



**IMPROVING THE LEVEL OF KNOWLEDGE OF STUDENTS THROUGH THE SCIENCE
OF NOTATION AND COMPUTER PROGRAMS**

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Annotation

The peculiarities of the science of notation and computer programs and its foundations, the problems of scientific methodology, the main directions and methods of modern ethnomusicology are described. In the field of notation and computer programming, students learn to work perfectly with computer programs.

Keywords: Notation, computer programs, Uzbek music, foreign music, Uzbek people, sing genres and works of art, folklore traditions.

Introduction

Notation and computer programming is a subject for students to theoretically and practically master the heritage of folk music. Students will learn about the formation and development of musical heritage, the history of its notation, the methods and activities of its representatives.

This subject is designed for students of music education, which defines the minimum level of knowledge, skills and abilities that a student must have in this subject, that is, Uzbek folk music, methodological guidelines on its classification, basic concepts of Uzbek music creation music layers, local local style, etc. are recommended. The program includes Uzbek musical works, musical works of foreign music, performing traditions, local styles and their peculiarities. colorful works of form and character, musical instruments and samples of works performed on them.

The Main Part

In recent years, the search, collection and recording of information on the history of Uzbek musical heritage, its scientific-theoretical study, practical application and delivery to experts in this field has become more active.

The rich musical heritage of the Uzbek people, which has its roots in ancient times, is still alive today. He combines folk songs (ie, folklore) as well as songs and instruments developed in terms of melody structure - epics and maqoms.

Uzbek folk music, like any other folk art, embodies the aspirations of workers, their lives and morals as an expression of the struggle for social and national liberation. Uzbek folk music is rich in themes, genres and diversity.

Genres of Uzbek songs and instrumental music are divided into two groups according to their function and place in life.



The first is songs and instruments that are performed only for a certain period of time or for a certain period of time. These include family songs, labor songs and hymns, as well as instrumental melodies performed at various ceremonies and performances.

The second is the songs and instruments that can be performed at any time in any setting. These include lapar, yalla, ashula, song, instrumental melodies and epics.

Each group has its own characteristics.

For example, the content of the first group of song genres, the performance of which requires a certain time or condition, is associated with a particular ceremony or other situation and is almost indistinguishable from it.

Indeed, one of the most pressing issues of today is the training of music teachers with a high level of professional knowledge, their education and training of highly qualified professionals.

For example, the monograph of the teacher I. Rajabiv, published in 1963, entitled "On the issue of status" can serve as proof of our opinion. In the context of this powerful scientific work, in particular, the fact that the Shashmaqom complex was originally used in professional (palace) music, was formed as a natural development of the Twelve maqom system, and its curtain, melody, percussion, avj- It has been decided that the laws of form and other formal structures are components of this whole system. There were also valuable comments on other forms of government, such as the Khorezm authorities and the Fergana-Tashkent road, as well as qualified instructions on their relationship with Shashmaqom.

Indeed, Ishak Rajabov, with a thorough knowledge of the practical performance of maqoms, was able to create a scientific concept that shared the historical and theoretical problems of this complex art. The fact that this book of the Union, the teacher-scientist, which is now rare and scientifically unique, became extremely important in the 60s and 70s of the last century, at a time when there is an official attitude to the priority of other cultural values and dubious "currents". sharp views on the classism and pro-European ideas of culture and on the status on which they are based, such as "remnants of the past", "reactionary feudal art", "boring art that has lost its essence" 'was dead. At the same time, this pamphlet was an active call for a scientific approach to respecting our ancient national values and understanding ourselves in the field of art.

The fact that I. R. Rajabov is a versatile scholar and a great specialist in the field of national traditional music is evident in the fact that he has solved a number of complex problems in this field. For example, the question of the origin of maqoms is one of the most controversial topics in musicology, with many scholars assuming that their melody bases are directly related to Arabic-Persian music. On the basis of Ishak Rajabov's research, the scientific hypothesis that maqoms are based on folk music became relatively stable. According to the scholar's in-depth observations, the maqom series "were created on the basis of the richness of folk music in general and are constantly enriched and improved on their basis, which in turn has a beneficial effect on the development of folk music culture." His well-known and well-known phrase, "Maqoms are examples of the classical style of folk music," is astonishing in that it embodies a world of meanings.



