CONSTRUCTION AND SYSTEMATIZATION OF SOUND ROWS IN BULGARIAN FOLK MUSIC Yordan Goshev

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It is not an easy task to systematize the wealth of folk songs intonation patterns in sound rows, tone series, kinds and variants, in a way that they reflect realistically and precisely the picture of the tone melodies. This classification requires a correspondence between the scale content of the scheme and the real tone content of the song.

The greatest part of the melodies consists of three, four or five different tones only. Defining the sound row within the framework of an octochord, which is the existing approach in structuring and systematization of the sound rows in our music, is inherent in the antique, Glarean's and the east mode systems that have been established for centuries. But then the following logical questions should be asked: What is the leading principle to place melodies with a thrichord, tetrachord or pentachord size on the same level as the eight-scale structure modes and the mode characteristics which result from that? Aren't these supplementing tones, needed for the systematization, rather abstract and conditional constructions of the musical theory? Isn't it a result of interpretation to systematize songs with a size smaller than a heptachord, together with the main sound rows but not with the derived ones? Still more, consider that in practice the use of the main and the derived sound rows is of equal value while the free expression of the folk music is unforeseen, unexpected in its intonation development and unable to be placed within the framework of some kind of hypothetical sketchiness. The systematization of folk songs

in a united whole in terms of their sound pitch is a necessity, which makes it possible to determine not only the common regularities and similarities, but also the differences between the Bulgarian system and the systems of other peoples.

As it has already been mentioned, the intonation wealth of Bulgarian folklore is impossible to be definitely incorporated only in one of the established sound pitch systems. Defining the sound row within the framework of octochord is binding and irrespective of the song tone content. It is the preferred and the most accepted way of its classification. In order such classification to be carried out, the structural clarity of the main tetrachord is used, and the principle of "taken for granted" is applied for the second tetrachord, and it is them (the tetrachords), which have an identical structure. The way the missing scales are supplemented to the octave repetition of the main tone is similar to the way the octochords were ordered in the Antique Greek pitch sound system¹. It is on this ground that St. Djoudjev classifies all diatonic voices (modes)² in his work Bulgarian Folk Music³ by preserving their ancient Greek names, the central element of the system - tetrachord and the descending direction of the tone rows4.

The inevitable questions arise: What is the way and the principle to arrange the tetrachords - by the means of a shared tone or a dividing one? As it has already been mentioned, in the people's author's practice the presence of the main modes and the derived ones is almost equivalent. How could sound rows with an eight-scale tone clarity and a different (for example, diatonic and chromatic) construction of the tetrachords be explained? Apparently this sameness of the tetrachord construction is not explicitly confirmed in the written song examples. Defining the basic priorities is obviously made difficult by the presence of chromatic and enharmonic tetrachords³ in our music, whose origin and construction the ethno musicologist mostly relate to the Arab mode system⁶.

M. Todorov⁷ and B. Abrashev⁸ prefer Glarean's systematization⁹, which, under the combination of different circumstances, appears to be the most widespread in the theoretic circles and has acquired, not well-deserved according to me, a leading role in defining the old modes in Bulgarian music. Except for the ascending tone row and the different names, the mediaeval modes differ from the antique sound rows by their eight-scale order and the supporting intervals of the diatonic system - fourth, fifth and octave. Defining the main and the subordinate tones, the supporting scales, their function in the overall musical structure

is impossible to be "borrowed" from a pluch sound system based on the regularities of a music language, that is more or less different from the intonation patterns intrinsic to our authentic song.



The demand for at least seven scales, different in their pitch, in order to form explicitly the mode, the mode construction and all functions resulting from it, which the scales form regarding the entire arrangement, is comparatively rare for our authentic song. There are only 13 songs from 656 ones with similar features¹⁰ in the collection Folk Songs from the West Parts, written down in notes and recorded by V. Stoin. There are 27 from 1557 in Folk Songs from the South-West of Bulgaria, 87 from 1115 in Folk Songs from Samokov and the Region of Samokov, 433 from 1653 in Folk Songs from the Rodopes Mountains, etc.

