

CHAPTER III: ADOPTING WESTERN SOLFEGE AND STAFF NOTATION

While continuing to use the Arabic/Persian note names, nineteenth-century musicians and theorists began to adopt an additional system for naming pitches, Western solfege, and a new system of notation, Western staff notation.

Western solfege and notation first entered the Arab Middle East through schools of Western military music such as those founded in Egypt from 1824. Staffed initially by European musicians, "the graduates of these schools formed military bands ... [and] performed both Western military music and Arab music adapted for this kind of ensemble" (el-Shawan 1985:143). After the Cairo Opera House was inaugurated in 1869 the use of solfege and notation was expanded: "yearly seasons of Italian opera, classical ballet, and symphonic music [were presented] by local and visiting orchestras" (ibid.:144). In addition, solfege and staff notation were used in the teaching of Western instruments (especially piano) among the general population.

Among the sources for the present study, the earliest examples of indigenous use of solfege and staff notation for Arab music occur in Dhakir (1895, quoted in al-Khula'i 1904:33) and al-Khula'i (1904: following p.199). Dhakir assigns solfege syllables to the fundamental notes and 'arabāt/ansāf. al-Khula'i includes two Arab songs transcribed in Western notation. During the twentieth

century these two systems have become pervasive not only in Arab theory books but also in the teaching and performing of Arab music.

The adoption of these two systems was in keeping with the commonly held perception that Western music was a more highly evolved music tradition than Arab music, and that Arab music needed to embrace the scientific foundations which helped Western music achieve its advanced state.

A. An Additional Set of Note Names: Western Solfege

In order for Western solfege to be adopted into Arab music a number of adaptations and decisions had to be made. These were not without points of conflict. Perhaps the most fundamental difference between the two systems is the understanding of what constitutes the "natural" scale. In the Arab world, the "natural" scale has two notes which are not part of the Western tonal inventory: the third lies between Eb and E natural; the seventh lies between Bb and B natural. The Arabic/Persian names for these notes, "Sikah" and "Haftkah" (later superseded by "Awj"), emphasize the fact that these notes are the natural "third position" and the natural "seventh position" of the Arab scale. Solfege, on the other hand, presupposes that the third and seventh are both "natural" in the Western sense of major third and major seventh.

If solfege were to be used, new terminology was needed

to name the notes peculiar to Arab music, i.e., Sikah, Awj, and the nīmāt/tīkāt. The nomenclature which was developed maintained the Western orientation inherent in the solfege system as a whole: as the Arab Sikah was lower than E natural, it had to be "flat." It was not, however, as flat as Eb. Since Sikah stood roughly half way between E and Eb, it came to be called "mi half-flat." Similarly, Awj was named "si half-flat". Interestingly, the terms mi and si "half-flat" have been accepted as being synonymous with "Sikah" and "Awj", even though the notes in question are viewed indigenously, not as a variety of "flat," but rather as "natural." In accepting Western solfege (and Western notation), Arab musicians accepted an "etic" view of their scalar material.

The term which was developed for this new concept of "half-flat" is indicative of the dual roots of the concept: "half-flat" came to be translated as niṣf bīmūl (colloquially, nuss bīmōl) where bīmūl is the French word for "flat" (i.e., bémol) and niṣf (or nuss) is the Arabic word for "half." Appropriately, then, we have a bilingual term for this "etically" conceived phenomenon. Similarly, the half-sharp came to be called niṣf dīyaz (dīyaz being the French word for "sharp"; i.e., dièse). An early example of the use of these two terms occurs in al-Antuni (1925:4).

Solfege was not borrowed in isolation. Rather it was part of a larger body of Western musical practices which were

adopted with enthusiasm, including Western notation, Western terminology, Western instruments, and Western methods of teaching. Herein lies a second difference between the indigenous Arabic/Persian note names and solfege: the former was a part of an orally transmitted musical tradition (indigenous attempts at notation systems were never widely adopted). The latter was part of a tradition based on the writing and reading of music.

These and other differences between the indigenous Arab and the Western systems were obviously considered insignificant when weighed against the benefits that solfege and other aspects of Western music culture were felt to offer. Significantly, Arab musicians today live with the "Sikah" vs. "mi nisf bimul" contradiction and the "oral" vs. "written tradition" contradiction without any feelings of conflict. (The extent to which solfege and a staff notation have supplanted the previous indigenous traditions is discussed below.)