Another example. Prior to the publication of the book *On the Problem of Status*, scholars were of the opinion that the formation of the Shashmaqom as a series took place in the 16th century. In fact, this idea arose in connection with the erroneous conclusion of Professor AA Semenov on the manuscript No. 1466 kept in the Institute of Oriental Studies. While carefully reviewing the manuscript, I. R. Rajabov first draws attention to the fact that the manuscript consists of two works. One of them contained some information about the Twelve Maqams and Kavkabi, and the other "included poetic texts told to Shashmaqom, not in the 16th century, but during the reign of the Emir of Bukhara Nasrullah".

It is noteworthy that the scholar AA Semenov's erroneous opinion about this manuscript is not limited to this fact, but also fully demonstrates his source skills. In particular, "the fact that the poems of Bedil, Mashrab, Sayido, Zebuniso, Nozim, written in the XVII-XVIII centuries, were used among the texts of poems to Shashmaqom, proves that the above collection has nothing to do with the XVI century." in the book IR Rajabov.

There is also additional evidence to support the scholar's view: "Musical treatises written in Central Asia before the 18th century refer only to the Twelve Statuses. Musical sources written before the 19th century do not mention Shashmaqom ... So, it can be concluded that in the 19th century Shashmaqom was widespread, and in the 18th century it was a period of its formation". IR Rajabov shows that he worked very seriously on written sources. In this regard, his scientific comments and research on music brochures have become a solid basis for the network of music sources, which is now introduced as an independent discipline in special universities.

When we study the scientific heritage of I. R. Rajabov, we also see that it contains some special principles that encourage the reader to observe. For example, the master-scientist has given a scientific basis for the rules of form, but it turns out that this powerful art has almost "bypassed" the system of meanings. It is clear that the ruling ideology of the recent past has been an obstacle. It goes without saying that it is difficult to articulate the Islamic worldview and mystical ideas in the context of the status quo during the Soviet era. But here, too, we see that I. R. Rajabov expressed the essence of the status quo in a unique way. In particular, the scholar-scholar, in his major research manuscript *Maqomlar*, makes various assumptions about the origin of music, at which point he considers the sounds of Shirazi and Jami to be the grace of Allah, and sometimes attributes this issue to theology. As a result of the logical development of this idea, the content of the maqoms is also related to the Islamic faith, because Qutb al-Din al-Shirazi and Abdurahman al-Jami have special treatises on the science of the maqams based on mystical teachings. they had written.

It should be noted that in the research of Ishak Rajabov, the topic of "Islam and music", which is now very relevant and very dangerous during the Soviet era, was not left out. It is known that the leaders of the ruling ideology in this matter, as much as possible, tried to base their condemnation on Islam, and "drew" the attention of scholars to it. In particular, in the above-mentioned book by I. R. Rajabov there are lines written under the same ideological pressure. But one should not jump to conclusions when reading such lines, because the scientist has chosen a unique way of describing a topic of this scale. Thus, the ideas expressed in one or two sentences on the subject of "Islam and music" begin to be



addressed in a special way in the following pages of the book. Here are some specific examples. Page 98 of the book states, "After the spread of Islamic ideology in Central Asia and Khorasan, it became a major obstacle to the development of secular sciences, literature, art, and especially music culture." However, the following pages of the book contain important narrations, facts, and hadiths that confirm the opposite, on the basis of which the reader can draw his own conclusions.

The scholar's "conclusion" is also based on logic: "Central Asian music, including maqoms, has lived, matured and developed in the past in the struggle against the ideology of the reactionary classes - the traditions of Islam (!) at the same time, it has survived to the present day as a wonderful musical heritage of our peoples ". Of course, it is not difficult to understand that in these sentences, the politicians of that time used irony phrases ("class ideology", "hardened in struggle", etc.) that were repeated many times. Surprisingly, the fact that the maqams have "survived to the present day as a great musical heritage" casts doubt on the earlier assertion that "Islamic ideology is a major obstacle to the development of music culture." In this way, the issue of "Islam and music" becomes clearer.

