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MUSIC HISTORY II. CA. 650 TO 1370 CE

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When in 31/651 Yazdgerd III, the last Sasanian king, left Iran fleeing from the Arab troops, he took with him “1,000 cooks and 1,000 musicians” (Ṯaʿālebi, *Ḡorar*,p. 742; Ḥamza Eṣfahāni, *Taʾriḵ seni* I, p. 63). This statement, along with other historical accounts, testifies to the great importance given to music at the Sasanian court. ʿAmr b. Baḥr Jāḥeẓ (d. 255/868) even used the fact that music was considered an art among the Persians and the Greeks as an argument in favor of music in Islam (Jāḥeẓ, *Ketāb al-qiān*, tr., Beeston, pars. 28-31). Under Arab-Islamic rule local musical traditions lived on in Iran, though on a provincial level. Abu Yusof Kendi (d. after 256/870) saw a difference between the languages and the musical styles of Persians, Turks, the people of Deylam, Ḵazar “and others” (Kendi, *Moʾallafāt*, p. 137; Idem, *Resāla fi’l-loḥun*, p. 26). From pre-Islamic times on the Arabs had introduced Iranian elements into their own music. They adopted the ‘Persian lute’ (*ʿud fāresi*) and made it the principal instrument of their urban and court music. After the predominance of the harp in pre-Islamic Iran and the lyre in the Greco-Byzantine culture, the lute came to personify a new period of music history in the Islamic world and beyond. Its Arabic name *ʿud*, whose etymology is not yet convincingly explained, may well have been derived from the Persian word *rud*, since other

terms belonging to the instrument like *zir* (highest string), *bam* (lowest string) and *dastān* (fret) were also adopted from the Persian language, and the names of the second and third strings, *maṯnā* and *maṯlaṯ*, may well have been translated from the Persian terms *dotār* and *setār*.

The new art music of the Arab-Islamic world had emerged from older local traditions, including Persian ones, and we know of a number of musicians of Iranian origin who acted first in the early musical centers of Mecca and Medina, and later in Baghdad under the ʿAbbasids as singers, composers, and writers on music, such as Našiṭ (2nd half of the 1st/7th cent.), Yunos Kāteb (1st half of the 2nd/8th cent.), Dārā Fāresi (Ebn Ḵordāḏbeh, *Moḵtār*, p. 54), Salmak Rāzi, who served under Hārun al-Rašid (r. 809-13) and is said to have introduced the musical meter *ramal* into Persian music (Abu'l-Faraj Eṣbahāni, *Aḡāni*, I, p. 379) or Ebrāhim Mawṣeli (d. 188/804) and his son Esḥāq Mawṣeli (d. 235/850), who dominated the court music from the time of al-Mahdi (r. 775-85) down to al-Motawakkel (r. 847-61). The main activity of the Mawṣelis, however, was not directed towards Persian music but towards the heritage of the great masters of Mecca and Medina. Esḥāq defended an unadulterate performance of the traditional Arab music against his colleague and rival prince Ebrāhim b. Mahdi (d. 224/839), who followed a less rigid, "romanticist" style. Singing girls from Khorasan performing at the courts in Damascus and Baghdad may have sung and danced in Persian as well as in Arab fashion.

According to Arab authors, who are our principal source for Persian music in the early Islamic period, musicians such as Ebn Mesjaḥ (d. ca. 90/710) and his pupil Ebn Moḥrez traveled to Iran and Syria to learn Persian and Byzantine music respectively (*Aḡāni*[3] I, p. 378, III, p. 276). Though being of Persian descent and living in the mixed Arabo-Persian society of Iraq, the young Ebrāhim Mawṣeli traveled to the cultural center of Ray to study Persian as well as Arab music (*Aḡāni*[3] V, pp. 157-58). This is not astonishing when we consider that an Arab composer such as ʿAbd-Allāh b. Moʿāwia Bāheli, who had accompanied his tribesman Qotayba b. Moslem to Khorasan, lived himself in Ray (Ebn Ḵordāḏbeh, *Moḵtār*, p. 24). Arab and Persian music existed side by side and were handed down separately. Abu Naṣr ʿAbd-al-Raḥim Qošayri (d. after 542/1147), a son of ʿAbd-al-Karim b. Hawāzen Qušayri (d. 465/1072), the author of the famous Sufi *Resāla*, compiled in Nišāpur a *Ketāb al-aḡāni* containing Arabic song texts (ʿEmād-al-Din Eṣfahāni, *Ḵaridat al-qasr*... II, p. 104).

The local Persian traditions were supported when, in the 3rd/9th century,

Iranian dynasties regained power and music became once again “one of the signs of rule” (*yak-i az amārāt-e pādešāhi*, see Naršaḵi, *Tāriḵ-e Boḵārā*, 1892, p. 258). The poet Rudaki, a boon companion of the Samanid Naṣr II (r. 301-31/914-43), composed songs to his own verses and accompanied himself on the lute or the harp (Naršaḵi, 1892, p. 251; Neẓāmi ʿArużi, pp. 49-54). The same is reported of his poet colleague Farroḵi Sistāni (d. 429/1038). He served at the court of Sultan Maḥmud Ḡaznavi (r. 388-421/998-1030) along with a singer called ʿAndalib and a *tanbur* player called Buqi. Maḥmud’s son and successor, Sultan Masʿud (r. 421-32/1031-40), was entertained by the lute player Moḥammad Barbaṭi and the songstress Setti Zarrin-kamar, also called Setti Zarrin Moṭreba (Mašḥun, I, p. 163).

Several Saljuk rulers were fond of music. A famous lute player from Khorasan, called Kamāl-e Zamān (Perfection of the age), performed at the court of Sultan Sanjar (r. 511-52/1118-57) in Marv (Juzjāni, *Ṭabaqāt* I, 1949, p. 308). ʿAlāʾ-al-Din Kayqobād (r. 616-34/1219-37), the Saljuq ruler of Anatolia, presented the Ayyubid ruler in Damascus, Malek Ašraf Musā (r. 626-35/1228-37), who came to visit him, a very capable and beautiful female harp player (Duda, p. 148). The female poet and musician Ferdows Moṭreba from Samarqand was favored by the Ḵʷārazmšāh ʿAlāʾ-al-Din Moḥammad (r. 596-617/1200-20; Jovayni, II, p. 56). When, in 617/1220, Bukhara and Samarqand were captured by Čengiz Khan, Ferdows was taken over by the Mongol ruler, who is said to have saved the artists of the towns he seized (Abu’l-Ḡāzi Bahādor Khan, II, 119).

During the rule of the Il-khans the main musical activities shifted west, and the rulers became accustomed to Irano-Arab urban art and court music. After capturing Baghdad in 656/1258, the Il-khan Hülegü (Hulāgu) Khan (r. 654-63/1256-65) saved the life of the eminent musician and writer on music Ṣafi-al-Din Ormavi (d. 693/1294), who had served al-Mostaʿṣem (r. 640-56/1242-58), the last ʿAbbasid caliph (Neubauer, “Ṣafi-al-Din,” p. 806). Šams-al-Din Jovayni (d. 683/1284), Hülegü’s *ṣāḥeb-e divān*, made his own house a center of musical activities. He not only supported Ormavi, who dedicated to him his second book, *al-Resāla al-šarafiya*, but also three of his pupils, Ḥasan Nāʾi, ʿAli Setāʾi, and Ḵʷāja Zaytun, as well as other musicians such as Abu Bakr Tawrizi and Yaḥyā Ḡarib Wāseṭi (b. in 661/1263; Neubauer, 1969, pp. 251-60). With the exception of Ḡāzān Khan (r. 694-703/1295-1304), most of the Il-khanid rulers were fond of music. Abu Saʿid Bahādor Khan (r. 716-36/1316-35) even took lessons from his favored musician Kamāl Tawrizi; he also played the lute and composed songs. Another musician at his court, who still served under

Musā Khan (r. 737/1336-7), was Neẓām-al-Din b. Ḥakim (d. ca. 760/1360), a pupil of Ṣafi-al-Din Ormavi in the second generation (Neubauer, 1969, pp. 257-8). Several of Ormavi's students had emigrated to places like Mardin, Ḥamāt, Damascus, and Cairo.

Musical instruments. While pointing to the sound of instruments as an indicator of differences in musical taste, Abu Yusof Kendi mentions that "the Iranians are not moved by the organ as the Indians or the Greeks are not moved by the pandore from Khorasan" (*ṭonbur ḵorāsāni,* see Kendi, *Moʾallafāt*, p. 72). Long necked lutes (*ṭanābir*) were in favor "with the people from Ray, Ṭabarestān, and Deylam. The Persians prefer the *ṭonbur* to most other instruments" (Ebn Ḵordāḏbeh, *Moḵtār*, p. 16; Masʿudi, ed. Pellat, V, p. 128). The Arabs, who spelled the Persian word *tanbur* as *ṭonbur*, were ravished by the sound of its two strings whose seven frets were said to match the number of days and planets (Kendi, *Moʾallafāt*, p. 74). Abu Naṣr Fārābi (d. 339/950) described the different tunings of the instrument (see FĀRĀBI v. MUSIC). The poet Rāʿi (early 2nd/8th cent.) called it "harsh-sounding," while in a verse by the Arab poet Ḏu'l-Romma (d. 117/735) the instrument "raises its voice in intoxication, its melody containing what is foreign to the dialects of the Arabs" (Mofażżal b. Salama, *Ketāb al-malāhi*, tr., p. 15). The "agility" (*ḵeffa*) and "velocity' (*sorʿa*) of *ṭonbur* players (Kendi, *Moʾallafāt*, p. 137) formed their notion of Persian music more than anything else. Biographical and artistic data of male and female *ṭonbur* virtuosi were collected in particular books (e.g., *Ketāb al-ṭonburiyin* by Jaḥẓa and Ebn Ṭarḵān's *Aḵbār al-moḡannin wa'l-ṭonburiyin*; Ebn al-Nadim, ed. Tajaddod, pp. 163, 173, tr. Dodge, pp. 319, 342). Quotations from some of these titles have survived in Abu'l-Faraj Eṣfahāni's (d. 356/967) *Ketāb al-aḡāni*, and names of pandore players were listed by the 5th/11th-century Egyptian court musician Ebn al-Ṭaḥḥān (*Ḥāwi al-fonun*,p. 119).

The upper chested angular harp (*čang*) was one of the instruments favored in Sasanian Iran and later. It formed, together with the lute (*ʿud*), the main body of urban and courtly chamber music (Ebn Ḵordāḏbeh, *Moḵtār*, p. 15). Both instruments are well documented in literary and iconographic sources. The couple was completed by the instrument called *nāy*(*-e siāh*), which in those days was not the rim-blown flute (*nāy-e safid*) but a chalumeau (*mezmār*) played with a reed (Ebn Zayla, *Kāfi*, p. 78; Kāšāni, *Kanz al-toḥaf*, p. 114). A Persian *ʿud* player and a *nāy* player are depicted in a fresco in Qaṣr al-Ḥayr al-Ḡarbi in Syria, which dates back to ca. 90/710 (Farmer, *Islam:Musikgeschichte*,

p. 35). Other pairs of instruments used in Iran in early Islam were the reed instrument *zonāmi* and the *tanbur*, *sornāy* and *ṭabl*, mouth ogan and *čang* (Ebn Ḵordāḏbeh, *Moḵtār*, p. 15). The rim-blown variety of the *nāy* was used in folk music. It was emancipated in Sufi circles and entered art music not much earlier than in the 8th/14th century. In the early Islamic period, the *barbaṭ* was not identical with the *ʿud*. It had a longer neck and a smaller body. It was compared with the Roman balance (*qarasṭun*, see Mofażżal b. Salama, *Ketāb al-malāhi*, tr., p. 6-7), and may be depicted in Qoṣayr ʿAmra (see Farmer, *Islam:Musikgeschichte*, p. 32). Only later, when the instrument had fallen into oblivion, did the name *barbaṭ* come to refer to the short necked lute (e.g., Ebn Sinā, *Šefāʾ*, p. 144). The best *barbaṭ* players were said to come from Marv (Jāḥez, *al-Tabaṣṣor* p. 37).

Among the instruments of chamber music mentioned or described in later sources we find those with "open strings" like *qānun* (its tuning is first given in Ormavi, *Adwār*, ms. Fatih 3662, fols. 22r-23r), *santur* (first mentioned by Manučehri), the rectangular psaltery *nozha* "invented" by Ormavi and described by Ḥasan Kāšāni (*Kanz al-toḥaf*, pp 116-17), the lute type *robāb*, a "lute psaltery" called *moḡni* (pp. 113-14, 118-19), which was a predecessor of the Indian *sārangi*, and the four-octave hybrid *šāhrud* (invented near Samarqand in the early 4th/10th century, and described by Abu Naṣr Fārābi), the bowed instruments *kamānča* (first? mentioned in a verse by the poet Sanāʾi, d. 525/1131) and *ḡešak* (Kāšāni, *Kanz al-toḥaf*, pp. 112-13), the rim-blown flutes *šabbāba* (ʿAlišāh Boḵāri, *Ašjār wa-aṯmār*, unpubl. transcription by Amir Ḥosayn Pourjāvadi, p. 3) and *biša* (Kāšāni, *Kanz al-toḥaf*, pp. 114-55), and the *daf* that "takes care of the meter and rhythm of all the other instruments" (ʿAlišāh Boḵāri, *Ašjār wa-aṯmār*, transcription by Pourjāvadi, p. 3). Descriptions of these and more instruments were later given by ʿAbd-al-Qāder b. Ḡaybi Marāḡi (d. 838/1435). Pathbreaking studies on the development of musical instruments in Iran were published by Henry George Farmer in The Encyclopaedia of Islam and elsewhere (in particular Idem, *Islam:Musikgeschichte*; idem, *Studies in Oriental Music*; see also Mallāḥ, *Farhang*, ssv.).

