

the Allepans were "fond of music," and in their performances the instruments generally were well in tune, and . . . kept excellent time."

Chapter LVIII

MUSIC (Continued)

C

THE MUSIC THEORISTS

"There is one and the same principle which, if prevailing in the attempered particles of the elements, is equipoise of temperament; if produced in tones is pure and delightful interval; if apparent in gestures is grace; if observable in languages is rhetoric and eloquence; if created in the limbs is beauty; if in the mental faculties is equity."

Jalāl al-Dīn Dawwānī: *Akhlāq-i Jalālī*.

In addition to those who conceived music to be "like a fan" on a sultry day were those to whom it was "like medicine," as we have heard in the opening fanfare to this chapter. That was precisely how the Pythagoreans viewed music, and it was from them that the notions of the "theory of numbers," the "harmony of the spheres," and the "doctrines of the ethos (*tāthīr*)" were handed down to Muslim peoples as methodical systems, although the history of the Semitic and Aryan races in pre-Islamic days teems with these beliefs. In fact, the Greeks derived their theses on those matters from the ancient Semites of Babylonia-Assyria, as shown elsewhere.¹ Iamblichus affirms that Pythagoras learnt those secrets from the *Chaldaei* of Babylon,² and books on music and arithmetic by Pythagoras were known in Arabic,³ as were the works of his disciples Iamblichus, Porphyry, Proclus, and Nicomachus.⁴ Perhaps the first impact came through that pseudo-Aristotelian production known as the "Book of Government" (*Kitāb al-Siyāsah*), said to have been translated into Arabic, via Syriac, by Yūḥanna ibn Baṭrīq (d. c. 200/815),⁵ and this is what we read therein on the influence of music and the harmony of the spheres. Mental diseases are amenable to cure by means of musical instruments which convey to the soul the harmonious sounds which are (ultimately) due to the motions of the spheres in their natural movements. When those

harmonious sounds are interpreted through human agencies, they produce music which is enjoyed by the human soul, because the harmony of the spheres is mirrored in the harmony of man's nature, which is fundamental to life. That work was translated from Arabic into Latin as the *Secretum Secretorum* about the year 530/1135, and won considerable popularity during the European Middle Ages.⁶

Following Pythagoras, the cosmic order of things was explained under the proposition that "everything is number," and since mundane music was among the ectypes of numerical proportion, the harmonious order of things covered both melody and rhythm, the various *genres* of which could banish depression, assuage grief, halt passion, and cure sickness. The theory of numbers fascinated Muslim peoples because, unlike geometry which depended on visual appreciation, it was a purely mental science. The Pythagorean scale in music, which was based on the "theory of numbers," was known quite early to the Persians and the Arabs, and the *Khurāsānians* even improved on it. Islam having no racial boundaries, the special musical characteristics of the Persian, Arab, Syrian, and Turkomān found open acceptance in the capitals and cities of the Caliphate. Because of these national peculiarities it soon became evident that some sort of fixation of method and system was urgent, and this expediency was brought to fruition by an Arab named ibn Misjāh (d. c. 97/715) who, having travelled in Syria and Persia and taken lessons from practitioners and theorists, conceived of a system of music theory and a method of practice which were adaptable to existing conditions in Arabic-speaking lands. These, we are told, were adopted generally.⁷ Thus were the eight Arabian melodic modes (*aṣābi*) classified in two groups of four each: the first in the course (*majra*) of the *binṣir*, i.e., using the major third (408 cents), and the second in the course of the *wuṣṭa*, i.e., using the minor third (294 cents).⁸ At the same time eight rhythmic modes (*iqā'āt*) were formulated, also in two groups of four each, those numbers being in accordance with cosmic theories. All the song books of the period, from Yūnus al-Kātib (d. c. 148/765) to al-Isfahānī (d. 356/967), specify the melodic and rhythmic modes of each song.⁹ Meanwhile some national singularities had crept into the Pythagorean scale. One was a neutral third (355 cents), i.e., an interval half-way between the major and minor third. It was introduced by a certain lutanist named Zalzal (d. 175/791),¹⁰ although a somewhat similar three-quarter tone had existed in the pre-Islamic measured pandore (*tanbūr mizānī*).¹¹ Another wayward interval was the Persian minor third (303 cents) which was sharper than the

⁶ Roger Bacon, *Secretum Secretorum*, Oxford, 1920.

⁷ Al-Isfahānī, iii, p. 84.

⁸ H. G. Farmer, in the *New Oxford History of Music*, i, p. 448.

⁹ *Idem*, "Song Captions in the Kitāb al-Aghānī," in *Transactions of the Glasgow University Oriental Society*, Glasgow, 1935, Vol. XV, p. 3.

¹⁰ *Encyclopaedia of Islam*, Suppl. Vol., pp. 265-66.

¹¹ Al-Khwārizmī, *Mafātīḥ al-'Ulūm*, Leiden, 1895, p. 237.

¹ H. G. Farmer, in the *New Oxford History of Music*, i, pp. 252-53.

² Iamblichus, *De vita Pythagorae*, iv.

³ Ibn al-Qiftī, p. 259.

⁴ Ibn al-Nadīm, pp. 252-53.

⁵ British Museum MS., Or. 3118, ff. 52v.-53.

Pythagorean interval (298 cents),¹² and it was these alien intervals which both al-Isfahānī and ibn 'Abdī Rabbihi blame for the decadence of the pure Arabian music in the third/ninth century. There were many earlier theorists of music, notably Yūnus al-Kātib (d. c. 148/765) who wrote a "Book of Melody" (*Kitāb al-Naghām*). That was also the title of a book by al-Khalīl (d. 175/791), who also compiled a "Book on Rhythm" (*Kitāb al-Iqā'*). He was the "father of prosody."¹³ A more important treatise appears to have been the "Book of Melody and Rhythm" by Ishāq al-Mawṣilī (d. 236/850), and that was accomplished, says al-Isfahānī, without the author's knowing an iota of the work of Euclid.¹⁴ None of these works has come down to us, but we know precisely what al-Mawṣilī's theoretical principles were from the *Risālah* of his disciple ibn al-Munajjim (d. 300/912).

In the mid-third/ninth century a new world dawned for those interested in that group of the sciences known as the quadrivium, i.e., the '*ulūm riyādiyyah*', which included the theory of music. At the "House of Learning" (*Bait al-Hikmah*) in Baghdad were scholars who had translated the great Greek writers on music into Arabic, including Aristotle, Aristoxenus, Nicomachus, Euclid, Ptolemy, and probably Aristides Quintilianus.¹⁵ The first to avail himself of the new learning was al-Kindi (d. c. 260/873), and three or four—out of a dozen—of his works on the subject have been preserved. The entire gamut of the science of music is covered by him in his several extant works, two of which have been translated or extracted.¹⁶ He not only appreciated music as a science for mathematicians and a joy to auditors, but as a prescription for physicians to administer to the afflicted mind and body. As de Boer says, al-Kindi applied mathematics to medicine in his theory of compound remedies, like the effect of music on geometrical proportions.¹⁷ Everything within the entire macrocosm was linked together. Each note on a lute was connected with melodic mode (*ṭarīqah*), rhythm, and sentiment. These, in turn, were conjoined with the planets, seasons, elements, humours, colours, and perfumes. In his minute description of the lute—the earliest which we possess—"the four-fold things" dominated all else. There were four strings, tunes in fourths, and four frets. The strings from the lowest to the highest were four-ply, three-ply, two-ply, and one-ply.¹⁸ His disciples, the Ikhwān al-Ṣafa (fourth/tenth century), followed him in most things, but made the strings compounded

of 64, 48, 36, and 27 strands respectively.¹⁹ They assigned to every melodic and rhythmic mode a specific influence (*ṭāṭhir*), a doctrine which held sway in Islamic lands up to the fourteenth/twentieth century. His most illustrious pupil was al-Sarakhsī (d. 286/899), but his five books on music have not survived.²⁰ Thābit ibn Qurrah (d. 288/901) is credited with eight treatises on music, yet not a page has come down to us.²¹ Other theorists were Maṣṣūr ibn Ṭalḥah (d. c. 299/910), a follower of al-Kindi, ibn Ṭāhir al-Khuzā'i (d. 300/913), one of the most learned in the philosophy of music,²² ibn al-Munajjim (d. 300/912) whose "Treatise on Music" (*Risālah fi al-Mūsīqī*) still exists,²³ Qusṭā ibn Lūqa (d. c. 300/912),²⁴ and abu Bakr al-Rāzi (d. 313/925) who penned a "Book of the Summings-up of Music" (*Kitāb fi Jumal al-Mūsīqī*).²⁵ The fame of all these was swept aside on the emergence of the "Second Master" (i.e., second only to Aristotle) whose name became known in Europe as Alfarabius.

Al-Fārābī (Alfarabius) was a Turkomān, although educated in Iraq. Celebrated chiefly as a philosopher, he also takes front rank as a music theorist, being known especially for his "Major Book on Music" (*Kitāb al-Mūsīqī al-Kabīr*) which was the greatest contribution to the subject up to his time. He tells us that almost all the Greek works on music had been translated into Arabic. Most of these he studied, although he mentions no one by name, save Themistius. Unlike the latter, who was not a practitioner in music, al-Fārābī was an instrumental performer,²⁶ and whilst most of his theoretical discussion was based on Greek authors, on the practical side he supplied original material not to be found elsewhere, especially in his description of the existing instruments of music among the Arabs. Being a good mathematician and physicist, he was fully equipped to deal with speculative theory (*'ilm al-naẓari*). Although indebted to the Greeks, he avoided their errors in that he did not agree that sound is heard in water in a less degree than in air, nor that wool when struck produces no sound, as Aristotle tells us.²⁷ Neither did al-Fārābī repeat the blunder of Nicomachus that Pythagoras discovered the consonances by comparing the weight of the hammers in the blacksmith's shop,²⁸ a legend repeated by Gaudentius and Boethius.²⁹ His treatment of the influence (*ṭāṭhir*) of music leaves the Greeks and al-Kindi far behind, as one would readily expect from a naturalistic philosopher.

¹² R. d'Erlanger, *La Musique arabe*, Paris, 1930, i, pp. 170–73.

¹³ Ibn al-Nadīm, pp. 43, 141, 145.

¹⁴ Al-Isfahānī, v, p. 52.

¹⁵ H. G. Farmer, "Greek Theorists of Music in Arabic Translation," *Isis*, Bruges, 1930, xiii. Yūḥanna ibn al-Baṭriq (d. c. 200/815) had already translated Aristotle's *De Anima* into Arabic.

¹⁶ Al-Kindi, *Risālah fi Khubr Tālīf al-Aḥḥān*, ed. R. Lachmann and M. al-Hifni, Leipzig, 1931; H. G. Farmer, *The Influence of Music: from Arabic Sources*, London, 1926.

¹⁷ T. J. de Boer, *The History of Philosophy in Islam*, London, 1903, pp. 100–01.

¹⁸ W. Ahlwardt, *Verzeichnis* . . . , 5530, f. 25.

¹⁹ Ikhwān al-Ṣafa, i, p. 98.

²⁰ Ibn al-Nadīm, p. 262.

²¹ Ibn al-Qifṭī, pp. 117–18, 120; ibn abi Uṣaybi'ah, i, p. 219.

²² Al-Isfahānī, viii, p. 43.

²³ British Museum MS., Or. 2361, ff. 236v.

²⁴ M. Casiri, *Bibliotheca arabico-hispano Escorialensis* . . . , Madrid, 1760–70, i, p. 420.

²⁵ Ibn abi Uṣaybi'ah, i, p. 320.

²⁶ Ibn Khallikān, *Biographical Dictionary*, iii, p. 309; Ikhwān al-Ṣafa, i, p. 85.

²⁷ *De Anima*, 419b.

²⁸ Meibom, *Antiquae musicae auctores septem*, Amsterdam, 1652, pp. 10–11.

²⁹ *Ibid.*, pp. 13–14; Boethius, *De Institutione Musica*, Leipzig, 1867, lib. i, cap. 10.

Further east was Muḥammad ibn Aḥmad al-Kh̲wārizmī (d. c. 370/980) who was in the service of the vizier of the Sāmānid Prince, Nūḥ II. He compiled an encyclopedic "Keys to the Sciences" (*Mafātīḥ al-'Ulūm*), one key of which unlocked the door of music.³⁰ Another scientist, abu al-Wafā' (d. 388/998), penned a "Compendium on the Science of Rhythm" (*Mukhtaṣar fi Fann al-Īqā'*),³¹ while in distant Muslim Spain a "Treatise on the Composition of Melodies" (*Risālah fi Talīf al-Alḥān*) was produced by 'Alī ibn Sa'īd al-Andalusi (fourth/tenth century).³² The contemporary Ikh̲wān al-Ṣafa have been signalized already, especially in their spiritual approach to music. Yet they were well versed in the science of acoustics. One recalls how the famous German physicist Helmholtz argued that musical tones are distinguished by their force, pitch, and quality, and that the force of a musical tone increases and diminishes with the amplitude of the oscillations of the particles of the sounding body.³³ Preece and Stroh questioned that definition saying that loudness does not result from amplitude of vibration only, but that it also depends upon the quantity of air in vibration.³⁴ The Ikh̲wān al-Ṣafa had proclaimed that view over eight hundred years earlier when they said: "Hollow bodies, like vessels . . . will resound for a long time after they are struck, because the air within them reverberates time after time until it becomes still. Consequently, the wider the vessels are, the greater the sound, because more air is put into vibration."³⁴ Those encyclopedic philosophers also recognized the spherical propagation of sound,³⁵ whilst the Aristotelian *De Audibilibus* (802a) had stated that "the direction of sound follows a straight line."³⁶ Meanwhile the tractates of the Ikh̲wān al-Ṣafa were being introduced into Muslim Spain by Maslamah al-Majritī (d. 398/1007), and so widespread was their circulation that the name of al-Majritī was attached to them in that land.³⁷

From Turkestan there came the world-renowned ibn Sīna (d. 428/1037), better known in Europe as Avicenna, and it was in his widely read book entitled "The Cure" (*al-Shifā'*) that a chapter (*fann*) was devoted to music. Like al-Fārābī, he passed over the Pythagorean dreams of the "harmony of the spheres," being content to deal with the art *per se* which, as he knew from personal experience, was often a cure from mortal woes. His treatment

³⁰ *Liber Mafātīḥ al-Ūlūm*, ed. Van Vloten, Leiden, 1895, pp. 235-46; section on music translated into English by H. G. Farmer, in *Transactions of the Glasgow University Oriental Society*, 1959, Vol. XVII.

