PERSIAN TRADITIONAL MUSIC:
THEORY AND PRACTICE

Very little is known about music in ancient Persia. There are no sources that can provide us with meaningful information on the nature of the music that was practised among the ordinary people, or at the Imperial Court, during the Achaemenian or the Parthian periods. We have only passing references to chanting at Zoroastrian rituals by Herodotus, and Aristotle's remark, in Book VIII of *Politics*, that 'kings of the Medes and Persians enjoy the pleasure of music as played by others.' From the later Sassanian era, we do have numerous accounts of the lavish musical life at the court, particularly from the reign of Khosro I (531-79), and his grandson Khosro II (590-628). These accounts are from sources in the Islamic period, written some three or more centuries later. They are mainly romantic stories about festive music at the royal court as appear in the epic poems of Ferdosi, Nezami and others. Various musicians, such as Ramtin, Bamshad, Nakisa, Sarkash and Barbod have been named.

Barbod was the most illustrious musician at the court of Khosro II. He was reputed to be a virtuoso performer of the plucked string instrument *barbat*, and was a composer of many songs. None of his compositions have survived, however, as, to our knowledge, no system of musical notation was used. Barbod is also credited with the organization of a musical system containing seven basic modes, known as *khosrovani*, thirty derivative modes (*lahn*), and 360 melodies (*dastan*). The numbers seem to correspond to the days of the week, the month and the year of the Sassanian calendar; any connection, however, remains a matter of conjecture. All of these poetic stories refer to music at the royal court; we have no information on music in the life of the ordinary citizens. On musical instruments that were in use at the time, we have more concrete evidence. Surviving bas-reliefs from the late Sassanian period show such instruments as flute, shawm, dulcimer, harp, *barbat* and drums.

During the great flowering of Islamic civilization, known as the 'Golden Age' (9th to 14th centuries), a number of eminent scholars took interest in music as a legitimate field of scientific study in the Pythagorean and Aristotelian traditions. Abu Nasr Farabi and Abol Faraj Esfahani in the 10th century, Abu Ali Ebn-e Sina in the 11th, Safiaddin Ormavi and Qotbaddin Mahmud Shirazi in the 13th and Abdol Qader Maraqi in the 14/15th century all produced treatises on music. Their investigations, and

the musical theories they expounded, were informed – as indeed most Islamic scientific writings were – by the classical Greek scholarship. From the works of these medieval scholars we learn that music of their time rested on a large array of modes, which they represent by scale patterns. The totality of pitches used in these modes, according to Safiaddin Ormavi, when superimposed in the range of an octave, gives us a scale of 17 tones. The tones, as given in mathematical numbers, are extremely precise. Safiaddin's 17-tone scale was a synthesis of various scale patterns, described by different scholars, which were at minor variance with one another.

Equally well defined, as outlined in the works of medieval scholars, was the rhythmic aspect of music in the concept of metric cycles (*advar*). These cycles defined the division of time duration in music in pulsation or beat, as it is commonly known. The possibilities included time divisions into units of 2, 3 and four, plus their multiples up to rhythmic patterns of 24 beats.

For centuries, the 17-tone scale remained as the accepted theoretic foundation of music, not only in Persia, but also among the Arabs and the Turks within the Ottoman Empire. Its practical relevance to musical creativity or performance, however, remains unclear. Music had remained essentially an aural tradition; no practical system of notation for transmission and dissemination of music seems to have emerged. Except for a few compositions by Abdol Qader Maraqi from the early 15th century, written in a personally devised notation, we have no evidence of how the music of that period might have sounded. Unfortunately, the reading of these few pieces in modern times is not without problems. Their original interpretation may indeed have been quite different from what the notation suggests.

Modern musicologists have tended to take the theory of the17-tone scale, and its relevance to actual music making, very seriously. In my considered judgment this scale concept requires careful examination, as it can be very misleading. To begin with, it must be understood that the 17 tones were never used in any single mode, or *maqam*. All *maqam*s were heptatonic; they were constructed with only seven of the 17 tones. Only the superimposition of all the tones of all the *maqam*s into one artificially constructed octave scale could have yielded the 17 tones. In actual practice this never happened. In other words, the 17-tone line-up was a composite artificial scale that by itself had nothing to do with the reality of musical performance. By comparison, the 12 tones of the chromatic scale of western music <u>have</u> relevance to actual musical practice, as there

are countless compositions that make use of all 12 notes within the same piece of music. But in the Persian music of the medieval times in any one mode, or a piece of music in a certain mode, only seven tones were used. The few extant compositions of Maraqi bear witness to this fact.

