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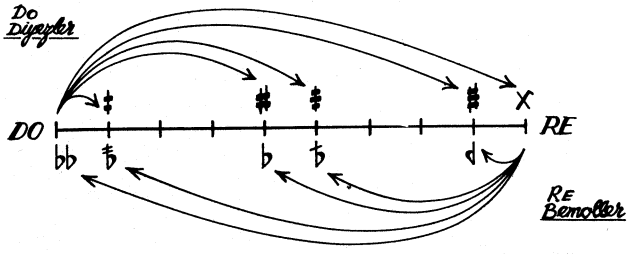
Makam: Modality and style in Turkish art music

1. Introduction – synopsis

In order to understand the specific use of the microtones in the TSM[1] style, we have to summarize the fundamental characteristics of the genre, and the context in which it is being performed. Turkish classical music has a) a 53-commas-per-octave temperament (nine commas per whole tone), b) unequal semitones, c) long lasting bars, d) a high percentage of instrumental music, e) religious-spiritual hymns and texts, f) sophisticated melodic development based on the *makam-seyir*[2] concept, g) mutable notes and fixed ones (ascending-descending attraction or »heavy traffic areas«), h) slow melodic development, and i) heterophonic character. All the above mentioned elements lead to the (mainly) introverted character of the TSM style.

2.1 Analyzing fundamental elements

a, b. The system uses a small and a large semitone and a small and a large tone, which are theoretically described by a 53-commas-per-octave system. With the whole tone defined as nine commas, a small tone as eight commas, a large semitone as five commas and a small one as four commas, this system results in a »soft« tuning, closer to the just intonation system than to 12-tone equal temperament. Theoretically, not all 53 commas of the set are in use: the actual ones that are used and the table of necessary accidentals are shown at fig. 1.



KOMA OLARAK DEĞERİ	DİYEZİ	BEMOLÜ
1	♯	♮
3	—	—
4	#	♭
5	♯	♭
8	#	♭
9	×	♭♭

Fig. 1: Division of the whole tone into nine commas

1 »TSM« = Türk Sanat Müziği (»Turkish Classical Music«).
2 »seyir« = »melodic development«.

c, d, e, h. The long bars of the TSM style and the (usually) slow melodic development create a frame where possibilities for a deep exploration of the detailed comma relationships arise. Instruments, such as the long neck *tanbur*, the fretless *oud*, the *qānūn* and the *ney*, offer possibilities to exploit the microtonal character and take full advantage of the modal microtonality that characterizes the genre.

f. *Makams* are the modes of the system. Each *makam* has unique characteristics and can be (theoretically) considered as a set of rules. Essentially, *makams* are colours or soundscapes that are presented through an improvisation or a composition. *Seyir* is the pathway or the journey a musician must follow in order to create and present the specific colour, the *makam*.

g. Contrary to the theory that presents the notes of each *makam* as fixed or static, the *makam* practice of the TSM style is quite different. Specific notes of each *makam* are indeed fixed, acting as strong gravity points, but other notes are attracted by their fixed neighbours following the direction of the melodic development; this gives them an unfixed floating character. This phenomenon is called ascending-descending attraction, and is a source of musical tension.

2.2 Theoretical versus Practical

A musician entering the TSM Ottoman music world guided by books might encounter the problem of where exactly to »place« the microtones. Following the literature and trying to match the theoretical positions of the notes with the actual pitches performed on the recordings, one may wonder to which exact position the frets have to be adjusted; a non-trivial, equivocal, debatable procedure. There are ideas on how to reshape *makam* theory and the division of the scale in order to match the actual practice.[3] Since the same pitch might be performed differently, though, either in different *makams* or even in the same *makam* under different circumstances, will a new system offer a solution? In the author's opinion, the reason why static measurements are not sufficient to depict the musical reality, that non static notes which characterize the TSM genre cannot have a strictly fixed position.

3 Ozan Yarman, »A Comparative Evaluation of Pitch Notations in Turkish Makam Music: Abjad Scale & 24-Tone Pythagorean Tuning – 53 Equal Division of the Octave as a Common Grid,« in: *Journal of interdisciplinary music studies* 1 (2007), no. 2, p. 43-61.