Music theory. The educated musicians who had access to Arabic books could deepen their knowledge of music theory by reading the treatises of a great number of authors active from the 2nd/8th century onward. Traditional Arabic theory was distinguished from that inspired by Greek music theory. The Greek and Byzantine traditions were present in the work of Abu Yusof

Kendi (d. after 256/870), Abu Naṣr Fārābi (d. 339/950), Abu ʿAbd-Allāh Ḵᵛārazmi (wrote ca. 375/985), the Eḵwān al-Ṣafāʾ (4th/10th cent.), Ebn Sinā (d. 428/1037), Ṣafi-al-Din Ormavi (d. 693/1294), and others. An abridged Persian translation of the *Rasāʾel-e Eḵwān al-Ṣafāʾ* was made in the early 7th/13th century under the title *Mojmal al-ḥekma*. Its chapter on music found a wide circulation. Both titles by Ṣafi-al-Din Ormavi, *Ketāb al-adwār* and *al-Resāla al-šarafiya*, were several times translated into Persian and commented on in both languages.

As in other fields, the Arabian element was predominant even when the books were written in Persian like the *Dāneš-nāma-ye ʿalāʾi*, composed in 428/1037 by Ebn Sinā in Isfahan, or Faḵr-al-Din Rāzi's (d. 606/1209) *Ḥadāʾeq al-anwār fi ḥaqāʾeq al-asrār*, which was composed at the command of the Ḵᵛārazmšāh ʿAlāʾ-al-Din Tekeš and completed in 575/1179. A certain exception to the rule can be seen in the *Qābus-nāma* (written in Persian, 475/1082) of ʿOnṣor-al-Maʿāli Kaykāvus b. Eskandar and in Ebn Zayla's Arabic *Ketāb al-kāfi*, in which the Iranian element is recognizably represented. Some Persian versions of the *ʿAjāʾeb al-maḵluqāt wa-ḡarāʾeb al-mawjudāt* by Zakariyāʾ b. Moḥammad Qazvini (d. 682/1283) contain additional sections on music. An important Persian text on the subject was written by Qoṭb-al-Din Maḥmud b. Masʿud Širāzi (d. 710/1311), who was a pupil of Naṣir-al-Din Ṭusi and knew Ṣafi-al-Din Ormavi, in his encyclopedia *Dorrat al-tāj le-ḡorrat al-Dobāj,* composed on behalf of the prince of Gilān, Dobāj b. Filšāh.

Less original is the chapter on music in the Persian encyclopedia *Nafāʾes al-fonun fi ʿarāʾes al-ʿoyun*, written in about 740/1340 by Moḥammad b. Maḥmud Āmoli for the Inju ruler Abu Esḥāq b. Maḥmudšāh (d. 758/1357) in Shiraz. Another book on music was written under the title *Laṭāʾef al-asrār le-maqāṣed al-adwār* for Jalāl-al-Din Turānšāh, a vizier of Abu Esḥāq. The author may have been Yaḥyā b. Aḥmad Kāši, who translated Ormavi's books into Persian and dedicated them to Abu Esḥāq. The *Laṭāʾef al-asrār*, which is closely related to Ormavi's work, has survived in only one copy (see Raʿnā Ḥosayni, pp. 748-56). In about 750/1350, a certain Ḥasan Kāšāni wrote an impressive book on the theory and practice of music entitled *Kanz al-toḥaf*. He was the first in Iran to deal in greater detail with musical instruments. Additional treatises and anonymous titles are mentioned in the catalogues by Aḥmad Monzavi (1970), Moḥammad-Taqi Dānešpažuh (1976) and Moḥammad-Taqi Massoudieh (1996).

The tonal system. Music theory proper may be divided into three disciplines: the tonal, modal, and metrical systems. As to the first mentioned, later Persian

sources have preserved traces of an archaic tonal system. From our limited information we can conclude that it comprised eighteen pitches or *bāngs* (lit. voices, sounds, tones), divided into whole-tones (*bāng*) and half-tones (*nim-bāng*). It seems to have been a method of music instruction inherited from pre-Islamic times, and it remained unaffected by Arab influence. Abu Aḥmad b. Monajjem (d. 300/913) confirms that eighteen was also the number of notes of the two-octave system of the "ancients." As a consequence, the microtones used in urban and court music since the 3rd/9th century were neglected. Still, in the 7th/13th century and later the method served to define the melodic modes by a standardized number of *bāngs*. In doing so, the number eighteen stood for the total number of *bāngs* of the twelve main modes. The system was related to the two-stringed *tanbur* that was used in Persian music theory comparably to the use of the four-stringed lute (*ʿud*) in the Arab world, and it was based on the scale of the mode *rāst*. The method recalls that of Esḥāq Mawṣeli (d. 235/850) in Baghdad, who defined the modes according to the first two or three notes of their course (*majrā*) on the second string (*maṯnā*) of the lute. He also disregarded the microtones, but in contrast to the *bāng* system he gave the notes precise positions on the finger board. The term *bāng* lived on in Persian theoretical writings until the 11th/17th century. In some later texts the *bāng* figure was further specified by indicating the more precise fret (*parda*) position.

In contrast to the *bāng* method used in musical practice, the pitches were exactly measured on the fingerboard of the lute and recorded by scholars such as Abu Naṣr Fārābi, Ebn Sinā, Ṣafi-al-Din Ormavi, and Qoṭb-al-Din Širāzi in their respective books. As a result of physical and mathematical endeavors the tetrachord was divided into eleven steps by Fārābi, and seven steps by Ebn Sinā and Ormavi. Qoṭb-al-Din adopted the figures of Fārābi and Ormavi and added some data of common (*ʿorfi*) intervals from the practice of the time. The final division of the octave into seventeen steps was recorded by Ormavi. It is a Pythagorean scale, and it became the accepted norm of later Persian music theory (Manik, *Das arabische Tonsystem*, pp. 63 ff.).

The modal system. The notion of *bāng* was closely related to the local modal systems, the oldest of which was inherited from Sasanian times. It was a set of seven modes, whose names are listed in Arabic sources but are distorted by copyists and only few of them can tentatively be identified, such as *bahār*, *nayruzi (nowruzi)*, and *mehrajāni* (Farmer, "The Old Persian Musical Modes"). Ebn Ḵordāḏbeh (d. 300/913), who speaks of eight traditional Persian modes but

gives only seven names, describes some of their characteristic features in detail (*Moḵtār*, p. 15).

The notion of seven modes survived in Iran even after the character and names of the modes, now called *parda*, had changed. Four of the new names were first mentioned by Ebn Sinā in the chapter on music of his *Ketāb al-šefāʾ*, including the main mode *rāst* in its Arabic form *mostaqim*. Nine additional names (*māda*, *ʿerāq*, *ʿoššāq*, *zirāfgand*, *busalik*, *sepāhān* (= *eṣfahān*), *navā*, *goḏāšta* and *rāhavi*) are listed by Kaykāvus b. Eskandar (*Qābus-nāma*, p. 237). Additional names are found in poems by Manučehri Dāmḡāni (d. ca. 432/1041), and Anwari Abivardi (d. 565/1170), and in Neẓāmi Ganjavi's *Ḵosrow wa Širin*, written ca. 581/1180. An enlarged system of two times seven modes is listed in the music chapter of *Ašjār wa-aṯmār* by ʿAlišāh Boḵāri (Storey, 1972, pp. 61-62), an astrological work written in 686/1287. Here the seven fundamental (*aṣl*) modes and their seven branches (*farʿ*) are both related to the seven planets. The author also lists a fundamental (*aṣl*) group of *āvāz* modes along with their higher (*tiz*) counterparts, and he mentions that *tarkib* modes are composed of the *āvāz* modes. He describes this system as if it were the leading one in his day while, at the same time, he highly praises the name of Ṣafi-al-Din Ormavi, who represented a quite different tradition.

In stages of development unknown to us, the older system of seven modes developed into a system of twelve main modes (*parda*), six secondary modes (*āvāz*), and additional *šoʿbe* or *tarkib* modes in sexagesimal order. It was also connected with astronomy. Several sources confirm that the previous system of seven modes, which had been a "planetary" one, changed into the more sophisticated "zodiacal" system of twelve modes (Anon., *al-Moḵtaṣar al-mofid*, p. 56). By the early 7th/13th century at the latest the new system had been completely developed. It was described by the North African writer Aḥmad b. Yusof Tifāši (d. 651/1253) as a recent Persian system adopted by the Arabs and containing twelve *barda*s (i.e., *parda*) and six *āvāz* modes whose names are mostly Persian (see Ṭanji, "al-Ṭarāʾeq," pp. 96-97) but only partly identical with those known from Ormavi and his school.

Sets of twelve *parda* and six *šoʿbe* modes appear in the 7th/13th century in slightly different versions. There was an eastern or Khorasanian tradition transmitted by Moḥammad b. Maḥmud b. Moḥammad Neysāburi, the master of Khorasan (*ostād-e Ḵorāsān*, prior to 656/1258), who added the numbers of *bāng* to the main modes. There was another system of twelve modes called *adwār* (sing. *dawr*) or *šodud* (sing. *šadd*) plus six *āvāz* modes in a western or

Irano-Arab version recorded by Ṣafi-al-Din Ormavi in the 13th century and, to judge from its terminology, intended to represent the predominant Persian and Arab local traditions, namely, *ʿoššāq, navā, busalik, rāst, ʿerāq, eṣfahān, zirāfgand, bozorg, rāhavi, zangula, ḥosayni, ḥejāzi.* In contrast, the beginning of Neysāburi's series of *parda*s and *bāng*s (*rāst, moḵālef-e rāst, māda, ʿerāq*) resembles more closely that given by Kaykāvus b. Eskandar in his *Qābus-nāma*. Neysāburi emphasizes the importance of the mode *rāst* as being the "*šāh* of all the *pardas*" (ed. Purjawādi, p. 63). In other sources *rāst* is compared with a tree of which the other modes are the branches, or a town in which the other modes are the streets (Anon., *al-Moḵtaṣar al-mofid*, p. 56).

Comparison of different tables of modes from the 7th/13th and 8th/14th centuries reveals a relative similarity of the twelve main modes and a greater difference between the *āvāz* and *šoʿbe* modes which, however, was a frequent phenomenon in Persian and Arabic sources (cf. ms. Istanbul, Köprülü 1613, fol. 70b; Ebn Fażl-Allāh ʿOmari, *Masālek al-abṣār* X, p. 3, l. 10). Most unusual are the *āvāz* modes listed in the anonymous *al-Moḵtaṣar al-mofid* (ca. 755/1354). Their number is eight instead of six and includes some old-fashioned terms.

One generation after Ormavi an important account of the modal system was given by the versatile scientist Qoṭb-al-Din Širāzi (d. 711/1311) in the music chapter of his *Dorrat al-tāj.* In contrast to the other authors, he did not follow a strict system. He only once names the twelve *parda* modes as *ʿoššāq, navā, busalik, rāst, nowruz, ʿerāq, eṣfahān, bozorg, zirāfgand, rāhavi, zangula, ḥosayni* (*Dorrat al-tāj,* p. 124), and he mentions nine *šoʿbe* modes "used by the musicians" (*dogāh, segāh, jahārgāh, banjgāh, zāvoli, ruy-e ʿerāq, mobarqaʿ, māya, šahnāz*), the traditional system being of minor importance for his own distinction between and classification of the modes. He is the first to use the word *maqām* as a general term in the sense of mode (*Dorrat al-tāj,* pp. 122, 124), and he is the first to describe the melodic development (*sayr*) of modes, singling out characteristic notes such as the beginning (*ebtedāʾ, mabdaʾ*), a central pitch (*wasaṭ*), and the ending (*entehāʾ, maḥaṭṭ*, see Wright, *The Modal System*, pp. 143-292). At the end of the chapter on music, he has written down a song by Ormavi in the most sophisticated musical notation known from Islamic lands (see below).

Among his sources Qoṭb-al-Din quotes the *Ketāb al-adwār* by a certain Salmak (*Dorrat al-tāj,* p. 121). This was one of the books of the 6th/12th and 7th/13th centuries that have not survived but could have helped to detect the unknown predecessors and colleagues of Ormavi. Another book of this kind was written

by a certain Šaraf-al-Din b. ʿAlāʾ, a distinguished contemporary of Ormavi in music theory, who is quoted in the anonymous *Ketāb al-mizān fi ʿelm al-adwār wa-'l-awzān*, written by a pupil of Ormavi.

Extra-musical phenomena. A specific aspect of the Persian modal system was its association to a number of extra-musical phenomena such as the stars, the seasons, or the hours of day and night. The musician was reminded to choose a song or a mode in correspondence with the nature and condition of his listeners, their age, complexion, status, and origin. The effect of music was treated in books by Abu Yusof Kendi, by his pupil Abu Zayd Balḵi (d. 322/934), by Ebn Hendu Nišāburi (d. ca. 420/1029), who was a student of Abu Zayd in the second generation, and by later writers. In the Persian language, this topic was first taken up in the *Qābus-nāma* ("the greatest art of the musician is to meet the nature of the listener"; *Qābus-nāma*, p. 237), and continued to be regarded as an essential aspect of musical practice down to the end of the Safavids. In the 7th/13th century at the latest, a pseudo-scientific relation between the twelve zodiacal signs, the twelve main modes, the twelve parts of the body, and the hours of day and night was made into a system of musical dietetics and music therapy that existed until the 8th/16th century (see Neubauer, "Arabische Anleitungen").