One of the decisions that had to be made in order for Western solfege to be applied to Arab music was how the two systems would be linked together. In the early years two approaches were followed, one in which Yakah was called "re" and Rast "sol", the other in which Yakah was called "sol" and Rast "do." (In Arabic, the solfege syllables are dū, ray, mī, fā, sūl, lā, and sī.)

<u>re</u>	Yakah	<u>sol</u>
mi	'Ushayran	la
fa	Kawasht	si
<u>sol</u>	Rast	<u>do</u>
la	Dukah	re
si	Busalik	mi
do	Jahargah	fa
re	Nawa	sol
mi	Husayni	la
fa	Mahur / Nihuft	si
sol	Kirdan	do
etc.		etc.

The earliest of our sources from the modern period, Laborde (1780:436-439), basing his statements on the authority of M. le Baron de Tott (see Chapter II), assigns "Rasd" [sic] the solfege syllable "ut", "Douga" [sic] "re", etc. Ronzevalle, in his 1899 critical edition of Mashaqah's work, adds a chart of his own (p.298) in which the full two-octave gamut is assigned solfege syllables along the same lines: Yakah is "Sol", Rast is "Ut", etc. (this chart is reproduced in al-Khula'i 1904:35 and in Rouanet 1922:2752 [1]). In the following passage Ronzevalle acknowledges that "Yakah as sol" was a point of controversy in his day (al-Khula'i quotes this passage virtually verbatim; 1904:36):

Someone asked us the reason why we placed the note "sol" opposite Yakah when it is known that the first note of the European scale is, on the contrary, "do" (also called "ut"). We answered that all the notes are but measurements and ratios; nothing prevents us from starting with any note so long as we maintain precisely the measurements and ratios between the fundamental notes and the quarter notes. Therefore, if you choose to express the Arab scale in terms of the European scale (i.e., "do, re, mi, fa", etc.) [it is] on the condition that you maintain

the ratios, as I have said. Except that, this choice, we would not find it agreeable if it does not agree with the reality of the situation; for Yakah, in terms of its position and its frequency ("number of vibrations"), it is close to the European "sol" and not "do."
(Ronzevalle 1899:299)

In the early years of the modern period, however, it appears to have been just as common (perhaps even more common) to assign Yakah, not "do" as Ronzevalle suggests, but rather the solfege syllable "re." (Rast is thus "sol".) Muhammad Dhakir, in his book Hayāt al-Insān fī Tardīd al-Alhān (1895), includes a chart (reproduced in al-Khula'i 1904:33) in which this approach is followed. "Yakah as re" continued to have supporters well into the twentieth century as is evidenced in three works from the 1930's and 1940's: While not using solfege per se, the report of the Institute of Oriental Music (Cairo) in the 1932 Congress publication (Recueil 1934:530ff.) uses Western staff notation in which Yakah is assigned the value of D (or re), i.e., the first space below the last line of the treble clef. al-Shawwa (1946) and D'Erlanger (1949, but written before his death in 1932) were of the opinion that "Yakah as re, Rast as sol" was the dominant approach of their time. al-Shawwa wrote,

It is known among the followers of the art in the East and the West that for writing the Eastern modes [al-maqamat al-sharqiyyah] in the symbols of Western notation, [we] designate the note Rast with the symbol "sol" and the note Dukah with the symbol "la", etc. But the Congress on Music which met in Egypt in 1932

deemed it appropriate that the note Rast should be designated by the symbol "do" instead of "sol" as it is known and commonly used by one and all, and the note Dukah should be designated by the symbol "re" instead of by "la", etc., even though most of the Eastern countries have not abandoned writing the Eastern modes in the first fashion ... (1946:144)

al-Shawwa then proceeds to give the main maqamat in Western notation, including two transcriptions for each maqam, one in which Rast is "sol," the other in which Rast is "do," "in order to avoid complication and confusion" (ibid.).

D'Erlanger acknowledges a Turkish origin for the association of Yakah with "re." Indeed this is still the practice in Turkish music in the present day: "in imitation of the Turks ... the Arab musicians who use European notation attribute ... to the lowest degree of their musical scale the symbol 're,' positioned below the first line of the staff, thus making the central octave, the Rast octave, start from the note 'sol'..." (1949:10). [2]

Villoteau's transcriptions, published over a century earlier (1826:18), offered a third approach. He assigned to Rast the note DD on the middle line of the bass clef (Yakah is "la"). His is, however, the only work among those surveyed to follow this approach.

