

Studying unique musical effects and techniques in Iranian instruments and voice

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Abstract: *The Musical effects and techniques in Iranian music have a great impact on the musical expression and composer's intention. Besides, Iranian instruments and vocals have unique capacities that have their own special techniques. In this research, the techniques have been investigated separately for Tār, Kamāncheh, Santūr, Ney, and Iranian voice. Also, musical effects have been reviewed in general. Some of these techniques are written and some are unwritten, but they are noticeable and obvious to musicians. Therefore, Iranian composers especially in their improvisations, use these techniques along with the other two elements of articulation and musical expression, to create effective compositions.*

Key-words: *Musical effects, Musical techniques, Iranian instruments, Iranian music.*

1. Introduction

The classification of Iranian musical instruments is different depending on numerous approaches to the matter. They are classified according to the physical properties of the instrument such as shape and construction. There are three categories: string instruments, woodwind instruments and percussion instruments. The manner in which the instrument is played (plucked, bowed, etc.) and the musical function of the instrument (rhythm and melody) (Atrāi and Darvishi 2009).

The musical effects which are performed by Iranian musician are broad. So, one type of instrument was chosen from each category. In this research, musical techniques are studied in Tār, Kamāncheh, Santūr, Ney, and Iranian singing voice. Most of the techniques of Iranian music have been preserved by musicians for hundreds of years. In addition, contemporary techniques increase the capacity and ability of instruments to create different musical effects.

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1.1. Tār (String instrument/ Plucked)

Tār is the most widely used plucked instrument in Iran. The instrument is held on the breast, plucked at the center of its body, using a small [brass](#) known in Iran and Azerbaijani as Mezrāb or Mizrāb (Alizādeh 2008).

1.2. Kamāncheh (String instrument/ Bowed)

The “traditional” Kamāncheh had three silk strings, but “modern” Kamāncheh has four metal strings. This instrument is highly ornated and is about the size of a viola. The tuning varies depending upon the region of the area where it is being played. In Tehran, the Kamāncheh is tuned as the same manner as a violin: G, D, A, E (Kāmkār 2020).

1.3. Santūr (String instrument/ Struck)

Santūr has 72 strings, arranged in groups of four, i.e., each of four closely spaced strings are tuned to the same pitch. Each group of four strings is supported by a small, movable, wooden bridge; the bridges are positioned to give the instrument a range of three octaves (Atrāi and Darvishi 2009).

1.4. Ney

Ney is an [end-blown flute](#) that figures prominently in [Persian music](#), [Turkish music](#) and [Arabic music](#). The interval between the holes ranges from a [semitone](#) to three quarter tones, although [microtones](#) (and broader pitch inflections) can be achieved via partial hole-covering, changing the [embouchure](#), positioning and blowing angle (Zeinali 2018).

1.5. Iranian voice

The classical vocal style of Iran, which is based on the elaborate modal system is called *Dastgāh* and is primarily used for singing classical Persian poetry. (Kazemi 2019).

2. Discussion

In Iranian instruments, there are techniques that have been used and passed down from one generation to another for more than several hundred years, which can be named as “classical techniques”. Also, contemporary musicians and composers have added newer techniques while conserving the old techniques, which has created a new timber and innovative sounds. The influence of Western techniques can be seen in contemporary playing techniques. For example, the influence of

violin bowing can be seen in playing Kamāncheh. These changes have significant effect on musicality and sonority of players. Also, the arpeggio in western music has been used in Santūr in recent years.

2.1. Musical effects of Iranian instruments

2.1.1. *Dorāb*: It is a technique in which three pluckings with right *mizrāb* (plucking the *mizrāb* from up to down on the string), left *mizrāb* (plucking the *mizrāb* from down to up on the string), and right *mizrāb* are performed consecutively. *Dorāb* can be used on one to three notes and is played at a speed equal to a thirty second note. Of course, from a theoretical and precise point of view, it should be said that the first two notes are played at the speed of a thirty second note, and the third note is played at the speed of a sixteenth note. This technique is used in some instruments such as tār.

2.1.1.1. *Panjeh-kāri*: It is a technique, capable of playing only by masters, in such a manner that without plucking the strings with the left hand on the strings, the right-hand finger stays on the string, and the next finger plucks the string similar to right hand pizzicato in violin and thus the strings create a unique sound. This technique is used in some instruments such as tār.

2.1.1.2. *Pajvāk* technique: *pajvāk* means rapid, consecutive alternation with the note above or below. The difference between trill and *pajvāk* in Iranian plucked instruments is that usually when the performer is playing trills, he constantly plucking the string but when playing *pajvāk*, the performer only plucks the string once and uses the echo of the note to play alternations. This technique is used in some instruments such as tār.

