

## THE SOURCE AND CHARACTER OF \*ORIENTAL MUSIC

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THERE is reason for believing that the ultimate *fons et origo* of the music of the whole Near East is *Greece*. The original language of the Book of Daniel proves that Greek music was imposing its nomenclature on Semitic countries some centuries before Christ. The wonderful musical system which, as we know from Plato, had been fully worked out in Greece still earlier, was evidently carried by the conquests of Alexander and his successors all through the Orient, and must have formed part of the culture which was absorbed by the East at that time. It was thus Greek music which early Christianity found regnant, and the later triumph of Greek influence in Eastern Christendom would confirm the hold of Greek music on all the lands under Byzantine influence, including Syria, Palestine, and Egypt. The entrance of the Arabs (the "Saracens") in the seventh century, and later of the Turks, would not alter this. Both Arabs and Turks borrowed everything that had to do with culture, except their languages, from others. The Arabs absorbed that of their Greco-Christian provinces. And so, though no doubt the long centuries with their ebb and flow of conquest wrought great modifications, it seems reasonable to believe that the musical system of all these lands remained Greek in fundamental character.

This historical reconstruction is admittedly *a priori* and hypothetical; for, as a matter of fact, the history and fate of Greek music after the classical age lies

\* The word is intended to cover what is known as the "Near East"—i.e., the Mohammedan lands of Turkey, Syria, Egypt, Arabia and Mesopotamia. I do not know whether what is said in these notes applies to Persia also: I imagine not.—W. H. T. G.

shrouded in almost complete obscurity. In the absence of facts, however, the above reasoning appears to be reasonable.

But we have one present-day fact which tends to bear out the conclusion thus reached.

This fact is supplied by the "Orthodox" Church of Syria and Palestine. Here is a body which (1) owns and has always owned, ecclesiastically, adherence to the Greek Church; (2) is ethnically Syrian; and (3) is linguistically and by environment Arabic. A musician of the "Greek" Church who is an Arabic-Syrian will, therefore, be in equally intimate touch with the music of Greece proper on the one hand—for he studies his church music in Greek manuals—and, on the other, with the popular music of the Mohammedans and other Arabic-speaking people around him. What, then, does such a musician say with regard to the two types? He says that they are fundamentally one and the same.

Such was the assertion made to the writer by gifted musicians of the Greek-Catholic Church in Aleppo, who had studied music scientifically at their schools and seminaries. Moreover, being Uniates (i.e., in communion with Rome), they knew western music also. And thus they could speak authoritatively on the various differences between musical type and type. They asserted, and proved to the writer, that the modes practised under oriental names by Arab musicians in the Levant, are one and the same with the modes known and used in the services of the Greek Church to-day. This, it is true, would not of itself identify these modes with the Lydian and Phrygian, etc., of Plato's day; but it does seem enough to warrant our asserting a Greek foundation to the music of the Near East.\*

\* The great Oriental music specialist, Salvador-Daniel, also asserts a Greek origin for oriental music ("Arab Music and Musical Instruments," pp. 62 seqq.). His editor, Farmer, however, distinguishes between a Greek influence *and a Persian* influence (p. 175 seqq.), and asserts that the Levantine music has retained a *Persian* character, while the music of the western Arabs (Morocco, Algiers, Tunis) has followed the Greek type (p. 184). It will be noticed that this directly conflicts with the whole tenor of the present article; no less than Salvador's assertion (by implication) that Greek music had no third or quarter tones (p. 87, see p. 45 and p. 204).

It is difficult, if not impossible, to give by means of the stave and the accidentals used in the west, any clear and correct notion of these modes, which govern the Greek ecclesiastical music and the near-eastern music of the present day. For the equal intervals between the successive notes of the scale as tuned in the west are foreign to eastern music. The scales of the eastern modes are based on entirely different principles, and are not expressible by means of the staff and the accidentals at our disposal.

We thus come to the question of "quarter-tones" which are so often mentioned in the west, with only a vague notion as to what exactly is meant by the term. The expression, indeed, is a very misleading one, for it suggests a scale in which intervals exactly twice as small as a semitone are found. But in eastern music this ratio of 1 : 2 : 4 is unknown. The commonest ratios between intervals in that music are, on the contrary, 7 : 9 : 12—and there are several more besides, none of them being multiples of any other.

