

A COMPARATIVE VIEW OF THE MEY, BALABAN AND DUDUK AS ORGANOLOGICAL PHENOMENA*

KARAHASANOĞLU, Songül**
TÜRKİYE/TURÇIA

ÖZET

Karşılaştırılmalı Bir Çalışma; Mey, Balaban ve Duduk

Türkiye’de kullanılan adı ile *Mey*, Kafkaslarda *Balaban* (özellikle Azerbaycan, kuzey İran ve kuzeydoğu Irak, Orta Asya) ve Ermenilerde kullanılan adı ile *Duduk* birbirine benzer, çift kamışlı nefesli bir çalgıdır. Ünde yedi veya daha fazla, arkada bir veya iki deliklidir. Bu çalgılara karakteristik sesini veren geniş çift kamışdır. Kamışın üzerinde sesin tonunu ayarlamaya yarayan *kıskaç* ve *kamış* çalınmadığı zaman korumak amacı ile *ağızlık* kullanılır. Bu çalgıların kamış ve gövde bileşiminin inanılmaz bir uyumu vardır. Şeklen birbirine benzeyen ama aralarında farklılıklar bulunan aynı kökene sahip olduğu düşünülen bu çalgılar, aynı zamanda var oldukları ülkelerin müzikal yapısından da etkilenmişlerdir. Bu nedenle her üçünde de tonal diziler değil de makam dizileri kullanılmasına rağmen aralarında çalım teknikleri ve tını farklılıkları bulunmaktadır.

Geleneksel olarak ikinci bir sazın veya vurmali çalgı eşliğinde kullanılır. Zurnanın açık mekanlardaki görevini bu çalgılar kapalı mekânlarda yerine getirirler. Aynı zamanda âşık çalgısı olarak da kullanıldığı görülmüştür. Ancak günümüzde her tür müziğin içinde renk saızı olarak kullanılmaktadır.

Ses sahasının bir oktavla sınırlı olması nedeni ile farklı boylarda çalgılar mevcuttur. Genel olarak sesin kontrolü parmaklar ve dudakların kamış üzerindeki baskısına göre ayarlanmaktadır. Mey, 23 ila 44 cm uzunluğunda yedisi önde, biri arkada olmak üzere sekiz ses deliklidir. Gövdenin baş tarafına eklenen kamışın uzunluğu 8 ila 15 cm. arasındadır. Duduk ve Balaban arasında bazı farklılıklar olmakla birlikte fiziksel yapısı mey’e nazaran birbirine daha yakındır. Bunlar sekizi önde biri arkada olmak üzere dokuz ses deliklidir bazen onbir delikli olanına da rastlanır. Balaban’ın gövde uzunluğu 28 ila 31 cm. arasında Duduk’un ise 28 ila 41 cm. Kamışlarının uzunluğu ise 9 ila 11 cm. arasında değişmektedir.

Bu sunumda Mey, Duduk ve Balaban etimolojik olarak da incelenecek, köken konusunda bilgi verilecek bu çalgılar görsel ve işitsel malzeme yardımı ile tanıtıldıktan sonra aralarındaki farklılıklar ve benzer yönleri ortaya koyulacaktır.

Anahtar Kelimeler: Mey, balaban, duduk, çalgılar.

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** Doç. Dr., İTÜ, Türk Musikisi Devlet Konservatuarı, Müzikoloji Bölümü. e-posta: atason@itu.edu.tr

The *mey*, *balaban*, and *duduk* are three closely related instruments of the double-reed family. The Turkish *mey*, the Caucasian *balaban* (particularly in Azerbaijan, but also northern Iran and northeastern Iraq), and the Armenian *duduk* are closely related, double-reed aerophones, characterized by a short cylindrical tube with seven or more finger holes and a thumb hole coupled with a bridle affixed to a large flattened reed. Other, closely related instruments are the *balaban* of Central Asia; the *duduki* of Georgia; the *hichiriki* of Japan; the *kuan*, *guan*, or *guanzi* of China; the *yasti balaban* of Dagestan; the *hyanpiri* of Korea; the *balaban* of Uzbekistan; and the *kamis sirnay* of Kyrgyzstan.