2.3 Static versus Dynamic: the Ascending-Descending Attraction

As already mentioned, the *makam* uses both fixed notes and moveable ones. In music practice specific notes of each *makam* can be played within a cluster, depending mainly on: a) the direction of the melody (ascending, descending), b) the part of the phrase (introductory, cadential etc.), c) the transitionary character of the phrase, and d) the musician's taste and choices (after all, we are talking about a highly improvisational genre). For instance, in *makam ussak*, the second degree is theoretically tuned eight commas higher than the tonic (a whole tone flattened by one comma), but in measurements made by Signell[4] over a series of recordings by the *tanbur* virtuoso Necdet Yasar, this note seemed to be performed »freely« within a cluster of one to four commas. In an interview by Feldman,[5] Yasar stresses the issue of the movable notes in ascending and descending directions and calls these clusters »Heavy traffic areas«. In practice, the finishing note of the (cadential) phrase acts as a strong gravity well, a big black hole. The more the neighbouring notes come to the finishing of the phrase, the closer they might get to the black hole. The extent of the attraction is a choice of the musician, and the purpose of this behaviour is the melodic creation of tension that will be released at the end of the phrase or the transition to another *makam*.

2.4 *Seyir*

Another important music element for the TSM style is the *seyir*. »Seyir« in Turkish means the »path« or the »journey«, and this term refers to the melodic development of a piece or an improvisation in the TSM genre. We can compare this journey to a trip by train: the performer / composer – using the scale, its subdivisions (trichords, tetrachords, pentachords), the related *makam* etc. – starts a music journey, stops at central stations (usually the edges of tri-, tetra-, and pentachords), at smaller stations (the intermediate notes), gets off the train and takes another one to a different direction (makes transitions to other *makams*), and finally ends the trip. All these usually happen in a linear way, which is why the train trip proves to be a good comparison. The *seyir* is not a dictator but rather the means to preserve the main elements of the mode. It creates the proper context for the performers to develop their path and express their feelings and ideas in a specific soundscape.

4 Karl L. Signell, *Makam: Modal Practice in Turkish Art Music*, Nokomis / Fl. 2004, p. 37.
5 Walter Feldman, *Music of the Ottoman Court – Makam, Composition and the Early Ottoman Instrumental Ensemble*, Berlin 1996, p. 210.

3. Grouping *makams*

There are different approaches to *makam* classification. For the purposes of this paper, *makams* are divided in two general subsets: the diatonic and the chromatic.

3.1 Diatonic set of *makams*

The diatonic family of the system is the group of modes consisting of steps of semitones or tones (with a few exceptions). It uses a small and a large semitone, a small and a large tone which are theoretically described by the 53-commas-per-octave system.[6] It also creates dynamic areas in which notes move within a cluster, according to the melodic development (ascending-descending attraction). The following are some simple guidelines on the performance of the unstable degrees-clusters:

Kurdi-segah and *acem-evic* clusters are probably the most important regions of the movable character case for the diatonic *makam* (like *rast, huseyni, neva, muhayyer* etc.). These notes can be played dynamically in most of the cases. For instance, on a *huseyni taksim*, for the ascending case, these notes could be considered as objects »pulled« from the ones above. That means the *kurdi-segah* cluster is moving towards *segah* when it approaches *çargah*, and *acem-evç* is moving towards *evç* when it approaches *gerdaniye* (Fig. 2).

The opposite usually happens in the descending case. The *kurdi-segah* cluster is closer to *kurdi* (especially for cadential phrases) and *acem-evç* is closer to *acem*. These dynamic movable notes can slide from a higher to a lower pitch in the descending case, and the opposite applies for the ascending case.

