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Locally rhythmical and metric organisation of music phrases in free rhythm Taksim Improvisations

ABSTRACT

The current study examines the rhythmical and metric organization of phrases in the classical form of Ottoman Taksim. Taksim is a non-metric form idiomatic structured modal improvisation in classical Ottoman music. The phenomenon is being taught, presented and analysed by musicians on a basis of melody with notions such as the melodic development and melodic gravity. Recent computational analysis as well as music analysis suggest, in addition, the relevance of rhythmical presence in Taksim. Our research contributes to this line of inquiry with the use of manual transcription and analysis of improvisations from masters of the Taksim field, as registered in the Makampedia database. The analysis revealed clear rhythmical patterns and structures in improvisations and those findings are modelled with the use of basic music theory. The study widens our perception of musical phrasing and melodic flow, it creates educational possibilities for bridging the gap between non-rhythmic and metric approaches and it gives us new tools for modal music education, performance and improvisation in educational institutions such as conservatories. The outcome of the research has been put into practice and it is being under test in various modules of the Turkish Music curriculum at Codarts, University for the Arts, Rotterdam

Introduction

Taksim, in the context of Ottoman music, is mainly used either as a prologue or an epilogue of a composed piece or as a bridge between two compositions composed on the same or different modes. Taksim is considered a non-metrical, flowing rhythm performance (Feldman 1993, 3) that is its rhythm develops with- out the underlying template of a meter or continuous organized pulsation (Holzapfel 2013, 1). The tradition of improvisation education in that context follows the model of master-pupil, with the pupils listening, duplicating and assimilating the idiom and its elements via a listen and repeat procedure. A long term process that asks for patience from both sides of the educational relationship. In the context of undergraduate and graduate studies at the Turkish department of the Conservatory of Rotterdam, alongside the master-pupil educational model, students are encouraged to transcribe and analyze improvisations of masters of the field. That practice acts as an additional tool that can help musicians accelerate their growth in the field as a proactive learning process.

Existing approaches and research

The transcription, registration and analysis of such improvisations has been traditionally presented with a focus on melodic development (Stubbs 1994), neglecting possible rhythmical aspects (Aydemir 2010, 34) under a common belief that there is no underlying rhythmical presence in the music phrases. Exceptions for that approach in the literature are the references or recurring, idiosyncratic or stereotypical phrases (Feldman 1993, 13, Signel 1977, 125-133) either to the makam or to the performer, which imply rhythmical similarity (Stubbs 174, 248). A common approach in the presentation of improvisations through scores is the use of whole notes and stem-less notes. Those indicate, respectively, pitches on which the cadence is concluded and notes that are considered passing ones. This system, has resulted to a static presentation of the music, organizing music phrases and compressing music modes in spans of tetra and pentachords. Moreover, the absence of any rhythmical information in the score results to an almost mystic presentation of how the phrase sounds as it fails to convey any information of how the phrase actually sounds.

Recent research from the fields of music analysis (Arnon 2008, 1) as well as computational analysis (Holzapfel 2013, 1) have opened the discussion on the subject the role of rhythm in shaping the character of such free-rhythm Taksim mprovisations. While Arnon uses manual transcription and focuses on the role of rests in the function of improvisation, the latter utilizes signal processes in order to map pulsation patterns, concluding that a taksim cannot be based on a music meter (Holzapfel 2013, 5).

Early findings

The need for a transcription/analysis process of high precision which would guarantee the mapping of as much detail as possible raised a big question about the rhythmical approach of the improvisations. Since taksim improvisations are considered time-less or free rhythm, they are notated without the use of rhythmical values and the subject of rhythmical character of such improvisations is a subject that has been seldom discussed. During the process of transcribing improvisations of Ara Dinkjan, **Suleyman Erguner and Ulvi Erguner** observations were made: a) Although the general feeling of the total improvisation was that of time-less or free rhythm, there was a clear rhythmical core on the first phrase of the improvisation. That rhythmical core allowed generating a metronome mark for that phrase which could be used to define the length of the non-rhythmical parts of it as well. So that the scheme of that phrase could be seen as *Long non-metric values -> rhythmical or metric part (definition of the metronome mark)-> long non metric values*. The same was observed on the following phrases. On each phrase there was one or more rhythmical cores from which a metronome mark could be extracted. With the use of those marks both the rhythmical and the non-rhythmical parts could be accurately measured and written on the score, b) With