Instruments are the first ethnographic belongings to immigrate with people, travel all around the world, and become intercultural. It is quite natural that the body has become a little thicker or thinner, shorter or longer throughout the centuries. Even having one more hole or one missing hole, different preferences of the wood for manufacturing and even repertoire differences can be considered quite normal. In the written and visual press and electronic media we can see numerous materials stating that some communities tend to pretend to be the owner of the instruments in a nationalist manner. We cannot attribute instrument to only one nation and its people. This kind of implementations is brought to light as a result of cultural propagandize. It is very difficult to determine which instrument belongs to which society. I believe that sympathy between the cultures and clearly talking on the subject by proving it with written documents and stating your own opinions on the history of the instrument will be a much better approach to the problem. I would like to give information the three instruments which are closely related to each other, have similarity, and come from three different countries; these instruments are the Turkish *mey*, Azerbaijani *balaban*; and the Armenian *duduk*.

The Mey

The *mey* is a cylindrical double-reed aerophone used in Turkish folk music. Made of wood, it has seven finger holes on its front side and one finger hole at the back. A double reed (*kamis*) is used to obtain the characteristic sound of the instrument. A tuning-bridle called *kıskaç* serves to tune the *mey* and to prevent alterations in pitch. A mouthpiece *ağızlık* covers the part of the reed near the mouth. The Turkish *mey* is 23 to 44 cm long with made of the wood of plum, walnut, apricot, or acacia trees. The length of the fresh water reeds varies between 8 and 15 cm. (Bkz.: s. 501)

The range of the instrument is limited to one octave. In order to play a scale, sounds are produced by means of the fingers and lips and only certain *maqams* (modes) may be played¹. The *def*, or sometimes a second *mey* generally

¹ These are *hüseyni*, *rast*, *neveser*, *hicaz*, *ussak*, *kurdi*, *huzzam*, *saba*, *karcigar*, *nihavent*, *segâh*, *buselik*, etc.

accompanies it. While one of the *meys* plays the tune *ezgi*, the other sustains a drone called *dem*. It takes the place of an accompanying instrument when played in groups; before the tunes the improvisation is called *açış* or *taksim*. Its mellow and wistful sound is consistent with these forms. The *mey* was found widely in the eastern and north-eastern regions of Türkiye. It was played for the first time in 1950, during a broadcast on Turkish State Radio. It has also been used as an *aşık's* (*minstrel's*) instrument. Currently, because of the effects of mass media, the increase in the number of institutions where music education takes place, the growth of conservatories after 1976, and particularly due to the realization of the meaning and importance of professional performance, the *mey* has become widely used in almost all parts of the country in popular music, and in many compositions, both solo and ensemble. This popularity has certainly produced some changes. The size of the *mey* was approximately 30 cm before 1961. According to the information obtained from Binali Selman, a famous *mey* player, three sizes of *mey* were being played (Picken, 1975: 476) Until the 1990s, these three sizes of *mey* have been used and by means of the reed and *boğaz* “adaptor,” one tries to solve the problem of tuning the *mey* with other instruments. In the resulting heavy demand, Ayhan Kahraman, a manufacturer of the instruments, produces eight separate sizes of *mey* each corresponding to a diatonic scale. Since *mey* is not a transposing instrument, the performer who wants tune has to change the reed for each tone while tuning the instrument. (Bkz.: s. 501)

Today, primarily in Istanbul, manufacturing *meys* has become a thriving business. There are four manufacturers who produce the instruments. Some manufacturers continuously improve their manufacturing techniques for the instrument and use very good quality materials. Two *mey* manufactures come from the Asian side of Türkiye, Dikran Nisan (1911-1999) who was one of the oldest and best-known masters in Anatolia, was an Armenian. A Turkish citizen from Diyarbakır, called *Niço Usta* (Master Niço) managed to be a manufacturer of *mey* besides being a carpenter. The *mey* player called Cabbar Bozkurtlar (1924-2004) in Artvin, manufactured *meys* with a manual lathe similar to the master Niço a few years ago.

The Balaban [Balaman, Yastı Balaman]

The Azerbaijani *balaban* has eight finger holes and one thumb hole, and occasionally an additional hole on the lower back end. “It is 28 to 37 cm long and made of mulberry or apricot wood. The reed is 9 to 11 cm long and inserted into the globular head.” (Rahmatov, 1975: 37) (Bkz.: s. 502)