The octave is divided into sixty-eight equal parts. These intervals, of course, do not represent distinct notes, but the constituents of notes. It takes at least three of them to make the smallest distinct interval (equal to about half a semitone)—i.e.,  $\frac{3}{68}$  of the whole octave. Larger intervals are represented by the ratios 7, 9, 12, etc. Thus the intervals of the first mode show the following ratios :—

1st note . . .	2nd . . .	3rd . . .	4th . . .	5th . . .	6th . . .	7th . . .	8th	
9	7	12	12	9	7	12	Total 68.	

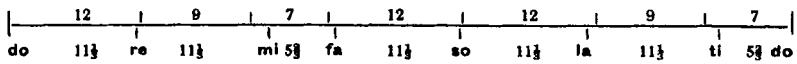
The other modes either are mere rearrangements of these intervals, or include quite different and sometimes very weird ones, such as 3, 11, 12, 13, 15. But the sum of the ratios within the octave must always, of course, come out at the same figure, 68.

If now we take this figure and divide it into twelve equal parts (the number of equal semitones in the western octave), we get a ratio of  $5\frac{2}{3}$  for the semitone, and  $11\frac{1}{3}$  for the whole tone. The ratios of our major scale would, therefore, read thus :—

	<i>do</i>	<i>re</i>	<i>mi</i>	<i>fa</i>	<i>so</i>	<i>la</i>	<i>ti</i>	<i>do</i>	
	$11\frac{1}{3}$	$11\frac{1}{3}$	$5\frac{2}{3}$	$11\frac{1}{3}$	$11\frac{1}{3}$	$11\frac{1}{2}$	$5\frac{2}{3}$	$(= 68)$	
Compare now the nearest Eastern mode *	12	9	7	12	12	9	7	$(= 68)$	

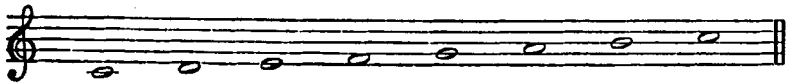
A single glance shows the subtle yet real difference. Not one of the pairs of intervals exactly corresponds. And in this resides the explanation of the peculiar colour, one might almost say taste, of the oriental modes and the airs written in them.

The difference may be ocularly represented with great accuracy by marking off the intervals into proportionate lengths along a straight line, the eastern scale above and the western below, thus :—



It will be first observed that the western fourth would have to be slightly flattened and the fifth slightly raised to coincide exactly with the eastern fourth and fifth. This suggests that the eastern intervals are “perfect.”†

The difference between the seconds, fourths, fifths and sixths, may be ignored. But the western major-third is  $\frac{5}{17}$  (or nearly  $\frac{1}{3}$ ) of a semitone sharper than the eastern. And the eastern seventh is about  $\frac{1}{4}$  of a semitone flatter than the western. These differences may seem small, but, as we shall see, they are by no means the smallest ones to be found; and even these make all the difference to the “tang” of this eastern scale, and the melodies composed in it. To write, and to play or sing this scale, therefore, as simply :—



is to cause the instant evaporation and disappearance of the peculiar aroma which distinguishes and differentiates the scale in question.

\* This is the mode called *Razd*—see below.

† By this reckoning, the difference works out at  $\frac{1}{17}$ th of a semitone; whereas in Grove’s dictionary the difference between a perfect fifth and a fifth of “equal temperament” is said to be  $\frac{1}{48}$ th of a semitone.

In giving a number of the oriental modes, as it is now proposed to do, it will, however, be desirable not only to diagrammatise them, but also to make at least an attempt to represent them on the staff.

Let us adopt † to denote a slight sharpening, and — to denote a slight flattening. Thus :—

Let † represent about $\frac{1}{3}$ of a semitone above	} The note before which it stands, whether that note be a natural, a sharp, or a flat.
„ † „ „ $\frac{1}{2}$ „ „ „	
„ — „ „ $\frac{1}{3}$ „ „ below	
„ = „ „ $\frac{1}{2}$ „ „ „	

“ $\frac{1}{3}$ ” meaning, to be accurate, 5/17 or 6/17 of a semitone ;  
 “ $\frac{1}{2}$ ” meaning 7/17 or 8/17. Differences of 4/17 and less are ignored.