³¹ Al-Akfānī, *Durr al-Naẓīm*, in *Bibliotheca Indica*, 1949, p. 93.

³² H. G. Farmer, *A History of Arabian Music*, p. 177.

³³ Helmholtz, *On the Sensations of Tone*, London, 1895, p. 10.

³⁴ *Proceedings of the Royal Society*, London, 1879, xxviii, p. 366.

³⁵ Ikh̲wān al-Ṣafa, i, p. 88.

³⁶ Incidentally, Aristotle (*De Anima*, 420a) said, "Not every object produces sound when struck. On the contrary, the object must be smooth," hence "bronze is resonant because it is smooth." The Ikh̲wān al-Ṣafa say: "Smooth objects give smooth sounds whilst rough objects give rough sounds."

³⁷ H. G. Farmer, *A History of Arabian Music*, pp. 216-17.

of the theory of music is different from that of al-Fārābī, possibly because what was practised in Bukhāra, Hamadān, and Iṣfahān was alien to that in Syria. The fretting of the lute was certainly dissimilar, the first semitonal fret (*mujannab*) being the diatonic interval (112 cents), whereas elsewhere the semitone was the *limma* (90 cents), whilst the Zalzalian neutral third was slightly flatter (343 cents).³⁸ He gives the notation of a few of the melodic modes, and from that one sees that the Persians were retaining their fanciful names for them, such as *Salmaki*, *Nawa*, etc. These Persian terms crept into Arabian music in the third/ninth century, at first where their scales agreed with those of the old Arab "Finger modes" (*aṣābi'*), but later indiscriminately. All the old Arabian instruments are mentioned together with a few strangers, viz., the 'anqā', evidently a long-necked instrument, the *salbāq*, probably the Greek *sambyke* (the Aramaic *sabbeka*), and the *ṣanj jini* or *ṣini*, seemingly the Chinese metalophone.³⁹ Ibn Sīna also introduced a chapter on music in a shorter work entitled "The Deliverer" (*al-Najāt*) which was translated into Persian—as the *Dāniṣh Nāmeḥ-i 'Alā'i*—by his pupil abu 'Uбайд al-Juzajānī.⁴⁰ Another of his disciples was abu Maṣṣūr ibn Zailah (d. 440/1048), whose "Book of Sufficiency on Music" (*Kitāb al-Kāfi fi al-Mūsīqī*) is even more valuable than the above treatises of ibn Sīna. Although Baron d'Erlanger thought otherwise, it contains much material not to be found elsewhere, especially on the practical art of music, and also passages from a treatise by al-Kindi which has not been known hitherto.⁴¹

Strange to say, al-Kindi had written a work entitled "The Book on the Division of the Canon" (*Risālah fi Qismat al-Qānūn*), which might have been a commentary on Euclid's *Sectio Canonis* since we know that he was acquainted with that book.⁴² Yet it was not until the emergence of a scientist of the eminence of ibn al-Haitham (d. 430/1039) that we do find a "Commentary on the Canon of Euclid" (*Sharḥ Qānūn Uqlaidis*), together with a "Discourse on the Commentary on the Harmonics" (*Maqālah fi Sharḥ al-[A]rḥmūnīqī*), the latter being probably the *Introductio Harmonica* of Cleonides.⁴³ A far more remarkable book was ibn al-Haitham's "Treatise on the Influence of Melodies on the Souls of Animals" (*Risālah fi Tāṭhīrāt al-Luḥūn al-Mūsīqīyyah fi al-Nufūs al-Ḥayawānīyyah*).⁴⁴ Unfortunately, we do not know its scope of inquiry because the ruthless hand of time seems to have erased it. Yet it dealt with a set of phenomena which had long enticed the minds of Muslim peoples—the phenomena that the camel's pace could be hastened or retarded by music's power; that horses could be persuaded to drink by its urge; that

³⁸ *Idem*, *Studies in Oriental Musical Instruments*, Glasgow, 1939, ii, pp. 45-57.

³⁹ R. d'Erlanger, *op. cit.*, Paris, 1935, ii, p. 105.

⁴⁰ H. G. Farmer, *Sources*, pp. 41-42; British Museum MS., Or. 2361, f. 273.

⁴¹ British Museum MS., Or. 2361, ff. 220-36v. H. G. Farmer, *Sources*, pp. 42-43.

⁴² Ibn al-Nadīm, p. 256; ibn al-Qiftī, p. 379; ibn abi Uṣaibi'ah, i, p. 210.

⁴³ Ibn al-Qiftī, p. 168.

⁴⁴ Ibn abi Uṣaibi'ah, ii, p. 97.

reptiles could be charmed and stilled; and that birds could be lured by its potency.⁴⁵ Nor should we forget the Andalusian lexicographer ibn Sidah (d. 458/1066) whose *Kitāb al-Mukhaṣṣaṣ* contains several sections on music and musical instruments.⁴⁶ There were other famous men of Muslim Spain who "hit the mark"—as the Arabs say—in the science of music, although some of them, owing to the intolerance of the Berber legists, sought other lands where their gifts were appreciated. One of these was abu al-Ṣalt Umayyah al-Andalusi (d. 529/1134) who went to Egypt. He not only excelled as a music theorist but as a practical musician as well.⁴⁷ His "Treatise on Music" (*Risālah fi al-Mūsīqī*)⁴⁸ must have been an important work since it was translated into Hebrew⁴⁹ and quoted by Profist Duran.⁵⁰ An outline of its contents has been given in English.⁵¹ His compositions appear to have had some influence in North Africa.⁵² The learned philosopher ibn Bājjah (d. 533/1138) compiled a "Book of Music" (*Kitāb al-Mūsīqī*)⁵³ which, says ibn Sa'id al-Maghribi, was as famed in Western Islamic lands as was al-Fārābī's book in Eastern Islamic lands.⁵⁴ He also contributed a "Book of the Soul" (*Kitāb al-Nafs*), doubtless a commentary on Aristotle's *De Anima*, which deals with the sense of hearing (*al-sam'*) and the physical bases of sound (*ṣaut*).⁵⁵ Another Andalusian savant was ibn al-Ḥaddād (d. 562/1165). He wrote a work, entitled by Casiri as *Musices Discipline*, without giving the Arabic equivalent.⁵⁶ Better known was ibn Rushd (d. 593/1198) famed in European books as a philosopher and commentator. In his "Commentary on Aristotle's *De Anima*" (*Sharḥ fi al-Nafs li Aristatālīs*)⁵⁷ he naturally treats of the spherical propagation of sound, which was not touched upon by European writers until Michael Scot translated it into Latin which version was printed in 877/1472.

In the Near and Middle East, the names of theorists of music crop up in the pages of cultural history. Abu al-Ḥakam al-Bāhili (d. 550/1155) was highly esteemed as a mathematician and scientist at Baghdad and Damascus. His work on music was "well known."⁵⁸ More renowned was ibn al-Naqqāsh al-Baghdādi (d. 574/1178).⁵⁹ In *'ilm al-mūsīqī* he was the tutor of Yahya

al-Bayāsī who was in the service of the Ayyūbid Sultān Ṣalāh al-Dīn (d. 591/1193).⁶⁰ Muḥammad ibn abi al-Ḥakam (d. 576/1180), a son of Bāhili, too "had knowledge of the science of music," in addition to being a good practitioner in it.⁶¹ At the Niẓāmiyyah College at Baghdad was Kamāl al-Dīn ibn Man'ah (d. 551/1156); he was "without a rival" in astronomy, conics, music, and mensuration.⁶² Then there was 'Alam al-Dīn Qaiṣar (d. 649/1251), the "great master of the age in all the mathematical sciences," a pupil of Kamāl al-Dīn. Ḥasan ibn 'Umar says that 'Alam al-Dīn was particularly distinguished for his profound knowledge of music.⁶³ Further East there arose Fakhr al-Dīn Rāzi (d. 606/1209), whose "Assembling of the Sciences" (*Jāmi' al-'Ulūm*), an extremely useful encyclopedia, contains a chapter in nine sections on the theory of music. In some respects he was quite an original thinker.⁶⁴ There is also a small tract on music by Naṣir al-Dīn al-Ṭūsī (d. 672/1274) preserved at Paris, which, however, contains only the elements of the theory of music.⁶⁵ A really important work is one by al-Hasan ibn Aḥmad ibn 'Alī al-Kātib (fl. 626/1228) entitled "The Perfection of Knowledge in Music" (*Kamāl al-Adab al-Ghinā'*), the solitary manuscript copy of which is to be found in Constantinople. It contains forty sections (*abwāb*) and covers the entire field of music.⁶⁶ Finally came the famous Ṣafi al-Dīn 'Abd al-Mū'min al-Urmawī al-Baghdādi (d. 693/1294). He was the author of "The Book of Musical Modes" (*Kitāb al-Adwār*) and "The Sharafian Treatise on Musical Proportion" (*Risālah al-Sharafiyyah fi al-Nisab al-Talifiyyah*), which revolutionized the science of music in the Near and Middle East.⁶⁷ He took the scale of the old Khurāsānian pandore (*ṭanbūr Khurāsāni*) and used its intervallic progression of *limma*, *limma*, *comma*, i.e., 90, 90, 180 cents, as the basis for what came to be called the "Systematist" theory. The German savant Kiesewetter called him the "Zarlino of the Orient,"⁶⁸ whilst the English musicologist Sir Hubert Parry considered the new scale to be "the most perfect ever devised."⁶⁹ Riemann, the music historian,⁷⁰ shows that it gives consonances purer than those of the European tempered scale, whilst Helmholtz, the physicist, considered that the theories were "note-worthy in the history of the development of music."⁷¹ It spread far and wide, and was accepted by Quṭb al-Dīn al-Shīrāzi (d. 710/1310), the author of the

⁴⁵ Ikhwān al-Ṣafa, i, p. 87; ibn 'Abdi Rabbihi, iii, p. 177.

⁴⁶ *Op. cit.*, Cairo, 1320/1902, xiii, pp. 9–16.

⁴⁷ Ibn abi Uṣaibi'ah, ii, p. 62.

⁴⁸ W. Ahlwardt, *op. cit.*, 5536/5.

⁴⁹ Paris MS., *Fonds Heb.*, 1037.

⁵⁰ *Grammar*, Vienna, 1863, p. 37.

⁵¹ *Musica Disciplina*, Rome, 1951, vi, pp. 27–32.

⁵² Al-Maqqari, *Analectes* . . . i, p. 520.

⁵³ *Ibid.*, ii, p. 125.

⁵⁴ H. G. Farmer, *Sources*, p. 44.

⁵⁵ W. Ahlwardt, *op. cit.*, 5060, f. 161v.

⁵⁶ Casiri, *op. cit.*, ii, p. 73.

⁵⁷ N. Morata, *El compendio de Anima*, Granada, 1934.

⁵⁸ Al-Maqqari, *op. cit.*, i, p. 548.

⁵⁹ Ibn abi Uṣaibi'ah, ii, pp. 162, 181.

⁶⁰ *Ibid.*, p. 163.

⁶¹ *Ibid.*, p. 155.

⁶² Ibn Khallikān, *op. cit.*, iii, pp. 467–68.

⁶³ *Ibid.*, pp. 471–73.

⁶⁴ H. G. Farmer, *Sources*, p. 45.

⁶⁵ Paris MS., *Arabe*, 2466.

⁶⁶ H. G. Farmer, *Sources*, p. 46.

⁶⁷ *Encyclopaedia of Islam*, Leiden, Suppl. Vol., pp. 191–92; *New Oxford History of Music*, i, pp. 462–63.

⁶⁸ R. G. Kiesewetter, *Die Musik der Araber*, Leipzig, 1842, p. 13.

⁶⁹ Sir H. Parry, *The Art of Music*, London, 1896, p. 29.

⁷⁰ Hugo Riemann, *Catechism of Musical History*, London, 1892, i, p. 65.

⁷¹ *Ibid.*, p. 283.

Persian encyclopedia known as "The Jewel of the Crown" (*Durrat al-Tāj*),⁷² and Maḥmūd al-Āmuli of the same century, who compiled "The Precious Things of the Sciences" (*Nafā'is al-Funūn*), also in Persian.⁷³ The theories of Ṣafī al-Dīn 'Abd al-Mū'min are to be seen in the "Treasure-House of Rarities" (*Kanz al-Tuḥaf*) written in the mid-eighth/fourteenth century, although we read in the section on musical instruments in that book that some performers were using the older system, i.e., the earlier Perso-Arabian Pythagorean scale of al-Fārābī's days.⁷⁴ The books just mentioned were all in Persian, since the Persian renaissance had spread far beyond its frontiers. Still, Arabic literature held its own in Syria, Egypt, and Iraq; and in the domain of music theory we have many exponents: ibn al-'Alā'i al-Baghdādī (eighth/fourteenth century) in his "Reading of Time in the Art of Melodies" (*Qir'at al-Zamān fi 'Ilm al-Āḥḥān*),⁷⁵ al-Khaṭīb al-Irbilī (fl. 731/1329) in "The Jewels of Arrangement in the Knowledge of the Notes" (*Jawāhir al-Niẓām fi Ma'rifat al-Anghām*),⁷⁶ Muḥammad ibn 'Isa ibn Kara (d. 759/1358) in "The Goal of Inquiry in the Science of Melodies and Rhythm" (*Ghāyat al-Maṭlūn fi Fann al-Anghām w-al-Durūb*),⁷⁷ 'Amr ibn Khidr al-Kurdi (d. 800/1397) in "The Treasury of the Desideratum in the Melodies and Rhythms" (*Kanz al-Maṭlūb fi 'Ilm al-Dawā'ir w-al-Durūb*),⁷⁸ but more important still was ibn al-Ṭaḥḥān (eighth/fourteenth century), whose "Collector of the Sciences" (*Hāwī al-Funūn*) is of extreme value, especially on the construction of instruments of music.⁷⁹