The Azerbaijani *balaban* has a soft, velvety sound rich in dynamic nuances. Primarily an ensemble instrument it is often played in duets, with the *nagara* (drum) or *daf* (frame drum) for songs, dances, and purely instrumental pieces. The Azerbaijani *balaban* has two main duties: as soloist or accompanist, usually

two *balabans* play together. The instrument is not an ideal one to play very rhythmic or technical pieces (Koçarow, 1977: 4-5). A *balaban* also accompanies an *ashug* (poet-singer). The *balaban* is used in folk orchestras and played in larger professional or amateur ensembles belonging to urban and rural clubs. The older *balaban* had five to seven finger holes. The *balaban* has started to accompany the clarinet since the end of the 19th century. This is the reason why G and B flat have been added to the *balaban* in the lower register. In the end the *balaban* has been widened four-five centimeters so the second *balaban* with eight finger holes has been developed. Sometimes an additional hole is made in the lower end of the tube at the back. There are two different sizes of *balabans*. One of them has nine finger holes (eight on the front, one at the back) the other has eleven finger holes (eight on the front, three at the back). The tenth and eleventh finger holes in the second *balaban* are to widen the sound. The *balaban* produces a diatonic scale with a range of a ninth or eleventh chromatic notes are produced by partly covering the finger holes. (Abdullaheva, 1984: 60-61).

Üzeyir Hacıbeyov, an Azerbaijan "folk instruments orchestra" was created, and the *balaban* has been used in the orchestra as a solo instrument since 1931. It sounds a half tone lower than written (Koçarow, 1977: 5). There are a lot of folk musicians who perform the *balaban/balaman* in Azerbaijan as well as professional musicians (Behrur Zeynalov, Alekber Askerov, Hasret Hüseynov, Abis Abisov). The instrument is used in dance tunes in minstrel songs or with symphony orchestras or folk music orchestras and in popular music quite a lot (Şenel, 2002: 17). On the other hand, Albright describes of the Persian *balaban*, as 35 cm long, with seven finger holes and a thumb hole, made of mulberry or walnut, with a bore diameter of 1.5 cm and a double-reed six cm long (Albright 1989, 3-569). Jenkins describes the Iranian *balaban* as 40 cm long reed and pipe together. The *balaban* or *qarnata*, which is also used by the Turkmen and Kurds of north east Iraq, is made from a straight tube about 30 cm long, with seven finger holes and one thumb hole. The broad rectangular double-reed (*pik*, *qamish*) is 10 cm long and fitted with ring-shaped regulators (Jenkins, 1976: 70).

The Duduk

The *duduk* is a cylindrical instrument always made of apricot wood. The instrument itself is simply a hollow pipe with eight finger holes on the upper side and one thumb hole on the bottom. (Bkz.: s. 502)

Andy Nercessian said "Robert Atayan writes in 1980's version Grove's Dictionary of Music and musicians that it comes in three sizes varying from 28cm to 40 cm, Garlen, the most well-known and perhaps only *duduk* maker in Yerevan, did not confirm this, stating instead that aside from the four most commonly made types, he has experimented enough to create a tiny 15 cm

duduk, and could not recall the size of the largest one that has been graced by his home-workshop. The most common A-*duduk* is 35.5 cm long” (2002: 115).

The double-reed, also known as *ramish*, *ghamish*, *ghameech* or *yegheg* in Armenian, is typically 9-14 cm in length and is surrounded by a thin flexible wood binding that slides along the length of the reed. This binding is used for tuning the *duduk* as it controls the opening/closing of the reed. The *duduk*'s range is only one octave, but it requires considerable skill to play – its dynamics controlled by constantly adjusting the lips and fingers. The tuning is basically untempered and diatonic, though chromatic notes may be obtained by partially covering the finger holes. The *duduk* is typically played in pairs with the lead *duduk* playing the melody and the second *duduk* playing a sustained pitched called the *dam*. The *dam* is a tonic drone that serves as a constant counterpoint to the melody. The player of the *dam* is called *damkash*; Similarly, the *balaban* drone *dem* (also the mey drone is *dem*) is played by a *demkeş*. Even when the *duduk* is playing songs of lament the gentle touch of the percussion is called *dhol* provides a suitable background. According to Atlas of Musical Instrument's, the body of the *duduk* (*Nay*) is like Azerbaijan *balaban* and the Georgian *duduki*. It is an instrument used in music groups in general. We can meet at least two *duduk*s or a group of *duduk*s in music groups. People dance in the accompaniment of the music they play. The performers who play the Armenian *duduk* usually end their repertoires with *mugams*. Intros, major melodies give a lyric impression and a character while *mugams* are being played (Vertkon, 1963: 459). The *duduk* was developed by V. G. Buni between the years 1920 and 1930. The folk instrument has been protected and three other *duduk*s have been improved (Vertkon, 1963: 88).