Such "irrational" methods of expression have been widely used by our brilliant Soviet-era scholars. For example, Cholpon's literary-critical legacy is reflected in the following method: They would play games, weave love poems. (Ozod Sharafuddinov, a well-known literary scholar, describes the situation: "Cholpon seems to be openly laughing at the doctrine of the" class of art, "in particular.)

The scientific and creative activity of the famous scientist IR Rajabov had a very positive impact on the development of Uzbek music. In particular, as a result of the effective research of the teacher-scientist, the science of musicology has risen to a new level in the study of status, the establishment of relatively independent branches of the field of status and music sources, and, at the same time, secondary and higher special education. are taught as separate disciplines in the system of institutions. The scientific results achieved by the scientist Ishaq Rajabov are especially important in the study of classical professional music (great songs, maqoms, etc.) by Uzbek and foreign scholars, as well as in the scientific and practical conferences "Rajabikhanlik", which have been held regularly since 1993. is gaining.

In addition, a number of manuscripts of scholarly works, including "Maqomlar", "Dictionary of Oriental Music Terms", Mahmud al-Sherozi's "Durratut-taj li-ghurratid-deboj" encyclopedia"(On the science of music) from Persian to Uzbek, " Traktati srednevekovix uchenix o muzike v fondakh Instituta Vostokovedeniya AN Uzbekistana ", " Amir Temur and the music culture of the Temurids "not only for the general public, but also for the general public. It is not well known to many experts in the field. The preparation of these works for publication, which are kept in the library of the Art Research Institute and in the personal archives of the scientist, should be considered one of the most important tasks facing our musicologists. As a result of the first efforts in this direction, this publication was based on the manuscript "Statuses" by I. R. Rajabov.

It should be noted that the most perfect scientific work of I. R. Rajabov on the subject of maqoms is called "Maqoms", a manuscript of which is kept in the library of the Art Research Institute (inv. № 843). This comprehensive scientific work, based on the author's doctoral dissertation, can be described as an encyclopedia of status in terms of genre. Because it covers almost all issues related to this classical art, including the ancient, medieval and recent history of maqoms, aspects of theoretical study in the



Middle Ages, types of maqoms, structural laws and interactions. impact relationships and enforcement issues. However, the study also includes new pages and sections that are not included in the author's monograph "On Status." In particular, in the manuscript "Maqomlar" the ancient sources of this art are described in more detail, the description of medieval scholars' treatises on music is given a wide place and the table of types used in the system of makomat is given in full. . The work also includes a list of musical pamphlets stored in the book stock of the Institute of Oriental Studies, Language and Literature of the Academy of Sciences of the Republic of Uzbekistan, as well as samples of ghazals used in the past in Shashmaqom.

The following is the main reason why we refer to this manuscript, which is a detailed description of the teachings of Ishaq Rajabov, and write valuable commentaries on it and prepare it for publication:

1. While the Maqomlar manuscript is familiar to a narrow circle of experts, most musicologists, artists, and the general public are unaware of it. Therefore, it is important to publish the work in order to make it available to interested readers. There is a need to comment on some of the theoretical issues raised in the manuscript.

2. More than a quarter of a century has passed since this work was written, during which time Uzbek musicologists have conducted a number of studies on professional music genres. In view of this, it is necessary to provide, albeit briefly, new information on new scientific research on the subject of "Status". Such editorial work is included in the "Comments" section at the end of the study, and the punctuation marks were recorded throughout the text using parentheses [e.g., (1)].

At the same time, the manuscript of the Maqomlar study has been edited to some extent. In this case, IR Rajabov's unique style of "live" narration is fully preserved, but only some words and concepts are accepted in modern musicology (for example, "system", "tradition", "structure", "text", "Form" was replaced by the words "system", "tradition", "structure", "text", "form"). The following system of conditional abbreviations has also been used.

The Main Goals and Objectives of Science

The main purpose of the science of notation and computer programs is the practical application of theoretically studied musical phenomena. At the same time, students will be able to participate directly in the expedition, to work independently.