The Persian renaissance had greatly influenced Turkey. This evocation was due chiefly to 'Abd al-Qādir ibn Ghāibī (d. 840/1435), a tremendous personality who had been the chief minstrel at many Courts from Baghdād to Samarqand, and was better known as the author of the "Collector of the Melodies" (*Jāmi' al-Āḥḥān*) and other works which, with those of Ṣafī al-Dīn 'Abd al-Mū'min, became the accepted text-books. The former were somewhat critical of a few axioms of the latter.⁸⁰ Indeed other authors, writing in Arabic, were just as contentious, including the author—probably al-Jurjānī (d. 816/1413)⁸¹—of the "Maulāna Mubārak Shāh Commentary" and the "Muḥammad ibn Murād Treatise" in the British Museum.⁸² All this reflects the keen critical attitude of these Muslim theorists on music. Although the Persian renaissance

had greatly influenced Turkey, which was by this time beginning its political domination of the Near East, Arabic culture still held literary sway in Syria, Egypt, and Iraq. A Turkish writer, Khidr ibn 'Abd Allah, had written a treatise on the "Musical Modes" (*Adwār-i Mūsīqī*) for Sulṭān Murād II, in which he mentions al-Fārābī, 'Abd al-Mū'min, Ptolemy, Nicomachus and a certain 'Abd al-'Aziz al-Kirmānī as his authorities,⁸³ while another Turkish author, Aḥmad Oghlu Shakhir Allah compiled a book based on the Persian "Treasure-House of Rarities" (*Kanz al-Tuḥaf*) written in the previous century.⁸⁴ Al-Lādhīqī (d. 900/1494) dedicated his Arabic "Treatise of the Conquest on Music" (*Risālat al-Fatḥiyyah fi al-Mūsīqī*) to the Turkish Sulṭān Bāyazid II.⁸⁵ Meanwhile ibn Khaldūn (d. 808/1406) had written in the famous "Introduction" (*Muqaddimah*) to his universal history the "Book of Examples" (*Kitāb al-'Ibar*)⁸⁶ with its chapter on music. More important, to the theory and practice of music, was a treatise by al-Māridīnī (d. 809/1406) called the "Introduction to the Theory and Canons of Melodies" (*Muqaddimah fi 'Ilm Qawānīn al-Anghām*). The same writer published a "Commentary in Rajaz verse on the Melodic Modes" (*Urjūzah fi Sharḥ al-Naghāmāt*).⁸⁷ In fact, verse had become a popular—although not a perspicuous—medium for that subject. More satisfying was an anonymous treatise entitled "The Advantage in the Arrangement of the Melodies upon the Times and the Zodiac" (*Fā'idah fi Tartīb al-Anghām 'ala al-Ayyām w-al-Burūj*), which reveals that the old conceit in the influence (*tāthīr*) of the heavenly spheres was still as strong as ever.⁸⁸ This is also most apparent from the "Treatise Concerning the Knowledge of the Melodies" (*Risālah fi 'Ilm al-Anghām*) by Shihāb al-Dīn al-'Ajami (ninth/fifteenth century).⁸⁹ On the purely instrumental side is a "Survey of the Concerns and Anxieties in the Explanation of the Instruments of Music" (*Kashf al-Humūm w-al-Kurūb fi Sharḥ Ālāt al-Ṭarab*), a most important treatise on music and instruments in the ninth/fifteenth-century Egypt, quoting many unknown authorities—Taqī al-Dīn Muḥammad ibn Ḥasan al-Fārābī (or Fāryābī), Aḥmad ibn Muḥammad ibn Ayyūb al-Khwārizmī, and others. The only MS. available of this book is in Constantinople.⁹⁰ The names quoted reveal men of Turkomān origin. Two others of that stirps who were music theorists were Sa'd al-Dīn Kammari (ninth/fifteenth century) who wrote a book on the harp (*chang*) in the form of a dialogue between master and pupil, and a Fakhr al-Dīn al-Khujandi (tenth/sixteenth century) who penned a clever criticism (*hāshiyah*) of Ṣafī al-Dīn 'Abd al-Mū'min.

⁸³ J. G. L. Kosegarten, *Alii Ispahanensis Liber Cantilenarum*, Gripesvoldise, 1840, p. 36.

⁸⁴ A. Lavignac, *Encyclopédie de la musique*, Paris, 1920, p. 3012.

⁸⁵ R. d'Erlanger, *op. cit.*, iv, p. 259.

⁸⁶ *Notices et Extraits des manuscrits . . .*, Paris, 1858, xvii, 352.

⁸⁷ H. G. Farmer, *Sources*, p. 56.

⁸⁸ *Ibid.*, p. 58.

⁸⁹ W. Ahlwardt, *op. cit.*, 5534.

⁹⁰ H. G. Farmer, *Sources*, p. 59.

⁷² British Museum MS., Add. 7694, f. 197.

⁷³ British Museum MS., Add. 16827, f. 429.

⁷⁴ King's College Library, Cambridge, MS. 211.

⁷⁵ H. G. Farmer, *Sources*, p. 54.

⁷⁶ *Al-Mashriq*, Beyrouth, 1913, pp. 895–901.

⁷⁷ H. G. Farmer, *Sources*, p. 55.

⁷⁸ *Ibid.*

⁷⁹ Cairo, MS., *Funūn Jamilah*, 539.

⁸⁰ Bodleian MS., Oxford, *Marsh*, 282.

⁸¹ British Museum MS., Or. 2361, f. 68v; see Preface by H. G. Farmer, to R. d'Erlanger, *op. cit.*, iii.

⁸² British Museum MS., Or. 2361, ff. 68v. and 168v.

With the dawn of the tenth/sixteenth century came the domination of the Ottoman Turks from Kurdistan to Algeria, and within those boundaries the theory and science of music fell into desuetude. The compendiums of the sciences, which almost always include music, were current—the older *Irshād al-Qāṣid* of al-Akfāni (d. 749/1348), the *Maqālīd al-'Ulūm* of al-Jurjāni (d. 816/1413), the *Unmūzaj al-'Ulūm* of al-Fanāri (d. 839/1435), and the later *Miftāh al-Sa'ādah* of Tāshkoprizāde (d. 968/1560) dealt with the subject, but in this last work most of it was borrowed from older compendiums.⁹¹ A certain Shams al-Dīn al-Ṣaidāwī al-Dimashqī wrote a treatise called “The Book Concerning the Acquisition of the Melodies” (*Kitāb fi Ma'rīfat al-Anghām*). Like several other such treatises of the period, it was in verse, but it revealed a neoteric device for notation by means of a stave of eight or so lines.⁹² Another tract in *rajaz* verse was by Nāṣir al-Dīn al-'Ajami.⁹³ Two others in rhymed prose have come down to us.⁹⁴ A really solid work of that century was “The Treatise of the Discoverer in the Science of the Melodies” (*Risālat al-Kāshif fi 'Ilm al-Anghām*) by Muẓaffar ibn al-Ḥusain ibn al-Muẓaffar al-Ḥaṣkafi,⁹⁵ while in Morocco, ibn al-Wansharisi (d. 956/1549) contributed a valuable work on “The Natures, Elements, and Modes” (*Ṭabā'i, Ṭubū, wa Uṣūl*).⁹⁶ In the eleventh/seventeenth century there lived a certain bu 'Iṣāmī (d. c. 1103/1690) who was the teacher of another music theorist Muḥammad ibn Tayyib al-'Alami (d. 1136/1722), the author of “The Companion of the Performer” (*al-Anīs al-Muṭrib*), also of Moroccan origin.⁹⁷ Then there was a “Book of the Combinations in the Science of Music and the Modes” (*Kitāb al-Jumū' fi 'Ilm al-Mūsīqī w-al-Ṭubū*) by 'Abd al-Rahmān al-Fāsi (d. 1098/1685).⁹⁸ It must be remembered that Morocco, like Muslim Spain, ignored the scale of the “Systematists,” and followed the old Arabian musical system based on the Pythagorean scale with the occasional intrusion of Zalzalīan neutral third (355 cents). In Persia the scale of the “Systematists” was used in the eleventh/seventeenth century, the chief authority being abu al-Wafā' ibn Sa'id.⁹⁹ Here, treatises on music abounded, although some of them were trivial in comparison with those of the glorious past. One is named “The Teaching of the Modes” (*Ta'lim al-Naghāmāt*); another is the “Treatise on the Science of Music” (*Risālah 'Ulūm Mūsīqī*); a third named “Concerning the Science of Music” (*Dar 'Ilm-i Mūsīqī*);¹⁰⁰ and lastly “The Exquisite

⁹¹ *Ibid.*, pp. 52, 56, 58, 61.

⁹² H. G. Farmer, *Arabic Musical MSS. in the Bodleian Library*, London, 1925, p. 15.

⁹³ Cairo MS., *Funūn Jamilah*, 509.

⁹⁴ Paris MS., *Arabe*, 2480.

⁹⁵ Paris MS., *Bloch*, 2137.

⁹⁶ H. G. Farmer, *An Old Moorish Lute Tutor*, Glasgow, 1933, p. 11.

⁹⁷ Fes, 1315/1897, pp. 174 et seq.

⁹⁸ H. G. Farmer, *An Old Moorish Lute Tutor*, p. 14.

⁹⁹ Sir J. Chardin, *Voyages du Chevalier Chardin*, Amsterdam, 1735, pp. 158–61.

¹⁰⁰ Vienna MS., 1516/1; British Museum MS., Or. 2980; John Rylands Library, Manchester, Persian MS., 346.

Pearl in the Art of Music” (*Durr al-Naqi fi Fann al-Mūsīqī*). The last was by Ahmad al-Muslim al-Mauṣili (fl. 1150/1737), but it was in Arabic, having been derived from the Persian work of 'Abd al-Mū'min al-Balkhī.¹⁰¹ In Muslim India where Persian, Khurāsānian, and Turkomānian musicians were favoured side by side with those of India, it is obvious that the former musicians, trained in an art that was in many respects different from that of the Aryan peoples of India, took direction from such books on the theory of music as were known in Persian, just as the Indian musicians turned to Sanskrit sources of information. We know of two Persian books on music theory that were dedicated to the Emperor Akbar (d. 1014/1605). They were the “Excellent of the Modes” (*Tuḥfat al-Adwār*) by 'Ināyat Allah ibn Mir Ḥajj al-Harawī, and the “Treatise on the Science of Music” (*Risālah dar 'Ilm al-Mūsīqī*) by Qāsim ibn Dost 'Ali al-Bukhārī.¹⁰² An Amir at the Court of Aurangzib named Shāh Qubād ibn 'Abd al-Jalil al-Ḥārithī, called Diyānat Khān, caused a collection to be made of Arabic and Persian treatises on music of such authors as al-Kindi, ibn al-Munajjim, al-Fārābī, ibn Sina, ibn Zailah, Ṣafi al-Dīn 'Abd al-Mū'min, and also of many later writers,¹⁰³ whose works he himself had collated. Two Persian writers appear to have made translations of or adaptations from Sanskrit treatises. One was entitled *Rāg Darpan* issued by a certain Faqīr Allah in about the year 1073/1662. Another was *Kitāb Parjāt Sangūt* written by Mirza Rauzan Zamīr (d. c. 1080/1669), praised by Shīr Khān Lodhi. A third book was “The Excellent Thing of Hindustan” (*Tuḥfat al-Hind*) by Mirza Khān Muḥammad ibn Fakhr al-Dīn and was dated 1086/1675. 'Iwāḍ Muḥammad Kāmil wrote about playing the *bīn* in his *Risālah dar 'Amal Bīn wa Ṭhāṭh-i Rāghā'i*, while abu al-Hasan Qaīsar contributed a book called “The Knowledge of the Melodies” (*Ma'rīfat al-Naghām*).¹⁰⁴

D

INFLUENCE

“Thy neighbour is thy teacher.”

An Arabic Proverb.

As mentioned elsewhere,¹⁰⁵ the ancient Near and Middle East had been influencing Greece and Rome from time immemorial. With the dawn of Islam, this stimulation from the Orient increased by leaps and bounds, as the Muslims were on European soil from the second/eighth century in the Iberian Peninsula, and from the ninth/fifteenth century in the Balkans. Culturally,

¹⁰¹ British Museum MS., Add. 23494.

¹⁰² British Museum MS., Or. 2361. f. 240v.

¹⁰³ British Museum MS., Or. 2361.

¹⁰⁴ See “Pakistani Music,” *Urdu Encyclopaedia of Islam*.

¹⁰⁵ *The New Oxford History of Music*, O.U.P., London, 1957, i, pp. 250–54, 279–82.

the former impact was a widespread blessing, not only to Spain and Portugal but also to the rest of Europe. The Arabs and Moors comprised some one-tenth of the population of the Iberian Peninsula, and its leisured classes were *facile princeps* in all that concerned art, literature, and science. It is not at all surprising that this newly imposed civilization from the East should have captivated all eyes, ears, and minds. What we owe to Arabic authors in literature, science, and philosophy, and to Islamic artisans in architecture and the minor arts has been detailed at some length elsewhere in the present work.¹⁰⁶ Europe's indebtedness in music to Muslim Spain and Portugal has been the favourite theme of the present writer for many years.¹⁰⁷ Of its more general diffusion, a further endeavour should be made to indicate the *primum mobile* which induced other lands to take this exotic art to their hearts.

To the peoples of Islam, music was not merely a diversion of the privileged classes, but the heritage of all, and was, therefore, part and parcel of the social life of the whole community, as the *Ikhwān al-Ṣafa* had thought.¹⁰⁸ That was what the peoples of the Iberian peninsula found to be the case with the Moors. Of the music of this land before the Muslim invasion in 91-93/710-712 we know very little. It is true that we read of Isidore of Seville (d. 15/636) whose influence on medieval culture has been lauded to the skies,¹⁰⁹ but what Isidore tells us about music in his *Originum sive Etymologiarum* does not enlighten us on contemporary music, since almost everything that he has collected under that heading is derived from alien and earlier sources, as Migne has shown.¹¹⁰ In the "Codex Toletanus" (second/eighth century) of Isidore's *Etymologiae*, we have marginalia in Arabic. One may ask why? The answer is that the educated classes in Christian Spain found that the acquisition of that language opened up a new world to them in the arts, sciences, and literature, and in the year 188/804, Arabic was in official use in charters and canonical decrees.¹¹¹ That Bishop Alvarus of Cordova (third/ninth century) was lamenting the spread of Arabic culture and learning to the detriment of the Christian Scriptures, shows which way the wind was blowing.¹¹² It is in iconography, perhaps, that the earliest Moorish influence in music may be espied as, for example, in the S. Médard *Evangelium* (second/eighth century), the *Psalterium Aureum* (third/ninth century),¹¹³ and in the miniatures

¹⁰⁶ Cf. also, *The Legacy of Islam*, ed. Sir Thomas Arnold and Alfred Guillaume, Clarendon Press, Oxford, 1931.