Thus from D to E and back again from E to D, we should have :—



### *The Oriental Modes.*

Ignoring the eastern theoreticians' division of these modes into VIII., with sub-varieties, we may re-classify them according to the ratio-sequences characteristic of them, as follows :—

Class I., with the characteristic triad 12 : 9 : 7.  
 Class II., „ „ „ 9 : 12 : 7.  
 Class III., „ „ triads 12 : 13 : 3, 12 : 5 : 11.  
 Class IV., various.

#### I. (Characteristic, 12 : 9 : 7).

This class is the most numerous, and its members exhibit some similarity to the well-known “ecclesiastical modes of the Western Church. Just as the latter are built up of two triads (tone-tone-semitone) separated by a tone, so these oriental modes are built up of two triads, 9 : 7 : 12, separated by a 12 :. And in each case the cycle of modes is produced by making each note or “degree” in turn the first note of a scale.\* The eastern series, however, has not the symmetry of the western : we cannot make out the full cycle, not even when we

\* Thus the seven “authentic modes are produced by beginning successively with D, E, etc., and playing a scale of eight white notes.

group with the "authentic" modes, some which are reckoned by the easterns as "plagal."

Whether these are the modes on which the early church musicians of the west supposed they were founding their ecclesiastical modes \*; and whether they are in any way related to the modes of the classical Greek period, are two questions which the present writer must leave to others to decide.

1. BAYAT (no. I.), compared with the Western Dorian mode.

2. SAPPHO (no. IV. *b*), compared with the Western Phrygian mode.

3. TREIPHONIA (no. VIII. *b*), compared with the Western Lydian mode.

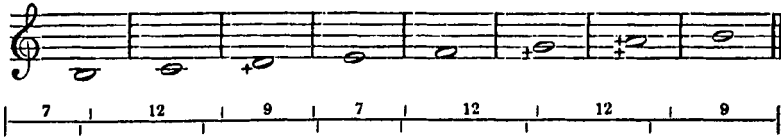
4. Greek ecclesiastical mode, no. IV. *a*, † compared with the Western Mixolydian mode.

\* They called them by the old Greek names, "Lydian," "Dorian," etc. In retaining these names below, we remind the reader that they belong to Western modes with which we are comparing and contrasting the Eastern ones. To the latter we give the names current in the Moslem Levant.

† A Mode used in Greek ecclesiastical, but not in Arabic music.

The Aeolian Mode (beginning on A) does not appear\* to be represented.

5. AGAM† (no. VII. a), compared with the Western Locrian mode.



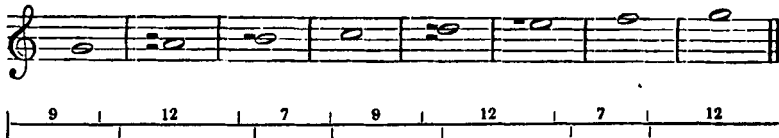
6. RAZD, compared with the Western Ionian‡ mode.



II. (Characteristic, 9 : 12 : 7).

This class (called *Sīga*), in which the order of the three figures of the former ratio is changed (9 : 12 : 7), has three varieties according as the scale begins with 9 : or 12 : or 7 :. As in the modes of class I. each scale consists of two of these triads, separated by a 12 :. It will be observed that still more remarkable differences from our western scale are produced under this class. Notes midway between two semitones appear, and in such a way that it is impossible to say whether the scale more resembles a major or a minor.

7. SIGA (no. II. a).§



\* But see no (12).

† “*Agam*” means “Persian” or “foreign.” The Locrian mode was reprobated and entirely disused in the West owing to the dissonances made by the first fifth and the last fourth of its scale.

‡ “*Razd*,” however, is treated in the East rather as Hypolydian—i.e., the plagal of no. (4).

§ Contrast no. (4) above, and (10) below.

## THE MOSLEM WORLD

## 8. SĪGA (no. II. b).\*

Musical notation for SĪGA (no. II. b).\* in treble clef. The melody consists of eight measures. Below the staff is a sequence of numbers: 7, 12, 9, 12, 7, 12, 9.