Musical meters. A characteristic feature of both Arab and Persian musical practice in early Islam was the way (*ṭariqa* in Arabic, *rāh* in Persian) of a melody or a song. It was defined by a musical meter to which the melodic mode was subordinated. The musical meters (*iqāʿ, oṣul al-iqāʿ*)were described, on the Arab side, as being either heavy (*ṯaqil*) or light (*ḵafif*) versions of the three basic forms (*oṣul*) called *ramal*, *al-ṯaqil al-awwal* and *al-ṯaqil al-ṯāni,* and a separate group of light meters called *hazaj.* Fārābi brought these three layers into a system of basic beats in the relation of 1 : 2 : 4 or (in modern terms) eighth note, quarter note and half note. *Ramal* was the first of the heavy meters. It was described (in modern terms) as a sequence of two half notes and a half-note rest. The two remaining heavy meters consisted of three and four half notes respectively with again a half-note rest at the end. The three light meters had the same structure as their heavy counterparts, but double speed. The *hazaj* was described as a sequence of five quavers and a quaver rest. The final rest could be filled up by notes, and the notes of the basic patterns could be subdivided. Fārābi's system was abstracted, with slight differences, from the patterns of the musicians as written down by Esḥāq Mawṣeli and others. According to Ebn Zayla (d. 440/1048), who was a pupil of

Ebn Sinā, these were “all the meters used by musicians in Arabic, Persian, and Khorasanian [songs]” (*Kāfi*, p. 62).

Abu Yusof Kendi had already described the Persian meters as “well-defined ways (*ṭoroq maʿluma*), similar to the [Arab] *oṣuls*” (*šabiha be’l-oṣul*; Kendi, *Moʾallafāt*, p. 137; Idem, *Resāla fi ʿl-loḥun*, p. 26). On their part, Persian writers saw their meters in a similar manner. In the *Qābus-nāma* (p. 232-33),ʿOnṣor-al-Maʿāli Kaykāvus first distinguishes between the two basic levels of heavy (*gerān*) and light (*sabok*), then proceeds to a threefold division. The first layer contains the “heavy” meters of the *dastān-e ḵosravāni* that is performed in the presence of kings, people of serious nature (*ḵodāvandān-e jedd*), and for old people. The second layer contains the “light meters” that correspond to light prosodic meters in songs (*sorud*) performed for younger people. The third layer is designated for the “delicate temper” (*ṭabʿ-e laṭif*) of women and children and contains the songs called *tarāna* whose meter (*wazn*) is lighter (*laṭiftar*) than those of others. Compared with Fārābi’s metrical system, the first layer can be assigned to the “heavy” meters, the second to the “light” versions of the “heavy” meters, and the third to the meter *hazaj.* In later Persian sources this threefold metrical system was reduced to cryptic formulations such as: “There are three kinds of beat (*żarb*), one beat (*yak żarb*) for old people, two beats (*do żarb*) for young people, and three beats (*seh żarb*) for women and children” (ms. Tehran, Majles-e Sanā 13682; ms. Istanbul, Köprülü 1613).

The metric system underwent a significant change between the 5th/11th and the 7th/13th centuries, which was comparable to the development of the melodic modes. At the end of this constitutive period, the meters had increased in length following the general principle of augmentation that governed the development of musical meters in Iran and, later, in Ottoman Turkey. Most of the meters of the 7th/13th century retained the older names while their form had considerably changed. In his *Ketāb al-adwār*, Ṣafi-al-Din Ormavi distinguishes between four different lengths of notes: letter *alef* or syllable *ta* is called *sariʿ* and represents the time unit of *hazaj* (=1), letter *bāʾ* or syllable *tan* is called *sabab* or *ḵafif* (= 2), letter *jim* or syllables *tanan* are called *wated* or *ḵafif al-ṯaqil* (= 3), letter *dāl* or syllables *tananan* are called *fāṣela* or *ṯaqil* (= 4). He also uses the mnemotechnic patterns of the root *faʿala* known from prosody. Accordingly, the basic form of *al-ṯaqil al-awwal*, described in *Ketāb al-adwār* as *tanan* (= 3), *tanan* (= 3), *tananan* (= 4), *tan* (= 2), *tananan* (= 4), is later recorded in *al-Resāla al-šarafiya* as *mafāʿelon* (3 + 3), *faʿelon* (4),

mofta'elon (2 + 4). One period of *al-ṯaqil al-awwal* (3 + 3 + 4 + 2 + 4 = 16) equals two periods of *al-ṯaqil al-ṯāni* (3 + 3 + 2 = 8) and four periods of *ḵafif al-ṯaqil* (2 + 1 + 1, or 1 + 1 + 2 = 4). A Persian meter was called *fāḵeti*. Ormavi gave it the pattern 4 + 2 + 4 + 4 + 2 + 4 = 20, Qoṭb-al-Din listed the form 2 + 4 + 4 + 2 + 4 + 4 = 20 and, under the name of *fāḵet'i-e zāyed*, an extended form 2 + 4 + 4 + 4 + 2 + 4 + 4 + 4 = 28. Ormavi mentions that "very many melodies of the Iranians" were composed in the meter *możā'af al-ramal* (= *ṯaqil al-ramal*) in the version of *al-Resāla al-šarafiya* (= 4 + 2 + 4 + 2 + 4 + 2 + 4 + 2 = 24). Qoṭb-al-Din modifies this statement by saying that the meter had been favored by the Iranians in older days (*dar qadim*) and that the version recorded in *Ketāb al-adwār* (= 4 + 4 + 2 + 2 + 2 + 2 + 2 + 2 + 4 = 24) was more common than that of *al-Resāla al-šarafiya* (Ormavi, *al-Resāla al-šarafiya*, p. 208; Qoṭb-a-Din, *Dorrat al-tāj*, p. 137).

Eight meters are solely listed by Qobṭ-al-Din and referred to as being well-known in his time. Among them is *moḵammas* (2 + 2 + 4 = 8), *żarb-e rāst* or *żarb–e aṣl* (2 + 2 + 2 + 2 + 4 = 12), and *čahārżarb* (8 + 4 + 4 + 4 + 4 = 24). In *Šarḥ-e adwār* (pp. 266 f.) Ebn Ḡaybi Marāḡi (d. 838/1435) adds that *čahārżarb* was "invented" by a certain Moḥammadšāh Rabābi. Qoṭb-al-Din (p. 138) also gives a description of the meter *torki* "in theory" (3 + 3 + 4 + 4 + 3 + 3 = 20) and "in practice" (2 + 2 + 2 1/3 + 2 1/3 + 2 + 2 = 12 [2/3]). This is the earliest known reference to a limping (*aksak*) meter in music theory. It was not repeated by Qoṭb-al-Din's successors Ebn Ḡaybi Marāḡi and his son, who content themselves with the common theoretical description of *torki* and its variants (12, 20, and 24 beats), nor by later Ottoman writers.

The above meters were still current, with some variants and additional forms, in the theoretical writings of the Timurid period. Ebn Korr (d. 763/1362), who had left Baghdad for Cairo, uses the same terms while most of his patterns are different. In his book a variant of *ṯaqil al-ramal* (6 + 6 + 6 + 6 = 24) is called *ḵorāsāni,* and he lists a meter called *żarbḵosravāni* with eighteen time units (*Ḡāyat al-maṭlub*, fols. 8r-9v, 19r-v).

Musical forms. The development of musical forms in the early Islamic period was closely related to that of the modes and meters. Some of them were inherited from Sasanian times and survived in a more or less altered form, others developed under the new cultural conditions. Here also the mutual stimulation between the Arab and the Persian ʿErāq was the origin and the center of the Irano-Arab symbiosis. The fundamental couple of an instrumental introduction in free meter and the following metrical song was expressed by Keykāvus by the terms *rāh* and *navā.* As mentioned above, the

sequence of *dastān*, *sorud*, and *tarāna* represented the gradation of heavy, medium, and light meters in the respective types of song. The musical performance of epic texts (*dastān*) in which the syllabic structure of the verse determined the metric structure of the melody was taken up later by professional reciters of the *Šāh-nāma* (*Šāh-nāmaḵᵛān*) and practioners of similar professions.

Bukhara was known for a musical style of its own, including amazing songs (*sorudhā-ye ʿajib*) about the mythical Kayanid prince Siāvoš, and traditional dirges transformed into songs of art music (Naršaḵi, *Tāriḵ-e Boḵārā*, pp. 23-24, tr. p. 23). Ebn Zayla distinguished between a Khorasanian style of *dastān* singing and another one from Eṣfahān and lists some (distorted) names of *ravāšin* and *dastānāt*. A verse of a *dastān* and of a *ṭariqa* could be followed by a special formula called *nagḡma* (*Kāfi*, pp. 66-67).

Sorud was a more general term, comparable to the Arabic *ṣawt*. The early *tarāna* was a light song. Later it became a part of the *nawba* (see below). The name of another musical form, *ḡazal*, was borrowed from the poetical form bearing the same name. The musical *ḡazal* was equated in the *Qābus-nāma* (p. 235) with a 'song without meter' (*tarāna bi-wazn*). Later it was also included in the *nawba*.

A style of its own "unrivaled in the seven climates" with songs for all occasions "that pleased Iranians and Arabs" was attributed to Eṣfahān by the 5th/11th-century Mofażżal b. Saʿd Māfarruḵi (*Maḥāsen Eṣfahān*, p. 71). Quatrains from Transoxania (*do-baytihā-ye mā warāʾ al-nahri)* were regarded as martial songs by ʿOnṣor-al-Maʿāli Kaykāvus (p. 236). Virtuosic instrumental pieces, called *ravāšin*, "which the human voice cannot imitate," were considered characteristic of the local style of Khorasan by Abu Naṣr Fārābi (*al-Musiqi al-kabir*, pp. 69, 77; tr. d'Erlanger, I, pp. 17, 21). Ebn Zayla knew of both instrumental and vocal *ravāšin*: The latter were mainly melismatic and not subjected to a strict musical meter (*Kāfi*, p. 66). Lullabies in Persian (*lalāʾi*) and in Turkish (*nenni, ninni*) are alluded to in a satirical poem by Suzani Samarqandi (d. 569/1174; *Divān*, p. 454). The musical form *ḵosravāni* was transformed into a melodic mode in 5th/11th century Egypt and in Muslim Spain, where it led to a scordatura of the lowest string of the lute (*ṭanji*). The Egyptian musician Ebn al-Ṭaḥḥān (d. after 449/1057) corrected this concept by

explaining the original meaning of the term as he understood it: “Some [musicians] perform the *ḵosravāni* in [the meter] *ramal* and [the melodic mode] *moʿallaq* with certain strings being lowered... But this is not *ḵosravāni.* The real *ḵosravāni* is a Persian way (*ṭariqa*) with many periods (*adwār*) and beats (*naqarāt*) that branch out from one species (*nawʿ*) to another. Its [correct] metrical form can only be [mastered] on the Persian lutes *(ʿidān ʿajamiya*) with their slim necks (*daqiqat al-aʿnāq*) on which the thumb performs an unusual and admirable movement” (*ʿamal*, lit. work (Ebn Ṭaḥḥān, *Ḥāwi al-fonun*, facs. ed. p. 204). A few patterns of *ṭariqa* and *ṣawt* melodies were set down by Ormavi in a traditional notation by writing the pitch of the notes in letters and their length in numbers. His successor Qoṭb-al-Din Širāzi followed him by writing down a *qawl* composition by Ormavi in a much more elaborated, score-like way that he called “fixing of melodies” (*ṯabt-e alḥān*; see *Dorrat al-tāj,* pp. 148-49).

Kaykāvus’s text about the metric system of Persian music describes the traditional “sequence of performing music” (*nawbati-e moṭrebi*) for an audience: It begins with “heavy” songs and ends with “light” songs to satisfy any listener belonging to the three above groups. This was first testified to in early ʿAbbasid court music and later led to the four-part musical form called *nawba* or *nawba-ye morattab* (composite suite). Comparable with the development of the metric and modal systems between ca. 400/1000 and 600/1200, the *nawba-ye morattab* was also a result of the Irano-Arab symbiosis and was fully developed in the 7th/13th century at the latest. The texts and musical indications of some *nawba* compositions by Ṣafi-al-Din Ormavi and his contemporaries and students are recorded in the 10th volume of the *Masālek al-abṣār* by Ebn Fażl-Allāh ʿOmari (d. 749/1349), which is devoted to music and musicians (facs. ed., X, pp. 309 ff.). In its standard form the *nawba* consisted of four parts performed in the same melodic mode and meter, first a *qawl*, sung using Arabic verses, then a *ḡazal*, using Persian verses, followed by a *tarāna* in the meter *robāʿi* and by a final *forudāšt* that returned to the form of the initial *qawl*. The different parts of the *nawba*, which were also performed and transmitted independently, were analysed in detail by Owen Wright (1992), based on later Irano-Turkish song text collections. Descriptions of the *nawba* in theoretical writings were collected and interpreted by Angelika Jung (*Quellen*, pp. 141 ff.).

Dance. Among the different kinds of dance (*raqṣ*) mentioned in the sources

(Fārābi, *al-musiqi al-kabir* I, pp. 78 ff; Ḥasan b. Aḥmad Kāteb, *Kamāl adab*, p. 232; Ebn Zayla, *Kāfi*, p. 71), the name *dastband* that alludes to a Persian dance is mentioned by Abu'l Faraj Eṣfahāni (*Ketāb al-aḡāni* XXII, p. 214), in the *Rasāʾel-e Eḵwān al-Ṣafāʾ* (I, p. 234), and by Ebn Zayla (*Kāfi*, p. 73). Aḥmad b. Moḥammad Maydāni (d. 531/1137) who, in his Persian-Arabic dictionary, lists also *čup-bāzi* among the names of dances and games, explains the word *dastband* as "a kind of dance in which one holds the other by the hand," and he gives the word *fanzaj* (cf. the Spanish fandango) as its Arabic equivalent (*al-Sāmi fi'l-asāmi*,p. 173). Mostly female dancers are depicted in the iconographic testimonies that have survived since Sasanian times, and dance is mentioned as an essential part of courtly and urban entertainment in many instances. It was cultivated at the ʿAbbasid court in Baghdad and certainly also at the local courts in Iran. Khorasan was well known for its dances (Masʿudi, *Moruj*, ed. Barbier de Meynard and Pavet de Courteille, VIII, p. 100, ed. Pellat, V, p. 132; Maydāni, pp. 173-74). When Bukhara was taken by Čengiz Khan he "sent for the female singers of the town to sing and to dance for him, whilst the Mongols raised their voices to the melodies of their own songs" (Neubauer, "Musik zur Mongolenzeit," p. 244).

