

## Section 2. Musical arts

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### PITCH STRATIFICATION AND MODEL FUNCTIONS OF OCTAVE SCALES (ADVOR) OF THE TANBUR

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#### Abstract

This article explores the octave scales (advor) of the tanbur as structured modal models of the Tajik-Uzbek tradition with functional centers, stable and unstable steps, microinterval ornamentation, and melodic movement. Using the example of the penta-tetrachord model of the octave scale of the doirai Rost, the article demonstrates the construction of the original (asli) and derivative (faryi) scales on seven pitch levels (tabaqa), their interval organization, and the role of individual scales (davr 1, 2, and 5) in the formation of the modal system of the Shashmaqom cycle. The analysis demonstrates the connection between the vertical (harmonic) and horizontal (melodic-dynamic) aspects of the modal structure and performance practice, emphasizing the importance of octave scales for the intonational integrity of the maqom and the systematic nature of the tanbur scale.

**Keywords:** *tanbur, octave scales, advor, doirai Rost, Shashmaqom, modal system, penta-tetrachord, functional degrees, maqom*

The main objective of this article is to examine the octave scales (advor) of the tanbur as structured modal models of the Tajik-Uzbek tradition with functional centers, stable and unstable degrees, microinterval embellishments, and characteristic melodic movement. An analysis of octave scales reveals intervallic patterns, the functional connections between degrees, and their role in the formation of the modal system of the Shashmaqom cycle (Shashmakom: 2016).

Each degree of the scale (tabaqa (Tabakot) – “level”, step of the scale) can be the initial tone for constructing a scale (davr (Davr is an octave cycle constructed as a scale based on each degree of the tanbur scale), forming seven varieties – the original (asli (Asli is the main “breed” of the mode in the musical tradition of Shashmaqom, on the basis of which the main type of mode maqom is formed) and six derivatives (faryi (Faryi is a derivative “breed” of mode in the musi-

cal tradition of Shashmaqam, on the basis of which derivative types of mode are built, such as shuba and ovoza). The concept of scales (advor) and the octave scale (doira) reflects the vertical (harmonic) and horizontal (melodic-dynamic) aspects of modal organization, linking sound structure with performance practice. Let's consider such a scale construction using the example of the doirai Rost – a penta-tetrachord model of the octave scale (Abdurashidov A. A., 2016, p. 90–91).

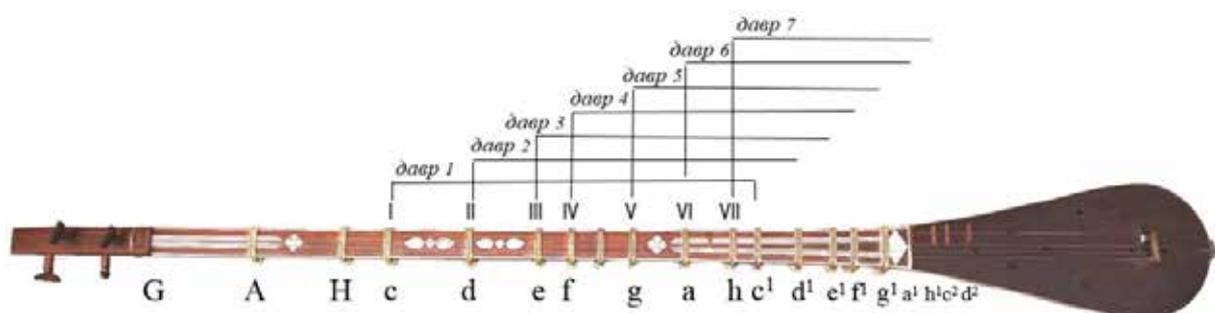
The octave scale of the Doirai Rost is one of the most stable and system-forming models in the tanbur scale structure. Its intervallic organization forms the basis for a number of scales characterized by the pronounced modal inflections characteristic of the classical Shashmaqom musical tradition.

It is known that when the tanbur tuning changes, the octave scales are subject to a shift

in pitch. Depending on the specific tuning of the instrument, their initial supporting degree can be located at different levels of its scale. Thus, the same modal construction can be realized in various pitch positions, which is a characteristic and fundamentally significant feature of tanbur performance practice. Thus, the penta-tetrachord octave scale of the Doirai Rost in the fourth tuning (Buzurg) is formed from the seventh fret (sound g), and in the fifth tuning (Rost) from the third fret (sound c) (Mironov N. N., 1932; Radjabov I. R., 1970).

To clearly demonstrate this octave scale within the tanbur scale, which is most characteristic of the Rost scale of fifths, we will present it in a projection from the minor octave (c). Typically, this octave scale is presented from this degree. The construction of scales (advor) based on it is as follows (see Fig. 1):

**Figure 1.** Diagram of the construction of scales (advor) within the octave scale of the doirai. Growth of the tanbur



The primary octave scale type – davr 1 – represents the normative, initial (asli) implementation of the invariant structural model of the octave scale and is formed from the sound to the minor octave (c), which functions as its first, lowest, and systemically determining step. In other words, this octave scale belongs to the basic model that determines the structure of subsequent variants.