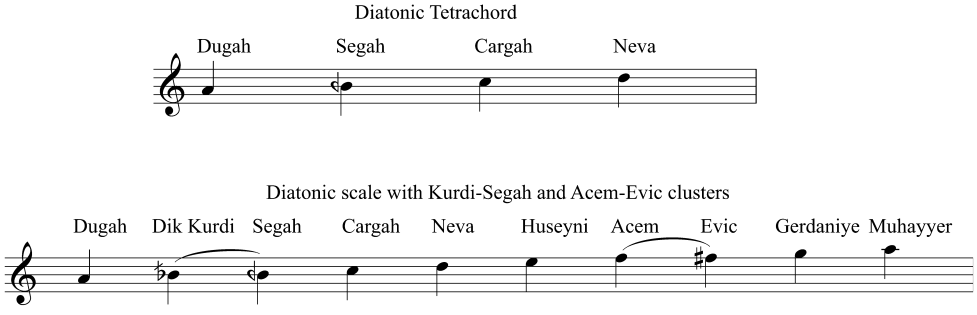


Fig. 2: Diatonic tetrachord / diatonic scale with Kurdi Segah and Acem-Evic clusters

6 See also 2.1.

3.2 Chromatic set of *makams*

The chromatic family of *makams* is the one which includes scales that use steps bigger than the 9 commas tones. For example, in *makam hicaz*, the sequence of the intervals in commas is: 5–12–5 9 8–5-9. The 5–12–5 tetrachord is called the *chromatic tetrachord*. The middle notes on a chromatic tetrachord (e.g. *dugah-kurdi-hicaz-neva*, Fig. 3) like the *hicaz* are now the attracted notes. These middle notes also control the »hardness« (they move so as to create small intervals with the edges of the tetrachord) or the »softness« (the middle notes move towards the centre) of the *makam*. This behaviour is defined both by the direction of the melody and the point on which the melody rests.

The melodic direction affects the pitches in a similar way as in paragraph 2.1. The point on which the melody rests also has an impact on the attraction of the pitches: melodies finishing on the boundaries of the tetrachord tend to attract the middle degrees to the edges, while melodies resting on the middle notes tend to »soften« the middle pitches by moving them asymptotically towards the center (for instance, in a chromatic tetrachord with its root on *dugah, dik kurdi* and *hicaz* are stretched towards *segah* and *nim hicaz* respectively).

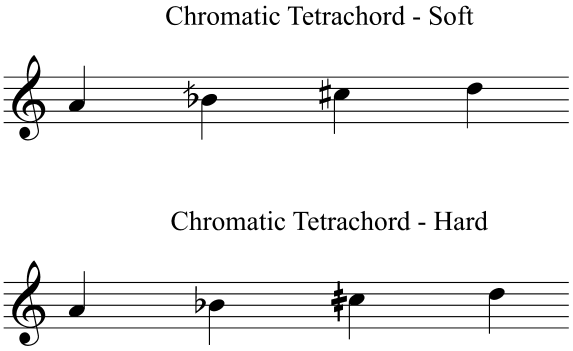


Fig. 3: Chromatic tetrachord – soft and hard

3.3 N-chords

Theoretically, modes are constructed by attaching N-chords (trichords, tetrachords and pentachords). Then, by knowing the *seyir* of the mode, the neighbouring *makams* etc., one can find his way so as to improvise or compose on the *makam*. Actually, musicians must realize the structure of the *makam* and gradually explore one by one the parts of the whole scale of the mode before they connect them. This slow melodic development from one part of the scale of the *makam* to another is essential to the TSM style (where sudden changes rarely

happen) and allows the creation and presentation of a comprehensive musical colour.

4. *Makam* and interconnectivity

Each *makam* has a specific position on the scale, a unique position over the range of any instrument on which it will be performed. Thus, any *makam* is unequivocally connected with all of the rest, and that is the reason why they all sound unique. The same *makam* transposed to another position would have a different flavour compared to the »original« because of the different routes that interconnect them both with any third *makam*.

5. Harmonic possibilities

There are currently several ideas on the combination of harmony (polyphony) and microtonality in the TSM style. A common practice is to combine *makams* with harmony by having one voice leading the melody and the rest of the voices avoiding the microtonal notes that are performed in the melodic line. Another idea often used is the »retuning« of some parts of instruments (either by tuning frets or strings) in order to be able to perform some of the microtones. Both practices treat those »non-tempered« notes and the *makam* they belong to in a static way. The unique character of the TSM style, though, derives from the use of the movable notes and the ascending-descending attraction phenomenon. While exact measurements have been made on the positioning of the notes on the instruments,[7] the use of such dynamic areas, which create a music environment originating from the Hafiz singing,[8] has been – in the author's opinion – underestimated. The use of those movable notes as harmonic elements by following the basic guidelines mentioned in 2.2 can result in a unique environment of »floating harmony«. The difference with the practice of the heterophonic TSM style is that now all the instruments or voices would perform a simultaneous »slide« when they come to movable notes. The direction of the slide is again defined by the ascending or descending direction of the melody. This rather new idea[9] creates an interface through which polyphony can reveal the character of the *makam* and highlights its singular character.