Samāʿ. The dance of Sufi orders played an important part in the local dancing culture as did their inclination for singing and instrumental music (*samāʿ*) in general. The art of pirouette (*čarḵidan*), which is cultivated in the traditional Persian gymnasiums (*zur-ḵāna*) up to the present, may well have been part of the dance repertoire of Khorasan at the beginning of the 7th/13th century when Jalāl-al-Din Moḥammad Rumi (d. 672/1273), who later founded the order of the Mawlawiya or "whirling dervishes" in Konya, grew up in Balkh. From the 3th/9th century on a particular genre of literature written in favor of or against musical activities accompanied the music history in Iran as in the other Muslim countries. A positive landmark was the translation, made in 620/1223, of the moderate music chapter of *Eḥyāʾ ʿolum al-din* by Abu Ḥāmed Moḥammad Ḡazāli (d. 505/1111) into Persian (see Massoudieh, nos. 32, 33), followed by the likewise moderate *ʿAwāref al-maʿāref* by Šehāb-al-Din Sohravardi (b. 539/1145, d. 632/1234?; see Massoudieh, no. 105) and its abbreviated Persian translation *Meṣbāḥ al-hedāya* by ʿEzz-al-Din Maḥmud Kāšāni (d. 735/1335; Massoudieh, no. 62).

Military and ceremonial bands. From the 4th/10th century onwards, court military and ceremonial bands (*nawbat, mehtar*) became one of the insignia of

local rulers in Iran as in other parts of the Islamic world. They played at the daily prayer times, at other official occasions, and during warfare (Farmer, *Ṭabl Kẖāna*). The bands are depicted on miniatures, their employment was recorded by historians, and some of their instruments were later described by Ebn Ḡaybi Marāḡi. The importance of the ruler's band was stressed by splendid craftsmanship. So the kettledrums in the *nawbat* of the powerful Ḵʷārazmšāh ʿAlāʾ-al-Din Moḥammad (r. 596-617/1200-20) were adorned with silver and gold (Dawlatšāh, *Taḏkera*, p. 147).

BIBLIOGRAPHY

Bibliographical surveys.

Iraj Afšār, *Fehrest-e maqālāt-e fārsī*, 5 vols., Tehran, 1949-95, I, 220-32;II, 184-98; III, 102-5; IV, pp. 170-74; V, pp. 224-28.

Moḥammad-Taqi Dānešpažūh, "Ṣad o si o and aṯar-e fārsī dar mūsīqī," *Honar o mardom*, new series, nos. 94-100, 1970-71, pp. 23-34, 45-56, 68-77, 35-44, 40-44, 24-27, respectively; also in *MJ* (= *Majalla-ye musiqi*),3rd series, no. 135, 1972 ff.; see also the addenda by Karāmat Raʿnā Ḥosayni, "Takmala-i bar 'Ṣad o si aṯar-e musiqi dar fārsi'," *Honar o mardom*, new series no. 110, 1971, pp. 50-51.

Idem, "Mūsīqī-nāmahā," *Honar o mardom*, new series, nos. 144 to 162, 1974-76 (15 parts). Idem, *Modāwamat dar oṣūl-e musiqi-e Irān*: *nemuna-i az fehrest-e āṯār-e dānešmandān-e irāni wa-eslāmi dar ḡenāʾ wa-musiqi*, Tehran, 1974.

Idem, "Davāzdah matn-e musiqi," *Āyanda* 16, 1990, pp. 184-88.

Mehrdad Fallahzadeh, *Persian Writing on Music: A Study of Persian Musical Literature from 1000 to 1500 AD*, Uppsala, 2005.

Henry George Farmer, "Tenth Century Arabic Books on Music: As Contained in 'Kitāb al-Fihrist' of Abu'l-Faraj Muḥammad ibn al-Nadīm," *The Annual of Leeds University Oriental Society* 2, 1959-61, pp. 37-47.

Idem, *The Sources of Arabian Music,* Leiden, 1965; Persian adaptation by Ḥosayn-ʿAli Mallāḥ as "Ṣāḥebān-e resālāt-e musiqi," *MJ*, 3rd series, nos. 116-29, 1968-71, pp. 8-18, 24-34, 69-79, 61-71, 48-55, 51-55, 66-74, 42-50, 40-45, 51-61, respectively.

Ā. Gāzerāni, "Negāh-i ba neveštahā-ye Henri Jorj Fārmer," *Māhur* 5, 1999, pp. 113-25. Simin Ḥalāli, *Katāb-šenāsi-e musiqi dar Irān*, Tehran, 2007.

Mohammad Taghi Massoudieh, *Manuscrits persans concernant la musique*, International inventory of musical sources B 12, Munich, 1996.

Aḥmad Monzawi, *Fehrest-e nosḵahā-ye ḵaṭṭi-e fārsi*, 5 vols. in 7, Tehran, 1969-74, V, pp. 3,885-929.

Eckhard Neubauer, "Arabic Writings on Music," in Virginia Danielson, Scott Lloyd Marcus, and Dwight Reynolds, eds., *The Garland Encyclopedia of World Music*, *VI: The Middle East*, New York and London, 2002, pp. 363-86 (includes printed texts on *samāʿ* and music in Iran). Eckhard Neubauer and Elsbeth Neubauer, "Henry George Farmer on Oriental Music: An Annotated ," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 4, 1987-88, pp. 219-66.

Arthur Upham Pope et al., eds., *A Survey of Persian Art from Prehistoric Times to the Present*, 3rd ed., Tehran, 1977, XVI, cols. 617-40. Ḥ. M. Ṣeddiq, "Resālāt-e musiqi," *Honar-e musiqi*, no. 41, 2002, pp. 48-51.

Amnon Shiloah, *The Theory of Music in Arabic Writings (c. 900-1900): Descriptive Catalogue of Manuscripts in Libraries of Europe and the U.S.A*.,

International inventory of musical sources B 10, Munich, 1979 (includes general titles on music in Islam and in Iran).

Idem, *The Theory of Music in Arabic Writings (c. 900-1900): Descriptive Catalogue of Manuscripts in Libraries of Egypt, Israel, Morocco, Russia, Tunisia, Uzbekistan, and Supplement to B X.*, International inventory of musical sources B 10 A, Munich, 2003.

Charles A. Storey, *Persian Literature: A Bio-Bibliographical Survey* II/1, London, 1972, pp. 61-62 and passim; II/3, London, 1977, pp. 350-52, 411-22.

Āqā Bozorg al-Ṭehrāni, *al–Ḏariʿa elā taṣānif al-šiʿa*, ed. Aḥmad Monzawi, 24 vols., Najaf and Tehran, 1936-78, XXIII, pp. 257-263.

Comprehensive works.

Taqi Bīneš, *Tāriḵ-e moḵtaṣar-e musiqi-e Irān*, Tehran, 1995.

Idem, *Šenāḵt-e musiqi-e Irān*, Tehran, 1997. Jean During, *Musique et extase: l'audition mystique dans la tradition soufie*, Paris, 1988.

Moḥammad-ʿAli Emām Šūštarī, *Irān gāhvāra-ye dāneš wa honar: honar-e musiqi-e ruzgār-e eslāmi*, Tehran, 1969.

Henry George Farmer, "An Outline History of Music and Musical Theory," in Arthur Upham Pope and Phyllis Ackermann, eds., *A Survey of Persian Art from Prehistoric Times to the Present* VI, London and New York, 1939, pp. 2783-804.

Idem, "Persische Musik," in Friedrich Blume, ed., *Die Musik in Geschichte und Gegenwart: allgemeine Enzyklopädie der Musik*, 17 vols., Kassel etc., 1949-86, X, cols. 1093-102.

Idem, "Music," in M. Mohammad Sharif, ed., *A History of Muslim Philosophy*, 2 vols., Wiesbaden, 1963-66, II, pp. 1124-78; tr. ʿAli-Moḥammad Ḥaqqšenās as

"Musiqi dar Irān wa sarzaminhā-ye eslāmi," in *Tāriḵ-e falsafa dar Eslām*, Tehran, 1988, III, pp. 191-268; repr. in *Māhūr* 1, 1998, pp. 9-43, 2, 1999, pp. 9-46, 3, 1999, pp. 9-34.

Idem, *Islam:Musikgeschichte in Bildern* 3/2, Leipzig, 1966.

Idem, *Studies in Oriental Music: Reprint of Writings Published in the Years 1925-1969*, 2 vols., Frankfurt, 1986, 2nd ed., 1997.

Idem, *A History of Arabian Music to the XIIIth Century*, London, 1929, repr., London, 1973; tr. Behzād Bāšī as *Tāriḵ-e musiqi-e ḵāvar-zamin*, Tehran, 1987.

Idem, "Music," in *The Legacy of Islam*, Oxford and London, 1931, pp. 356-75; tr. Behzād Bāšī, in *Do goftār dar bāra-ye ḵonyāgarī wa musiqi-e Irān*, Tehran, 1989, pp. 101-39.

Esmāʿil Ḥākemi, "Samāʿ dar taṣawwof," *MJ*, 3rd series, nos. 108-20, 1966-68, pp. 11-27, 54-80, 42-59, 1-12 and 47-60, 48-61, 50-66, 25-33, 60-66, 112-18, 92-101, respectively; new version published as *Samāʿ dar taṣawwof*, Tehran, 1982.

Faridun Jonaydi, *Zamina-ye šenāḵt-e musiqi-e irāni*, Tehran, 1982, 2nd ed., Tehran, 1993.

Angelika Jung, *Quellen der traditionellen Kunstmusik der Usbeken und Tadshiken Mittelasiens: Untersuchungen zur Entstehung und Entwicklung des šašmaqām*, Hamburg, 1989.

Ruḥ-Allāh Ḵāleqi, *Sargoḏašt-e musiqi-e Irān*, 6th ed., 2 vols., Tehran, 1997; III, ed. ʿAli-Moḥammad Dašti, Tehran, 1998; 3 vols. in 1, Tehran, 2002.

L. Manik, *Das arabische Tonsystemim Mittelalter*, Leiden, 1969.

Musā Maʿrufi, *Radif-e haft dastgāh-e musiqi-e irāni/Les systèmes de la musique traditionelle de l'Iran (Radif)*, ed. Mehdi Barkešli, Tehran, 1963, 2nd ed., Tehran,

1973.

Ḥasan Mašḥun, *Tāriḵ-e musiqi-e Irān*, 2 vols., Tehran, 1994.

Ruḥangiz Rāhgāni, *Tāriḵ-e musiqi-e Irān*, Tehran, 1998.

George D. Sawa, *Music Performance Practice in the Early ʿAbbāsid Era 132-320 AH / 750-932 AD*, Toronto, 1989, 2nd ed., Ottawa, 2004.

Fadlou Shehadi, *Philosophies of Music in Medieval Islam*, Leiden and New York, 1995.

Amnon Shiloah, *The Dimension of Music in Islamic and Jewish Culture*, Aldershot, UK, 1993.

Idem, *Music in the World of Islam*, Aldershot, UK, 1995.

Owen Wright, *The Modal System of Arab and Persian Music A.D. 1250-1300*, Oxford, 1978.

Idem, *Words Without Songs*: *A Musicological Study of an Early Ottoman Anthology and its Precursors*, London, 1992.

Persian texts (in chronological order).

Ebn Sinā (d. 428/1037), *Dāneš-nāma-ye ʿalāʾī*, chap. on music, in Taqi Bineš, ed., *Seh resāla-ye fārsi dar musiqi*, Tehran, 1992, pp. 3-29, 130-149; tr. Mohammad Achena and Henri Massé as *Avicenne: le livre de science (Danesh-nameh)*, Paris, 1955, pp. 217-39, 246-47.

ʿOnṣor-al-Maʿāli Kaykāvus b. Eskandar (comp. in 475/1082), *Qābus-nāma*, ed. Golām-Ḥosayn Yusofi, Tehran, 1973, chap. on music; tr. Reuben Levy as *A Mirror for Princes: The Qābus Nāma*, London, 1951; selections, ed. Golām-

Ḥosayn Yusofi as *Gozida-ye Qābus-nāma*, Tehran, 2nd. ed. 1983, pp. 232-39 (references in the text are to this edition).

Aḥmad Neẓāmi ʿAruži Samarqandi (d. after 551/1156), *Čahār maqāla*,ed. Moḥammad Qazvini, Cairo, 1327/1909; rev. ed. Moḥammad Moʿin, Tehran, 1952; tr. Isabelle de Gastines, as *Nizami Aruzi: les quatres discours*, Paris, 1968.

Faḵr-al-Din Rāzi (d. 606/1209), *Ḥadāʾeq al-anwār fi ḥaqāʾeq al-asrār*, music chap., ed. Amir Ḥosayn Purjavādi, *Maʿāref* 10/2-3, 1993, pp. 88-110.

Neẓāmi Ganjavi (d. in or prior to 613/1217), *Ḵosrow o Širin*, ed. Ḥasan Waḥid Dastgerdi, Tehran, 1952, pp. 190-94, 355 ff.

Moḥammad b. Maḥmud Neysāburi (prior to 656/1258), *Resāla dar musiqi*, ed. Moḥammad-Taqi Dānešpažuh, in Mojtabā Minovi, ed., *Haftād sālagi-e Farroḵ*, Tehran, 1965, pp. 99-103; ed. Amir Ḥosayn Purjavādi, *Maʿāref* 12/1-2, 1995, pp. 32-70.