CONCLUSION

Ali Jihad Racy said that “As they (musical instruments) migrate or continue to exist in time, they develop in accordance with local sound ideals, visual symbology, and construction exigencies and preferred playing techniques. An adaptational explanation tends to take the musical culture (including performers, instrument makers, listeners, and musical norms) as a vantage point and recognize the locally determined attributes of musical instruments (1994: 37). I must point out that there are some differences in the instruments mentioned above. The instruments have tonal or structural differences, as I have already described. Especially, the developments of the *duduk* and the *balaban* have been strongly patterned by socio-political events. Buni's and Hacıbeyov's reconstruction of these instruments, for example, have to some extent instigated their appearance on the concert stage as solo or ensemble instruments. The use of a diatonic scale and notation has been a result of the Soviet policy of Europeanization (Levin, 1980:154; Djumaev 1993; 44). On the contrary, in Turkey especially since the republic (1923) folk music and folk instruments have been gathered, but more endeavors has been spent to protect their

authentic originality, and more work has been done to solve tuning problems and intonation problems with the ensembles. There has not been a lot of change with *mey* in this point. As explained previously, tuning and intonation studies started after the 1950s.

The maqams are the main characteristics of these instruments when they are performed. All the samples in this paper are composed of the scales of authentic Necessian explain that situation “The repertoire of the solo *duduk*, is today comprised mostly of songs, a good number of which, are sad songs. It is true that *moughamats* (maqams) are sometimes played on the *duduk* (2002: 56) and continue “the sad song genre of *duduk* music and a lot of the techniques employed in the musical practices of Armenia’s predominantly Muslim neighbors. This is hardly surprising in the light of the fact that Armenia had been under Ottoman rule for centuries. Maqams are far from unknown in Armenia”. (2002: 112) Moreover, another very important point which has been indicated by Necessian is; “I have found no material on the *duduk* as played in rural areas in a predominantly rural Armenia. It seems to me highly likely that in sound quality and playing technique, the rural *duduk* of this period closely resembled the *mey* of eastern Turkey, a region then inhabited by a large number of Armenians” (2002: 29).

Another point is that the number of finger holes in the instruments will not be an indicator of which instrument belongs to which country. The *mey* which is used at present has eight finger holes but the ones manufactured in the 1930s or 40s and described in the initial studies by the composer and musicologist Adnan Saygun (1937: 50), Kasim Ülgen (1944: 36) and, Mahmut R. Gazimihal (1975: 74) had a total of nine finger holes, eight on the front and one at the back, although but later studies did not verify this information. The *balaban* performer from Azerbaijan whom I interviewed in Istanbul, Alihan Semedov’s *balaban* had ten holes but the tenth hole was not played with the finger, and was called as *ayar* (tuner). As stated before, the number of fingers changed for *duduk* as well. A duration of modification has been lived what more other sounds have been tried to be obtained with the help of keyboard.

These instruments have all been changed somehow in the end of a natural duration. On the other hand, it is very important to know which instrument has been used by which society; and their written sources, documents and dates should be known. If we want to get to know the instruments, the first thing we should do is to learn their history. The form of these instruments and their usage has not changed much in principle. Some musicologists believe that the oldest reed instruments we have belong to Hellenistic Egypt. For example, musicologist Henry George Farmer explains in his book that “reed instruments are called *mait*. We happen to see long or short types from the fourth dynasty. Most probably they are played with double-reed as it is with modern oboes” (1986: 316). Apart from this, musicologist and organologist Laurance Picken

(1975: 477) also accepts that the *mey*, and related instruments *mait* and *monaulos* which were found in Egypt, also have a lot in common. Likewise in Anatolia (in Pergamon) on some vases and mosaics which have been excavated an instrument called *Auloi* which resembles the *mey* has been revealed.

Mait, *monaulos*, and *auloi* present major resemblance with the *mey*, *balaban* and *duduk*. These claims have been repeated by the Turkish musicologist Mahmut Gazimihal while he was studying the history of the *mey* and he states like Farmer and Picken that he believes the roots of this instrument go back to ancient Egypt. Gazimihal came to a conclusion like this while he was studying the history of *mey*: “From the pictures of the monuments of the ancient reign in Egypt (BC 3000-3500) we understand that the Egyptians used to play short narrow reeds. These reeds had 3, 4, 5, or 6 finger holes and they were called with the name of the tree. Meanwhile the real name we read from hieroglyphs in the *mayit* (1935: 456). When Gazimihal conducted fieldwork in 1930 in Erzurum a province in the east of Turkey, he happened to come across the *mey*. This made him rather excited and he commented that: “the thin reeds called *may* in the far country of Pharaohs are exactly the same as the *zurna*’s played in Erzurum to accompanying our folk dances. The two *meys* played in Erzurum and Egypt are so much alike in from that the pitch coated string to control the reed in the flat piece you take into your mouth has turned out to be *Kıskaç* (pincers) in Erzurum *meys* to obtain the flatness of the instrument. These pincers are a kind of flat rings. A few reeds which are found in Egyptian graves are kept in museums (1935: 455). Another discovery was reported at the end of the eighteenth century. According to Villateau, among the instruments used in Egypt, then located within the borders of the Ottoman Empire, there was an instrument closely resembling the *mey* called *irakiyye* (Aksoy, 1994, 282).