¹⁰⁷ H. G. Farmer, *Historical Facts for the Arabian Musical Influence*, W. Reeves, London, 1930.

¹⁰⁸ *Op. cit.*, i, pp. 85-87.

¹⁰⁹ C. Canal, *San Isidore, exposicion de sus . . . influencia en la civilizacion española*, Seville, 1897.

¹¹⁰ *Patrologiae . . . Series Latina*, Garnier, Paris, 1874, Vol. 82, pp. 163-69.

¹¹¹ H. G. Farmer, *Historical Facts . . .*, p. 172.

¹¹² *España Sagrada*, 2da Edic., Madrid, 1775, xi, 274.

¹¹³ K. Schlesinger, *The Precursors of the Violin Family*, London, 1910, pp. 371-74. This writer states very definitely that these instruments were "derived from the Arabs, either by way of Spain or through Sicily or Southern Italy."

(fourth/tenth century) reproduced by M. Serrano Fatigati,¹¹⁴ all of which show long-necked pandores and other instruments, including large and small rebecks.¹¹⁵ Some of these necked instruments, such as the lute and pandore, had frets (*dasātīn*) on the finger-board, which fixed the Arabo-Pythagorean scale with absolute precision. Prior to that, European musicians had to depend on their ears alone while tuning strings and "stopping" notes. Here is a list of Spanish instruments with their Moorish originals named in parentheses: atambor (*al-ṭanbūr*), laud (*al-'ūd*), rabe (*rabāb*), canon (*qānūn*), axabeba (*al-shabābah*), albogon (*al-būq*), annafil (*al-naḥīr*), sonajas de azofar (*ṣunūj al-ṣufr*), and atambal (*al-ṭabl*). All of these instruments may be seen in the miniatures of the *Cantigas de Santa Maria* of Alfonso el Sabio (d. 683/1284),¹¹⁶ whilst the *Libro de Buen Amor* of Juan Ruiz (d. c. 751/1350) makes distinction between Spanish and Moorish instruments such as in the *guitarra morisca* and the *guitarra latina*.¹¹⁷ One is, therefore, not surprised to find Rafaël Mitjana, the historian of Spanish music, lauding "this Oriental civilization, so rich and so exuberant . . . imprinting an indelible mark on so many examples of Spanish art, and more especially upon music."¹¹⁸

The Spanish population, seeing how universal and attractive Moorish music and song were among its people, soon became as ardent auditors and practitioners as the Muslims themselves, and gathered to the "leila" (Ar. *la'ilah*) and "zambra" (Ar. *zumrah*) of the latter to hear their "caña" (*ghaniyyah*), "huda" (Ar. *ḥudā*), and "anaxir" (Ar. *nashīd*), since the Moorish "aravia" fascinated their ears, and the "mourisca" tempted their feet. So ravished by enthusiasm were the Spaniards with such displays that they were led in excitement to cry "algazara" or "alarido" in admiration. These words are but the Arabic *al-ghazārah* (copious) and *al-'arīḍ* (amplitude). One may still hear cries of "Olé, Olé" (Allah, Allah), punctuating the performance of a "cante hondo" in modern Spain, when an audience is carried away by the clever ornamentation (Ar. *taḥsīn*) or the melody by a singer or a player.¹¹⁹ As Professor J. B. Trend says, "this tendency to profuse ornamentation is seen in every form of art, whether cultivated or popular, and it . . . undoubtedly goes back to the time of the Moors."¹²⁰ Among the dances the "mourisca" was much fancied by the Spaniards and the Portuguese, and in the sports and pastimes of the latter the Moorish influence is quite patent.¹²¹ Joy as well as thanksgiving was at its height during the great Muslim festivals, and

¹¹⁴ *Miniaturas de códices españoles*, Madrid, 1910.

¹¹⁵ A. Lavignac, *op. cit.*, p. 1928.

¹¹⁶ J. Ribera, *La Música de las Cantigas*, Madrid, 1922; J. F. Riano, *Notes on Early Spanish Music*, Quaritch, London, 1887.

¹¹⁷ *Op. cit.*, Toulouse, 1901, pp. 1251-57.

¹¹⁸ A. Lavignac, *op. cit.*, p. 1920.

¹¹⁹ J. B. Trend, *Manuel de Falla . . .*, New York, 1929, p. 25.

¹²⁰ *Op. cit.*, p. 30. Cf. the same writer's *The Music of Spanish History*, Oxford, pp. 9-37.

¹²¹ A. Lavignac, *op. cit.*, p. 2402.

that the dance was given recognition on such occasions seems very probable because the Portuguese had a dance called the "muchachim," which may be the Arabic *muwāsim*, the name of the six Muslim festivals, as we know from ibn Baṭṭūṭah¹²² and al-Maqqari.¹²³ On the other hand, Pedro de Alcala (911/1505)¹²⁴ gives a word *muwajjah* the plural of which is *muwajjahin* (mascarado con caratula), which Dozy and Engelmann link up with "los matachines," a troop of four, six, or eight persons who performed a clownish dance.¹²⁵ This word is claimed to be derived from the Arabic *mutawajjahin* (masked people). That leads us to the Spanish words "mascara" (actor) and "zaharron" (merry andrew), which are the Arabic *maskharah* (cause of laughter) and *sakharah* (scoffer). Another figure of entertainment was the Spanish "moharrache," who was no other than the Moorish *muharraraj* (buffoon).¹²⁶ It was the arts of these people which captivated the Moors and the Iberians alike,¹²⁷ and their influence spread abroad at the hands of the wandering minstrels.

It was these minstrels who were the real disseminators of music during the Middle Ages, for, as Naumann, says they were carrying new themes from one people to another, as well as many "an original and singular rhythm."¹²⁸ This latter would have far-reaching effect, as we shall see presently. Even the Arcipreste de Hita (eighth/fourteenth century) realized that it was not the bowed instruments which typified the exotic Moorish rhythms, but the plectrum-struck lute and pandore.¹²⁹ The other feature of that Oriental art was the mellisma or embroidery of the melody by Muslim singers and players, which Professor Trend has well compared with the arabesque in Mudéjar art.¹³⁰ The Spanish Courts were well supplied with Muslim players and singers, as the official records testify; even their names have been registered.¹³¹ That the wandering minstrel class contained a fair sprinkling of Moors, there is some evidence. It is probable that the long hair, painted faces, and gaudy raiment were prompted by Oriental minstrels,¹³² and the Spanish "mourisca," already mentioned, with *grelots* on the dancers' legs, and the "hobby horse," both borrowed from the Moors, inveigled the ears and eyes of audiences. The

¹²² *Voyages: Ibn Batoutah*, texte arabe . . . traduction par C. Defrémery et B. R. Sanguinetti, Paris, 1853-59.

¹²³ *Analectus sur l'histoire et la littérature des Arabes d'Espagne* Publiés par Dozy, Dugat, Krehl et Whigh., Leiden, 1855-61.

¹²⁴ P. de Alcala, *Vocabulista aravigo en letra castellana*, Granada, 1505 s.v.

¹²⁵ *Glossaire des mots espagnols et portugais dérivés de l'arabe*, Brill, Leiden, 1869, p. 309.

¹²⁶ *Ibid.*, pp. 304-09.

¹²⁷ R. Menéndez Pidal, *Poesía Juglaresca y Juglares*, Madrid, 1924, pp. 136-37.

¹²⁸ E. Naumann, *The History of Music*, London, 1886, i, p. 228.

¹²⁹ Juan Ruiz, *Libro de Buen Amor*, pp. 1516-17.

¹³⁰ J. B. Trend, *The Music of Spanish History*, New York, 1926, p. 30.

¹³¹ R. Menéndez Pidal, *op. cit.*, pp. 457 et seq.

¹³² H. G. Farmer, *Historical Facts* . . . , p. 158.

kurraj or hobby-horse of the Moors and its impedimenta of bells (*jalājil*) are mentioned as far back as Jarīr (d. c. 110/728) and have also been described by ibn Khaldūn. Let us turn to the diffusion of these arts.

Some of the external features of the music of the Basques reveal a Moorish tinge. Their "mutchikoa," which was danced by young men armed with batons, immediately suggests that the original was the Arabic *muskwikah* (bristling with arms). In Catalonia, there was a dance which specialized the water flagon called "almaratxa," which was the Moorish *al-mirashshah*. That feature was dropped about 1215/1800. The Basque "zortzico," also common in Spain, has a time measure of "five-eight," which immediately reminds one of the Moorish *mākhūri* rhythm.¹³³ P. Donostia assures us that the "zortzico" "does not represent the musical basis of the Basque people."¹³⁴ In other words, it is an exotic plant, reared among the Moors. Among the most popular of the Basque folk instruments are the "alboka" and "atabula," the originals of which are to be sought in *al-būq* and *al-ṭabl* of the Moors. Clearer still is the Moorish influence in the Basque "zamalzain" to which the people still skip about, little suspecting that it is the Arabic *zāmīl al-zain* (gala limping horse), the English "hobby-horse."¹³⁵

All of these neoteric devices soon spread over the Spanish and Portuguese borders, as the French, Italian, and English languages and customs reveal; some of them are to be found even today in Pyrenean provinces in something akin to their pristine character. One recalls that the tambourine made its entry into Western Europe as the "tambour de Basque" and "tambour de Biscaye." Jean Poueigh, in his entrancing book on the *Chansons populaires des Pyrénées françaises*, shows how the popular song of some regions in France has been influenced by the Oriental art, and in his own particular sphere of research he hears and sees quite definitely the Moorish pattern.¹³⁶ Among his numerous examples is the "mouchicou" of Bearn, which is the warlike Basque dance "mutchikoa." One of the Pyrenean song-dances is a kind of "bramble" called the "ramelet," which had its origin in Toulouse in the sixth/twelfth century. There it fell into desuetude, although it may still be heard in the mountains of Foix. Could these binary measured song-dances owe their name to the Moorish *ramal*? Yet the inherent wandering propensity of folk music is notorious, and one example of this is the Bulgarian rhythmic "aksak" which is to be found in a Basque instrumental tune.¹³⁷ Its paternity is traceable to the Turkish *aqsak*, a $\frac{9}{8}$ movement.

In France, iconography supplies the clearest evidence of the Moorish and Saracenic influence in musical instruments,¹³⁸ whilst its literature clinches that

¹³³ *New Oxford History of Music*, i, p. 448.

¹³⁴ *Grove's Dictionary of Music*, 1954, iii, p. 194.

¹³⁵ *New Oxford History of Music*, i, p. 467.

¹³⁶ *Op. cit.*, Paris, 1923, pp. 32-33.

¹³⁷ *Grove's Dictionary of Music*, 1954, iii, p. 240.

¹³⁸ K. Schlesinger, *op. cit.*, ii, Chap. ix.

certainly.¹³⁹ The Moorish *ūd*, *rabābah*, *qānūn* and *ṭanbūr*, appear in the seventh/thirteenth century as the "leus" (luth), "rubebe," "micanon" and "mandore": the Spanish "guitarra morisca" of Juan Ruiz (eighth/fourteenth century), the "morache" of Guillaume de Mechain (c. 743/1342) in France. With these came the Saracenic *nagqārah*, *ṭabl*, and *ṭabl-zan*—the last meaning really "a drummer"—which were Gallicized into "naguarre" (nacaire), "tabor" and "tabolzan." Later, the French adopted the Persian *tinbal* as the "tinballe" in 876/1471.¹⁴⁰ French minstrels were welcomed at the Spanish Courts,¹⁴¹ and these as well as the peregrinating type were the means by which these Moorish instruments and music were spread abroad. The Spanish "mourisca" was danced in France as the "moresque," whilst "los matachines" were "les matassins" of that land, all of whom wore "masques," as did the Moorish *maskharahs*. As late as Thoinot Arbeau (997/1589), the French "Morris dancers," i.e., "Moorish Dancers," were putting dye on their faces.¹⁴² He calls the "matassins" by the name "les bouffons" (Ar. *muharrājāt*).

The troubadour problem, in relation to the Moorish influence, has been the arena of fierce conflict since the days of Huet's *Origine Fabularum Romanensium* (1105/1693), as the present writer has shown elsewhere.¹⁴³ The discovery by Lévi-Provençal in 1374/1954 that the fifth song in Jeanroy's *Les Chansons de Guillaume IX* was not only inaccurately transcribed but that its final lines were actually pure Arabic,¹⁴⁴ was a veritable bombshell to the sceptics. Whether the troubadours actually borrowed their form and material from the Moorish *nuṭrīb* (minstrel) or not, they certainly had the opportunity to do so.¹⁴⁵ Indeed it is not improbable that the Provençal word "troubador" was coined from the Arabic *ṭarrāb* (*ṭaraba* = "to rejoice": *ṭarraba* = "to sing").¹⁴⁶ The orthodox explanation of the word is that it issued from the Provençal verb "trobar" (French "trouver") meaning "to find." If that be so, it was a very lucky "find," seeing that it gave birth to the verse of the troubadours. Joseph Anglade says¹⁴⁷ that the "trovador" who lived at the princely Courts was known as a "segrier," a name which was no more than the Moorish *sakharah*.¹⁴⁸ On the other hand, Menéndez Pidal believes that the "segrier" belonged to a class between the "trovador" and the "juglar."¹⁴⁹ In Pedro de Alcala (915/1509), the "troubador" equates with the Moorish *shā'ir* (poet), *nadīm* (boon

¹³⁹ R. Wright, *Dictionnaire des instruments de musique*, London, 1941, pp. 100, 104, 108, 149.

¹⁴⁰ *Ibid.*, pp. 112, 163, 171.

¹⁴¹ Menéndez Pidal, *op. cit.*, pp. 132–34.

¹⁴² *Orchésographie*, English translation, London, 1925, pp. 148–53.

¹⁴³ *New Oxford History of Music*, i, pp. 473–75.

¹⁴⁴ *Arabica*, Leiden, 1954, i, pp. 201–11.

¹⁴⁵ A. J. Denomy, "Concerning the Accessibility of Arabian Influence in the Earliest Provençal Troubadours," in *Mediaeval Studies*, Toronto, 1953, xv.