7 Walter Feldman, Ozan Yarman, Carl Signell.
8 Neyzens Omer Erdogdular and Kudsi Erguner.
9 Michalis Cholevas, *Microharmonics, Integrating Harmony and Microtonality by playing Heterophonic Turkish Art and Turkish Folk Music in Harmonic Environment*, Master Thesis, Rotterdam Conservatory of Music, Rotterdam 2009 (unpublished manuscript).

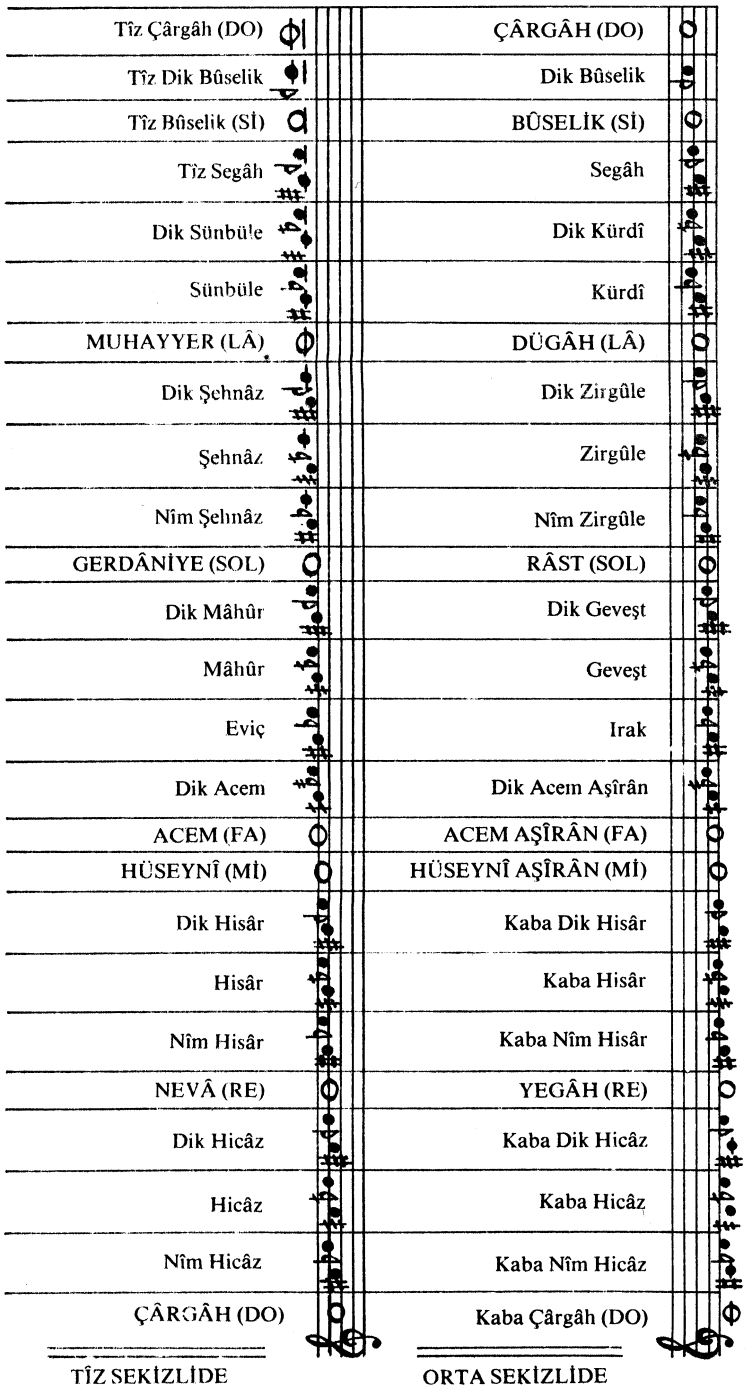


Fig. 4: Names of pitches in TSM genre