Abu ʿAmr Menhāj-al-Din ʿOṯmān b. Serāj Juzjāni (comp. 658/1260), *Ṭabaqāt-e nāṣerī*, ed. ʿAbd-al-Ḥayy Ḥabibi, Lahore, 1954, 2nd ed., Kabul, 1963.

Bābā Afżal Kāšānī (d. prior or in 666/1268), “Faṣl az ʿelm-e musiqi,” in idem, *Moṣannafāt-e Afżal-al-Din Kāšāni*, ed. Mojtabā Minovi and Yaḥyā Mahdawi, 2 vols., Tehran, 1952, 2nd. ed. 1987, II, pp. 653-54.

Zakariyāʾ b. Moḥammad Qazvini (d. 682/1283), *ʿAjāʾeb al-maḵluqāt wa-ḡarāʾeb al-mawjudāt*, Pers. version with chapter on music, manuscripts, London, British Library, Or. 7968, Or. 13935, Add. 16739, and Washington, National Library of Medicine, P2.

ʿAlišāh Boḵāri (comp. 686/1287), *Ašjār wa aṯmār*, unpublished transcription of the chapter on music (“dar nesbat-e ʿelm-e musiqi”) by Amir-Ḥosayn Purjawādi, Tehran.

Anonymous (7th/13th cent.), *Mojmal al-ḥekma* (Pers. adaptation of the music chapter from the *Rasāʾel Eḵwān al-Ṣafāʾ*), in Taqi Bineš, ed., *Seh resāla-ye fārsi dar musiqi*,Tehran, 1992, pp. 31-54, 150-61.

Qoṭb-al-Din Širāzi (d. 710/1310), *Dorrat al-tājle-ḡorrat al-Dobāj*, ed. M. Meškāt, 5 vols., Tehran, 1939-45, IV, pp. 1-149; partial ed. and tr. Owen Wright, *The Modal System of Arab and Persian Music A.D. 1250-1300,* Oxford, 1978, pp. 168-93, 282-92.

Moḥammad b. Maḥmud Āmoli (comp. ca. 740/1340), *Nafāʾes al-fonun fi ʿarāʾes al-ʿoyun*, ed. Abu'l-Ḥasan Šaʿrānī, 3 vols., Tehran, 1957, III, pp. 73-109.

Karāmat Raʿnā Ḥosayni, "Laṭāyef al-asrār le-maqāṣed al-adwār," *Rāhnemā-ye ketāb* 13/11-12, 1971, pp. 748-56.

Ḥasan Kāšāni (comp. ca. 750/1350), *Kanz al-toḥaf*, in Taqi Bineš, ed., *Seh resāla-ye fārsi dar musiqi*, Tehran, 1992, pp. 55-128, 162-97.

Anonymous (comp. ca. 755/1354), *al-Moḵtaṣar al-mofid fi bayān al-musiqi wa oṣul aḥkāmehi*, ed. Amir Ḥosayn Purjavādi, *Maʿāref* 13/1, 1996, pp. 49-58.

Anonymous (8th/14th cent.?), Untitled treatise on music, Ms. Istanbul, Köprülü 1613 (fols. 70v-73r).

Anonymous (8th/14th cent.?), Untitled treatise on music, Ms. Tehran, Majles-e Senā Library 13682 (fols. 164b-67a), unpublished transcription Amir-Ḥosayn Purjawādi.

ʿAbd-al-Qāder b. Ḡaybi Marāḡi (d. 838/1435), *Maqāṣed al-alḥān*, ed. Taqi Bineš, Tehran, 1966.

Idem, *Jāmeʿ al-alḥān*, ed. Taqi Bineš, Tehran, 1987.

Idem, *Šarḥ al-adwār*, ed. Taqi Bineš, Tehran, 1991.

Najib Māyel Heravī, *Andar ḡazal-e ḵᵛiš nehān ḵᵛāham gaštan (samāʿ-nāmahā-ye fārsi)*, Tehran, 1993 (texts on *samāʿ* by 26 authors).

Selected Arabic texts (in chronological order; eds. and trs.).

ʿAmr b. Baḥr Jāḥeẓ (d. 255/868-69), *Ketāb al-qiān*, ed. Joshua Finkel, in *Ṯalāṯ rasāʾel le-Abi ʿOṯmān ʿAmr …al-Jāḥeẓ*, Cairo, 1926; ed. ʿAbd-al-Salām Moḥammad Hārun, in *Rasāʾel al-Jāḥeẓ* II, Cairo, 1965; tr., Charles Pellat as "Les esclaves-chanteuses de ·āḥiẓ," *Arabica* 10, 1963, pp. 121-47; ed. and tr. Alfred F. Landon Beeston as *The Epistle on Singing-Girls of Jāḥiẓ*, Warminster, 1980.

Idem, *Ṭabaqāt al-moḡannin*, excerpt made by ʿObayd-Allāh b. Ḥassān, latest ed. by ʿAbd-al-Salām Moḥammad Hārun, in *Rasāʾel al-Jāḥeẓ*, III, Cairo, 1979.

Idem, *Ketāb mofāḵarāt al-jawāri wa-'l-ḡelmān*, ed. ʿAbd-al-Salām Moḥammad Hārun, in *Rasāʾel al-Jāḥeẓ* II, Cairo, 1965.

Pseudo-Jāḥeẓ, *Ketāb al-tāj fi aḵlāq al-moluk*, ed. Ahmed Zeki Pacha, Cairo, 1914, repr., 1949; tr., Charles Pellat as *Le livre de la couronne,* Paris, 1954.

Abū Yūsuf Kendi (d. shortly after 256/870), *Moʾallafāt al-Kendī al-musiqiya,* ed. Zakariyā Yusof, Baghdad, 1962.

Idem, *Resālat al-Kendi fi'l-loḥun wa-'l-naḡam,* ed. Zakariyā Yusof, Baghdad, 1965.

Idem, *Resālat al-Kendī fi ajzāʾ ḵabariya fi'l-musiqi*, ed. Maḥmud A.

Ḥefni, Cairo, n.d.; ed. Zakariyā Yusof, in *Moʾallafāt al-Kendi al-musiqiya*, Baghdad, 1962; tr., Henry George Farmer as "Al-Kindī on the 'EÚthos' of Rhythm, Colour, and Perfume," *Transactions of the Glasgow University Oriental Society* 16, 1955-56 (publ. 1957), pp. 29-38.

Idem, *Resālat al-Kendi fi ḵobr ṣenāʿat al-taʾlif*, ed. Yusof Šawqi, Cairo, 1969; ed.

Zakariyā Yusof, in *Moʾallafāt al-Kendi al-musiqiya*, Baghdad, 1962; ed. and tr., Robert Lachmann and Maḥmud A. Ḥefni as *Jaʿqūb Ibn Isḥāq al-Kindī: Risāla fī ʾubr tāʾlif al-alḥān/Über die Komposition der Melodien*, Leipzig, 1931; facs. ed. and tr., Carl Cowl as "The Risāla fī Óubr Taʾlīf al-Alḥān of Jaʿqūb ibn Isḥāq al-Kindī (790-874)," *The Consort* 23, 1966, pp. 129-66.

Idem, *Moḵtaṣar al-musiqi fi taʾlif al-nagām wa-ṣanʿat al-ʿud allafahu le-Aḥmad b. al-Moʿtaṣem (Resāla fi ʾl-loḥūn wa-ʾl-nagām)*, ed. Zakariyā Yūsof, in *Moʾallafāt al-Kendi al-musiqiya*, Baghdad, 1962; tr. Amnon Shiloah as "Un ancien traité sur le *ʿūd* d'Abū Yūsuf al-Kindī," *Israel Oriental Studies* 4, 1974, pp. 179-205.

Ebn Abi'l-Donyā (d. 281/892), *Ḏamm al-malāhi*, ed. and tr. James Robson, in *Tracts on Listening to Music: Being Dhamm al-malāhīby Ibn abī'l-Dunyā andBawāriq al-ilmāʿby Majd al-Dīn al-Ṭūsī al-Ghazālī*, London, 1938.

Mofażżal b. Salama (d. after 290/903), *Ketāb al-malāhi wa-asmāʾehā*, facs. ed. and tr. James Robson and Henry G. Farmer as *Ancient Arabian Musical Instruments as Described by Al-Mufaddal ibn Salama (9th Century) in the Unique Istanbul Manuscript of the* Kitāb al-malāhī *in the Handwriting of Yāqūt al-Mustaʿṣimī (d. 1298)*, Glasgow, 1938; ed. ʿAbbās ʿAzzāwi, in *al-Musiqā al-ʿerāqiya fi ʿahd al-Moḡul wa-ʾl-Torkomān men sana 1258 elā sana 1534*, Baghdad, 1951; ed. Ṣ. M. Jomayli, *al-Mawred* 4/3, 1984, pp. 35-64; ed. Ḡaṭṭās ʿAbd-al-Malek Ḵašaba, Cairo, 1985.

Ebn Ḵordāḏbeh (d. 300/912), *Moḵtār men Ketāb al-lahw wa-ʾl malāhi*, ed. I. ʿAbdoh Ḵalīfa, Beirut, 1961.

Ebn al-Monajjem (d. 300/912), *Ketāb al-nagām*, several eds. and trs., latestfacs. ed. and tr. Eckhard Neubauer, in *Arabische Musiktheorie* von *den Anfängen bis zum 6./12.Jahrhundert*, Frankfurt, 1998, pp. 43-126.

Abu Naṣr Fārābi (d. 339/950), *Ketāb al-musiqi al-kabir*, ed. Ḡaṭṭās ʿAbd-al-Malek Ḵašaba and Mahmud A. Ḥefni, Cairo [1967]; facs. ed. Eckhard Neubauer, Frankfurt, 1998; tr. in Rodolphe d'Erlanger, *La musique arabe* I, Paris, 1930, II, Paris, 1935, pp. 1-101, 247-51; Pers. tr. of the introd. (unfinished), Hušang Moršedzāda as "Ketāb al-musiqi al-kabir," *Muzik-e Irān* 9/11, pp. 4-5, 12, pp.

9-10; 10/1, pp. 17-18, 3, pp. 10-16, 4, pp. 18-26, 6, pp. 14-16; Pers. tr. Āḏartāš Āḏarnūš as *Ketāb-e musiqi-e kabir*, Tehran, 1996.

Idem, *Eḥṣāʾ al-ʿolūm*, ed. and Eng. tr. of the music section, Henry G. Farmer as *Al-Fārābī's Arabic-Latin Writings on Music*, Glasgow, 1934.

Idem, *Ketāb al–iqāʿāt*, facs. ed. and tr. Eckhard Neubauer, in *Arabische Musiktheorie* von *den Anfängen bis zum 6./12.Jahrhundert*, Frankfurt, 1998, pp. 128-84; Pers. tr., ʿA. Gorjī, *Mahoor* 23, 2004, pp. 9-49.

Idem, *Ketāb fi eḥṣāʾ aṣnāf al-iqāʿāt*, facs. ed. and German tr., Eckhard Neubauer, in *Arabische Musiktheorie* von *den Anfängen bis zum 6./12.*

Jahrhundert, Frankfurt, 1998, pp. 185-308.

Abu'l-Ḥasan ʿAli b. Ḥosayn Masʿudi (d. 345/956), *Moruj al-ḏahab wa maʿāden al-jawhar*, ed. and tr. Charles Barbier de Meynard and Abel Pavet de Courteille as *Maçoudi,Les prairies d'or (Murūj al-dhahab)*, 9 vols., Paris, 1861-77, VIII, pp. 88-103; rev. ed. by Charles Pellat, text, 7 vols., Beirut, 1966-79, V, pp. 126-32, tr., 3 vols., Paris, 1962-71 (contains two lectures on music history, theory and dance given, the first by Ebn Ḵordāḏbeh at the Baghdad court of al-Moʿtamed) separate ed. ʿAbbās ʿAzzāwī, in *al-Musiqā al-ʿerāqiya fi ʿahd al-Moḡul wa-'l-Torkomān men sana 1258 elā sana 1534*, Baghdad, 1951.

Abu'l-Faraj Eṣbahānī (d. 356/967), *Ketāb al-aḡāni al-kabir*, 24 vols., Cairo, 1927-74, partial tr. Armand Pierre Caussin de Perceval as "Notices anecdotiques sur les principaux musiciens arabes des trois premiers siècles de l'Islamisme," *JA*, sér. 7/2, 1873, pp. 397-592; partial Pers. tr. M. H. M. Faridāni, as *Bargozida-ye al-aḡāni*, Tehran, 1990.

Ebn al-Nadim (d. ca. 385/995), *Ketāb al-fehrest*, ed. Gustav Flügel, 2 vols., Leipzig, 1871-72; ed. Reżā Tajaddod, Tehran, 1971, pp. 157 ff.; tr. Bayard Dodge as *The Fihrist of al-Nadīm: A Tenth-Century Survey of Muslim Culture*, 2 vols., New York and London, 1970, I, pp. 307-42;tr. of the chapter on music literature by Henry G. Farmer as "Tenth Century Arabic Books on Music: As Contained in

‘Kitāb al-Fihrist’ of Abu’l-Faraj Muḥammad ibn al-Nadīm,” *The Annual of Leeds University Oriental Society* 2, 1959-61, pp. 37-47.

Eḵwān al-Ṣafāʾ (2nd half 4th/10th cent.), *Rasāʾel Eḵwān al-Ṣafāʾ*, ed. Ḵayr-al-Din Zerekli, 4 vols, Cairo, 1928, I, pp. 132-80; ed. in 4 vols., Beirut, 1957, music chapter, vol. l, pp. 183-241; tr., Amnon Shiloah as “L’épître sur la musique des Ikhwān al-Ṣafāʾ,” *Revue des études islamiques* 32, 1964, pp. 125-62; 34, 1966, pp. 159-93; tr., Amnon Shiloah as *The Epistle on Music of the Ikhwān al-Ṣafāʾ*, Tel-Aviv, 1978.