In his work Melodious and Harmonious Fundamentals of Bulgarian Folk Song, As. Karastoyanov defines the demand "not to proceed from the standard sound rows (called scales) of the classic tonal system but from the mode elements (thrichord and tetrachord), forming the base of the different melodious arrangements in our folk song."¹¹ The definition of these sound pitch constructions as main ones and the explicit opinion about the dominating significance of the fourth interval are obviously contrary to A. Karastoyanov's approach to incorporate the tone rows in the west European terminology and "to reduce the Bulgarian folk sound rows to the classical major-minor¹² tonal system."¹³

It is of primary importance to clarify the central element in the sound rows arrangements with respect to the role that the tones, consisted in the melodies, perform regarding the mode. The availability of some common features with the antique system, and, on the other hand - with the Arab one, requires that we take into consideration their shared construction element - the tetrachord, which is actually the main building element of the tone kinds and the two systems modes. Defining the tetrachord as the base for the systematization of songs with a different size and a tone content is in fact an opportunity to express most precisely the actual sound picture. And as a second condition - its compulsory arrangement up to an eight-scale structure to be dropped out. These narrow frames have been prompted, as already mentioned, mostly by the existing and written folk songs and their size, by the necessity to-unite in a system songs with a different degree of their mode development, by considering the scales forming the sound row from the functional point of view, and last but not least - by the intention to be precise in building the tone rows.

Ordering the different scales, included in the melody, according to their pitch, forms the sound row of the song. In compliance with their tone construction we distinguish:

Tetrachords formed in a mode way.

These sound rows consist of four scales within the limits of a fourth interval. The names and the descending direction include intervals of three main tone kinds - diatonica, chromatica and enharmonica. They are identical with the construction and the names in the ancient Greek modes. Within the limits of the "focused" interval clear fourth there are two "mobile" tones forming the three intervals in the tetrachord.

The possible options for the mobile unstable scales¹⁴ of the tetrachord to be placed in the diatonic tone kind are the following:

- Dorius tetrachord g-f-es-d.
- D Phrygius tetrachord g-f-e-d.

□ Lydius tetrachord – g-fis-e-d.



The kind of the chromatic tetrachords is defined by the place of hemiolic¹⁵ distance:

g-fis-es-d; g-fes-es-d; g-fis-eis-d.



The enharmonic tone type in our folk music is different from the established opinions in the west European musical theory¹⁶. It is a widespread practice for the folk music researchers to connect with the enharmonica a tone with a pitch different from its two encompassing scales, which are a semitone from one another. I. e it is a tone whose pitch coincides neither with one nor with the other in the tempering twelve-scale system¹⁷. Making the semitone distances between the mobile and the stable scales in the tetrachord narrower will form an enharmonic tetrachord of an ancient Greek type (with two four-tone distances and a ditor us in between.



The lack of correspondence between the tone size and the number of the scales in their composition is most often connected with the pentatonica construction. The absence of a semitone interval to make the tetrachord tense and the presence of an augmented second and a diminished third bring us inevitably to the static character of the pentatonica. It, according to plenty of scientists, precedes chronologically the rest of the tone types and is based on the numerous researches of ancient musical sources from China, Polynesia, Scotland, Africa, etc.¹⁸

Adding songs with a thrichord size to one of the central element mode variants in the classification system - the tetrachord, is determined by the clarity regarding the place of the mobile scales and the stability of the fourth interval in the tetrachord construction.



Compound (complex) sound rows

Relating a sound row to the compound ones involves a wide ambitus of the melodies and the availability of seven different in their pitch scales. According to the construction of the tetrachords forming the sound rows we distinguish:

diatonic - compound sound rows, consisting of two diatonic tetrachords with the same construction and connected by a dividing tone (main) or by a shared tone (derived)¹⁹.



□ chromatic - compound sound rows in which one of the two tetrachords is chromatic. The link between them is diazeuxis or synaphe²⁰. The chromatic tetrachord construction is unchanged, with a hemiolic interval in the centre of the three intervals it is formed by, and the diatonic tetrachord in its three versions is met in the combinations of the compound sound rows. Compound sound rows, formed by two chromatic tetrachords are known under the name bichromatic. This variant is not often met in Bulgarian folklore. The compound sound row has two chromatic tetrachords with the same construction and connected by a diazeuxis²¹.



□ layered compound sound rows - these are tone rows with a narrower ambitus of the melodies. In the different song phases, tetrachords with a similar scale character but a different construction are realised. Their supporting tones either coincide or stay at an interval of a second from one another.



