

The following terminologies are adopted from Hormoz Farhat's "*The Dastgāh Concept in Persian Music*" (Farhat, 1990a) and Dariush Talaī's "*The musical language Elements of Persian musical language: modes, rhythm and syntax*" (Talaī, 2014) due to their comprehensiveness and high accuracy:

Āvāz: The term means "sound, voice, song, or tune". Vocal non-metric music. Also, the secondary modal systems such as *āvāz 'e abū atā* or *bayāt 'e Esfahan*.

Chāhār meẓrāb: (Meaning "four strokes" in Persian). A fast metric instrumental piece usually recognised by a repetitive ostinato pattern known as *pāyeh*.

Darāmad: The term *darāmad* means beginning, or introduction, and refers to the first piece within any given *dastgāh*. The *darāmad* is representative of the sound of the whole *dastgāh* where the essence of a mode is born.

Dastgāh: There are twelve cyclic modal systems known as *dastgāh* within the *radīf*. Each *dastgāh* includes different motifs, short pieces (*gūsheh*) and have a recognisable identity. They are evolved from a previous less complex *maqām* system over centuries (\approx 17th century). It comprises of several modal levels beginning from the lowest register and rising to the highest register.

Dāng: It is defined as the modal unit, and most of the times it refers to forth and tetrachord: In Persian classical music the fourth is a particularly important interval. Since it is a fixed interval, it acts as a frame. By combining different *dāngs*, whether connected or overlapping, modal structures are made (Alizadeh et al., 2012). According to Asadi (2008, pp. 22-24), who is the first musicologist to discuss this idea, other units such as trichord and pentachord are also considered as the structural components of scales. In practice, a pentachord is a tetrachord augmented with a preceding or succeeding note.

While several different theories exist around this idea, Talaī's approach seems to be the most widely accepted one. He describes that all modes in Persian classical music are created from four major *dāngs*, namely *shūr*, *māhūr*, *dashtī* and *chahārgāh*. The intervals of these *dāngs* are illustrated in Figure 1, based on cents.

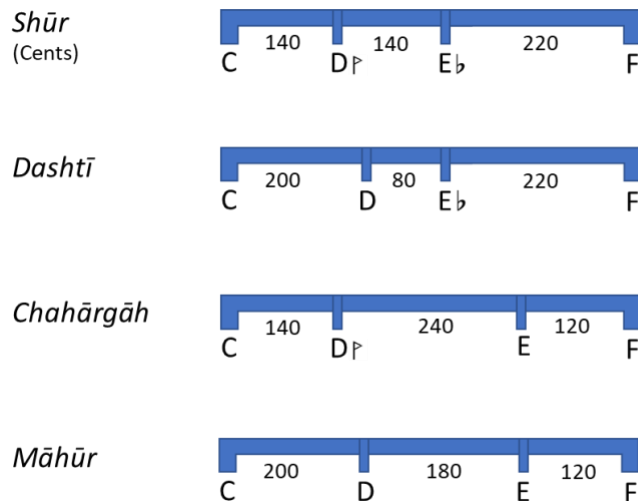


Figure 1. Four major dāngs and their intervals in Persian classical music according to Talaī's theory.

Gūsheh: The term *gūsheh* means “corner”. They are short pieces within a *dastgāh* that are used as melody models to compose and improvise.

Īst: The word means “stop”. *Īst* is another key modal element and is referred to the note on which the melody ends in one *gūsheh*. The *īst* note may be the same as the *shāhed* in some *dastgāhs* like *māhūr*, *shūr*, and *chahārgāh*, or might be different in others such as *homayūn*, *dashtī*, and *Esfahān*.

Koron (P): Koron denotes half flat and lowers a note by approximately a quarter step. Ali Naqi Vaziri invented this symbol as well as *sorī* (see below) for the first time at the beginning of the 20th century.

Maqām: The term means “place, location or position” in Arabic. It refers to the ancient Persian (before Qajar dynasty), current Arabic and Turkish musical systems among others. Each maqam system of melodic modes organised to represent all the characteristics of a musical piece. In contemporary classical Persian music, maqam refers to a specific mode in a *dastgāh*.

Owj: The melodic climax of a *dastgāh* or a composition. In some *dastgāhs*, it can also be referred to a particular *gūsheh* which reaches a relative climatic pitch.

Radīf: The *radīf* is a series of *gūshehs* that constitute the repertoire of Persian classical music. These *gūshehs* are classified according to each *dastgāh* and are performed in a hierarchy and

specific order. *Gūshehs* of the *radīf* are used as melody models for composing and improvisation.

Reng: (the term signifies a dance in the classical style). A metered performance form in Persian classical music mostly performed in a fast 6/8 rhythm. A limited number of *rengs* come into the repertoire of each *dastgāh* from or before the nineteenth century with no known composers. Since the twentieth century, however, there has been a growth in this performance form with known composers for all recent additions.

sāz'o āvāz (call and response): An improvised form of Persian classical music where an instrument (*sāz*) accompanies vocals (*āvāz*). This is a non-metric form performed in an unpredictable beat while respecting the meters and rhythms of the verses. Following the performance of each line of the verse by the vocalist, at least one melodic instrument improvises a response to vocals (*javāb'e āvāz*).