2.1.1.3. One of the sound effects that is used in north of Iran is playing rhythmic song and melodies with Kamāncheh in such a way that during playing lyrical melodies, the performer knocks on the bowl-shape body of instruments with a bow (Performing the first beats of the rhythm). This technique is performed consecutively and in between pizzicatos of the left hand on open strings. In fact, the rhythmic impact of the bow on the back of the bowl evokes the sound of a percussion instrument.

2.1.1.3.1. *Nafas-bargardān*: In playing the Ney and other Iranian woodwind instruments, with the lips, the "*Nafas-bargardān*" technique is used. This technique allows the musician to play music continuously without

pause. In the exhalation, the last amount of air is stored in the mouth chamber and at the same time as it is released, the musician fills his lungs with air through the nose.

2.2. Musical effects of Iranian voice

In Iranian songs, unlike opera, they do not open their mouths completely, but rather to a cone-shape the extent to which the mouth is permitted to open during singing is not more than diameter of the index finger which can increase by 20% when the singer is singing *forte*. Otherwise, the voice loses its enchanting tune.

Iranian voice has a group of unique technical effects and techniques, called “*tahrir*” which at first was inspired by imitation of nature and melodious birds. In general, each of the famous and well-known singers had their own unique series of “*tahrir*” which are difficult to imitate even for other singers. The most beautiful form of *tahrir* is *chechecha*, which sounds like canary singing (Kazemi 2019).

2.3. Musical techniques

The musical techniques with special signs, are generally displayed in the pieces of Iranian music. Some techniques are common in Iranian instruments and some are specific to a particular instrument (tables 1, 2, 3, 4).

Classical Techniques	Similarity to Western techniques	Existing in other Iranian instrument
<i>Riz (Pish Riz, Tak Riz, Riz Sāde)</i>	Trill or Tremolo	Yes
<i>Pāmalakhi</i>	A kind of Tremolo	No
<i>Tekie</i>	A kind of Acciaccatura	Yes
<i>Domezrāb chap</i>	-	No
<i>Dorāb</i>	-	Yes
<i>Shalāl or zinat</i>	Acciaccatura	No

Table 1. Musical techniques of Santūr (Darvishi 2013)

Classical Techniques	Similar to Western musical techniques	Exist in other Iranian instrument
<i>Dorāb</i>	-	Yes
<i>Panjekāri</i>	Pizzicato of left hand	Yes
<i>Gerefte</i>	A kind of mute	Yes
<i>Pejvāk technique</i>	-	Yes
<i>Nāle</i>	-	Yes
<i>Riz</i>	Tremolo	Yes
<i>Eshāre</i>	-	Yes
<i>Tekie</i>	A kind of Acciaccatura	Yes
<i>Vibre</i>	Vibration	Yes
<i>Glissando</i>	Glissando	Yes
<i>Shalāl</i>	Acciaccatura	Yes
<i>Parvāne</i>	-	Yes
<i>Kharāsh</i>	-	Yes

Table 2. Musical effects and techniques of Tār (Alizadeh 2008)

Classical Techniques	Similar to Western musical techniques	Exist in other Iranian instrument
Trill	Trill or Tremolo	Yes
Staccato	Staccato	No
<i>Vākhān</i>	-	No
Legato	Legato	Yes
Second interval glissando	Glissando	Yes
<i>Tekie</i>	A kind of Acciaccatura	Yes
Tremolo	Tremolo	Yes
<i>Gazesh foghāni</i> and <i>tahtāni</i>	Upper and lower mordent	No

Table 3. Musical effects and techniques of Ney (Darvishi 2013)

Classical Techniques	Similar to Western techniques	Exist in other Iranian instrument
<i>Dorāb</i>	-	Yes
Staccato	Staccato	Yes
Spiccato	Spiccato	Yes
<i>Tekie</i>	A kind of Acciaccatura	Yes
Pizzicato of right and left hand	Pizzicato of right and left hand	Yes
Tremolo	Tremolo	Yes
<i>Gazesh foghāni and tahtāni</i>	Upper and lower mordent	No
Vibre	Vibration	Yes

Table 4. *Musical effects and techniques of Kamānche (Kamkar 2020)*

3. Conclusion

The extensive techniques and effects of Iranian music create unique music pieces with special musicality and sonority that holds a special place in Iranian culture and history. Simultaneously, the connection with Western music can also happen through these effects which can result in inspiring new generation of composers to combine western classical music with the elements and special techniques of Iranian music.

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References

- Alizade, Hossein. 2008. *Dastūr “tar” and setar*. Māhoor.
- Darvishi, Mohammadreza. 2013. *Encyclopedia of the Musical Instruments of Iran*. Māhoor.
- Darvishi, Mohammadreza, and Atrai Arfa. 2009. *Iranian musical instruments*. Māhoor.
- Kamkar, Ardeshir. 2020. *Shiveh-ye Kamāncheh Navazi*. Māhoor.
- Kazemi, Ali. 2019. *Tahrir in persian vocals*. Māhoor.
- Kolivand, Majid. 2020. *Iranian instruments*. Nay o Ney.