Pentatonic rows

The sound rows in which the content of the songs does not respond to the number of the scales which are most frequently connected with the pentatonica²². Although they differ in the way they are spread in the folklore regions, these sound rows could be met almost everywhere in Bulgaria. The absence of semitone distances makes the melody sound in a "calm, carefree"²³ way. Every tone from the sound row construction could act as a main one. The ending tone and the place of the thrihemetonic distances determine the kind of the pentatonica²⁴.



In folk melodies with a content smaller than a heptachord the pentatonic rows are incomplete. Adding them to the pentatonica is determined by the absence of tension and a tendency to move the scales upward or downward (known as sensitive tones in the musical theory).

The construction and the systematization of the sound rows in this way are radically different from the existing orientation in the musical theory towards the eight-degree construction of the tone rows. All this is bound with the intention to preserve the specifics and the uniqueness of folk songs to the utmost degree and to consider the functional regularities, resulting directly from it.

It is certainly far from me to claim that this work is thorough and that some numerous questions, connected with ine problems considered, will not arise. Yet, they represent only a small part of the sound system organization, used in the musical practice of a people. It is impossible to apply the systematization of the melodies according to the rules of tonality and the pitch relations dominating in the western music without destroying the specific character of the sound rows. Adding scales or their change in order to structure eight-degree tone rows to a great extent destroys the intonation character and the relations among the intervals in folk music.

The conservation of the folk art eternal values, its amazing and distinctive sound examples is an aim of primary significance in order to preserve its specifics and originality in the context of the European cultural heritage.

References

A system of modes in the music of the ancient Greece with tetrachord as a main structural element. In the ancient Greek "teleion system" (Gr. sostema tăleion, perfect system) the identical scale names, which also mean an identical function, stay at an interval of a fourth, but not octave, as it is in the medieval and classical major-minor systems. The mode formations of a senior order are a result of the unification of two similar in their construction tetrachords, with a dividing tone (diazeuxis) in between. The mode name corresponds to the name of the tetrachord: Dorius mode: e-d-c-h \parallel a-g-f-e; *Phrygius mode*: d-c-h-a \parallel g-f-e-d; *Lydius mode*: c-h-a-g \parallel f-e-d-c. The alterations of the three main sound rows are connected (with a shared tone between the two tetrachords, named synaphe) and the sound row is completed up to an octochord with a tone that stays at an interval of an augmented second. They added the words hypo (under) or hyper (over) to the name of the main mode:

Hypodorius mode: a-g-f-e || e-d-c-h || a; Hypophrygius mode: gf-e-d || d-c-h-a || g; Hypolydius mode: f-e-d-c || c-h-a-g || f

Mixo(mixed)lydius mode was added to the main modes. It was formed by linking two lydius tetrachords, while one of them is divided into two parts:[c] h-a-g || f-e-d-/c/ | H. Except for the widespread diatonic tetrachords, chromatic and enharmonic tetrachords were also used in the ancient Greek modes; but they differed in their meaning from the contemporary notions of enharmonica and chromatica. Their use distinguishes the ancient Greek music from the one in the west Europe and enriches substantially the melodious variety (MTD/941, HDM/351-. 53/, MES/3061/).

²In our church music the term voice is used with the meaning implied by the Russian musicologist in the definition of the term mode. They are known in the west European theory with the name Mode (mood).

³ See Stoyan Djoudjev, Bulgarian Folk Music, volume I, S. 1980, p. 293-321.

⁴ All sound rows in the antique diatonica are in a descending tone direction. In the west (Rome-catholic) church singing there isn't a correspondence, not only in terms of the modes names but in terms of their scale direction, as well. These differences, started by the Roman philosopher and musicologist Boetsii (6 century AD), who used as a support Ptolomei's principles about the transposition modes in his work De Musica, are the base through which the medievan't learning got to know the antique theory (MTD/311/l).

⁵ The concept chromatica (Gr. hroma - kind, colour, shade) in the ancient Greek and the east music differs from the contemporary interpretation and is connected with the tetrachords construction. They are formed by two diminished seconds and a thrihemitonium within the framework of a clear fourth (MTD/377/d). The enharmonica (gr. en – in, и harmonia – arrangement, mode, chord), in the same way as the chromatica, differs in meaning from the contemporary meaning of this term. This name referred to the sound rows in which the tetrachord were formed by a ditonus (two whole tones) and two-quarter-tone intervals (MTD/102/l, 377/d). See also R. Lachmann, Musik des Orients, V. 1929, p. 47.