¹⁴⁶ T. A. Arnold and A. Guillaume, *op. cit.*, 1931, pp. 17, 373.

¹⁴⁷ J. Anglade, *La Troubadour Giraud Requier*, Paris, 1905, p. 147.

¹⁴⁸ See p. 1158.

¹⁴⁹ *Op. cit.*, p. 25.

companion), and *adīb* (scholar).¹⁵⁰ There can be little doubt that the Moorish *muwashshahah* and *zajal*, which were popular verse forms as old as the fourth/tenth century, were the mould from which much of the poetry of the troubadours sprang, as Ribera has claimed.¹⁵¹ Even the scenes and *dramatis personae* of that poetry reek with the Orient. If they could borrow those features, why could not the melodies which enhanced that verse be also copied? In truth, they were almost inseparable. Even if the troubadours could not grasp the significance of the Arabic language they could at least seize the prosodical structure, the melody of which would be transfixed in their ears with certainty. In any case, they had their "juglar" who attended them ostensibly for that purpose. Some of the later works of that early troubadour, Guillaume IX (d. sixth/twelfth century), "can be explained only by *muwashshahah* and *zajal*," as Nykl insists, and he says of the later Marcabru that his two *estornel* (Ar. *zurzūr*) were, "in all likelihood, made upon an Andalusian-Arabic melody."¹⁵² What we do know for certainty is that the Spanish "estribillo" and "stanza" equate precisely with the Moorish *markaz* and *bait*. What is stranger still is the literal identity between the Latin musical term "conductus" and the Arabic *majra*, although we may not at present be able to pin the likeness down to precise identity of usage.¹⁵³

Concerning the famous *Cantigas de Santa Maria* of Alphonso X (d. 683/1284), the miniatures of which present us with delineations of many Moorish instruments, Julian Ribera has made wide claims for the Moorish influence in both the melodic and in the rhythmic structure of that work.¹⁵⁴ As his interpretation of the latter does not agree with the Arabian rhythms of the third/ninth to the fifth/eleventh-century examples known to us,¹⁵⁵ that part of his elucidation is suspect, whilst his transcription of the melodies has been disputed by many.¹⁵⁶ On the other hand, the literary material which he amassed is extremely valuable to all who are interested in the problem. Yet the failure of Ribera, in the circumstances mentioned, does not validate the sweeping statement of Higiní Anglés that there is not the slightest trace of an Arabian (Moorish) influence in the melodies of the *Cantigas*.¹⁵⁷ Others of the anti-Moorish influence party are more guarded in their utterances, since they admit that because there is no contemporary Moorish music available there can be no absolute proof either "for" or "against" that thesis. They evidently know the reason why there was no written contemporary Moorish music,

¹⁵⁰ *Op. cit.*, s. v.

¹⁵¹ *Op. cit.*, pp. 142–45.

¹⁵² A. R. Nikl, *Hispano-Arabic Poetry and Its Relation with the Old Provençal Troubadours*, Baltimore, 1946, Chap. vii.

¹⁵³ *New Oxford History of Music*, i, p. 469.

¹⁵⁴ *Op. cit.*, Chap. xvi.

¹⁵⁵ H. G. Farmer, *Sa'adyah Gaon on the Influence of Music*, London, 1943, pp. 78–87.

¹⁵⁶ Notably Higiní Anglés.

¹⁵⁷ *Die Musik in Geschichte und Gegenwart*, Kassel, 1952, ii, p. 777.

seeing that the pious Cardinal Ximenes, according to his biographer Robles, committed a million Arabic manuscripts to the flames,¹⁵⁸ believing, as the late Reynold A. Nicholson has said, that he could "annihilate the record of seven centuries of Muhammadan culture in a single day."¹⁵⁹ Spanish composers of the standing of Pedrell and Falla are outstanding opponents of the claims for a Moorish influence. The former asserts that Spanish music "owes nothing essential" to the Moors,¹⁶⁰ but takes care not to define what he means by "essential." He prefers to acknowledge a Byzantine influence, but does not quote documentary evidence which he and others demand the pro-Moorish advocates should exhibit. In fact, there are no Byzantine documents of the pre-Moorish days that authenticate his contention. Falla makes a different approach. He acknowledges the Oriental strain in Spanish music, but he attributes that feature to the "gipsies."¹⁶¹ In other words, a handful of uncouth gipsies, who entered Spain not earlier than 846/1442, are to be credited with having exerted a more predominant influence on Spanish music than a million Arabs and Moors whose ancestors entered the Iberian peninsula so far back as 94-95/712-713, without including the countless Mozárabes, Mudéjares, and Moriscos, who had adopted the Arabian and Moorish mode of life. The fact is that Spain is compelled to face the question of the Oriental strain in her national music as exhibited in the "cante hondo" and "flamenco," but dare not acknowledge the influence of Islamic peoples. Jean Sermet says of the "cante hondo" that it "is certainly of Oriental origin,"¹⁶² while Raoul Laparra states that the "very special *mentalité* of the 'flamenco' goes back, according to the hypothesis most justified, to the domination of the Moors."¹⁶³ Fortunately, there have been and are men of the stature of Menéndez Pelayo,¹⁶⁴ Mitjana Gordon,¹⁶⁵ Menéndez Pidal,¹⁶⁶ Ribera,¹⁶⁷ and Nykl¹⁶⁸ who recognize clearly the Moorish influence as they would the sun at noonday.

The Moorish influence spread quite naturally to Italy, where such instruments as the "liuto," "rebecca," "canone," "tambura," "taballo," and "nacchera," as well as such terms as "maschera" and "mattaccino" reveal their ancestry.¹⁶⁹ Of course, the definitely Oriental Courts of Frederick II (d. 648/1250) and Manfred (d. 665/1266) at Palermo and Naples had their quota of

"Saracen" minstrels and dancing-girls.¹⁷⁰ A glance at medieval documents enables one to note the frequent appearance of Italian minstrels at Spanish Courts and *vice versa*,¹⁷¹ all of which conduced towards the interchange of alien ideas in music, including that of the Moors, which was poles asunder from that of Europe proper. The Sicilian instruments of the period are displayed on woodwork screens of the sixth/twelfth century at Palermo, while those delineated by Fra Angelico, Bellini, and Montagna (ninth/fifteenth century) are quite revealing of the Oriental influence in their ornamentation as well as in their shape.¹⁷² It was here that the mounted men-at-arms of the English *condottiere*, Sir John Hawkwood (d. 796/1394), were using a *nacarino* which was, of course, the Arabic *naqqārah*. Meanwhile the Crusaders had returned from Palestine with fresh ideas of martial music. Previously they only used trumpets (*tubae*, *litui*) and horns (*corni*, *bucinae*), whereas the Saracens were equipped not only with trumpets (*anfār*, *karnāt*) and horns (*būqāt*), but also with large (*kūsāt*), medium (*naqqārāt*), and small (*qaṣ'āt*) kettledrums, together with reed-pipes (*zumūr*), shawms (*surnāyāt*), cymbals (*ṣunūj*), and bells (*ajrās*), which were used not merely for signalling but to create fear and dismay among the Christian array.¹⁷³ It is generally believed that the cylindrical bore "trump" of Richard Coeur de Lion, first heard of in 587/1191, was borrowed from the Saracens.¹⁷⁴ With the latter the military band was a distinct unit known as the *ṭabl khānah* or "Drum House" which was drawn up with the standards away from the actual conflict, where it played unceasingly during the battle for tactical purposes. In times of peace it was the function of the *ṭabl khānah* to perform the five-fold *naubah* for the Caliph and the three-fold *naubah* for princes or governors. Generals, according to their rank, were allotted a specific number of players, although only the highest of the Amirs were allowed kettledrums.¹⁷⁵ Europe adopted all those customs, and up to the thirteenth/nineteenth century the various ranks of European generals could be determined by observing the musical honours bestowed on them.¹⁷⁶

In Britain we observe the Oriental current flowing, presumably *via* France, as one sees in the word "mattachin," the dance in which a duel was fought with wooden swords typifying the struggle between the Christians and the

¹⁵⁸ E. de Robles, . . . *Vida y hazñas del Cardenal Ximenes*, Toledo, 1604, p. 104.

¹⁵⁹ *A Literary History of the Arabs*, London, 1914, p. 435.

¹⁶⁰ *Cancionero musical popular español*, Valls, 1919, i, pp. 69, 84.

¹⁶¹ J. B. Trend, *Manuel de Falla*, New York, 1929, pp. 20-29.

¹⁶² J. Sermet, *L'Espagne du Sud*, Paris, 1956, p. 57.

¹⁶³ A. Lavignac, *op. cit.*, p. 2394.

¹⁶⁴ *Antología de poetas líricos*, Madrid, 1903, ii, p. 68.

¹⁶⁵ A. Lavignac, *op. cit.*, pp. 1920-23.

¹⁶⁶ *Poesía juglaresca y juglares*, Madrid, 1924.

¹⁶⁷ *La Música árabe medieval y su influencia en la Española*, Madrid, 1927.

¹⁶⁸ *Op. cit.*, Chap. vii.

¹⁶⁹ R. Dozy and W. H. Engelmann, *Glossaire des mots espagnols et portugais dérivés de l'arabe*, Leyde, 1869.

¹⁷⁰ A. F. von Schack, *Poesía y arte de los árabes en España y Sicilia*, Madrid, ii, pp. 310-12.

¹⁷¹ Menéndez Pidal, *op. cit.*, pp. 134, 363.

¹⁷² *Byzantinische Zeitschrift*, ii, pp. 379-87; G. Kinsky, *Geschichte der Musik in Bildern*, Leipzig, 1929, pp. 68/1, 69/3, 69/2.

¹⁷³ H. G. Farmer, "Crusading Martial Music," in *Music and Letters*, London, 1949, Vol. 30, pp. 243-49.

¹⁷⁴ F. W. Galpin, *Old English Instruments of Music*, London, 1910, p. 200.

¹⁷⁵ H. G. Farmer, in *Encyclopaedia of Islam*, Suppl. Vol., pp. 217-22.

¹⁷⁶ C. James, *The Regimental Companion*, London, 1799, p. 197. It is possible that the term for a flourish of trumpets, "fanfare," is but a metathesis of the Arabic *anfār* (trumpets).

Moors. Here it was dubbed the "Morris Dance," but, as Brand points out, "the genuine *morisco* was very different from the European Morris."¹⁷⁷ Each of the performers being a "masker" (Ar. *maskharah*), they painted their faces and wore masks. A folk-song and dance authority of today, Maud Karpeles, dismisses the Moorish origin of the British "Morris Dance" by saying it "is now discredited"—by whom, we are not told.¹⁷⁸ Such English authorities as Thomas Blount, Joseph Strutt, and John Brand had no doubts about its Oriental origin, and anyone who has seen the "hobby-horse" and knows its history will scarcely be convinced by the latest heresy. "Moor's garments" are specified in English documents as early as 914/1508 just as "Turk's garments" for kettledrums were mentioned a century later, the reason being obvious in both cases. With the general infiltration of Moorish instruments came the "lute," "rebeck" of "ribible,"¹⁷⁹ "tabor" and "naker," and they did not necessarily intrude through France, since both English and Scottish minstrels were welcomed at the Spanish Courts, where not only Moorish instruments were in common use, but Moorish minstrels were playing them.¹⁸⁰

In the East there came the Turkish eruption into Europe during the ninth/fifteenth century, when the whole of the Balkan Peninsula was conquered. That the music of the latter was influenced by that of the Turks can scarcely be denied, however much collectors of folk and national music may strive to minimize that persuasion. The Oriental strain exists to the present day, more especially in Bulgaria, Albania, and Yugoslavia. According to Raina Katzarova, the Turkish rule only left "infinitesimal traces in Bulgarian folk music."¹⁸¹ Yet among those immeasurably small vestiges are many irregular Oriental rhythms from $\frac{5}{16}$ through odd numbers up to $\frac{13}{16}$. Further, did not those instruments of a definite Oriental prompting contribute something—if but the merest fraction—to those "infinitesimal traces"? Those instruments include the "tamboura," "kemence," "kaval," "daara," and "tarabouka"—all adopted from the Turks.¹⁸² In Yugoslavia the Oriental impress is deeper, since many of their melodies are acknowledged to be of Turkish or Arabian origin.¹⁸³ The "tanburica" is common to the Yugoslavs together with its cousins the "saz" and "shargy." The Arabo-Turkish lute (*'ūd*) is known in Macedonia as the "oot." Among Balkan wind instruments, the "duduk," "zurne," "dzamare," and "bore," as well as the percussion group—"daule," "deff," "daulbas," "daire," "dalbujane," and "chapara"—all tell the story

¹⁷⁷ J. Brand, *Observations on the Popular Antiquities of Great Britain*, London, 1853, i, p. 252.

¹⁷⁸ *Grove's Dictionary of Music*, ii, p. 233.

¹⁷⁹ For an explanation of these spellings against the Moorish *rabāb*, see *Grove's Dictionary of Music*, vii, pp. 69, 152.

¹⁸⁰ Menéndez Pidal, *op. cit.*, pp. 135; H. G. Farmer, *Historical Facts . . .*, p. 158, f. n.

¹⁸¹ *Grove's Dictionary of Music*, iii, p. 202.

¹⁸² H. G. Farmer, *Turkish Instruments of Music*, Glasgow, 1937.

¹⁸³ *Grove's Dictionary of Music*, 1954, iii, p. 414.

of their parentage. Albania used a host of Turkish instruments, including pandores of the "yonghar" and "paraduzen" class.¹⁸⁴

Even Rumania and Russia were influenced by the Turkish *kopūz* in their "kobsa" and "cobsa," whilst the latter adopted the Arabian *al-tabl*, *naubah*, and *tab-lī bāz* in the tenth/sixteenth-century "litavri," "nabat," and "tulumbaz" respectively for their military bands.¹⁸⁵

Perhaps the greatest of all the "borrowings" from the Turks was made by European military bands. It began about 1138/1725 when the Turkish Sultān presented the ruler of Poland with a complete military band instrumented after the Turkish fashion. The craze soon spread to Russia, Austria, Prussia, France, and Britain. The predominant feature of this Turkish music was the use of the bass drum, cymbals, triangle, tambourine, and "Janissary bells." These not only helped precision in marching for the army, but the new tonal colour attracted the attention of the orchestra, and very soon Mozart (1196/1781) and Haydn (1209/1794) were scoring for such instruments in their immortal works, the former using them in his opera *II Seraglio*.¹⁸⁶ Indeed, the Orient became the scene for countless *libretti*: Beethoven's *Ruin of Athens*, Rossini's *Turks in Italy*, Weber's *Abu Hassan*, Boieldieu's *Caliph of Baghdad*, David's *Lalla Roukh*, Bizet's *Djamileh*, Massenet's *King of Lahore*, Bantock's *Pearl of Iran*, and so on. What would the annual pantomimic productions in Britain be without *Aladdin*, *Sindbad*, and *The Forty Thieves*, all from the *Arabian Nights*, although some of us may be amused at the pseudo-Oriental music which accompanies them.