The construction of octave scales on the subsequent six steps of this scale – interpreted as successively ascending pitch levels (tabaqa)—leads to the formation of corresponding derivative (far'i) varieties, each of which acts as an independent modal-functional subtype of the original structure. That is, this is when a variant of the octave scale arises from a shift in the tonal center, supporting sounds, or a change in interval accents. Tak-

en together, this forms a closed and theoretically complete series of seven octave scales, uniquely correlated with the seven pitch levels of the internal modal intonation stratification of a given octave scale (see table 1).

The example given (Fig. 2) shows that three of the seven octave scales – davr 1, davr 2, and davr 5 – are formed from the steps of shokhpard, aslpard, and zarpard, which possess distinct vertical harmonic consonances. These octave scale variants differ from the four subsequent ones in the functional specificity of their fundamental tones, which determines their special role in the organization of the octave scale.

Considering the acoustic properties of the tanbur, it should be noted that the second step of the octave scale – the sound of the re (d) of the minor octave – functions as

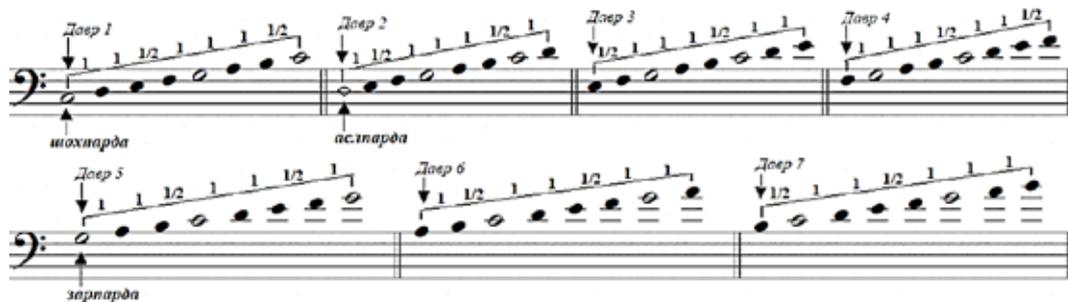
the supporting tone (aslpard), as it correlates with the characteristic harmonic properties of the instrument. This, in turn, affects the

stratification of steps and the intervallic organization of the octave scale, as well as the construction of scales based on it.

**Table 1.** The system of octave scales (advor), formed on seven pitch levels (tabaka) of the octave scale of the doirai. Growth of the tanbur

Ступени (парда); высотный уровень (табака)	Функции ступеней (вазониф)	Чередa октавных гаммы (навбат)	Виды гамм (агнозь)	Система октавных гамм — advor														
I	шохпарда	давр 1	Основной (асли) Производные (фарьы)	c	d	e	f	g	a	h	c <sup>1</sup>							
II	аслпарда	давр 2		d	e	f	g	a	h	c <sup>1</sup>	d <sup>1</sup>							
III	заифпарда	давр 3			e	f	g	a	h	c <sup>1</sup>	d <sup>1</sup>	e <sup>1</sup>						
IV	заифпарда	давр 4				f	g	a	h	c <sup>1</sup>	d <sup>1</sup>	e <sup>1</sup>	f <sup>1</sup>					
V	зарпарда	давр 5					g	a	h	c <sup>1</sup>	d <sup>1</sup>	e <sup>1</sup>	f <sup>1</sup>	g <sup>1</sup>				
VI	заифпарда	давр 6						a	h	c <sup>1</sup>	d <sup>1</sup>	e <sup>1</sup>	f <sup>1</sup>	g <sup>1</sup>	a <sup>1</sup>			
VII	заифпарда	давр 7							h	c <sup>1</sup>	d <sup>1</sup>	e <sup>1</sup>	f <sup>1</sup>	g <sup>1</sup>	a <sup>1</sup>	h <sup>1</sup>		

**Figure 2.** Notational fixation of the octave scale system (advor) within the octave scale of the doirai Rost



In musical notation, the construction of this system of octave scales can be represented as follows: (fig. 2):

At the same time, octave scales differ not only in absolute pitch but also in their internal

intervallic-functional organization (see Fig. 2). Each scale represents a unique structural configuration of pitches, reflecting the patterns of the penta-tetrachord scale of the doirai Rost, which is systematically illustrated in Table 2.

**Table 2.** Structural variations of octave scales (advor), organized based on the octave scale of the doirai Rost tanbur

Высота (табака) ступеней (парда)	Функции ступеней (вазониф)	Последовательность (навбат) октавных гамм	Виды (агнозь)	Структурные разновидности построения октавных гамм (advor)														
I	шохпарда	давр 1	Основной (асли) Производные (фарьы)	1	1	1/2	1	1	1	1/2								
II	аслпарда	давр 2		1	1/2	1	1	1	1/2	1								
III	заифпарда	давр 3				1/2	1	1	1	1/2	1	1						
IV	заифпарда	давр 4					1	1	1	1/2	1	1	1/2					
V	зарпарда	давр 5						1	1	1/2	1	1	1/2	1				
VI	заифпарда	давр 6							1	1/2	1	1	1/2	1	1			
VII	заифпарда	давр 7								1/2	1	1	1/2	1	1	1		

The basis of this scale is a sequence of small intervallic steps within major and minor seconds, represented by the following structure: tone-tone-semitone-tone / tone-tone-semitone.