the use of a) the registration of the music on the score and reading/recognizing phrases became quite comprehensive as in an overwhelming amount of the phrases there are only three values needed to register the rhythmical part: eights, quarter and dotted quarter values (16ths, 8ths and dotted 8ths could work as well with a different metronome mark). This fact simplifies the whole process as tuplets are rarely needed, c) The combination of a) and b) with the melodic analysis of the score led to another finding: a lot of the phrases are not just possible to register rhythmically but moreover, **metrically**. It seems that the organization of the phrases uses existing rhythmical patterns of meters such as 3,5,6,7,8,9,10,11 beats which are vastly used in compositions of Ottoman music and coterminous genres, d) the performance of such phrases based on those meters, alter and do not repeat themselves and their combination with longer notes in the beginning and the end of a phrase leads to a free-rhythm feeling according to the scheme

Limited Rhythmical values (1x,2x,3x) + locally Metric phrases of combined meters + change of speed for each phrase + long notes beginning/end = Rhythm-less (free rhythm)

Application to a larger body of improvisation

This modeling of taksim improvisations was used to transcribe and analyze improvisations of other masters of the field such as: Kudsi Erguner, Ulvi Erguner, Dede Suleyman Erguner and Sukru Tunar. The results were surprisingly consistent. All those improvisations could be transcribed and analysed with the use of the same model although they vary in mode, instrument, period and context.

Conclusion

By utilizing manual transcription and analysis of Taksim improvisations of masters in the field, we were able to observe and identify rhythmical and metric cores in their musical phrases. Using those rhythmical cores, we were able to portray all phrases with rhythmical values on a genre that is until today considered rhythm-less. Although there are differences in the personal styles of the performers, the same model could be used successfully to register their improvisations. The following steps will be to illustrate those differences as a result of their individual rhythmical approaches. Moreover, the method might need calibration as more improvisation of other masters will be used for the analysis. All the transcribed and analysed improvisations will be added to Makampedia, an open database of makam based improvisations and interviews.

Aims and repertoire studied

Improvisations of Ottoman music were chosen after interviews with masters such as Kudsi Erguner, Sokratis Sinopoulos, Omer Erdogdular and Murat Aydemir.

Methods

Interviews with masters were conducted so as to define the body of improvisations to be used. After the conclusion of the analysis process the results were further discussed with the interviewees. The registration of modal based improvisations comes with challenges; on the one hand the static character of eurogenetic notational systems is probably not the most convenient system to depict elements (and allow their prompt use by musicians) such as: melismatic melodic development, dynamic pitch, *free rhythm*. On the other hand, staff notation is widely used in conservatories and other institutions of music education worldwide for registering music of various music genres. A model for transcription analysis was proposed that would enable synchronization of the audio, the transcribed score and its layers of annotations. With that graduate and undergraduate students would be able to contribute with their transcriptions to a database of analyses, the Makampedia (Makampedia, is an open database of audio synchronized transcriptions of Makam based improvisations and interviews of masters of the field). The aim was the creation of a framework, which would allow a) re-usability of the material, b) organization of the findings into a database for investigations on a larger scale and examination of correlations between different layers of analysis and c) easy access for students, performers and researchers. Transcriptions are made on a comprehensive level for most of the users and are combined with synchronized visualization of the melodic curve and its nuances, exported with the use of proper software (such as Sonic Visualizer-melodia plugin and Praat). The second step is synchronization of the transcribed score with the audio and the exported melodic curve with the use of iAnalyse. The third step is adding annotations and under the desired layers. The fourth step of this process is exporting annotations on a database for comparative and large scale analysis.

Implications

The locally metric character of phrases can give an extra tool for students and improvisers with the use of which they can build their phrasing under the scheme: Metric -> Locally metric -> Non-metric -> Free rhythm. This is useful especially in the case of Western Classical or Jazz educated musicians that are not that familiar with the notion of free rhythm improvisation (improvisation without the existence of an underlying pulse). Additionally, this model can be used as an improvisation strategy, for creating and releasing intensity with the use of condensed and expanded rhythmical values respectively. Along with melodic features that have been extensively investigated such as melodic gravity and pitch attraction (Aydemir 2010, 24), this element can expand the improvisational capacity of students and performers and help their melodic phrasing development.

Keywords

Improvisation, Makam, Metric, Non-Rhythmical, Taksim, Transcription

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