The musical influence of Islamic peoples is not confined to the West. South of the Maghrib and Egypt we find the *tabl*, *ghaitah*, *bandair*, and *shaqshaq* in the Sudanese languages as the "tabala," "tamba" or "tumbul," "algaitaru," "bendere," "bendo" or "bentere," "segesege" or "asakasaka."¹⁸⁷ The "azamari" or troubadours of Abyssinia may have derived their name from the Arabic *al-zumar*, meaning people who gather together to make music. Their "nagarit" is clearly the Arabic *naqqārūt*. The neighbouring Somalis use the Egyptian *zummārah* as the "zomari," just as they do in Zanzibar, although it becomes the "anjomari" of Madagascar. The lute-like *qabbūs* of the Arabs and Turks became the "kabus'u" of Somaliland and the "qalbus" in Zanzibar. Turning to the west coast of Africa one recognizes the Arabic *al-ṭabl* and *al-ghaitah*, as well as the Turkish *borū* in the "tabulae" of Senegal and the "a-tabule" of the Gold Coast, the "algaita" of the Hausa, and the "buro" of the Gold Coast.¹⁸⁸ Returning to the east coast, it should be noted

¹⁸⁴ C. Sachs, *Reallexikon der Musikinstrumente*, Berlin, 1913, s.v.

¹⁸⁵ N. Bessaraboff, *Ancient European Musical Instruments*, Boston, U.S.A., 1941, pp. 32-37.

¹⁸⁶ H. G. Farmer, *Military Music*, Parrish, London, 1950, Chap. iv.

¹⁸⁷ H. E. Hause, *Journal of the American Oriental Society*, Suppl., 1948.

¹⁸⁸ H. G. Farmer, "The Arab Influence on Music in the Western Soudan," *The Musical Standard*, 15th Nov., 1924.

that, in spite of Sanskrit influence on the Malagasy language and the cultural pressure of Indianized Sumatrans, we do not find a solitary musical instrument of Indian or Indonesian origin. That statement takes us to India itself, where the Islamic cultural influences are as patent as the noonday sun.

A recent writer on Indian music avers that "the stories that tell how the various styles of North Indian music were invented by musicians of the Muhammadan period, have probably *no basis in reality*."¹⁸⁹ So far as the "form," the method of performance, the actual instruments, and the technical nomenclature of that music is concerned, the above statement is a distortion. That some "styles" came *via* the "musicians of the Muhammadan period" must surely be allowed, and among them are the *qaul*, *ghazal*, *tarānah*, and *firu dāshi*. One recalls that Amīr Khusrāu (d. 725/1325) has been actually censured by the purists of the old Indian school of music for his *Islamic innovations*, and one presumes that the above were among them. The *naqsh*, an ornamental piece of music, was another feature in Amīr Khusrāu's time, and that and the preceding items would seem to be those specifically Islamic features which Alain Daniélou believes that "no one can seriously speak of their having had any influence" on the development of Northern Indian music. One asks, would that include the *khiyāl*? Surely that deserves some claim to pristine utterance. It certainly lives up to its name, which means "fancy" or "imagination," since the embellishment of its melodic outline becomes perfectly scintillating at the hands of a Muslim *ustād* (virtuoso). Fox Strangways said that the *khiyāl* received "its highest development" at the hands of the Muslims, having originated with a certain Maḥmūd Shārqī of Jaunpūr (d. 844/1440).¹⁹⁰ The names of such modes as '*ushshāq* and *nigār*, together with such technical terms as *basīṭ* and *sarpardah*, are quite alien to Sanskrit. One is prompted to inquire why Sanskrit or Hindi words are not used instead of the Arabic *miḍrāb* for the "plectrum," and *khālī* for a "rest" in a rhythmic pattern. Why call the drum "brace" the *diwāl* instead of its Sanskrit equivalent? Seemingly there is some "basis in reality" for the Muslim claims.

When we examine the musical instruments of modern India, we find overwhelming evidence of the influence of Islamic peoples, which is a sufficient rebuttal to Alain Daniélou's claim that "outside influences" were only "temporary fashions." Nobody can scan the names and features of those instruments without concluding that Pakistan and parts of Muslim India have been wearing those supposedly "temporary fashions" for many centuries. Search as one may in the old Sanskrit treatises, even *Saṅgīta Ratnākara* (seventh/thirteenth century), one will not discover in their pages the *sītār*, *rabāb*, or *ṭanbūrī*. Indeed, the *chārgah-sītār* and *ṭarabḍār sītār* bear an unmistakable

¹⁸⁹ A. Daniélou, *Northern India Music*, Johnson, London, 1949, p. 34.

¹⁹⁰ A. H. Fox Strangways, *The Music of Hindustan*, Oxford, 1914, p. 287; cf. Grosset, "Inde," in A. Lavignac, *op. cit.*, p. 266; H. G. Farmer, "The Music of Muslim India," *Urdu Encyclopaedia of Islam*.

Persian likeness. Even the *sarōd* or *sharōd* can be no other than the old Turkoman *shahrūd* of the fourth/tenth century. All of these instruments as well as the *dūtārāh* and *chātārāh* bear names which determine their origin. Grosset claims that the *qānūn* or psaltery was derived from the old Indian *kātyāyāna-viṇā* or *svara-maṇḍala*:¹⁹¹ but since the latter is not mentioned in the Sanskrit treatises earlier than the *Saṅgīta Ratnākara*, which is of later date than the Arabic authorities, the claim for Indian priority is far from convincing. Among the bowed types the *kaṁānchah* is the most obvious of the borrowed Islamic instruments. The insistence of Grosset that the Sanskrit term *koṇa* stands for both "plectrum" and "bow" cannot be justified, although he claims the *Amara koṣha* (first/seventh century) as his authority for the use of the "bow." Yet Ananda K. Coomaraswamy declares that "no Indian *viṇā*, whether ancient or modern, was ever played with a bow."¹⁹² The antiquity of the *rāvanāhastā* as claimed by Fétis, who was foolishly influenced by the mythical *ravanastron* of Sonnerat, was sheer imagination,¹⁹³ as was his indication of a manuscript at Vienna, dating from the days of the first Caliph (first/seventh century, *sic*), supposed to delineate a bow.¹⁹⁴ The Fétis design of a *ravana* and his so-called *ravanastron* and *omerti* are actually of Chinese provenance, as was his Indian *ṭambourah*.¹⁹⁵ The fact is that the earliest account of the function of the bow is given by al-Fārābī.¹⁹⁶ Passing to wind instruments—the *surna*, *alghūzah*, *mushuk*, *naḥr*, and *karna*—their very names confirm their origin, as do those of the percussion group—the *ṭablah*, *ṭablik*, *naḥḥārah*, *duffda*, and *dā'irah*, however much some of these names may have been altered.¹⁹⁷

The music of the peoples of the Malay Archipelago was also influenced by India, especially Muslim India, on the instrumental side. The bowed *rabāb*, or spike-footed viol, which spread with the adoption of Islam, is known in the various islands as the "rebāb," "repōb," "erbābi," and "arabābu." The lute-like Arab *qabūs* or *qanbūs* and the Turkish *qōpūz* appear as the "gambus," "gabbus," and "kabōsi," whilst the *surna* or *surṇāy* becomes the "serunai," "sarune," "sruni," and "sralai."¹⁹⁸ Further north, when the Mughuls became masters of China (610–770/1213–1368), the instruments of Islamic peoples began to influence that land. Kublai Khān introduced an organ called the *hsing-lung-shēng* into China; it is being expressly mentioned as coming

¹⁹¹ J. Grosset, *op. cit.*, pp. 344–48.

¹⁹² *Ibid.*, pp. 341–42; A. K. Coomaraswamy, "The Parts of a Viṇā," in *Journal of the American Oriental Society*, New Haven, Vol. L, p. 248.

¹⁹³ F. Sonnerat, *Voyage aux Indes orientales et à la Chine*, Paris, 1782.

¹⁹⁴ F. J. Fétis, *Notice of Anthony Stradivari* . . . , tr. J. Bishop, London, 1864, p. 109.

¹⁹⁵ *Idem*, *Histoire générale de la musique*, Paris, 1869–76, ii, p. 291. See figs. 36, 46, 48.

¹⁹⁶ H. G. Farmer, *Studies in Oriental Musical Instruments*, London, 1931, i, p. 102.

¹⁹⁷ A. Lavignac, *op. cit.*, i, pp. 353–62.

¹⁹⁸ C. Sachs, *Die Musikinstrumente Indiens und Indonesiens*, Berlin, 1923, pp. 110–11, 139, 155–57.

from the "Muslim kingdoms" of the "lands of the West."¹⁹⁹ The armies of the Yuan rulers comprised large contingents from Turkestan, and a number of their Court officials were Persians. Was it any wonder that bands and orchestras of Muslim musicians should find favour at Chinese Courts? Here were to be heard such instruments as the "tan-pu-la" (Turki *tanbūr*), "sai-t'o-erh" (*sitar*), "huo-pu-ssu" (*qōpūz*), "la-pa-pu" (*rabāb*), "ha-erh-cha-k'o" (*ghijjak*), "k'o-erh-nai" (*qānūn*), "su-erh-nai" (*surāy*), "pa-la-man" (*balāban*), "na-ka-la" (*naghārāh*), "ta-pu-la" (*tabl*), and "ta-pu" (*daf*).²⁰⁰ Thus, we discern how the Islamic arts in music traversed land and sea, covering continents and oceans, bringing to distant shores the indigenous music of several Near and Middle East peoples, which was not only fresh and novel, but had a comeliness and grace, a form and symmetry dissimilar from their own, some of which, wherever possible, were eventually absorbed.

Finally, there is the question of the influence of the music theorists of Islamic peoples—especially that of the Arabic theorists—in the practical and theoretical spheres of music. All historians of art and science have openly acknowledged the debt that we owe to Islamic peoples during the Middle Ages,²⁰¹ and one can include the science of music in Europe's indebtedness, however small it may be, in our modern concept of obligation. Greece had always been a borrower from the East in the distant past. Even in the days of Byzantium she was absorbing from the Orient.²⁰² Yet with all the trumpeted fame of the Hellenic world, not a single treatise on the theory of music was produced—or at least has survived—from the Anonymus II (fourth/tenth century) to the time of Psellos (fl. 442/1050). It was only the Arabic treatises on that subject which had currency from Seville to Samarkand, viz., those of al-Kindi and al-Fārābī up to those of ibn Sina and ibn Zailah (d. 440/1048).²⁰³ One cannot help noticing the complete absence of genuine music theorists in Christian Europe from the pre-sixth century A.D. to the mid-third/ninth century.²⁰⁴ The reason for that decay has been described by the Muslim historian al-Mas'ūdi (d. 345/956). He says: "In the days of the ancient Greeks . . . and Byzantium, science was developed and scholars were honoured. Natural science was particularly studied . . . as well as the *quadrivium*, i.e., arithmetic, geometry, astronomy, and music. . . . Then came the Christian religion, which . . . destroyed and blotted out the teachings of science. All that the ancient Greeks had placed before the world vanished, or was distorted. Among the noble sciences which were thrown aside . . . was the science of

¹⁹⁹ H. G. Farmer, *Studies in Oriental Musical Instruments*, London, 1931, i, pp. 30–32; *The Organ of the Ancients*, London, 1931, pp. 75–76.

²⁰⁰ *Idem*, *Studies in Oriental Musical Instruments*, ii, pp. 7–9.

²⁰¹ G. Sarton, *Introduction to the History of Science*, Baltimore, Vols. i, ii, iii, s.v.

²⁰² *Cambridge Medieval History*, Cambridge, 1911–36, iv, pp. 152, 773.

²⁰³ As already shown in section C.

²⁰⁴ Even the productions of those who followed immediately, the Venerable Bede, Alcuin, and Hrabanus Maurus, are mere plagiarisms, forgeries, or patch-works. See H. G. Farmer, *Historical Facts* . . . , pp. 214–28.

music."²⁰⁵ This is not a biased picture by a Muslim. The facts can be proved up to the hilt by Christian historians who had the *ipsissima verba* of the Fathers of the Church before their very eyes. Tertullian (d. c. 240 A.D.) decried Pagan literature,²⁰⁶ i.e., the literature of Greek and Latin philosophers, which was in strict accord with the authoritative *Apostolic Constitutions* which laid down: "Hold aloof from Pagan books entirely."²⁰⁷ Saint Jerome (d. 440 A.D.) was warned not to dabble in heathen literature,²⁰⁸ although he actually lamented that so few knew of Plato and Aristotle.²⁰⁹ Even Saint Augustine (d. 430 A.D.) pandered to his readers saying, "Heaven is for the ignorant."²¹⁰ Cassian (d. 480 A.D.) reveals that the decrees against Pagan literature were still being observed.²¹¹ Even sixty years later Saint Benedict (d. c. 544 A.D.) recommends only the Bible and expositions thereon to be read by the Catholic Fathers.²¹² It has been admitted that "at no time have the general mass of Benedictines been learned."²¹³

Under such conditions one can readily appreciate the total neglect of the works of the great Greek theorists of music. Europe knew of them only through fragments—often mistranslated as Roger Bacon affirmed—offered by Martianus Capella, Bōethius, Cassiodorus, and Isidore of Seville,²¹⁴ whereas the scholars at the "Home of Learning" (*Bait al-Ḥikmah*) at Baghdad had made Arabic translations of the works on music by Aristotle, Aristoxenus, Nicomachus, Euclid, Cleonides, and probably Ptolemy and Aristides Quintilianus by the third/ninth century.²¹⁵ We have seen how both Euclid's *Canon* and Aristotle's *De Anima* had been the subject of Arabic commentaries (*shurūḥ*), and all were part of collegiate studies in Islamic lands, since music (*ilm al-mūsīqī*) was part of the course of mathematics (*riyāḍiyyāt*), i.e., the *quadrivium* of medieval European studies.²¹⁶

To appreciate the meaning of the impingement of Arabic learning—in the sciences especially—on western Europe, one has to consider the prevailing cultural conditions there. In Spain, the hub of Islamic culture in Europe, we have Bishop Alvarus (third/ninth century) complaining that whilst his congregations could not pen a letter in their own tongue, they could accomplish

²⁰⁵ Al-Mas'ūdi, *Les Prairies d'or*, Paris, 1861–77, ii, p. 320.