## 9. SĪGA (no. II. c).†

Musical notation for SĪGA (no. II. c).† in treble clef. The melody consists of eight measures. Below the staff is a sequence of numbers: 9, 12, 7, 12, 9, 12, 7.

## III. (Characteristic 12 : 13 : 3, 12 : 5 : 11).

There are two permutations under this class. As before, the two triads are separated by a 12: (The ratio 3 is a shade more than a quarter-tone).

## 10. TCHARGA (no. III.).‡

Musical notation for TCHARGA (no. III.).‡ in treble clef. The melody consists of eight measures. Below the staff is a sequence of numbers: 12, 13, 3, 12, 12, 5, 11.

## 11. BARYS (no. VII. b).§

Musical notation for BARYS (no. VII. b).§ in treble clef. The melody consists of eight measures. Below the staff is a sequence of numbers: 12, 12, 5, 11, 12, 13, 3.

## 12. 'USHAIRAN (no. V. a).||

Musical notation for 'USHAIRAN (no. V. a).|| in treble clef. The melody consists of eight measures. Below the staff is a sequence of numbers: 13, 3, 12, 9, 7, 12, 12.

\* Contrast no. (2) above.

† Contrast no. (6) above.

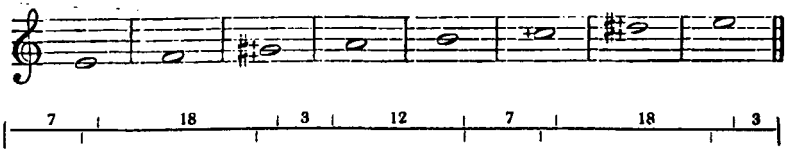
‡ Contrast nos. (4) and (7).

§ Contrast no. (6) above. "Barys" is Greek for "heavy."

|| This is the nearest approach to the Aeolian Mode. But for the irregularity in the ratios of the first two degrees (13 : 3) it would fill up the gap left in our Class I. between (4) and (5). And indeed the orientals reckon it precisely as the plagal of I. (Hypodorian), the notes of which are identical with the Aeolian.



## 13. HIJAZ\* (no. VI.).



Here we have two triads 7 : 18 : 3, separated by the usual 12 :. This is a remarkable mode. It is the first one we have had which is of an unmistakably minor character (with interval of three semitones between the sixth and the leading-note). But instead of a semitone between the second and third we get a three-semitone interval between the second and third, and between the sixth and seventh as well. (The ratio 18 : exceeds those semitones by about one-fourth of a semitone). The quarter-tones in the third and seventh degrees, combined with the fact that the first and fifth intervals have already exceeded the semitone, make the third and seventh sound extraordinarily sharp and give a most peculiar and piquant flavour to this mode.

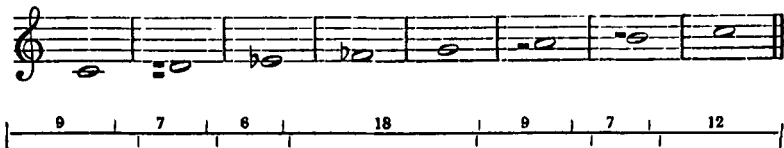
(The following two modes are Arabic, not Greek).

## 14. NAHMAND.



This mode, like the former one, is of a minor character, with (doubly) flattened third. The sixth is also flattened ; but the intervals are quite extraordinary, both in themselves and when compared with the Western scale.

## 15. SABA STAMBULI.



Another extraordinary scale. Like all scales begin-

\* i.e., "West-Arabian."

ning with 9 : (cp. nos. 1 and 7), it is almost impossible to say here whether the supertonic sounds more like D or D. (It is nearer the former by  $2/17$  of a semitone).

[*Note.*—The book, from which much of the above information was taken, was entitled : κρήεις τοθ θεωρητικοθ κ.πρακτικοθ τθς εκκλησιαστικθς μουσικθς (“ Fundamentals of the theory and practice of ecclesiastical music ”). Athens : N. Mixadopoulos. 1893.]

W. H. T. GAIRDNER.

*Cairo.*