Abu ʿAbd-Allāh Moḥammad Ḵʷārazmi (late 4th/10th cent.), *Mafātiḥ al-ʿolum*, ed. Gerlof van Vloten, Leiden, 1895, repr. 1968, pp. 235-46; tr. Henry G. Farmer as “The Science of Music in the *Mafātīḥ al-ʿUlūm*,” *Transactions of the Glasgow University Oriental Society* 17, 1957-58 (publ. 1959), pp. 1-9.

Abu ʿAbd-al-Raḥmān Solami (d. 412/1021), *Ketāb al-samāʿ*, ed. Naṣr-Allāh Purjavādi, *Maʿāref* 5/3, 1988, pp. 22-30, 40-72; tr. of the introd. N. Pourjavady as “Zwei alte Werke über *samāʿ*,” *Spektrum Iran* 3/2, 1990, pp. 37-59, 3/3, pp. 36-61.

Abu Manṣur Eṣfahāni (d. 418/1027), *Ketāb adab al-moluk*, “Bāb samāʿ al-Ṣufiya,” ed. Naṣr-Allāh Purjavādi, *Maʿāref* 5/3, 1988, pp. 30-50, 73-78; see also N. Purjavādi “Zwei alte Werke über *samāʿ*,” (see above).

Ebn Hendu (d. 420/1029), *Meftāḥ al-ṭebb wa menhāj al-ṭollāb*, ed, Mahdi Moḥaqqeq and Moḥammad-Taqi Dānešpažuh, Tehran, 1989, chap. 8 (on medicine and music), facs. ed. and tr. Amnon Shiloah as “Ibn Hindū, le médecin et la musique,” *Israel Oriental Studies* 2, 1972, pp. 447-62. Ebn Sīnā (d. 428/1037), [*Ketāb*] *al-Šefāʾ: al-Riāżiyāt3*, *Jawāmeʿ ʿelm al-musiqi*, ed. Zakariyā Yusof, Cairo, 1376/1956; ed. and study, Mahfuz Ali El-Tawil, “Ibn Sina and Medieval Music,”Ph. D. diss.,University ofExeter,1992; tr., in Rodolphe d’Erlanger, *La musique arabe* II, Paris, 1935, pp. 103-245, 251-57.

Idem, *Ketāb al-najāt,* ed. and Ger. tr. of the music chapter, Mahmoud el-Hefny as *Ibn Sina’s Musiklehre hauptsächlich an seinem “Naǧāt” erläutert*, Berlin, 1931; ed. and study, Mahfuz Ali El-Tawil, “Ibn Sina and Medieval Music,”Ph. D. diss., University ofExeter,1992.

Ebn Zayla (d. 440/1048), *al-Kāfī fi'l-musiqi*, ed. Zakariyā Yusof, Cairo, 1964.

Ebn al-Ṭaḥḥān (d. after 449/1057), *Ḥāwi al-fonun wa salwat al-maḥzun*, facs. ed., Fuat Sezgin and Eckhard Neubauer, Frankfurt, 1990.

Abu'l-Qāsem ʿAbd-al-Karim Qošayri (d. 465/1072), *al-Resāla al-Qošayriya*, printed several times; Pers. tr., ed. Badiʿ-al-Zamān Forūzanfar as *Tarjama-ye Resāla-ye Qošayriya*, Tehran, 1966.

Idem, *Ketāb al-samāʿ*, ed. Pir Moḥammad Ḥasan, in *al-Rasāʾel al-Qošayriya*, Karachi, 1964.

Ḥasan b. Aḥmad b. ʿAli Kāteb (early 5th/11th cent.), *Kamāl adab al-ḡenāʾ*, ed. Zakariyā Yusof, *al-Mawrid* (Baghdad) 2/2, 1973, pp. 101-54; ed. Ḡaṭṭās ʿAbd-al-Malek Ḵašaba and Maḥmud A. Ḥefni, Cairo, 1975; tr. Amnon Shiloah as *La perfection des connaissances musicales*, Paris, 1972.

Abu'l-Qāsem Ḥosayn Rāḡeb Eṣfahāni (d. in the early 5th/11th cent.), *Moḥāżarāt al-odabāʾ wa muḥāwarāt al-šoʿarāʾ wa'l-bolaḡāʾ*, 4 vols., Beirut, 1961, II, pp. 715-723.

Abū Ḥāmed Moḥammad Ḡazālī (d. 505/1111), *Eḥyāʾ ʿolum al-dīn*, printed several times; Eng. tr. of the chap. on *samāʿ*, Duncan B. Macdonald as "Emotional Religion in Islām as Affected by Music and Singing: Being a Translation of a Book of the *Iḥyāʾ ʿUlūm ad-Dīn* of al-Ghazzālī," *JRAS,* 1901, pp. 195-252, 705-48; 1902, pp. 1-28.

ʿOmar Ḵayyām (d. 517/1123), *al-Qawl ʿalā ajnās allaḏi bi-'l-arbaʿa*, in Jalāl-al-Din Homāʾī, ed., *Ḵayyāmi-nāma: Resāla fi šarḥ mā aškala men moṣādarāt ketāb Oqlides*. Tehran, 1967, pp. 338-44; ed., Pers. tr. and study Ṣ. Hušyār and M. Bāqerī as "Resāla-ye Ḵayyām az didgāh-e riāżiyāt," *Rahpuya-ye honar* 43, 1997, pp. 43-63; Rus. tr., see B. A. Rozenfel'd and N. G. Khayretdinova, "Rech' o rodakh, kotorye obrazuyutsya kvartoĭ Omar Khayyam," *Istoriko-matematicheskie issledovaniya* 19, 1974, pp. 279-84.

Naṣir-al-Din Ṭusi (d. 672/1274), fragment on intervals and pulse, ed. Zakariyā Yusof as *Resāla fi ʿelm al-musiqi*, Cairo, 1964.

Aḥmad b. Moḥammad Ṭusi (7th/13th cent.), *Bawāreq al-elmāʿ fi ʾl-radd ʿalā man yoḥarremo'l-samāʿ be'l-ejmāʿ*, ed. and tr. James Robson, in *Tracts on Listening to Music: Being Dhamm al-malāhīby Ibn abī'l-Dunyā andBawāriq al-ilmāʾby Majd al-Dīn al-Ṭūsī al-Ghazālī*, London, 1938; Pers. version by the author as *al-Hadia al-saʿdia fī maʿāni ʾl-wajdia*, and another tr. by ʿAbd-Allāh Šaṭṭār Qāderi as *Bawāreq al-samāʿ*, Tehran, 1994.

ʿAbd-al-Moʾmen Ṣafi-al-Din Ormavi (d. 693/1294), *Ketāb al-adwār*, facs. ed. Ḥosayn ʿAli Maḥfuẓ, Baghdad, 1961; ed. Ḡaṭṭās ʿAbd-al-Malek Ḵašaba and Maḥmud A. Ḥefni, Cairo, 1968; ed. Hāšem Moḥammad Rajab, Baghdad, 1980; facs. ed. Eckhard Neubauer, Frankfurt, 1984; tr. with commentary, in Rodolphe d'Erlanger, *La musique arabe*, III, Paris, 1938, pp. 183-566, 573-588; Pers. tr. Mirzā Moḥammad-Esmāʿil b. Moḥammad-Jaʿfar Eṣfahāni, Sepahsālār Library, Ms. 564, ed. Yaḥyā Ḏokāʾ, "Ketāb al-adwār fi'l-musiqi, taʾlif Ṣafī-al-Dīn … Ormavi," *MJ*, 3rd series, nos. 46-56, 1960-61 (10 parts); anon. Pers. tr., Melli Malek Library, Ms. 831, ed. Ā. Rostamī, *Tarjama-ye Adwār-e Ormavi/Ketāb al-adwār fi'l-musiqā (Persian Translation and Arabic Text)*, Tehran, 2001.

Idem, *al-Resāla al-šarafīya fi'l-nesab al-taʾlifiya*, ed. Hāšem Moḥammad Rajab, Baghdad, 1982; facs. ed. Eckhard Neubauer, Frankfurt, 1984; ed. M. al-Asʿad Qariʿa (Lassaâd Kriaa), Ph.D. diss. Kaslik, Lebanon, 2004; Fr. paraphrase by Bernard Carra de Vaux as "Le Traité des rapports musicaux ou l'Épître à Scharaf ed-Dîn, par Safi ed-Dîn ʿAbd el-Mumin Albaghdâdî," *JA*,8th series, 18, 1891, pp. 279-355; tr., in Rodolphe d'Erlanger, *La musique arabe* III, Paris, 1938, pp. 1-182.

Ebn al-Ḵaṭib Erbeli (fl. 729/1329), *Jawāher al-neẓām fi maʿrefat al-anḡām*, ed. Louis Cheikho, *Majallat al-mašreq* (Beirut) 16, 1913, pp. 895-901; ed. ʿAbbās ʿAzzāwi, *al-Musiqā al-ʿerāqiya fi ʿahd al-Moḡul wa-'l-Torkomān*, Baghdad, 1951.

Ebn Faẓµl-Allāh ʿOmarī (d. 749/1348), *Masālek al-abṣār fi mamālek al-amṣār*, facs. ed., Fuat Sezgin et al., 27 vols., Frankfurt, 1988, X, on musicians.

Anonymous (first half of the 8th/14th cent.), *Ketāb al-mizān fi ʿelm al-adwār wa'l-awzān*, ms. Gotha, orient. A 85, fols. 40b-62a.

Ebn Korr (d. 763/1362), *Gāyat al-maṭlub fi ʿelm al-anḡām wa-'l-żorub*, ms. London, British Museum, Or. 9247.

Studies.

Jaʿfar Āghāyānī Chāvoshī, "Omar Khayyām et la musique théorique," *Luqman* 16, 1999-2000, pp. 92-108.

Human Asʿadi, "Negāh-i ejmāli ba pišina-ye tāriḵi-e musiqi dar Mā-warāʾ-al-Nahr," *Māhur* 5, 1999, pp. 59-88.

Idem "Negāh-i ejmālī ba sayr-e taḥawwol-e mafhum-e 'laḥn' dar musiqi-e jahān-e Eslām," *Māhur* 13, 2001, pp. 57-68.

ʿAbd-al-Moḥammad Āyatī, "Esḥāq Mawṣeli," *Āmuzeš wa parvareš*, no. 54/2, 1975-76, pp. 153-57.

Mahdi Barkechli, "La gamme de la musique iranienne," *Annales des télécommunications* 5, 1950, pp. 195-203.

Idem, "Musiqi-e Ebn Sīnā," in *jašn-nāma-ye Ebn Sīnā* II, Tehran, 1955, pp. 466-77.

Idem, "Naẓariyahā-ye qadim dar bāra-ye 'molāyamat'-e fawāṣel-e musiqi," *MJ*, 3rd series, no. 3, 1956, pp. 5-15.

Idem, "Parda-bandi-e ṭanbur-e Ḵorāsān asās-e gām-e musiqi-e mašreq wa-maḡreb," *MJ*, 3rd series, no. 6, 1956, pp. 5-16.

Idem, "Gām-e musiqi-e Irān," *MJ*, 3rd series, no. 12, 1957, pp. 4-12.

Idem, “Les rythmes caractéristiques de la musique iranienne,” in Hellmut Federhofer, Gerald Abraham, and Suzanne Clerc-Lejeune, eds., *Bericht über den 7. Internationalen Musikwissenschaftlichen Kongress Köln 1958*, Kassel etc., 1959, pp. 61-63.

Idem, “Molāyamat yak-i az pāyahā-ye ʿelmi-e modāwamat-e tāriḵi-e musiqi-e irāni,” *Honar o mardom*, new series, nos. 107-8, 1971, pp. 70-75.

Idem, “Pāyagoḏārān -e mabāni-e ʿelmi-e musiqi-e Irān,” in *Guša-i az simā-ye tāriḵ-e taḥawwol-e ʿolum dar Irān*, Tehran, 1971, pp. 216-37.

Idem, “Recherche des degrés de la gamme iranienne à partir de la sensation subjective de consonance, ” in *Acta Iranica* 3, 1974, pp. 339-60.

Idem, “Andišahā-ye ʿelmi-e Fārābi dar bāre-ye musiqi/Les idées scientifiques de Farabi dans la musique,”in idem, *Majmuʿa-ye soḵan-rānihā*, Tehran, 1974.

Idem, darajāt-e molāyamat-e fawāṣel-e musiqi az naẓar-e Fārābi,” *Ḵerad wa kušeš* 6/1, 1975, pp. 106-33.

Idem, *Modāwamat dar oṣul-e musiqi-e Irān: gāmhā wa dastgāhhā-ye musiqi-e irāni/La continuité historique des principes dans la musique iranienne: les gammes et les systèmes de la musique iranienne*, Tehran, 1976.

Idem, “Mabān-e ʿelmī-ye musiqi-e irāni,” *Našriya-ye Anjoman-e farhang-e Irān-e bāstān*, no. 19, 1977, pp. 18-42.

Idem, “Gām-e kāmel-e zamān-e Fārābī wa-gāmhā-ye pišnehādi-e u,” *Honar o mardom*, new series, nos. 177-78, 1977, pp. 14-23.

Idem “Ebn Zayla Eṣfahānī, musiqi-šenās-e ʿāli-maqām-e qarn-e panjom,” in Moḥammad-Rasul Daryāgašt, ed., *Majmuʿa-ye soḵanrānihā-yehaftomin kongera-ye taḥqiqāt-e irāni* IV, 1978, pp. 21-33.

Manučehr Bāstānī, “Ketābhā-ye ḵaṭṭi dar bāra-ye musiqi dar ketāb-ḵāna-ye Madrasa-ye ʿĀlī-e Sepahsālār wa Ketāb-ḵāna-ye Majles-e Šurā-ye Melli,” *MJ*, 3rd series, nos. 104-5, 1966, pp. 29-36.