As to the perplexing exactitude of the intervals in the 17-tone scale, in reality, they are simply unattainable on instruments that were in use at the time, or, for that matter, on instruments that are known today. All the measurements given by Safiaddin and others were based on the position of fingers on the fingerboard of the *ud*. The *ud* has a short unfretted fingerboard, making it virtually impossible to produce tones of absolute precision. All other musical instruments in use centuries ago, as well as those that are commonly used today, are either without frets such as the *qeychak* and the *kamanche*, have movable frets, such as the *tanbur*, *tar* and *setar*, or require constant retuning as is the case for the *santur* and the *qanun*. Wind instruments, such as the *nay* and *surnay*, have never been standardized and the slightest variation in the velocity of air blown into them can vary the pitch. As to the human voice, it is notoriously the least reliable of all instruments for accuracy.

The relevance of the medieval theories to musical performance can further be put to test by considering Persian music as it survives to this day. It may be argued that today's music cannot be taken as a dependable basis for judgment on musical practices of centuries ago. Although this point may have some validity, it cannot be denied that, until modern times, the arts, as well as social conditions, in eastern societies did not evolve significantly. The East experienced no renaissance, no enlightenment and no industrial and scientific revolutions. It is not unreasonable, therefore, to assume that musical practices remained fairly unchanged. Moreover, Persian traditional music, as we know it today, purports to be very old. The names of some of the *maqam*s of the medieval period are still among the nomenclature of today's repertoire. *Segah, Araq, Oshshaq, Hoseyni, Rast, Nava, Hejaz, Rahavi, Noruz, Salmak* and *Busalik* were among the medieval *maqam*s and are still known to this day. But, the structure of these modes, and certainly the entire corpus of surviving traditional music, do not support the 17-tone scale of Safiaddin. As to the rhythmic cycles, *advar*, we find no trace of them in the present day repertoire.

All things considered, I believe that the scales and intervals that are subjects of minute discussion by the classic writers, who were after all scientist and not professional musicians, represent idealized versions of the reality of music of their time.

After the 15th century, musical scholarship seems to have suffered in Iran. During the Safavid era, with the increasing sway of Shiism, music seems to have sustained an increasingly constrained existence. Although miniatures and mural paintings of the period seem to point to a lavish musical life at the royal court, there was a dearth of research and writings on the theory and science of music. No longer was music a legitimate field of scientific study. Interestingly, this is exactly the period when in the Ottoman Empire musical activity, and scholarship, received favour and patronage.

Now let us consider the traditional music in Iran, as is known and practiced in modern times. The performance practice of this music is the product of the Qajar era, even though its substance may be much older. What we know as the authentic music (*musiqi-ye asil*) is represented by a collection of some 60 to 80 melody models, or nuclear themes, called the *radif*. By melody model I mean a melodic pattern that is not specific but rather suggestive of a manner of melodic unfolding; this is called the *maye*. The pieces that make up the *radif* are distributed among 12 modal units known as *dastgah*. A *dastgah* therefore consists of the assembly of a number of pieces from the *radif*. Five of the 12 are commonly considered as secondary and go by the designation *avaz*. The performance of a *dastgah* is largely improvisatory; the extemporization is based on the *maye* of each piece and is not repeated the same way twice. The *dastgah* system is relatively new; there is no evidence of the word having had any musical application before the 19th century.

Some ethnomusicologists have equated the *dastgah* concept with mode in western music. This is not correct; in Persian music a reasonable parallel to mode is *maqam*, not *dastgah*. Each piece in the *radif* has its own mode or *maqam*. A *maqam* is often illustrated by a scale pattern within the range of an octave. This is how the western ecclesiastic modes, and also the Greek modes of the antiquity, are usually described. However, I believe that the representation of both the Persian *maqam*s and the Greek modes only through scale patterns is very inadequate. More importantly, both concepts, embody a manner of melodic formation, which the mere scale pattern cannot reveal. This is what in Persian music is called the *maye*, which evidently had its counterpart in ancient Greek music. When Plato, in the *Republic*, opines that the Mixolydian mode "would make young men effeminate', or that the Ionian mode 'promotes sloth' and that the Phrygian is 'martial and manly', he surely is not talking about the consequence of the arrangement of tones in an octave scale. He is

referring to the essential character of the modes, emanating from their melodic formations.

Warren Anderson, in his excellent book, *Ethos and Education in Greek Music*, states that 'When the Greeks thought of modality, they did not have particular scale patterns in mind, but rather distinct musical idioms'. Similarly, Persian modes are suggestive of a certain melodic idiom, which I have called melody model and Persian musicians call *maye*. The unimportance of the scale structure is further revealed by the fact that Persian musical terminology has no word for it; in modern parlance the French word *gamme* is commonly used.

Now, let us consider the theories that have been put forth in modern times to identify the structural foundations of the *radif*. In the 1870s, European musical influences arrived in Persia with the establishment of a Music School at Darolfonun, for the training of military band musicians. By the beginnings of the 20th century, with the importation of recorded music, this influence gained momentum. Soon, some musicians of the traditional school became familiar with western notation and the lighter genre of western music. The most singular personality who, by mid-1920s, became highly influential on the musical scene was Ali Naqi Vaziri. Vaziri was an excellent musician and an accomplished performer of the *tar* and the *setar*. He had also become interested in western music and spent some four years, between 1919-23, in France and Germany, where he studied western theory and composition; he also took piano lessons. On this return to Iran, he established a school of music and soon attracted a large group of devoted students and followers.

