency of the technical condition of existing large hydro facilities, ensuring their safety and reducing their negative impact on the environment and the lives of the population, focused on drawing up and implementing agreements. At the same time, considering that water is the source of life, today we must develop and sign mutual agreements under the initiative of prestigious international organizations in order to establish a rational and effective use of its reserves and to introduce the drip irrigation method to the agricultural sector of all countries of the region, to prevent drinking water shortages. ideas such as establishing the Central Asian Interstate Water Management Commission and establishing its activities on ensuring and eliminating food security related to water supply and food security.

In the scientific research work of S. Davletov entitled "XX asr ikkinchi yarmi – XXI asr boshida O'zbekistondagi ekologik vaziyat va uning ijtimoiy muammolari (Environmental situation in Uzbekistan and its social problems in the second half of the 20th century - the beginning of the 21st century)"[5], the feasibility of forming an environmental history society in the Republic of Uzbekistan, the issue of further research into the issues of interaction between nature and society, in order to improve ecological knowledge and skills, he emphasized the introduction of special educational courses "Barqaror taraqqiyot va tabiatdan foydalanish asoslari (Fundamentals of sustainable development and use of nature)" into the curricula of history, ecology, economy, and agriculture in higher education institutions. In addition, considering the importance of the widespread introduction of technologies using renewable energy in achieving the goals of sustainable development, increasing the targeted projects that promote the technical capabilities and socio-economic effectiveness of the effective use of alternative energy sources and resource-efficient technologies, is related to the dynamic growth of the population in the country and the further increase of the well-being of the population. considering the growing demand for food, he justified the need for effective use of innovative and resource-efficient technologies in agriculture, and the need to further strengthen the integration of science and production.

M.Rakhimov's nomination "Sotrudnichestvo Respubliki Uzbekistan so spetsializirovannymi uchrejeniyami OON 1991-1999 gg (na primere UNESCO)" and

"Sotrudnichestvo Uzbekistana s zarubejnymi stranami i mejdunarodnymi organizatsiyami v obespechenii stabilizatsii i ustoychivogo razvitiya v Tsentralnoy Azii (1991-2010 gody)" [10], D.M.Rahimbaeva's "O'zbekistonda diplomatiya xizmatining shakllanish va rivojlanish tarixi (1944-2001 yillar. Tashqi ishlar vazirligi misolida) (History of formation and development of the diplomatic service in Uzbekistan (1944-2001. As an example of the Ministry of Foreign Affairs))" and D.Saifullaev's "Mustaqillik davrida O'zbekiston diplomatiyasining shakllanishi va rivojlanishi (Formation and development of Uzbekistan's diplomacy in the period of independence)" [6] in the research works, the issues of international environmental cooperation were specially addressed, taking into account the changing international relations and international politics, in this regard, the development of integration processes between the countries of Central Asia, the ways of jointly solving the social, economic, especially environmental problems that have arisen were discussed. Also, in this group, it is possible to highlight researches dedicated to cooperation relations of the Republic of Uzbekistan with international organizations.

M. Rakhimov "Mejdunarodnoe sotrudnichestvo Uzbekistana v kontekte obespecheniya stabiliteta i ustoychivogo razvitiya v Tsentralnoy Azii" and "Sovremennaya istoriya vzaimootnosheniy Uzbekistana i stran Tsentralnoy Azii s vedushchimi gosudarstvami mira", A. Kyrgyzboev "O'zbekiston Respublikasining Osiyo mamlakatlari bilan xalqaro hamkorligi (International cooperation of the Republic of Uzbekistan with Asian countries)" and R. Farmonov, Q. Juraev's books entitled "Xalqaro munosabatlar tarixi (History of International Relations)" reflect the international relations of the Republic of Uzbekistan, the history of its emergence and development [7].

In the historiography of the history of ecological cooperation, books and pamphlets and scientific articles that highlight some aspects of cooperation with international organizations, including the socio-economic situation in the Aral Bay region, are of particular importance. The book "Ocherki zarubezhnoy istoriografii noveyshey istorii Respubliki Karakalpakstan" published by B.A. Koshchanov, T.A. Ametov, Ya.B. Genjemuratov, S.B. Koshchanova, S.R. Davletov's "Ecological situation in Uzbekistan and its social problems (the second half of the 20th century - the beginning of the 21st century)" [8], R. Ballieva's "Ethnokulturnye aspekty ekologicheskikh problem Priaralya", S.R. Davletov's "The role of the "GEF" Agency in improving the ecological situation in the Lower Amudarya region" [9], "Quyil Amudaryo xududagi ekologik vaziatni sog'lomlashtirishda «GEF» Agentligining tutgan o'rni (The role of international projects in solving socio-ecological problems in the Aral Bay region)" [10], O.B. Abdimo'minov's articles entitled "O'zbekiston va BMT: Orol muammosi yuzasidan hamkorlik (Uzbekistan and the UN: Cooperation on the Island Problem)" [11] also describe environmental problems in Aral and the Aral Bay region and their elimination. cooperation relations with international organizations, achievements in this regard and issues to be resolved in the future are highlighted. Foreign publications covering some aspects of cooperation between the International Foundation for Island Rescue and the Regional Ecological Center of Central Asia can also be included in the second group.