Anna L. F. A. Beelaert, “The Complaint of Musical Instruments: The Evolution of an Image in Classical Persian Poetry,” in Bert G. Fragner, ed., *Proceedings of the Second European Conference of Iranian Studies Held in Bamberg, 30th September to 4th October 1991*, Rome, 1995, pp. 81-96.

Taqi Bīneš, “Šarḥ-e Adwār-e Yaḥyā Kāši,” *Arj-nāma-ye Iraj* II, Tehran, 1998, pp. 321-26.

Ebrāhim Borhān-āzād, “Seh tawṣīf-e šāʿerāna az čand ālat-e musiqi az do šāʿer,” *Payām-e novin* 6/3, 1965, pp. 51-55.

J. Christoph Bürgel, “Musicotherapy in the Islamic Middle Ages as Reflected in Medical and Other Sources,” in Hakim M. Said, ed., *History and Philosophy of Science*, Karachi, ca. 1980, pp. 33-38.

Idem, *The Feather of Simurgh: The “Licit Magic” of the Arts in Medieval Islam*, New York and London, 1988, pp. 89-118 (“Music, Nourishment of the Soul”).

Nelly Caron and Dariouche Safvate, *Iran:les traditions musicales,* Paris, 1966.

Jean-Claude Chabrier, “Éléments d’une approche comparative des échelles théoriques arabo-irano-turques,” *Revue de musicologie* 71, 1985, pp. 39-78.

M. L. Roy Choudhury Sastri, “Sūfīs and Music,” in Devadatta Ramkrishna Bhandarkar et al., eds., *BimalaCharanLaw Volume*, 2 vols., Poona, 1945-46, II, pp. 292-305.

Miguel Cruz Hernández, “La teoría musical de Ibn Sīnā en el Kitāb al-Šifāʾ,” in Abd al-Rahman Badawi et al., eds., *Milenario de Avicena*, Madrid, 1981, pp. 27-36.

Moḥammad Dāmādi, “Abu Saʿid Abu’l-Ḵayr wa samāʿ (musiqi),” *Honar o mardom*, new series, no. 102-03, 1971, pp. 70-75. Yaḥyā Ḏokāʾ, “Āʾin-e naqqāra-kubi dar Irān wa manšaʾ-e ān,” *Našriya-ye Anjoman-e farhang-e Irān-e bāstān*, no. 19, 1977, pp. 29-49. Jean During, “Revelation and spiritual audition in Islam,” *The World of Music* 24, 1982, pp. 68-82.

Idem, “Aspects du concert spirituel islamique: le samāʿ,” *La musique et le rite sacré et profane*: *actes du XIIIe congrès de la Société internationale de musicologie, 29 août-3 septembre 1982*, Strasbourg, 1986, pp. 475-79.

Idem, “Acoustic Systems and Metaphysical Systems in Oriental Traditions,” *The World of Music* 29, 1987, pp. 19-29.

Idem, “Systèmes acoustiques et systèmes métaphysiques dans les traditions orientales,” *L’esprit de la musique: essais d’esthétique et de philosophie*, Paris, 1992, pp. 177-86.

Idem, “Le grincement de la porte du paradis: la double structure du phénomène musical dans la culture islamique,” in Alma Giese and J. Christoph Bürgel, eds., *Gott ist schön und Er liebt die Schönheit:Festschrift für Annemarie Schimmel*, Bern and New York, 1994, pp. 153-79.

Idem, “Territorialité et territorialisation de l’espace musical musulman,” in Mohammad Ali Amir-Moezzi, ed., *Lieux d’islam: cultes et cultures de l’Afrique à Java*, Paris, 1996, pp. 321-31.

Idem, “Musique et rites: le samâʿ,” in Gilles Veinstein and Alexandre Popovic, eds., *Les voies d’Allah: les ordres mystiques dans l’islam des origines à aujourd’hui*, Paris, 1996, pp. 157-72.

Idem, “Hearing and Understanding in the Islamic Gnosis,” *The World of Music* 39, 1997, pp. 127-37.

Idem, “La représentation du rythme dans la théorie islamique ancienne,” in Marcel Pérès and Catherine Homo-Lechner, eds., *La rationalisation du temps*

au XIIIe siècle: Musique et mentalités:Actes du Colloque de Royaumont, 1991, Royaumont, 1998, pp. 145-65.

Idem, "The Symbolic Universe of Music in Islamic Societies," *The Garland Encyclopedia of Music* VI: *The Middle East,* New York etc., 2002, pp. 177-88. A. Dzhumaev, "Avitsenna i muzyka (Avicenna and music)," *Zvezda Vostoka*, 1980, no. 3, pp. 145-51.

Idem, "Ibn Sina ob obshchestvennykh funktsiyakh muzyki (Avicenna on the social function of music)," *Obshchestvennye nauki v Uzbekistane*, 1980, nos. 8-9, pp. 83-89.

Idem, "Traktat o muzyke Mukhammada Nishapuri (Moḥammad Nišāpuri's treatise on music)," *Obshchestvennye nauki v Uzbekistane*, no. 1, 1984, pp. 44-50.

Idem, "Muzykal'no-eµsteticheskie vzglyady Abu Ali Ibn Siny (Musical aesthetic views of Abu ʿAli Sina)," *Muzyka Narodov Azii i Afriki* 4, 1984, pp. 161-78.

Idem, "Obshchestvennoe polozhenie muzykanta na srednevekovom Vostoke (Social position of a musician in Medieval East)," in M. Rakhmanova, ed., *Muzykal'noye, teatral'noye iskusstvo i fol'klor*, Tashkent, 1992, pp. 16-28.

Henry George Farmer, "The Old Persian Musical Modes," *JRAS*, 1926, pp. 93-95.

Lois Ibsen Faruqi, "Al Ghazālī on Samāʿ," in Ismail R. Faruqi and A. O. Nasseef, eds., *Essays in Islamic and Comparative Studies*, Washington, D.C., 1982, pp. 43-50.

Idem, "The Shariʿah on Music and Musicians," in Ismail R. Faruqi, ed., *Islamic Thought and Culture*, Herndon, 1982, pp. 27-52.

Idem, "The Suite in Islamic History and Culture," *The World of Music* 27/3, 1985, pp. 46-66.

Masʿud Farzād, “Ḥāfeẓ wa-mūsīqī: kašf-e Moḡanni-nāma-ye Ḥāfeẓ,” *MJ*,nos. 1-2, 1939, pp. 17-29 (includes the text of the “Moḡanni-nāma/Sāqi-nāma,” which is attributed to Ḥāfeẓ).

Mahdi Foruḡ, “Ālāt-e musiqi-e qadim-e Irān wa-degar kešvarhā-ye Ḵāvar-e miāna,” *MJ*, 3rd series, nos. 4-16, 1956-57, (12 parts).

Idem, “Musiqi dar āṯār-e Ebn Sinā,” *Muzik-e Irān* 4/7, 1957, p. 8.

Daniël Franke, *Museum des Institutes für Geschichte der Arabisch-Islamischen Wissenschaften*: *Beschreibung der Exponate* I: *Musikinstrumente*, Frankfurt on the Main, 2000.

H. Ghomi, “The *Samāʿ* in the *Ghazaliyyāt* of Moulānā Jalāleddin Rumi,” in Bert G. Fragner, ed., *Proceedings of the Second European Conference of Iranian Studies Held in Bamberg, 30th September to 4th October 1991*, Rome, 1995, pp. 191-206.

Iraj Golsorḵi, “Ketāb al-aḡāni,” *Farhang*, no. 8, 1991, pp. 111-28.

María Dolores Guardiola, “Licitud de la venta de esclavas cantoras,” in Concepción Castillo Castillo and others, eds., *Homenaje al Profesor José María Fórneas Besteiro*, 2 vols. Granada, 1995, II, pp. 983-96.

Boris A. Gulisaschwili, “Ibn Sina und die reine Stimmung,” *Beiträge zur Musikwissenschaft* 9, 1967, pp. 272-83.

Esmāʿil Ḥākemi, “Samāʿ wa-ṭariqa-ye Mawlawiya,” *MJ*, 3rd series, no. 121, 1969, pp. 33-41.

Sirajul Haq, “Samāʿ and raqṣ of the Darwishes,” *Islamic Culture* 18, 1944, pp. 111-130.

Saʿdi Ḥasanī, “Goḏašta-ye musiqi-e irāni,” *MJ*, 4th series, no. 1, 1973, pp. 9-11.

Idem, “Musiqi irāni wa ḥamla-ye Moḡol,” *MJ*, 4th series, no. 3, 1973, pp. 15-16.

Idem, “Abu Yusof Yaʿqub b. Esḥāq al-Kendi: al-Resāla fi ḵobrat (!) al-taʾlif,” *MJ*, 4th series, no. 9, 1974, pp. 7-15, 26.

A. Heitty, “The Contrasting Spheres of Free Women and Jawārī in the Literary Life of the Early ʿAbbāsid Caliphate,” *al-Masāq* 3, 1990, pp. 31-51.

Ruḥ-Allāh Ḵāleqi, “Dāstān-e Esḥāq (Mawṣeli),” *Payām-e novin* 1/1, 1958, pp. 23-31.

Idem, “Ṣafi-al-Din Ormavi,” *Payām-e novin* 1/7, 1958, pp. 24-32.

Parviz Nātel Ḵānlarī “Ebrāhim Māhān,” *MJ*, no. 3, 1939, pp. 11-18.

Idem, “Esḥāq Mawṣeli musiqidān-e bozorg-e irāni,” *MJ*, nos. 4-5, 1939, pp. 11-17.

Idem, “Ebrāhim Māhān wa Esḥāq Mawṣeli,” *MJ*, 3rd series, no. 40, 1959, pp. 3-16 (repr. of the two previous articles).

Idem, “Waṣf-e ṣurat-e ālāt-e musiqi dar divān-e Ḵāqāni,” *Soḵan* 3, 1946, pp. 542-45, 643-46.

Ḥosayn Ḵadiv Jam, “Taṣawwof wa musiqi,” *MJ*, 3rd series, no. 129, 1971, pp. 11-24.

Navid Kermani, *Gott ist schön: Das ästhetische Erleben des Koran*, Munich, 1999, pp. 171 ff. (“Der Klang”); pp. 365-425 (“Das Hören der Sufis”).

Hilary Kilpatrick, “The Transmission of Songs in Mediaeval Arabic Culture,” in Urbain Vermeulen and D. De Smet, eds., *Philosophy and Arts in the Islamic World*: *Proceedings of the Eighteenth Congress of the Union Européenne des*

Arabisants et Islamisants held at the Katholieke Universiteit Leuven (September 3-September 9, 1996), Leuven, 1998, pp. 73-82.

Idem, "Princes, musiciens et musicologues à la cour abbasside," in Floréal Sanagustin, ed., *Les intellectuels en Orient musulman: Statut et fonction*, Cairo, 1999, pp. 1-15.

Idem, *Making the Great Book of Songs: Compilation and the Author's Craft in Abû l-Faraj al-Iṣbahanî's Kitâb al-aghânî*, London and New York, 2003.

Maḥmud Ḵošnām, "Mawlawi wa musiqi," *MJ*, 3rd series, no. 127-28, 1970, pp. 116-20.

J. P. N. Land, "Tonschriftversuche und Melodieproben aus dem muhammedanischen Mittelalter," *Sammelbände für vergleichende Musikwissenschaft* 1, 1922, pp. 79-85.

Stefano A. E. Leoni, "Kanz al-Tuhaf (Al-Musiqi). The Casket of (Music) Rarities: Ars musica and musica practica between Islam and Christianity," *International Review of the Aesthetics and Sociology of Music* 27, 1996, pp. 167-83.

Leonard Lewisohn, "The Sacred Music of Islam: Samāʿ in the Persian Sufi Tradition," *British Journal of Ethnomusicology* 6, 1997, pp. 1-33.

Iraj Malaki, "Barbat nām-e kohan-e ʿud," *MJ*, 3rd series, no. 82, 1963, pp. 32-36.

Ḥosayn-ʿAli Mallāḥ, "Čang dar divān-e šāʿerān," *MJ*, 3rd series, no. 79-80, 1963, pp. 10-27.

Idem, "Sāzhā-ye majhur," *MJ*, 3rd series, no. 81, 1963 – no. 91, 1964 (8 parts).

Idem, "Rūd," *MJ*, 3rd series, no. 100, 1965, pp. 30-42.

Idem, *Manučehri Dāmḡāni va musiqi*, Tehran, 1984 (first pub. in *MJ*, 3rd series, no. 98, 1965, pp. 47-75, no. 99, 1965, pp. 61-91).

Idem, "Qāʾāni va musiqi," *Payām-e novin*, 6/1, 1964, pp. 65-74; 6/11-12, 1966, pp. 56-67.

Idem, "Sābeqa-ye tāriḵi-e ḵaṭṭ-e musiqi dar Irān," *MJ*, 3rd series, nos. 112-14, 1346 Š./1967-68, pp. 82-98.

Idem, "Šāʿerān-e sorudguy va āšnā bā musiqi," *MJ*, 3rd series, no. 130-36, 1971-72 (5 parts).

Idem, *Ḥāfeẓ va musiqi*, Tehran, 1972, 2nd. ed. 1984. Idem, *Farhang-e sāzhā*, Tehran, 1997.

Liberty Manik, "Zwei Fassungen einer von Ṣafī al-Dīn notierten Melodie," *Baessler-Archiv*, N. F. 23, 1975, pp. 145-151.

Moḥammad-Taqi Masʿudiya, *Sāzhā-ye Irān*, Tehran, 2004.

ʿAli Maẓāheri, "Zalzal-e Rāzi," *Honarhā-ye melli* 1, 1955, pp. 60-65.