⁶ The music of the peoples in the Near East, Northern Africa and the south-east Europe is based on a system, where the sound rows are known as maqams. The most specific feature of the Oriental music is undoubtedly its homophone character. There are some common features between the Arab and the Ancient Greek music system teleion, not only with respect to the tone types (tertrachords) but regarding the modes (maqams/maqamat), formed on a definite scale of the main sound row. The maqam is defined also the ambitus of the sound row, the starting tone, the ending tone, the held subsidiary scales and the modulations. There are around 100 maqams in the Arab mode system, but only about twenty of mein are the most widespread. (FIDMARK, FIDERCE, 1997) 24/d).

⁷ See Manol Todorov, Bulgarian Folk Music, S. 1973, p.126-148.

⁸ See Bojidar Abrashev, Arrangement and Orchestration of Bulgarian Folk Music, S. 1990, p.26.

⁹ The medieval diatonic mode system was presented for the first time in Glarean's treatise "Dodekachordon" in 1547. At the beginning it comprised 4 main (authentic) and 4 derived (plagal) sound rows linked by a common ending tone (finalis), that was in the middle of the sound row in the plagal modes and at the beginning in the authentic modes. In the 16 century the church modes became four more (the two main and their derived ones). Unlike the ancient Greek modes, whose central element is the tetrachord, the medieval sound rows have eight-scale structure. (MES/613).

²⁰ It is necessary to point out the existing differences between a size and a content. Despite of their similar size, the tone rows could be with a different tone content, due to the fact whether all scales in the sound rows are completed or not. So, in spite of their wide size, the incomplete sound rows do not provide enough structural clarity. (Yordan Goshev)

13 MXO/6/.

⁴² Major-minor system was formed during the Renaissance (16 century) when the contemporary major and minor appeared. Its most specific features are a two-mode character, a third structure of the chords, a consonant triad as a central element of the system and a tonal accord.

53 MXO/67/.

⁶⁴The main functions of the tones in the ancient Greek tetrachord are stability (hestoti), linked with the ending tones and the instability (cinumeni) – tones placed between them MES/182/r, HDM/352-3.

⁷⁵ The contemporary term of the hemiolic interval is an augmented second (hiatus).

⁸⁶ Enharmonica, contemporary (Gr. enharmonia) tones, modes, intervals, that are written in a different way but sound the same MTD/ 102/d.

⁹⁷ See D. Hristov, General Treatise about Music, p.168.
¹⁰⁸ See HDM/652/r.

¹¹⁹ The names of the compound diatonic tetrachords spread in our folk music are borrowed from the Old Greek music and are linked with three main tone kinds: *dorius* ($e^1 - e$), *phrygius* ($d^1 - d$), lydius ($c^1 - c$), and four derived ones: *mixolydius* (b - B), *eolian* ($a^1 - a$), *ionic/ionian* ($g^1 - g$), *hypolydius* ($f^1 - f$) HDM/353, BNM/320.

²⁰ The names of the compound sound rows with a chromatic tetrachord in their structure are borrowed in our music theory from Persian, Arab and Turkish music theories. The most widespread ones are: Makam *Hidjas* (a,b, cis¹, d¹, e¹, f¹, g¹, a¹), Maqam Kardjagar (d, e, f, g, as, h, c¹, d¹), Maqam Myustaar (d, e, f, gis, a, h, c¹, d¹), Maqam Hyzam (h, c¹, d¹, es¹, fis¹, g¹, a¹, h¹), Maqam Sultani Yegyah (d, e, f, g, a, b, cis¹, d¹), Maqam Suuzinak (g, a,h, c¹, d¹, es¹, fis¹, g¹).

²¹ See BNM/356.

²² Pentatonica (Gr. Punte, five and tonikos, tone) sound row, whose tones could be ordered in five consecutive clear fifths within the framework of an octave (MTD/246/d, MES/417/r, HDM/652/r).

²³ See R. Lachmann, Musik des Orients, Breslau, 1929, p. 40.
²⁴ See BNM/285-290.