Though explaining the etymology of the names of instruments is not always an indicator of their nationalities, I would like to present a few hypotheses of my own here. If we look at the written history of Turkish music, the oldest Turkish source regarding the *mey* is a work that dates to the late 14th or early 15th century titled *Makasidül-Elhan*, written by Ibn Ghaybi al-maraghi ABD AL-QADIR (1350?-1435) a composer, performer, and theorist who is traditionally considered to be the founder of Turkish music research. In this work, the instrument referred to as *nayçe-i balaban* is likened to the *surmay* (another name for the *zurna*) and its soft and wistful sound (Bardakçi 1986: 107). Evliya Çelebi (1611-1683), who lived two centuries after Abdalqadir, has described this instrument in the following manner: “The *Belban* (or *balaban*, reed pipe of the Turkmens) was invented in Shiraz. It had no *kalak* (the enlarging mouth of the instrument) resembling that of *zurna* which is double reed *shawm*. It was used mostly by Turks and there were about a hundred players in Istanbul” (Çelebi, 1898: 61).

The actual names *mey* and *balaban* are the modified forms of the terms *nay-i balaban* or *nayçe-i balaban* which were altered through time. The suffix *-çe* is the diminutive suffix and *nay* means reed in Persian, so *nayçe* means small reed. In some collections, we also encounter the term *mey* used alternately with the term *nay*. Laurence Picken also gives it the name *mey* or *nay* when he introduces this instrument in *Folk Musical Instruments of Turkey*. He writes that the “*mey* bodies which are manufactured for the Erzurum market are called *nay*” (1975: 475-477). A matter of fact, another name for *duduk* which is used in Armenia, also is *nay*. (H.S.S.H. 1977: 459 and www.grovemusic.com). In the Encyclopaedia of the Musical Instruments Atlas of the USSR the *duduk* is called three different name *dudug*, *nay*, *ney* (Vertkon, 1963: 459) In my opinion, the word *nay*, when modified according to the phonetics of Turkish, becomes *ney*, not to be confused with the reed flute *ney* of Turkish classical music. Therefore, most probably, the name *mey* was given to this instrument in order to distinguish this instrument from the classical *ney*. The New Grove on-line version stated that “Cylindrical oboe of the Caucasus (particularly Azerbaijan), northern Iran and north-east Iraq. In northern Iran the *balaban* is also known by its older Turkish name *nerme ney* or *mey*” (During et. al. 2003)

On the other hand, the word *düdük* is a very old word for Turks. It means whistle and is the general term used for all aerophones used in Anatolia. In Sir Gerard Clouston is *An Etymological Dictionary of Pre-Thirteenth-Century Turkish*; *düdük* is a Turkmen-rooted word (Clouston 1972: 455). In the manuscript of *Divanü Lugati-Türk* written in the 11th century *tütek* means the mouth pipe of the shepherd. We can see *düdük* in other 13th-14th century Turkish manuscript, *Kitâb-ı Dede Korkut* (Gökyay 1973: 98, 123). Nercessian, the author of “The Duduk and National Identity in Armenia”, stated that “I had, as a child; often overheard my parents and my grandparents use the word *düdük* in Turkish expressions, which refer to a whistle” (2002:4).

The letter and sound of “ü” does not exist in the Armenian language; instead, the “u” without umlauts has been used, so the word *duduk* is only a variation of the word *düdük*. The Armenian citizens who live in Türkiye pronounce the word *üzüm* (grapes) like *uzum* or *yuzum*.