²⁰⁶ *Patrologiae . . . Series Latina*, i, p. 673.

²⁰⁷ *Constitutiones Anostolorum*, Leipzig, 1862, Book I, Chap. 6.

²⁰⁸ *Patrologiae . . . Series Latina*, xxii, p. 406.

²⁰⁹ *Ibid.*, xxvi, p. 428.

²¹⁰ "Indocti coelum rapiunt."

²¹¹ *Patrologiae . . . Series Latina*, lxxi, p. 161.

²¹² *Regula Sancta Benedicti*, c. 8. Waitzmann edit., 1843, p. 32.

²¹³ R. R. C. Butler, *Benedictine Monasticism*, London, 1919, p. 337.

²¹⁴ As already shown in section C.

²¹⁵ Incidentally, Nicomachus, Theon of Smyrna, and probably Aristides came from Syria or Asia Minor, whilst Euclid and Ptolemy belonged to Egypt.

²¹⁶ H. G. Farmer, "Greek Theorists of Music in Arabic Translation," *Isis*, xiii, 1930. Roger Bacon deplored that the scientific works of Aristotle and others were unknown in Latin, *Opus Ternium*, p. 55.

mono-rhyme in Arabic,²¹⁷ while the ignorance of his clergy was deplorable.²¹⁸ At the centre of Europe's intellectual culture—the Carolingian Empire—learning had so declined that studies had almost ceased, whilst at Cluny the subjects of the *quadrivium* were but little studied.²¹⁹ The Monk of Angoulême admits that “there existed in Gaul scarcely a trace of the liberal arts” before the days of Charlemagne, and it was no better in Rome, the very centre of Christianity.²²⁰ In Muslim Spain the cultural atmosphere was far different. Ša'id ibn Ahmad al-Qarṭabi (d. 462/1070) writes of that land thus: “The learned of al-Andalus exerted themselves in the cultivation of science, and laboured in it with assiduity.”²²¹ Ibn al-Ḥijāri (d. 590/1194) testifies that under the Umayyad regime in al-Andalus (second-fifth/eighth-eleventh centuries) “students from all parts of the world flocked . . . to learn the sciences of which Cordova was the most noble repository, to derive knowledge from the mouths of the doctors and ‘ulamā’ who swarmed in it.”²²² What was taught specifically of the theory of music we do not know. The treatises of al-Fārābi, the Ikhwān al-Šafa, ibn Sina, and the later abu al-Šalt Umayyah, ibn Bājjah, and ibn Rushd were available to all, most of these authors being known by their Europeanized names as Alfarabius, Avicenna, Avempace, and Averröes. (See H. Abert, *Musikanschauung des Mittelalters*, Halle, 1905, pp. 143, 169.) In spite of the destruction of Arabic manuscripts by Cardinal Ximenes in 898/1492 *et seq.*, a few manuscripts on music theory have survived, notably that of al-Fārābi, the “Major Book on Music” (*Kitāb al-Mūsīqī al-Kabīr*), now preserved at Madrid, being a sixth/twelfth-century copy made for a pupil of ibn Bājjah (Avempace).²²³ Al-Fārābi's treatment of the physical bases of sound, also dealt with by the Ikhwān al-Šafa, was a notable advance in that particular sphere.²²⁴ His description of the musical instruments of his day stands unique in the history of music. European theorists seem not to have considered the subject worthwhile. His minute account of the *accordatura* of necked stringed instruments, the scales of harp-like instruments, and the compass and digit holes of the wood-wind family were subjects unheard of before his time,²²⁵ although al-Kindi had dealt with the lute in that fashion a century earlier.²²⁶ In a Persian treatise, the “Treasure-House of

²¹⁷ *España Sagrada*, as cited.

²¹⁸ C. Lafuente, *Historia general de España*, Madrid, 1850–62, iv, p. 342.

²¹⁹ C. Pfister, *Études sur la règne de Robert le Pieux*, Paris, 1885, p. 2.

²²⁰ J. B. Mullinger, *The Schools of Charles the Great*, London, 1877, pp. 39, 69.

²²¹ Al-Maqqari, . . . *The Mohammedan Dynasties in Spain*, London, 1840–43, i, pp. 117–18.

²²² *Ibid.*, i, p. 30.

²²³ H. G. Farmer, *Sources of Arabian Music*, Bearsden, 1940, p. 34.

²²⁴ As already shown in section C.

²²⁵ Al-Maqqari, . . . *The Mohammedan Dynasties in Spain*, i, pp. 43, 197, ii, p. 148.

²²⁶ H. G. Farmer, *Studies in Oriental Musical Instruments*, Glasgow, 1939, ii, pp. 47–48, 90–92.

Rarities” (*Kanz al-Tuḥaf*), dating from the eighth/fourteenth century, we have another example of the thoroughness of Islamic music theorists. In this we have not merely the musical gamut of an instrument described, but recommendations as to the style of facture, the best types of wood for use, an elaborate account of the manufacture of silk and gut strings, devices for amplifying the tone by means of sympathetic strings—the first account of its kind—as well as the sprinkling of powdered glass on a glue-covered interior of an instrument so as to improve the tone. The earliest mention of that device in Britain is a patent (No. 7454) taken out in 1253/1837. Ibn Sa'id al-Maghribi (d. c. 680/1280) says that books on “the various instruments and the art of making them are common among us,” while in the days of ibn Rushd and al-Šhaqundi (d. 629/1231) Seville was the centre for the manufacture of musical instruments, and had an export trade.

How much of the Arabic material recorded above was translated into Latin we have no record. Yet seeing that Arabic was not only spoken by the Arabs and Moors, but also by the Mudéjars and Mozárabes, who were, respectively, the Muslims who remained in the reconquered Christian Spain, and the Spaniards and Portuguese who lived under Muslim rule, much would have been passed on orally. One outstanding man in the former group was Muḥammad ibn Ahmad al-Riqūṭi, who, when the Christian armies took Murcia in 640/1242, was retained by the Christian king to teach in his schools, he himself being famed as a music theorist and mathematician.²²⁷ That some of it was passed on *via* the Latin tongue or script we know from Anthony à Wood who says that when Roger Bacon lectured at Oxford, using faulty Latin translations, he was ridiculed by Spanish students, who may have known the Arabic originals. According to Bacon, there were few mathematicians among the Latins, and both he and Adelard of Bath strongly advised students to abandon European schools and seek the fountain-head in Muslim Spain.²²⁸ Two Arabic tractates on the sciences which contained a section on music were translated into Latin, viz., al-Fārābi's “Register of the Sciences” (*Iḥṣā' al-'Ulūm*) and an anonymous “On the Rise of the Sciences” (*De ortu scientiarum*), both of which became formal text-books in European schools. Neither was of much value *per se*, since each merely outlined the bases of study.²²⁹ Yet they were quoted by Gundisalvus, Magister Lambert (Pseudo-Aristotle), Vincent de Beauvais, Roger Bacon, Jerome of Moravia, Walter of Oddington, and others.²³⁰

The Islamic impact on musical instruments has already been shown,

²²⁷ M. Casiri, *op. cit.*, ii, pp. 8–82.

²²⁸ J. S. Brewer, *F. Roger Bacon: Opera quaedam hactenus inedita*, London, 1859, i, pp. lix–lxxxvii.

²²⁹ L. Ellinwood, “Ars Musica,” *Speculum*, Cambridge, U.S.A., 1945, Vol. xx, pp. 290 *et seq.*

²³⁰ H. G. Farmer, *Al-Fārābi's Arabic-Latin Writings on Music*, Glasgow, 1934, pp. 31–34.

especially in the stringed variety with their frets. These latter were fixed according to the old Arabian system of ibn Miṣjah (d. c. 97/715), which was based on Pythagorean tuning, a circumstance which completely dispels the erroneous assumption of the Director of the "Museo-Labordtoirio de Musica Marroqui" at Tetuan, Dr. P. Patrocinio Garcia Barriuso, that the music of Morocco, Algeria, and Tunis is not "Arabian music."²³¹ As H. G. Farmer has been demonstrating for many decades, the "musica hispano-musulmana," which he believes originated in Spain, was actually the old Arabian system of ibn Miṣjah, Iṣḥāq al-Mawṣili, Ziryāb, ibn al-Munajjim, al-Kindi, and al-Fārābī, a "sistema model diatonico y cromatico," as he terms the present Moroccan music. According to him—and his book has received the "Imprimatur" of the Roman Church—those "eminent musicologists" who have studied Moorish music have approached the subject with "prejudice, lack of knowledge, and impropriety of nomenclature," when they have dubbed "Spanish-Muslim music" as "Arabian music." So as to demonstrate the "superficial affirmation" of those erring musicologists mentioned above, he would enlighten us about the Khurāsānian scale of Ṣafī al-Dīn with its seventeen intervals to the octave, of which Europe was *au fait* so early as Sir John Chardin (1123/1711) and about the quasi-Arabian quarter-tone system, really Turkish, which succeeded the preceding in the eleventh/seventeenth century, the latter being illustrated by Dr. Barriuso, who copies a diagram from a music treatise of Kāmil al-Khulā'i (1322/1904), so as to prove that his "Spanish-Muslim" music of a thousand years earlier was not "Arabian music." *O sancta simplicitas!*

So far back as the third/ninth century, when Christian Spain was in its intellectual childhood, the Baghdad scholars had translated from Greek into Arabic the Muristus treatises on the organ and hydraulis. Such works enabled the Arabs to construct similar instruments which led to some interesting results. An organ or hydraulis was being used in the Caliph's palace at Baghdad in the time of Princess 'Ulayyah (d. 210/825),²³² and there is evidence that organ-constructors were known in Syria during the sixth/twelfth century.²³³ There is no reference to the hydraulis in the Orient since the time of Isaac of Antioch (fl. 459 A.D.), and in the Occident since the days of Apollinaris Sidonius (c. 483 A.D.),²³⁴ because the Greeks had adopted a weighted blast-bag instead of hydraulic pressure. Could the resurgence of the hydraulis in the third/ninth century have been due to the Arabic translations of Muristus?²³⁵ Amédée Gastoué says that "the makers of the first large organs in the Occident in the third/ninth century were, without doubt, either Greeks or Syrians";

²³¹ *La musica hispano-musulmano en Marruecos*, Madrid, 1950, pp. 9–14.

²³² Al-Iṣfahāni, *Kitāb al-Aghāni* (Sāsi edit.), Cairo, 1905–06, ix, p. 90.

²³³ Ibn abi Uṣaibi'ah, *Uyūn al-Anbā'*, Königsberg, 1882–84, ii, pp. 155, 163.

²³⁴ H. G. Farmer, *The Organ of the Ancients*, London, 1931, pp. 146–57.

²³⁵ *Idem*, "Muristus," *Grove's Dictionary of Music*, v, p. 1008.

and since he shows that the hydraulis had died out by that time among the Greeks, the greater probability rests with the Syrians as the revivers.²³⁶

Returning to the question of the frets on the necks of stringed instruments, the Arab theorists used an alphabetic notation to designate the notes produced on those frets as we see in the "Treatise on Music" (*Risālah fi al-Mūsīqī*) of ibn al-Munajjim (d. 300/912),²³⁷ which the author specifically stated was based on the system of Iṣḥāq al-Mawṣili (d. 235/850) who was the teacher of Ziryāb (d. c. 238/852), the famous musician of Moorish Spain. Europe, however, possessed no definite and practical notation of that sort. In its church music, neumes were used as a means of registering the melodic outline, but they did not convey any precise intervallic steps. By the time of Hucbald (fourth/tenth century), we find an alphabetic notation on very much the same lines as that of the Arab system, giving a major diatonic scale.²³⁸ No wonder that the latter has been attributed even to the Arabs,²³⁹ or to the Semitic Orient.²⁴⁰ It may also be pointed out that the instrumentalists of the minstrel class possessed a practical knowledge of music theory (*ad delectandos audientes artis ratione temperare*), whereas the church singers did not. This was stated by pseudo-Hucbald.²⁴¹ Later, the Arabic influence on an alphabetic tablature for stringed instruments is openly admitted in a Latin manuscript entitled *Ars de pulsatione lambuti*²⁴² et aliorum similium instrumentorum (902–903/1496–1497) in which the tablature is said to have been "invented" by a "Moor of the Kingdom of Granada."²⁴³ Conde de Morphy said that Spanish lute tablature was "probably of Oriental origin," whilst his helper, Gevaert, more positively asserted that the Castilians and Aragonese "elaborated their tablature in imitation of that of the Muslims."²⁴⁴ Some other strange coincidences crop up in history. In his section on the "Eight Tones," Odo of Cluny (d. 330/942) attached names to the *chordae* which have more than casual interest because three of them are Arabic, viz., "schembs" (*shams*), "caemar" (*qamar*), and "nar" (*nār*).²⁴⁵ This terminology belongs to the doctrine of the ethos (*tāthir*) as related to music, firmly believed in by Islamic peoples up to the present day.²⁴⁶ The general influence of Islamic culture on Gerbert of Aurillac (d. 394/1003) and Constantine the African (d. 480/1087) is not

²³⁶ A. Gastoué, in Lavignac, *op. cit.*, pp. 546, 571–72; H. G. Farmer, "Hydraulis," *Grove's Dictionary of Music*, iv, p. 425.

²³⁷ H. G. Farmer, *Studies in Oriental Musical Instruments*, ii, p. 47.

²³⁸ M. Gerbert, *Scriptores*, St. Blasien, 1784, i, p. 118. See H. G. Farmer, *Historical Facts . . .*, pp. 318–19.

²³⁹ J. F. Rowbotham, *History of Music*, London, 1885–87, iii, p. 547.

²⁴⁰ J. Jeanin, *Mémoires liturgiques syriennes et chaldéennes*, p. 107.

²⁴¹ M. Gerbert, *op. cit.*, i, p. 213.