Theoretical study of the Uzbek folk music heritage was mentioned by the maqam scholar I. Rajabi in his book "Maqomat".

Students organize expeditions to the villages of the districts where they live and record musical compositions learned from their ancestors from the elders who live there.

The purpose of notation and computer programs is to provide students studying music education in the field of pedagogy with knowledge, skills and abilities of students to record samples of Uzbek music, foreign music and folklore. formation.

At the same time, one of the main goals of this science is to process, analyze and draw conclusions from the materials collected in modern music folklore on issues such as the structural features of traditional music, historical and local styles.



In the process of achieving these goals, it is recommended to perform the following tasks.

The peculiarities of the science of notation and computer programs and its foundations, the issues of scientific methodology, the main directions and methods of modern ethnomusicology are described. The learning process includes listening to teacher lectures and music samples, preparing for preparatory seminars on specific topics, as well as mastering independent notes and forms of music. Classes on notation and computer programming will end with a final rating test.

The knowledge, skills, and competencies of science students include: Student:

- The most important musical and historical processes in different periods of the life of the Uzbek people;
- Colorful instruments, rich performing traditions;
- Oral professional classical music and folklore;
- To record the souls of traditional Uzbek songs and instruments, samples of makom genres;
- Methods, genres and methodological systems of studying traditional music;
- Know modern methods of studying traditional music;
- Should be able to record works of folklore and professional classical music and composition, as well as to use computer technology programs, to master the basic methods of analysis;
- identify the commonalities and peculiarities of national musical traditions;
- Acoustic, rhythmic, melodic, melodic, structure, decorative and performance analysis and the ability to determine the tonality and rhythmic scale of a piece of music must be able to transcribe sounds into notes.

In the preface to Abdurauf Fitrat's pamphlet *Uzbek Classical Music and its History*, published in 1927, he said: Although it has achieved good results, it has not been widely disseminated in the field of Uzbek music. It is regrettable that the main reason for this is "the lack of musicologists who can work in this field, that is, who know the theory of music in the true sense of the word, and who are aware of the characteristics of Oriental music."

It should be noted that the issue of training music orientalists who can thoroughly study the status of Uzbek folk music and its classics became a vital necessity in the 1920s, but this is almost a topical issue. After 40 years, it came to its full resolution. It is no exaggeration to say that the scientific and practical activity of Ishak Rizkievich Rajabov (1927 1982), Doctor of Arts, played a key and decisive role. It is in the person of Ishak Rajabov that the various specialties (musicologist, source scholar, philologist, orientalist) that are important for this field are intertwined. On the one hand, Ishaq Rajabov is a brilliant representative of the famous Rajabian dynasty, a great performer of the maqom, tanbur and dutar, and on the other hand, he is a scholar of the Persian-Tajik language, a well-versed in the rules of classical poetry (aruz). was an expert who could read and interpret a variety of written sources, including musical treatises, written in the Arabic spelling of tmish. In addition, if we add that I. R. Rajabov is a brilliant scientist, a gifted researcher, then it will not be difficult to understand why the results of the research conducted by the teacher were so effective.

The IX-XIII centuries left a very rich legacy in the history of Eastern music culture. During this time many musical treatises were written, which, in terms of their content and weight, played an important



role in the development of music theory of the peoples of the world. According to Oriental music pamphlets, scholars have made several attempts to create music notes. As a result, he was able to write music in the 13th century. This writing system was the result of the research of Eastern scholars on the theory of music during the IX-XIII centuries.

Initially, Abu Nasr al-Farabi tried to write music. In this regard, his table in Kitabul-musiqiy al-kabir is noteworthy. This chart features a variety of vocalists, reminiscent of the vocals used in music schools today to improve the vocal skills of singers. But Farabi's schedule was for musicians and musicians. This table consists of five parts. It contains twenty-six different gammas. Down and up movements are called hobit and said, action-probable expressions that start from the middle of the vocal cords. When turned on, the speaker can move up and down. The movement of the speakers may vary. Roje 'is a retaliatory action; continuous - continuous movement; tafir - sacral action; lohiq - the movement of adjacent sounds at the same time; maxall - an action that is trapped at some point in the speaker; consensus - represents repetitive actions. These types of movements are known from the speakers in the table.