R. Alimov's monograph "Markaziy Osiyo: umumiy manfaatlar (Central Asia: common interests)" is devoted to the important aspects of the security problem in Central Asia, the geopolitical factor of some world powers in the region, while Sh. Arifkhanov's book deals with the geopolitical situation, prospects for solving the main problems of regional integration, and creating a more stable environment for ensuring security in Central Asia. attempts are analyzed.

U. Hasanov, F. Tolipov, R. Farmanov, K. Juraev, I. Bobokulov, I. Mavlyanov and M. Bakhadirov's studies analyzed the main directions and nature of geopolitical changes in Central Asia, formulated national security strategies for Uzbekistan and the countries of the region, classified existing problems, and provided threats.

Central Asian-related studies were carried out by historians from the CIS countries, primarily by Russian researchers - A. Akimov, V. Belokrinitskiy, I. Zvyagelskaya, A. Bogaturov, A. Kurtov, A. Perepelkina, E. Kozozhkina, D. Trofimova, S. Panarina, E. Safronova, O. Tikhonova, A. Kazantseva, S. Beshpalova, A. Vlasov, M. Starchak, S. In their works, Yuna and others analyzed the geopolitical situation, the political position of the states, the socio-economic development and foreign political relations of the Central Asian states. However, most of these studies are one-sided and focus on political aspects [12].

In the monograph of a group of authors on the topic "Tizimli transformatsiya va insonning barqaror rivojlanishi: O'zbekiston misolida (Systematic transformation and sustainable human development: the case of Uzbekistan)", the specific characteristics of systematic transformation and sustainable development of humanity in Uzbekistan during the past 25 years of independence were studied. In it, the initial conditions in the newly independent states of Central Asia and the economic, social and ecological processes that appeared during the subsequent transition period are studied from a comparative perspective [13]. Special attention is paid to the "Uzbek model". The positive impact of economic reforms on sustainable development, the main trends in the development of demography and labor resources, targeted work on education, health, environment, housing and social protection of the population are studied.

Summary. In fact, one of the urgent issues for Central Asian countries, especially the Republic of Uzbekistan, is to strengthen a healthy ecological environment, transition to a "green economy", combat climate change, desertification, biodiversity loss and other environmental problems. In this regard, the study of environmental aspects of the country's domestic and foreign policy is of urgent importance.

The analysis of the level of study of the topic shows that the history of the establishment and development of the international ecological relations of the Republic of Uzbekistan has not been studied separately in the context of historicity in Uzbekistan and abroad. Based on this, it is appropriate to further strengthen the study of the aspects of international cooperation of the Republic of Uzbekistan related to ecology and environmental protection, and in this process, it is appropriate to introduce the results of research conducted in various directions, including foreign research.

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**Mundarija**

<b>Akhrorov Damir Aslam o'g'li</b> , A COMPARATIVE LEGAL ANALYSIS: SELECTED PECULIARITIES OF ENVIRONMENTAL IMPACT ASSESSMENT IN THE RUSSIAN FEDERATION AND SWITZERLAND	5
<b>Makhmudova Khulkar Tilabovna</b> , SIGNIFICANCE OF JUDICIAL PSYCHOLOGICAL EXAMINATION OF DEALABILITY IN UZBEKISTAN	13
<b>Sultonali Mannopov, Nasriddinova Feruza Abduvohidxujayevna</b> , FROM THE HISTORY OF UZBEK NATIONAL MUSIC ART	17
<b>Khodjaev Abbas Agzamovich, Utegenova Mahliya Ahmad kizi</b> , ENGINEERING ANALYSIS OF STRUCTURES AND ASSESSMENT OF THE TECHNICAL CONDITION OF ARCHITECTURAL MONUMENTS	21
<b>Kamoliddin Mirzaakhmedov</b> , MECHANISMS AND TECHNOLOGIES FOR THE FORMATION OF THE LEGITIMACY OF POLITICAL AUTHORITY	29
<b>Z.Kh. Adilov, Utkirbek Gaymatov Makhamadjonovich, Zukhra Mamajanova Alijon qizi</b> , THE USE OF MEDICINAL PLANTS IN LANDSCAPE ARCHITECTURE PROJECTS IN OUR COUNTRY AND ARTISTIC SOLUTION OF IT	34
<b>Ataboyeva Shoxida Jurayevna, Ergashev Alijon Abdullayevich</b> , THE PLACE OF NATIONAL INSTRUMENTS IN THE ART OF MUSICIANS	38
<b>Sanjarbek Davletov, Ismail Nurmetov, Umida Tajieva</b> . STUDY OF INTERNATIONAL ECOLOGICAL RELATIONS IN UZBEKISTAN HISTORIOGRAPHY	43



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