Whatever support Rast as "sol" enjoyed during the first half of the 20th century, it eventually began to lose out to Rast as "do". Ronezevalle's observation that the latter more closely reflected "reality" seems to have been the reason for

the shift. D'Erlanger, writing some 30 years after Ronzevalle, commented,

[Rast as sol], however, renders the notes of the Arab scale a fifth higher than their real intonation. This key seems to have been adopted only because it facilitates writing in that it generally avoids the use of ledger lines ... If we [i.e., D'Erlanger, in his 1949 work] have chosen the "do" of the first ledger line below the staff [for Rast], it is because this notation seemed to us to approximate the habitual tonality adopted by the Arab singers. (1949:11)

Ultimately, Rast as "do" became the sole approach for applying solfege to Arab music.

B. The Introduction of Western Notation into Arab Music

The adoption of Western notation into Arab music culture cannot be viewed as being separate from the adoption of Western solfege, for it is by means of solfege that one reads Western notation in the Middle East. However the adoption of Western notation did have its own history to a certain extent. While Western scholars of Arab music used staff notation in their research from a very early date (see Villoteau 2nd ed. 1823 and 1826), al-Khula'i was one of the first among the Arab scholars to give musical examples in this form (1904, at the end of the book, no page number). In his two examples, al-Khula'i employs only the symbols of standard Western notation, responding to the presence of any

half-flats and half-sharps only by indicating the name of the maqam at the beginning of the example (D'Erlanger discusses this point; 1949:10). Thus one of his examples, which he has indicated to be in maqam Yakah (a mode in which the third is half-flat), appears in the transcription to be in a major mode.

al-Shawwa tells us (1946:6) that it was not until 1914 that special symbols (called 'alāmāt al-tahwīl) were developed for indicating the notes peculiar to Arab music. He credits this achievement to Maṣṣūr 'Awad of Cairo who in that year published a small book which proposed the following symbols: -b- (♭) for nisf bīmūl or half-flat, and /-/ (♯) for nisf diyaz or half-sharp (al-Shawwa 1946:144-5; D'Erlanger 1949:406 gives the title of 'Awad's book as Jadwal tawqī' sullam maqāmāt al-mūsīqī s-Šarqiyyah 'alā 'alāmāti n-nūtah al-Afranjiyyah i.e., A Chart for Recording the Scale of the Eastern Maqamat in the Symbols of Western Notation. al-Shawwa further reports that the 1932 Congress invented two new symbols for the same purpose (ibid.:145). The Congress report actually includes four "new" symbols (in addition to the normal sharp and flat signs) but attributes their origin to a group of French scholars:

Arab music has been printed for a long time in the same manner as European music. Only the notation of the sharps and flats representing the quarter tones has varied a little. The members present at the Committee [on the Musical Scale] have adopted the system recommended by Mr. Stern in the manner of Mr. Grassi and the

Institut de Phonétique de Paris and the Musée de la Parole of the University of Paris: three sharps of one, two, and three vertical lines (=/, =//, and =///); plus one reversed flat (d), one ordinary flat (b), and one flat with a short vertical line to its left ('b) ... (Recueil 1934:597)

In a series of footnotes, these six symbols are explained as follows (ibid.):

: to raise the pitch by 1/4 of a tone
: to raise the pitch by 1/2 of a tone
: to raise the pitch by 3/4 of a tone
d : to lower the pitch by 1/4 of a tone
b : to lower the pitch by 1/2 of a tone
'b : to lower the pitch by 3/4 of a tone

al-Hilu, on the other hand, attributes the invention of the half-flat and half-sharp symbols to the Turks (al-Hilu 1972:38). Whoever the rightful inventor, the twenty-four notes of the Arab scale could now be individually transcribed onto Western staff notation.

Subsequent Arab writers commonly list all or most of the following symbols (see Fatah Allah and Kamil 1972:9; 'Iffat c.1980:9; Farah 1974:52; Jabaqji 1976:23; al-Hilu 1972:39; 'Arafah and 'Ali 1978:16; Muhammad 1984:1; Mash'al c.1980:32; etc.):

<u>symbol</u>	<u>Arabic name</u>	<u>English name</u>	<u>function</u>
♭ or ∂	niṣf bīmūl	half-flat	lowers the pitch 1/4 step
b	bīmūl	flat	lowers the pitch 1/2 step
♭	bīmūl wa niṣf	flat and 1/2	lowers the pitch 3/4 step
♭♭	dūbl bīmūl	double flat	lowers the pitch one step
# or #	niṣf dīyaz	half-sharp	raises the pitch 1/4 step
##	dīyaz	sharp	raises the pitch 1/2 step
## or ##	dīyaz wa niṣf	sharp and 1/2	raises the pitch 3/4 step
X or *	dūbl dīyaz	double sharp	raises the pitch one step
♮	bīkār	natural	returns the pitch to its "natural" position

Of these symbols, only the ones for flat and sharp, half-flat and half-sharp, and natural are commonly used (this excludes the three-quarter sharps and flats, and the double sharps and flats).