Major seconds (five in number) dominate this pitch organization, while two characteristic minor intervals – semitone steps – form

internal points of tension and impart a specific tonal coloring to the scale. As a result, the following key elements emerge within this intervallic structure:

- 1) The first (lower) degree (shokparда) provides the modal center and stability;
- 2) The second degree (аслпарда) serves as an additional harmonic supporting tone;

3) The fifth degree (zarparda) forms the upper supporting tone of the mode;

4) The remaining degrees (zaifparda) serve as intermediate, transient, unstable degrees;

5) The tonal (parda) and semitone (nim-parda) connections of minor intervals determine the nature of the melodic development.

An analysis of the relationship between the tanbur's pitch system and the modal organization of the Shashmaqom cycle reveals an organic and deeply structured correlation. Individual octave scales are revealed to function as basic form-generating matrices, defining the principles of formation, differentiation, and hierarchy of modal types within the cycle. Possessing an internal system and intervallic and intonational completeness,

octave scales prove to be the most representative models for displaying the structure of the Shashmaqom cycle's modal scales, allowing them to be viewed as integral intonational and structural configurations.

For example, three octave scales – the first (davr 1), the second (davr 2), and the fifth (davr 5)—occupy a central place in the performance practice of the Rost maqom on the tanbur. Their functional dominance determines the establishment of pitch levels and defines the modal parameters of all the main modes of the Rost, Ushshok, and Sabo maqom Rost. In musical notation, their structural and intonational features are manifested as follows: (fig. 3).

**Figure 3.** Octave scales that determine the pitch levels of the three types of modes Rost, Ushshok and Sabo in the structure of the maqom Rost



In other words, these scales are used in the performance of the maqom of the same name and its derivative sections of the cycle, ensuring intonational expressiveness and structural integrity of the canon. Thus, the pitch levels of the first, second, and fifth octave scales are used to form individual sections of the cycle of the modal system of the maqom Rost.

Let's consider how the pitch system is structured in the "Nasr" cycle of the maqom Rost:

1) the first scale (davr 1) becomes the basis for the formation of the modal scale, on which the section of the cycle "Nasr" is built – Sarahbori Rost (see musical example 1).

**Musical example 1.** Fragment of the section Sarahbori Rost from the vocal-instrumental cycle "Nasr" of the maqom Rost (Shashmakom: 2016, p. 113).

**1. САРАХБОРИ РОСТ (Ҳофиз)**

М.М. ♩ = 60 **1. Сархат**  
*Сароҳанг*

Овоз ва танбур

Дойра

*Нимҳати 1.*

Со - қи ба  
пу - ри бо - да ба - раф - рӯз чо - ми мо!

*Нимхати 2.*

Мут - риб, би - гў, ки ко - ри ча -  
хон шуд ба ко - ми мо!

1) the second scale (davr 2) becomes the basis for the formation of the modal scale on which the sections of the Nasr cycle are built – Talkini Ushshok, Nasri Ushshok and Ufari Ushshok (see musical example 2).

**Musical example 2.** Fragment of the Nasri Ushshok section from the vocal-instrumental cycle “Nasr” of the Rost maqom (Shashmakom: 2016, p. 140).

**3. НАСРИ УШШОҚ (Хофиз)**

М.М. ♩ = 76    **1. Сархат**  
*Сароҳанг*

*Нимхати 1.*

*Нимхати 2.*

**2. Миёнхат**  
*Нимхати 1.*

1) the fifth scale (davr 5) becomes the basis for the formation of the modal scale on which the section of the cycle “Nasr” is built – Navruzi Sabo (see musical example 3)

**Musical example 3.** Fragment of the Navruzi Sabo section from the vocal-instrumental cycle “Nasr” of the Rost maqom (Shashmakom: 2016, p. 150–151).

Thus, the sounds in the octave scale of the Doirai Rost are distributed according to a specific hierarchy: some perform a supporting function – these are the steps with pronounced vertical harmonic consonances; others play a supporting, intermediate, or transitional role. This distribution reflects

pitch stratification, that is, the differentiation of steps according to their function and degree of stability within the octave scale. Moreover, the organization of octave scales forms a pitch hierarchical system that establishes the principles for constructing the modal structures of the Shashmaqom cycle.

#### 4. НАВРЎЗИ САБО (Ҳофиз)

М.М. ♩ = 72 **1. Сарҳат**  
*Сароҳанг*

*Назмаи парда* *Нимхати 1.*  
Са - бо, ба

лутф би - гӯ он ғи - зо - ли

*Нимхати 2.*  
раъ - но - ро, Ки

сар ба кӯ - ху би - ё -

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