In an article which was written in 1933 on Georgian *duduki*'s in The Musical Quarterly, Prof. Balaiev says “As for the *duduki* –the name is derived from a Turkish root– it is common in the Caucasus and Turkey, where it is known as the *mey*. Furthermore, the *duduki* appears to be very closely related to the cylindrical oboes of ancient Egypt, many specimens of which have been unearthed in various excavations”. Another very interesting discovery is this: the double-reed itself, which is a small part of the instrument, is called in Türkiye, Armenia, Azerbaijan, Turkmen, Iraq, and Iran: *gamish*, *ghameech*, *kamuş*, *ramish*, or *ghamish*.

REFERENCES

INTERVIEWS

Interview with Sadi Yaver Ataman (Istanbul, 1992).

Interview with Ayhan Kahraman (Istanbul, 1992).

Interview with Dikran Nisan (Istanbul, 1992).

Interview with Ali Zeynel (Hatay, 1999).

Interview with Alihan Semedov (Istanbul, 2003).

Interview with Cabbar Bozkurtlar (Artvin, 2003).

OTHER REFERENCES

Abdullaheva, C. A. 1984, *Çağdaş Azeri Halk Müziği*, Işır Matbaası, Bakü.

Ataman, Sadi Yener. 1938. *Anadolulu Halk Sazları*, İstanbul.

Ataman, Sadi Yener. 1951. *Türk Folklor Araştırmaları*, Number 18. Ankara.

Aksoy, Bülent. 1994. *Avrupalı Gezginler Gözüyle Osmanlılarda Musiki*. İstanbul: Pan Yayıncılık.

Bardakçı, Murat. 1986. *Maragali Abdülkadir*. İstanbul: Pan Yayıncılık

Balaiev, V. 1933, Folk-Music of Georgia, The Musical Quarterly, 19, 417-433.

Blom, Eric. *GROVE'S Dictionary of Music and Musicians*, 1954, Volume I, Fifth Edition..

Clauson, Sir Gerard, 1972, *An Etymological Dictionary of Pre-Thirteenth-Century Turkish*, Oxford At the Clarendon Press, London.

Divanü Lugati-Türk Dizini. 1972. Türk Dil Kurumu Yayınları, Ankara.

During et. Al. 2003 ,www.groovemusic.com.

Evliya Çelebi. 1898, *Evliya Çelebi Seyahatnamesi*, Volume I, İkdam Matbaası, İstanbul.

Farmer, Henry George. 1986. *Studies in Oriental Music*. Volume 2, Frankfurt.

Gazimihal, Mahmut R. 1935. "Az Tanınmış Tarihî Bir Halk Çalgısı: Mey" *Bartın Gazetesi*, Bartın.

————— 1975. *Türk Nefesli Çalgıları*, Kültür Bakanlığı MIFAT Yayınları, Ankara.

Gökyay, Orhan Şaik. 1973, *Dedem Korkudun Kitabı*, Başbakanlık Kültür Müsteşarlığı Kültür Yayınları, MEB, İstanbul.

*Haygayan Sovedagan Sosyalistagan Hanrakidaran.*1977. Volume 3. Armenia.

Karahasanoglu Ata, Songül. 1997. *Mey ve Metodu*, İnkılap Kitapevi, İstanbul.

————— 2003. Popülerleşme Sürecinde Bir Halk Çalgısı: Mey, *Popüler Müzik Yazıları*, Volume 1, İzmir.

Koçarow, Yenok. 1977, *Balaban Mektebi*, Işık Matbaası, Bakü.

Picken, Laurance. 1975. *Folk Musical Instruments of Turkey*. London: Oxford University Press.

Racy, Ali Jihad. 1994, “A Dialectical Perspective on Musical Instruments: The East Mediterrenen Mijwiz” *Ethnomusicology* 38: 1.

Rahmatov, Avaz. 1975, Azeri Halk Çalgı Aletleri, Işır neşriyat, Bakü.

Saygun, Adnan. 1937. *Rize, Artvin, Kars Havalisi Türkü ve Saz Oyunları*. İstanbul: Numune Matbaası.

Şenel Süleyman. 2002. “Mey – Balaban - Duduk” Ve “Sarı Gelin Türküsü” *Motif Dergisi*, Volume: 30.

Tanıklarıyla Tarama Sözlüğü III. 254.

Yeni Tarama Sözlüğü. 1983, TDK Yayınları, Ankara.

Ülgen, Kasım. 1944. *Doğu Anadolu Oyunları ve Havaları*. İstanbul; Kars Halkevi Yayınları.

Vertkon, K., et. Al. 1963. *Atlas Muzikalyonikh Insturumenttov Narodov SSSR.* (Atlas of the Musical Instruments of the People of the USSR). Moscow.