Vaziri's earliest publication was *Datur-e Tar* (printed in Berlin in 1922), containing exercises and simple pieces, written in western notation, for the study of the *tar*, a 6-stringed native instrument. This book has a short introductory chapter in which the author attempts to define the theoretic principles of Persian music. He proposes that this music is based on a scale of 24 equidistant quartertones. His quartertone theory is more extensively elaborated in his 1935 book, *Musiqi-ye Nazari*. Mr. Vaziri had arrived at the quartertone idea in order to make Persian music compatible with western system of harmony. Although he was a loyal supporter of native music, he also believed this music had to be modernized. This aim, he had concluded, can be best served through the creation of new music based on national modes but enriched with polyphony. Structured and disciplined polyphony is uniquely western and had been achieved through the tempered tuning system of 12 equidistant semitones in the range of an octave. Since clearly Persian

music had intervals other than the tone and the semitone of western music, the solution, Vaziri had believed, was the adjustment of its intervals on the basis of the division of octave into 24 equidistant quartertones.

In reality, Persian music has no quartertones. There are tones that are larger than the semitone and smaller than the whole-tone. Vaziri had assumed these tones to be equal to ¾ of a whole-tone and therefore took the quarter as the basic unit. However, the seeming logic of this assumption is rendered meaningless when, in fact, no *maqam* employs a succession of pitches that yield an actual quartertone.

In the late 1940s, a very different theory on Persian intervals was published by Dr. Mehdi Barkeshli. Barkeshli was a physicist by profession who had studied the violin in his youth and was well familiar with the traditional music. His theory of the 'Persian scale' is informed by the works of medieval scholars and particularly by the writings of Safiaddin Ormavi. Based on acoustical measurements, Barkeshli proposed that, whereas in Safiaddin's 17 tones scale each whole-tone is divisible into three, in the present day music each whole-tone is divisible into four. The outcome, according to Barkeshli's theory, gives us an octave scale with 22 unequal tones. The problem here, as is the case with medieval theories, is the exactitude of the suggested intervals.

European classical tradition, by the 17th century, had developed the tempered tuning system in which an octave is divided into 12 equidistant semitones. This had become a necessity because of the advances made in polyphonic writing and the devolvement of the more complex harmonic system. Without equal temperament the resultant sound would have been consistently discordant. Other musical traditions, including the Persian, are fundamentally monophonic. The question of discordancy, therefore, does not arise. The necessity for any absolute precision of tones, also, is not pressing. This is not to say that musical pitches are willy-nilly and that anything goes. But the need for the kind of exactitude that the harmonic system demands is not present. Slight deviation of tones does not create problems. Moreover, if musical instruments with built-in fixed pitches, such as the organ or the piano, are not in use, and those that are employed are not always standardized, the necessity for precision is further reduced.

Some Far Eastern musical traditions employ instruments of fixed pitch made of bronze plates or woodcuttings, as in the Gamelans of Java and Bali; or instruments made of ceramics or stone chimes of China. These

instruments do create unchanging sounds and precision can become an issue. In most folk traditions, whether from the East or the West, there is no pressing imperative for absolute uniformity of musical sounds.

In the course of a number of years in the late 1950s and during the 60s, I was engaged with extensive research and analysis of Persian music of the urban tradition that is the *Dastgah* system. I analysed numerous recordings of performances by master musicians, made measurements of the fretting of a number of instruments, and made transcriptions of recorded music through a melograph. The outcome of this investigation made clear that some intervals in Persian music are relatively stable, and some are significantly unstable. Semitones and whole-tones are reasonably firm and approximate the same intervals in western music. There are two tones that fall in between the semitone and the whole-tone; they are quite variable, as is, also, an interval that is larger than the whole-tone. All *maqam*s make use of these five tones, there are no quartertones, and scale structures have no practical relevance. In fact, if a traditional musician is asked to play the scale (*gamme*) of a certain *maqam*, most likely, he would not know what it is that he is being asked to do and why.

The fact that a realistic investigation of this music does not yield an orderly and systematic theory of 'the Persian scale', in my view, should not be troubling us. Theories are valid if they are true representations of the music as is, not as the theorist may think it should be. There is no compelling reason for Persian music to be unwaveringly precise. This is a delicate and very personal musical tradition. It is monophonic, largely free of rhythmic restrictions, and is essentially soloistic. Its rendition is intuitive, creative, emotional and even at times spiritual. It is created on the basis of melodic frames of reference absorbed by the performing artist through years of experience. What he presents at each performance is his, and it is at once new and familiar. These are the true assets of this venerable musical tradition; whether or not a neat theoretic system can be articulated for it is of little significance.

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