As for the two varieties of half-flat and half-sharp, some follow the 1932 Congress' recommendations and use "d" and "=/=" ('Arafat and 'Ali 1978; 'Arafah 1976; Mash'al 1979:21; Salah al-Din 1950; Qatr n.d.:47). Others follow 'Awad's creations and use "-b-" and "-//-" (Farah 1974; al-Hilu 1972; al-Faruqi 1981:117). Most common, however seems to be a mixture of the two systems: "-b-" for half-flat and "=/=" for half-sharp ('Iffat c.1980; Mash'al c.1980; Fatah Allah and Kamal 1972; Jabaqji 1976; Muhammad 1984; Shurah 1983; Racy, unpublished transcriptions). [3]

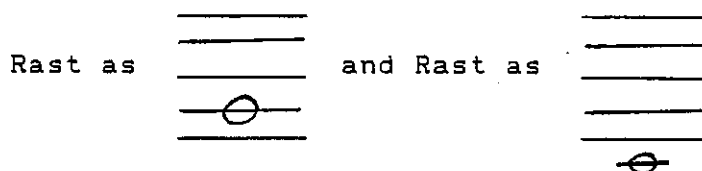
The fact that Western notation is written from left to right while the Arabic language is written from right to left poses a problem when songs with texts are to be transcribed. In the early years when staff notation was first being introduced into Arab music, opinions varied on how this conflict should be handled. The problem was most pressing for Christian missionaries as they wanted their congregations to be able to read from hymnals with as little difficulty as possible. As a result, many song books were published in the first part of this century in which Western staff notation was used after it had been adapted to read from right to left. Mabādī' Mūsīqī Gharbiyyah wa Sharqiyyah (Fundamentals of Western and Eastern Music) by Father Bulas al-Ashqar al-Antuni (published in Beirut in 1925) is an example of this approach. [4]

Although this method of adapting Western notation never really caught on, its use was still being considered as late as the 1930s: it was discussed but ultimately rejected by the members of the Committee of the Musical Scale at the 1932 Congress (Recueil 1934:597-598). The examples we have of its use remain as historical evidence of the conflicts which occurred when the Western form of notation was applied to Middle Eastern music.

Today, ~~Arabic text is~~ written beneath the melodic transcription, each syllable written separately from right to left in an overall transcription which proceeds from left

to right. [5] In order to assure that the reader comprehends the text, a normal (right to left) version of the text is provided at the end of each transcription.

Two decisions remained in order for the Western staff notation to be adopted into Arab music. One involved settling on where the Arab notes would fall on the staff. As described above in the discussion on solfege, two methods of transcription were common in the early years:



The former remained a common alternative through the 1940's as is evidenced in the Institute of Oriental Music's transcriptions within the 1932 Congress publication (Recueil 1934:529ff.), and in al-Shawwa's (1946) and D"Erlanger's (1949:10-11) statements attesting to its continued popularity (see p.130 above). In time, however, the latter became the sole method for transcribing Arab music onto staff notation. [6]

The second decision involved the use of the different clefs. While the range of the violin (a major instrument in Arab music since the nineteenth century) lies within the lines of the treble clef, the range of the 'ūd lies, for the most part, within the lines of the bass clef. Use of the

bass clef, however, was never given serious consideration. Arab music has restricted itself to using only the treble clef. Yakah (GG) is written below the second additional leger line beneath the treble clef's staff. Jawab Nawa (g) is written above the highest line of this staff. This is irrespective of the fact that different instruments play the notated line in different octaves (see discussion on musical instruments in Chapter II, section D).

C. The Spread of Solfege and Western Notation

Whereas Arab writers in the nineteenth century had discussed Arab music in its own terms (i.e., using only the Arabic/Persian names to refer to the notes), it became more and more common in the early years of the twentieth century to discuss the music in the terms of solfege and Western notation. We see the early stages of this shift in the works of al-Khula'i and al-Shawwa. al-Khula'i (1904) discusses the notes of Arab music using only the Arabic/Persian system of note names. When presenting the maqamat he continues to use these names but occasionally adds the name of the Western scale that he feels most closely resembles the Arab maqam. For Bayyati (D E-b- F G A Bb c d), for example, he adds "La mineur" (p.43). Then at the end of his book he includes two songs transcribed in Western notation. al-Shawwa begins his