It should be noted that although the vocal cords in the table are represented by letters placed on the oud membranes, during the performance it is intended to sound unheated diatonic vocal cords. Proof of this is the fact that the speakers also contain letters (symbols) that are not used in the oud.

If we compare these letters with the symbols on the curtains, then the letters M N S are not found at all. If the loudspeakers from A to Y are matched to the oud curtains and played one after the other, a meaningless gamma is produced. Pharoah's vowels are about two octaves, with the lower octaves from A to X and the upper octaves from X to S. But the higher the octave, the better. We list the vowels in the table by means of notes and place the letters representing their steps at the bottom of some notes.

The speakers in the table are varied and very complex. It is not easy for someone who is learning to play musical instruments to play them. Thus, although this table cannot be said to be a means of writing melodies, it is important that it existed in the tenth century, and that this system laid the groundwork for the creation of the Eastern notation in recent times. In this table, the initial features of the note are reflected, and it also reflects the musical practice of the past.

This table contains a number of cases that reflect examples of live music performed in the 10th century. The table is also an important piece of evidence that shows the range of melodies performed at that time, including the melodies that take place on the maqom tracks. With the help of this table, the musicians have no doubt mastered the basics of melodies and songs. That's the decent thing to do, and it should end there.

Ibn Sina raised Abu Nasr al-Farabi's musical and aesthetic views to a higher level and clarified the issues of music theory. Although the musical works of many other scholars, such as Ibn Sina, had the initial features and expressions of the note, they could not yet be equated with the note. Safiuddin Abdulmomin (13th century), a famous Urmian musicologist, completed the work of his great contemporaries.



Develop a Positive Attitude Towards Music Heritage in the Learning Process

It is important to develop a positive attitude towards music heritage in the learning process. To achieve this goal, a course (academic) work is written, which is based on the materials of the expedition or musical works of their choice, which are included in the program or in which each student participates. Students will be able to tape-record songs that have been passed down from generation to generation by word of mouth from the people living in their county and village. They copy their words into their notebooks. Students need to master the history of our musical heritage as they explore our musical heritage. Historically, Al-Urmawi has played a significant role in the history of music in 12 plays.

He made a great contribution to the theory of Eastern music, to the creation of notes, and invented several samples of notes. Al-Urmawi's notes can be imagined with both the oud and the means of rhythm measurement used at that time. Al-Urmawi's first notation system was a letter notation. The great merit of the scientist is that he made it possible for students to read notations using simple letters, the circle method and numbers. So it is important to read the melody correctly by first using the circle method to correctly determine the function of the numbers under the letters that represent the height of the melody. Some elements of al-Urmawi's tablature are also found in the tanbur note system, discovered in the second half of the 19th century by the scientist, poet and composer Kamil Khorezmi. In Kamil Khorezmi's notation, the pitch was adapted to the 18 curtains of the tanbur, while Al-Urmawi's note system was adapted to the oud. Although there are some differences in the placement of dots in these two systems, it is surprising that there are three double dots in both notations. However, the double dots are horizontal in Al-Urmawi and vertical in the Khorezmian note.

T.B. Gafurbekov, a musicologist, reveals the secret and meaning of Al-Urmawi's notes: (13th century) was able to seal the composers' musical heritage under traditional oral conditions.”

Conclusion

Musician O. Matyokubov describes the main principles of this tanbur writing as follows: According to the eighteen curtains of the tanbur, eighteen lines are taken and dots are placed under them. Dots indicate the amount of nail strokes. The dot above the lines represents the strokes from above and the dots below. Sometimes the location of the dots is compared to some rhythmic shapes. Pauses are given by the -o (silent) sign. The note is read from right to left. His son and student Muhammad Rasul Mirza wrote down all the Khorezm maqoms.

What can be done to help students develop a positive attitude towards music heritage? The question is natural. To do this, students need to develop a positive attitude towards the musical heritage in the learning process and use it effectively in the classroom.

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