Shāhed: The term means “one who bears witness”. It can be similar to “tonal centre” in Western music. *Shāhed* plays the most central role among all other notes in a scale and all other notes revolve around it.

Sorī (♯): A sign that denotes half sharp, it corresponds to an approximately quarter step higher in tone in Persian classical music.

Tahrīr: *Tahrīr* is a technique that involves fast and short repetitive notes by alternately cutting the air in the throat to produce melismatic phrases. It shows the singers vocal capacity.

Tasnīf: A vocal song (also known as Persian Ballad) that is composed within the frame of *dastgāh(s)*. Usually classical but occasionally contemporary poetry would be used in the composition of *tasnīf*. The *tasnīf* involves a flexible rhythm and can be based on duple, triple or quadruple metres, with slow to moderate and very seldom, fast tempo. Historically, it appears to have emerged in parallel with *reng*.

Macrotones: Persian classical music-specific intervals larger than a semitone. The term is used by the author in place of the recently imported inappropriate and incompatible term, microtones. The term microtones are commonly appearing in different texts concerning Persian classical music without attention to the relevance of its meaning to the types of intervals that exist in this musical style. In Persian classical music, there are tones that are larger than the semitone and smaller than the whole-tone (called *kūchak* or *tanīnī*). However, the smallest interval is a semitone, and quartertones do not appear as intervals (Farhat, 1990a, p. 13).

Intervals that exist in Persian classical music are listed in Table 1 according to the recent theories (Khaleqi, 2010, pp. 96-107; Talaī, 2015, pp. 13-22).

Table 1. Persian classical music-related intervals based on contemporary theories.

Interval	Old books names	Symbol	Size	Size (cent)
<i>Kūchak</i> (Small)	<i>Tanīnī</i>	T	$\frac{1}{2}$ interval	80-120
<i>Khonsā</i> (neutral)	<i>Baghieḥ</i>	B	$\frac{3}{4}$ interval	140-150
<i>Bozorg</i> (Big)	<i>Mojannab</i>	M	1 interval	180-220
<i>Bīsh Bozorg</i> (super big)	<i>Bīsh Tanini</i>	BT	$\frac{5}{4}$ interval	240

A recent investigation by Farshad Sanati (2020, p. 40), has used computational ethnomusicological to shed light on the exact size of Persian classical music-specific intervals. Sanati investigated the intervals used by practitioners who follow old and contemporary theories using modern tools and technologies. His valuable findings on the exact intervals of four existing *dāngs* are summarised in Figure 2.

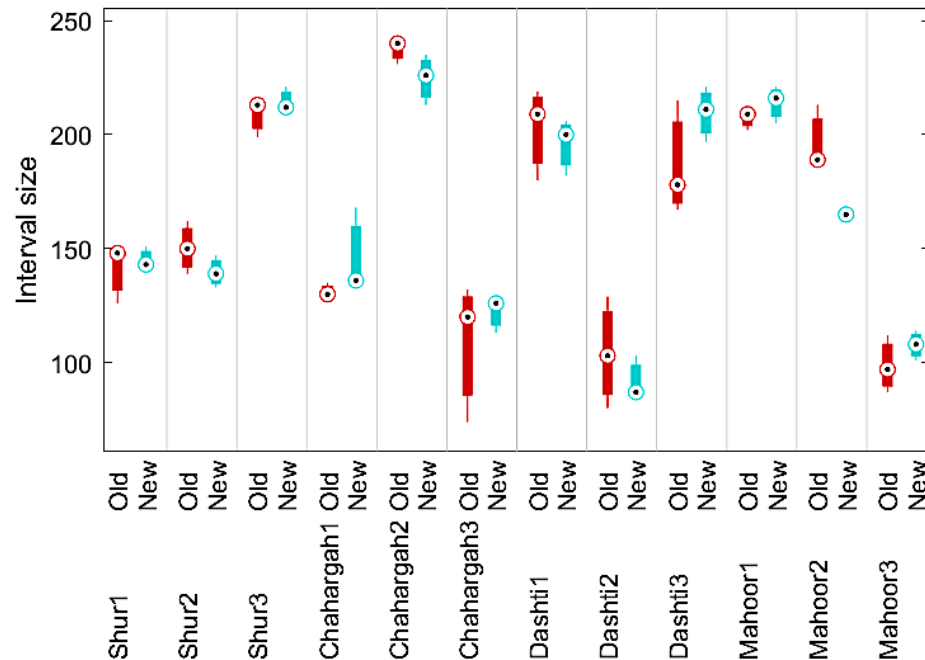


Figure 2. Boxplot comparing the distributions of the three intervals in each of the four Persian classical music *dāngs* (Sanati, 2020, p. 40).