Idem, "Zalzal-e Rāzi," *MJ*, 3rd series, no. 13, 1957, pp. 74-79.

Jean-Louis Michon, "Sacred Music and Dance in Islam," in *World Spirituality* XX: *Islamic Spirituality*, ed. S. Hossein Nasr, New York, 1991, pp. 469-506.

Jean R. Michot, "L'Islam et le monde: al-Ghazâlî et Ibn Taymiyya à propos de la musique (*samâʿ*)," in Jacques Taminiaux and G. Florival, eds., *Figures de la finitude. Études d'anthropologie philosophique*, Louvain-la-Neuve and Paris, 1988, pp. 246-61.

Moḥsen Moḥammadi, "Resāla-i be-ḵaṭṭ-e Ṣafi-al-Din Ormavi," *Nāma-ye*

Bahārestān 1/2, 2001, pp. 75-82.

Moḥammad Moḥiṭ Ṭabāṭabā'i, "Ṣafi-al-Din Ormavi," *MJ*, 3/8-9, 1941, pp. 31-45; 3/10-11, 1942, pp. 44-59, and in *Muzik-e Irān* 4/1-4/8, 1955-56 (8 parts).

Aḥmad Musawi, "Ālāt-e musiqi bar asās-e Mafātiḥ al-ʿolum va Nafāyes al-fonun," *Āhang* 4, 1989, pp. 265-270.

S. Hossein Nasr, "The Influence of Sufism on Traditional Persian Music," *Studies in Comparative Religion* 6, 1972, pp. 225-34.

Abdumannon Nazarov, *Forobiy va Ibn Sino musikiy ritmika khususida (mumtoz iyko' nazariyasi)*, Tashkent, 1995.

Idem, "Klassicheskaya teoriya iyka': Uchenie o muzykal'nom ritme Farabi i Ibn Siny (Classical theory of Iqāʿ: The doctrine of musical rhythm in Fārābi and Ebn Sinā)," Ph.D. diss. Tashkent, 1996 (Aftoreferat).

Eckhard Neubauer, "Musik zur Mongolenzeit in Iran und den angrenzenden Ländern. I: Schwerpunkte des musikalischen Lebens und namentlich bekannte Musiker," *Der Islam* 45, 1969, pp. 233-60.

Idem, "Arabische Anleitungen zur Musiktherapie," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 6, 1990, pp. 227-72.

Idem, "Der Bau der Laute und ihre Besaitung nach arabischen, persischen und türkischen Quellen des 9. bis 15. Jahrhunderts," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 8, 1993, pp. 279-378.

Idem, "La musique savante musulmane et son développement," in Mohammad Ali Amir-Moezzi, ed., *Lieux d'Islam: cultes et cultures de l'Afrique à Java*, Paris, 1996, pp. 301-20.

Idem, "Zur Bedeutung der Begriffe Komponist und Komposition in der

Musikgeschichte der islamischen Welt," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 11, 1997, pp. 307-63.

Idem, *Arabische Musiktheorie von den Anfängen bis zum 6./12. Jahrhundert: Studien, Übersetzungen und Texte in Faksimile*, Frankfurt, 1998.

Idem, "Music in the Islamic Environment," in *History of Civilizations of Central Asia* IV: *The Age of Achievement: A.D. 750 to the End of the Fifteenth Century*, ed. Clifford E. Bosworth and Mohammad S. Asimov, Paris, 2000, pp. 594-603, 676-79.

Asliddin Nizamov, "Ibn Sinā i ego muzykal'no-teoreticheskie sochineniya," in N. Negmatov, ed., *Abuali Ibn Sino i ego eμpokha: K 1000-letiyu so dnya rozhdeniya* (Abu ʿAli Sinā and his time: the millenium of his birth), Dushanbe, 1980, pp. 181-90.

Ḥamid-Reżā Pāsvār, "Moʿarrefi-e panj resāla-ye musiqi az Kendi," *Māhur* 16, 2002, pp. 121-39.

Louis Pouzet, "Prises de position autour du *samâʿ* en Orient musulman au VIIe/XIIIe siècle," *Studia Islamica* 57, 1983, pp. 119-34.

Amir-Ḥosayn Purjawādi, "Resālahā-ye gomšoda-ye Fārābi dar musiqi," *Māhur* 1, 1998, pp. 213-20.

Idem, "Yād-dāšt-i dar bāra-ye do maqāla-ye Fārmer," *Māhur* 27, 2005, pp. 91-93, followed by: H. G. Farmer, "ʿOlamā-ye bozorg-e Irān dar fann-e musiqi," pp. 95-100, and Idem, "Taʾṯir va nofuḏ-e Irān dar taʿbia-ye ālāt-e musiqi," pp. 101-5.

J. Rouanet, "La 'suite' dans la musique musulmane," *La revue musicale* 8/8, 1927, pp. 279-91, 8/9, 1927, pp. 14-23.

Moḥammad-Reżā Šafīʿī Kadkanī, "Yak eṣṭelāḥ-e musiqāʾi dar šeʿr-e Ḥāfeẓ,"

Māhūr 15, 2002, pp. 9-14.

Abu'l-Qāsem Salāmiān, "Eqtebās-e ʿarab az honar va musiqi-e irāni," *Ḵerad va kušeš*, 6th series, no. 1, 1975, pp. 79-85.

George Dimitri Sawa, "The Status and Roles of the Secular Musicians in the *Kitāb al-Aghānī* (Book of Songs) of Abū al-Faraj al-Iṣbahānī (d. 356 A.H./967 A.D.)," *Asian Music* 17/1, 1985, pp. 69-82.

Idem, "Theories of Rhythm and Meter in the Medieval Middle East," in *The Garland Encyclopedia of World Music* VI: *The Middle East*, eds. Virginia Danielson, Scott Lloyd Marcus, and Dwight Reynolds, New York and London, 2002, pp. 387-93; tr. N. Taḥvildāri as "Teʾorihā-ye ritm wa metr dar Ḵāvar-miāna-ye qorun-e wosṭā," *Māhur* 19, 2003, pp. 67-76.

Affan Seljuk, "Notes on the Origin and Development of Naubat," *Journal of the Malaysian Branch of the Royal Asiatic Society* 49, 1976, pp. 141-42.

Sāsān Sepantā, "Taʾlifāt-e bozorg dar musiqi-e Irān," *Muzik-e Irān* 12/1, 1963, pp. 29-31.

Idem, "Bar-rasihā-ye taḥlili wa taṭbiqi-e resāla-ye musiqi-e Ḵayyām," *Māhur* 14, 2002, pp. 11-23.

Mahdi Setāyešgar, *Vāža-nāma–ye musiqi-e Irān-zamīn*, 3 vols., Tehran, 1995-97.

A. Shariat Kâshânî, "L'expérience du corps et de l'espace chez Djalâl al-din Rûmî: la signification psychologique de la 'danse mystique' (*samā*ʿ) et la quête de l'identité plénière," *Luqmān* 13/2, 1997, pp. 75-100.

Amnon Shiloah, "Réflexions sur la dance artistique musulmane au moyen-âge," *Cahiers de civilisation médiévale* 5, 1962, pp. 463-74.

Idem, *Caractéristiques de l'art vocal arabe au moyen-âge*, Tel-Aviv, 1963.

Idem, “Reflets de la musique des divers peuples dans les écrits arabes sur la musique,” in Micheline Galley, ed., *Actes du Deuxième congrès international d’étude des cultures de la Méditerranée occidentale* II, Alger, 1978, pp. 268-73, 521.

Idem, “Music and Religion in Islam,” *Acta Musicologica* 69, 1997, pp. 143-55.

Solṭān-ʿAli Solṭānī, “Musiqi va musiqi-šenāsān-e Irān (Ḵānadān-e Abu Moḥammad Esḥāq Arrajāni maʿruf ba Mawṣeli),” *Mehr* 5, 1937-38, pp. 531-38, 617-24, 637-53; 7, 1942-43, pp. 38-43, 113-22.

M. b. Tāwit Ṭanjī, “Al-Ṭarāʾeq wa’l-alḥān al-musiqiya fi Efriqiya wa’l-Andalos,” *Majallat al-abḥāṯ* 21, 1968, pp. 93-116.

Reżā Toršizi, *Hezār sāl wazn (ritm) dar musiqi-e Irān*, Shiraz, 1997.

I. Vāmeqi, “Taḥlil-e tārīḵi az musiqi-e irāni,” *Muzik-e Irān* 6/10-8/10, 1958-60 (18 pars).

Eilhard Wiedemann, “Über die Herstellung von Glocken bei den Muslimen,” *Mitteilungen zur Geschichte der Medizin und der Naturwissenschaften* 9, 1910, pp. 475-76.

Idem, “Über Musikautomaten bei den Arabern,” in Giuseppe Salvo Cozzo, ed., *Centenario della nascità di Michele Amari*, 2 vols., Palermo, 1910, II, pp. 164-185; repr. in idem, *Gesammelte Schriften zur arabisch-islamischen Wissenschaftsgeschichte*, 3 vols., Frankfurt on the Main, 1984, I, pp. 451-72.

Idem, “Über Musikautomaten,” *Sitzungsberichte der Physikalisch-Medizinischen Societät zu Erlangen* 46, 1914, pp. 17-26.

Owen Wright, “Ibn al-Munajjim and the Early Arabian Modes,” *The Galpin Society Journal* 19, 1966, pp. 27-48.

Idem, “Music and Verse,” in Alfred Felix L. Beeston et al., eds., *Arabic Literature to the End of the Umayyad Period*, Cambridge, 1983, pp. 433-59.

Idem, “A Preliminary Version of the *Kitāb al-Adwār*,” *BSOAS* 58, 1995, pp. 455-78.

Idem, “Die melodischen Modi bei Ibn Sīnā und die Entwicklung der Modalpraxis von Ibn al-Munaǧǧim bis zu Ṣafī al-Dīn al-Urmawī,” *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 16, 2004-05, pp. 224-308.

Additional sources referred to:

Abu’l-Ḡāzi Bahādor Khan, *Šajarat al-atrāk*, tr. J. J. P. Baron Desmaisons as *Histoires des Mogols et des Tatares*, 2 vols., St. Petersbourg, 1871-74.

Dawlatšāh Samarqandi, *Taḏkerat al-šoʿarāʾ*, ed. Moḥammad ʿAbbāsi, Tehran, 1958.

W. Duda, *Die Seltschukengeschichte des Ibn Bībī*, Copenhagen, 1959.

ʿEmād-al-Din Eṣfahāni, *Ḵaridat al-qasr wa jaridat al-ʿaṣr… fożalāʾ ahlḴorāsān*, ed. ʿA. M. Āl Ṭoʿma, Tehran, 1999.

ʿEzz-al-Din Maḥmud Kāšāni, *Menhāj al-hedāya wa meftāḥ al-kefāya*, ed. Jalāl-dl-Din Homāʾi, Tehran, 1988.

Henry George Farmer, “Ṭabl Khāna,” in *EI*[1], Suppl., pp. 217-22.

Abu Ḥāmed Moḥammad Ḡazāli, *Eḥyāʾ ʿolum al-din*, ed. ʿA. Ḵāledi, 5 vols., Beirut, 1998; tr. Moʾayyed-al-Din Moḥammad Ḵᵛārazmi, ed. Ḥosayn Ḵadiv Jam, Tehran, 1972-74.

Ḥamza b. Ḥasan Eṣfahāni,*Taʾriḵ seni moluk al-arż wa’l-anbiāʾ*, ed. and tr. J. M. E.

Gottwaldt, 2 vols., St. Petersburg and Leipzig, 1844-48.

ʿAmr b. Baḥr Jāḥez, *al-Tabaṣṣor be'l-tejāra*, ed. Ḥasan Ḥ. ʿAbd-al-Wahhāb, Beirut, 1966.

ʿAṭā Malek Jovayni, *Tārīḵ-e jahāngošā*, ed. Moḥammad Qazvini, 3 vols., London and Leiden, 1912-37; tr. John A. Boyle as *The History of the World Conqueror*, 2 vols., Manchester, 1958.

Mofażżal b. Saʿd b. Ḥosayn Māfarruḵi Eṣfahāni, *Ḏekr maḥāsen Eṣfahān*, ed. Sayyed Jalāl-al-Din Ṭehrāni, Tehran, 1933; Pers. tr. by Sayyed Ḥosayn b. Moḥammad Āvi as *Tarjama-ye Maḥāsen-e Eṣfahān*, ed. ʿAbbās Eqbāl, Tehran, 1949.

Aḥmad b. Moḥammad Maydāni, *al-Sāmi fi'l-asāmi,* ed. Moḥammad Musā, Hendāwi, Cairo, 1967.

Menhāj-e Serāj Juzjāni, *Ṭabaqāt-e Nāṣerī*, Kandahar, 1949; ed. ʿAbd-al-Ḥayy Ḥabibi, 2 vols., Kabul, 1963-64.

Abu Jaʿfar Moḥammad b. Jaʿfar Naršaḵi, *Tārīḵ-e Boḵārā*, ed. Charles Schefer as *Description topografiqueet historique de Boukhara*,Paris, 1892; ed. Moḥammad-Taqi Modarres Rażawi, Tehran, 1972; tr. Richard N. Frye as *The History of Bukhara*, Cambridge, MA, 1954.

Eckhard Neubauer, "Ṣafī-al-Dīn Urmawī," in *EI*^{2} VIII, pp. 805-7.

Šehāb-al-Din Abu Ḥafṣ ʿOmar Sohravardi, *Awāref al-maʿāref*, Beirut, 1966.

Suzani Samarqandi, *Divān*, ed. Nāṣer-al-Din Šāh-Ḥosayni, Tehran, 1965.

Abu Manṣur ʿAbd-al-Malek Ṯaʿālebi, *Ḡorar aḵbār moluk al-fors*, ed. Hermann Zotenberg as *Histoir des rois des Perses*, Paris, 1900.