²⁴² Probably *sambuca* (a lute).

²⁴³ J. Villanueva, *Viage literario a las Iglesias de Espana*, Valencia, 1921, xi.

²⁴⁴ Morphy, *Les Luthistes espagnols du XVI^e siècle*, Leipzig, 1902, pp. xi, xvii.

²⁴⁵ M. Gerbert, *op. cit.*, i, pp. 249–50.

²⁴⁶ H. G. Farmer, *The Influence of Music from Arabic Sources*, Reeves, London, 1926, iii, p. 49.

unworthy of notice. The former studied the mathematical sciences (*matheses*) at Barcelona, and that included music,²⁴⁷ which had been neglected in France.²⁴⁸ Indeed, he had been dubbed "Gerbert the Musician."²⁴⁹ Constantine was born at Tunis (Carthage), then held by the Muslim Zairids. He spent thirty-nine years in the East among the Chaldaeans, Arabs, Persians, and Egyptians, and studied their sciences, including music. Because of his settling in Sicily and at Monte Cassino in Italy, his writings had considerable influence on European culture.²⁵⁰ One theorist who used him was Aegidius Zamorensis (seventh/thirteenth century), a *protégé* of the Arabophile Alphonso X el-Sabio,²⁵¹ but a recent writer, Gerhard Pietsch, does not perceive any "Arabian influence" in his writings. Aegidius could scarcely have avoided the "Arabian influence" since we read in the *incipit* to his *Ars musica* that he learnt "chiefly from Iraqi (Chaldaean) and Egyptian books."²⁵²

The music practised by the Arabs and Moors also influenced Western Europe in other directions, notably in the melodic arabesque, organum, and the hocket. The arabesque or free embellishment of the melody (*taḥṣīn*) was the art in which the Moorish *virtuoso* excelled. His "excesses" (*zawā'id*)—as those *melismata* were called—were usually vocalized on such words as *ai* or *laila*, which were introduced even into Spanish songs. (See E. L. Chavarri, *Musica Popular Espanola*, Barcelona, 1927, p. 36.) All sorts of tricks prevailed—the *mabṭūrah* (staccato), *istirāḥah* (repose), *shadhharah* (short, soft note), and the *nabrah* (a glottal catch like the *coup de glotte*).²⁵³ This last may possibly be the device hinted at by Magister Lambert, which Merchetus of Padua calls a "feigned voice."²⁵⁴ On the other hand, it may have been the "embellishment" known to the Arabs and Moors as the *shahājah* (a whining sound), which was accomplished by the singers making a swift *glissando* from a low note to its fourth, fifth, or octave.²⁵⁵ This latter was in partial accord with the instrumental device known as the *tarkīb* (to organize), a term which equates with the Latin *organum*. We see this *tarkīb* illustrated by al-Kindi under the name of *jass*, which meant plucking two lute strings with the thumb and forefinger.²⁵⁶ Ibn Sina gave the name *tarkīb* only to the simultaneously struck fourth or fifth, whilst striking with the octave was called the *taḍ'īj*.²⁵⁷ In

²⁴⁷ Richer and His Times, Paris, 1845.

²⁴⁸ *Ibid.*, iii, p. 42.

²⁴⁹ H. G. Farmer, *Historical Facts* . . . , 1930, pp. 177–85.

²⁵⁰ A. L. M. Jourdain, *Recherches critiques sur . . . Aristote*, Paris, 1819, p. 502; H. G. Farmer, *Historical Facts* . . . , pp. 36–37.

²⁵¹ M. Gerbert, *op. cit.*, ii, p. 369.

²⁵² *Ibid.*, ii, p. 370.

²⁵³ R. d'Erlanger, *op. cit.*, ii, pp. 86–94.

²⁵⁴ C. E. H. de Coussemaker, *Scriptorum de musica*, Paris, 1864–76, i, p. 273;

M. Gerbert, *op. cit.*, iii, p. 181.

²⁵⁵ R. d'Erlanger, *op. cit.*, ii, p. 91.

²⁵⁶ H. G. Farmer, *Historical Facts* . . . , p. 104; al-Khwārizmi, *op. cit.*, Leiden,

1895, p. 239.

²⁵⁷ R. d'Erlanger, *op. cit.*, ii, pp. 230–31; H. G. Farmer, *Historical Facts* . . . , p. 103.

other words, he recognized the distinction between "organizing" and "magadizing." It was that Arabian and Moorish *tarkīb* which, most likely, prompted the European "organum," although with the Muslims the *tarkīb* was, at that time, simply an "embellishment." Today, the music of the Turkomān peoples is an "organum simplex" with the "diapente."

The most significant influence by the Moors on the music of Western Europe was in mensural music. Neither the Greeks nor Romans were particularly interested in other than prose rhythms. With the Arabs, rhythmic modes (*iqā'āt*) in music, six in number, had existed since the first/seventh century; two more were added later.²⁵⁸ Up to the third/ninth century the singer and instrumental accompanist observed the same rhythm, but Ibrāhīm ibn al-Mahdi (d. 224/839) and his Romantic school introduced schemes whereby a singer and the accompanist used different rhythms.²⁵⁹ When to that contrariety there was added a further diversity in the prosody (*'arūd*) of the verse, a performance became more than intriguing, and H. G. Farmer has given an illustration of that in an article on *iqā'āt* in the *Urdu Encyclopaedia of Islam* and in *Grove's Dictionary of Music* (1374/1954).²⁶⁰ No wonder the Muslims referred to their rhythm as the "heartbeats of Allah," for its content was infinite and boundless. Islamic music is fundamentally homophonic, and therefore quite different—in that respect—from that of Europe which is harmonic or polyphonic. Yet the Muslim seeks his harmony (*muwāfiqah*) in the variegated rhythmical and prosodical structure of song and in the tonal differences of the rhythmic beats (*qurūb*). At first, such disparate things must have appeared to Christian Europe as a *Lucus a non lucendo*.

Yet the time came when the Spanish singer and instrumentalist found themselves imitating the Moorish *mughanni* and *mutrib* in their rhythms. In the very nature of things the beats of the plectrum (*midrāb*) on the lute or pandore strings, or the taps on the tambourine or drum, often left intermediate silences (*sukūn*), which were the very antitheses of the sustained notes of the melody. It was because of that circumstance that Europe—after it had adopted mensural music—called the Moorish *iqā'* by the name of *cantus abscisus*: hence Simon of Tunstede's chapter called *De truncationibus sive hoketis*.²⁶¹ The latter word, "hocket," "hoquet," or "ochetto," is simply a phonetic reproduction of the Arabic *iqā'āt*, a fact which European scholars only very tardily acknowledge,²⁶² although H. G. Farmer had claimed that derivation as far back as 1344/1925.²⁶³ Most of them still adhere to the nonsensical—when it is not actually laughable—derivation from the English

²⁵⁸ H. G. Farmer, *Sa'adyah Gaon on the Influence of Music*, London, 1943, Chap. 9; G. Reese, *Music in the Middle Ages*, 1941, p. 274.

²⁵⁹ Al-Isfahāni, *op. cit.*, v, p. 53.

²⁶⁰ *Grove's Dictionary of Music*, v, p. 874.

²⁶¹ E. de Coussemaker, *Scriptores* . . . , Paris, 1864–76, iv, p. 296.

²⁶² G. Reese, *op. cit.*, p. 321.

²⁶³ H. G. Farmer, *The Arabian Influence on Musical Theory*, London, 1925, p. 17.

"hiccup" or "hickup."²⁶⁴ We see the same intrusion of the "h" in "hocket" as in Latin translation of Avicenna's "Canon" (*Qānūn*) where *'ishq* becomes "hash." Of course, not all of the Moorish rhythms were borrowed by Europe. Such an outlandish design as the *mākhūri* of al-Kindi or the *khaṣf al-ramal*, both quintuple, were rejected, although Johannes de Grocheo (c. 700/1300) admitted that the music of the peoples was "not precisely measured," and that included the Basque "zortzico," which was also a quintuple rhythm. Curiously enough, the examples which only used two note values of the "longa" and "brevis" in "hockets" were dubbed *musica resecata*, whereas those which used many more note values were classed as *hoquetus vulgaris*, and this may imply that it was more used by the people at large.

The mention of note values and the popular "hocket" raises two vital points which deserve consideration. We are told by one of our leading musicologists, R. Thurston Dart, that in Europe "the first steps towards a convention establishing the duration of a note were made in the late sixth/twelfth century,"²⁶⁵ and there were only two or three duration values to notes in those days. Yet the Arabs recognized five different mensural types of sound at least, although they had no definite "notation" for the latter, save a cumbersome tablature and onomatopoeia,²⁶⁶ up till the seventh/thirteenth century, when an alphabetic (*abjadi*) and numeric (*'adadi*) notation or tablature was introduced.²⁶⁷ Concerning the *hoquetus vulgaris*, it is worth recalling what Jerome of Moravia (seventh/thirteenth century) quotes on the authority of Franco of Cologne (fifth-sixth/eleventh-twelfth centuries) who was the earliest of the mensural theorists. He affirms that the "hocket" was applied to songs which had *already been composed*, whether in Latin or in the Vulgar tongue, which means that the "hocket," that is to say the Moorish *iqā'āt*, was a new device which was being applied to older material, notably the music of the people. Lastly we should remember that the approach of the Arabs and Moors in their *iqā'āt* and that of Christian Europe in their borrowed "hocket" were different; the former, because they viewed music horizontally, using rhythmic contrariety between the vocal line (prosodic) and the accompaniment (rhythmic), the latter, because they visualized music vertically and introduced those mensural features into three or four melodic parts.

European notation may also have received some novel outlook from Arabian or Mozarabian sources, as H. G. Farmer pointed out in 1344/1925.²⁶⁸ One of the Latin mensural theorists, known as "Anonymous IV" of Coussemaker, mentions in the work entitled *De mensuris et discantu* (c. 674/1276) two technical terms, "elmuarifa" and "elmuahym," as the names of notation

symbols.²⁶⁹ The words are Arabic, although only the first of them appears in the fifth/eleventh-century *Glossarium Latino-Arabicum*, under the term *al-ma'rūjah* which equates with "nota."²⁷⁰ It may be identified with the form *al-ma'rījah* (cognition).²⁷¹ It is explained in "Anonymous IV" as having "a stroke on the left side in descending, just as the English depict it."²⁷² As for "elmuahym," that word looks suspiciously like *al-mubhim* (shutting) or rather *al-mubham* (locked, closed).²⁷³ In the Latin translation of the Arabic of Euclid's *Elements* the word "elmuahym" stood for the "rhomb." We are told that some music scribes penned that note with a square head, whilst others made it rectangular. In one form it was a "plica" with an ascending or/and descending stroke (*tractus*). When it was written as an obliquely protracted line it was one of the "currentes" (running notes), in which character it could be "a double, triple, or a quadruple 'elmuahym'"—and could even be extended to sevenfold.²⁷⁴

The problem raised by this Arabic technical nomenclature is not easy to solve. One naturally asks: why were Arabic words used in a Latin work if there were technical equivalents in that language? The author of "Anonymous IV" was certainly well acquainted with Pamplona and other Spanish works on the subject, and that Arabic terminology may have come through a Mozarabic scribe who would, in southern Spain, be acquainted with that language. Could we not assume that "elmuarifa" and "elmuahym" represented some new mensural devices in notation? Incidentally, "Anonymous IV" features both Leonin of Paris (sixth/twelfth century) and Perotin, his successor (seventh/thirteenth century). Gustave Reese sees in the "Currentes" of Leonin a synonymy with the "elmuahym" and "elmuarifa,"²⁷⁵ i.e., that it "may owe something to Arabian sources, by way of the troubadour influence,"²⁷⁶ whilst in Perotin, "the quick-moving upper parts would seem to suggest some troubadour and folk influence."²⁷⁷ One of the last tributes to the music of Islamic peoples by A. H. Fox Strangways, the author of *The Music of Hindustān*, was to say this: "The Arabs, who taught to Europe their mathematics and medicine, have influenced our music in ways that we are only now finding out."²⁷⁸ Yet whatever the "pros" and "cons" in the subject may be, both East and West agree fully in their praise of music, and Walter de Odington (eighth/fourteenth century) quotes Avicenna (ibn Sina) side by side with

²⁶⁹ E. de Coussemaker, *op. cit.*, i, pp. 339–41.

²⁷⁰ Ed. C. F. Seybold, Berlin, 1900, p. 337.

²⁷¹ In grammar it stood for "a determinate noun."

²⁷² E. de Coussemaker, *op. cit.*, i, p. 339.

²⁷³ In grammar it stood for "a noun of indication," i.e., a demonstrative pronoun.

²⁷⁴ E. de Coussemaker, *op. cit.*, i, p. 340.

²⁷⁵ *Music in the Middle Ages*, London, 1941, p. 298.

²⁷⁶ *Grove's Dictionary of Music*, 1954, v, p. 138.

²⁷⁷ *Ibid.*, vi, p. 675.

²⁷⁸ *Ibid.*, v, p. 897.

²⁶⁴ *Grove's Dictionary of Music*, 1954, iv, p. 309, in spite of H. G. Farmer's statement in v, p. 874.

²⁶⁵ *Grove's Dictionary of Music*, 1904, vi, p. 116.

²⁶⁶ H. G. Farmer, *Sa'adyah Gaon . . .*, 1943, pp. 73–76.

²⁶⁷ *Idem*, in *New Oxford History of Music*, 1957, i, pp. 453–55.

²⁶⁸ *Idem*, *The Arabian Influence on Musical Theory*, pp. 17–18.

St. Gregory, St. Bernard, and the Psalmist, saying: "Inter omnia exercitia sanitatis cantare melius est."²⁷⁹

²⁷⁹ E. de Coussemaker, *op. cit.*, i, p. 193.

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Chapter LIX

MINOR ARTS

A

Anyone embarking on the study of Muslim arts would, during the course of his investigation and research, have to answer three fundamental questions satisfactorily. (1) What is the reason for the surprising unity of style which we observe in works of art throughout the Muslim countries during a certain period? (2) Why is it that a period of almost hectic artistic activity is followed, sometimes almost immediately, by qualitative decline and technical decadence? (3) What is the reason for the remarkable success achieved by the Muslims in the domain of minor arts?

The answers to the first two questions rest on an appreciation of the relationship which existed between the artists of the Muslim countries and the rulers thereof.