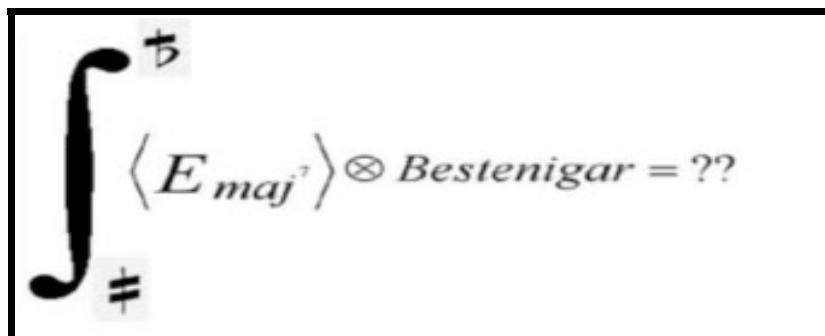


Microharmonics



Integrating Harmony And Microtonality By Playing Heterophonic Turkish Art
And Folk Music (53 commas per octave) In Harmonic Environment

Master Thesis by
Michalis Cholevas

Department: Turkish Music
Program: Master in Music Performance

Supervisor: Martin Greve
Main Subject Teacher (Saz): Kemal Dinc

April 2009

Contents

Prologue	3
1. What is this thing called TSM-THM?	5
1.1 TSM-THM properties and differences in practice. Creating the background to incorporate harmony	
1.2.1 Maqam in TSM	
1.2.2 Two basic elements of TSM	6
2. Introducing Harmony	8
2.1 Why is there no harmony so far?	
2.2 Systematic approaches towards the creation of harmonic environment	8
2.2.1. Illerici's case	
2.2.2. Ozan Yarman's Case	9
2.3 The practical aspect	
2.3.1. Erkan Ogur	
2.3.2. Antonis Apergis	
2.3.3. Incesaz	
2.3.4. Erdal Erzincan	10
3. Finding my way in and out of the labyrinth	11
3.1. The theoretical way	
3.1.1. The Electronic development or the NORD G2 “seyir”	
3.2. First try outs	12
3.3. The Selpe style as a choice. Why it is useful for creating harmony	13
4. Personal development-contribution to the field	15
4.1 Harmonic development	
4.2 Personal development	
4.3. Field Contribution	
4.3.1. A TSM musician's guide to microtonal-moveable notes' manipulation	16
4.3.2. Selpe approaches	
4.3.3. ...and what about microtones in THM?	
5. Network – Acknowledgments	17
5.1 Network	
5.2. Acknowledgments	18
6. Achievements-Highlights	19
Epilogue	20
References	21

Prologue

Starting this master program in september 2008 I soon “confronted” the challenge of formulating a research question that would allow me to focus on what would be my research and practice based project for the following 24 months. A question that needed to be at the same time: manageable, interesting both musically and theoretically, original, “useful” and ...the list can go on infinitely depending on some vague or debatable standards. After a intensive period of 6 years in physics studies, and having in mind the Greek adage “ Start is the half of everything”, it was clear to my mind that the most tricky part of research -no matter what the field would be- is the enunciation of a clear question in a way that it will enable the researcher's scheduled research in a productive way avoiding at the same time any misleading path. As I already had to propose such a project in order to pass the entrance exam, this research question was taking a more clear shape and by the end of the 1st semester, under the guidance of Mrs. Henrice Vonck the question was about to be “asked”. This question was based on my personal artistic needs so that my interest would remain in a high level, allowing me to work intensively and without a hitch.

Since (one of) my personal music interest(s) is the polyphonic approach on heterophonicⁱ Turkish music, I worked towards the creation of an interface where Turkish art and folk music (Sanat and Hulkⁱⁱ) and western harmony could coexist and smoothly integrate to a new, solid, entangled entity. A research project that named after the question-like title: “Microharmonics, a way of integrating harmony and microtonality by playing heterophonic Turkish Art and Folk Music (53 commas per octave) over harmonic environment”. To coordinate this project with my artistic needs, the project had to develop in a different way than the common practice suggests. Roughly, that means I would perform the music by including the commasⁱⁱⁱ in the harmony and not avoiding or tempering them.

The “motor” or the motivation for pursuing such an idea was the fact that I am just missing

a) Harmony when playing Turkish music

and...

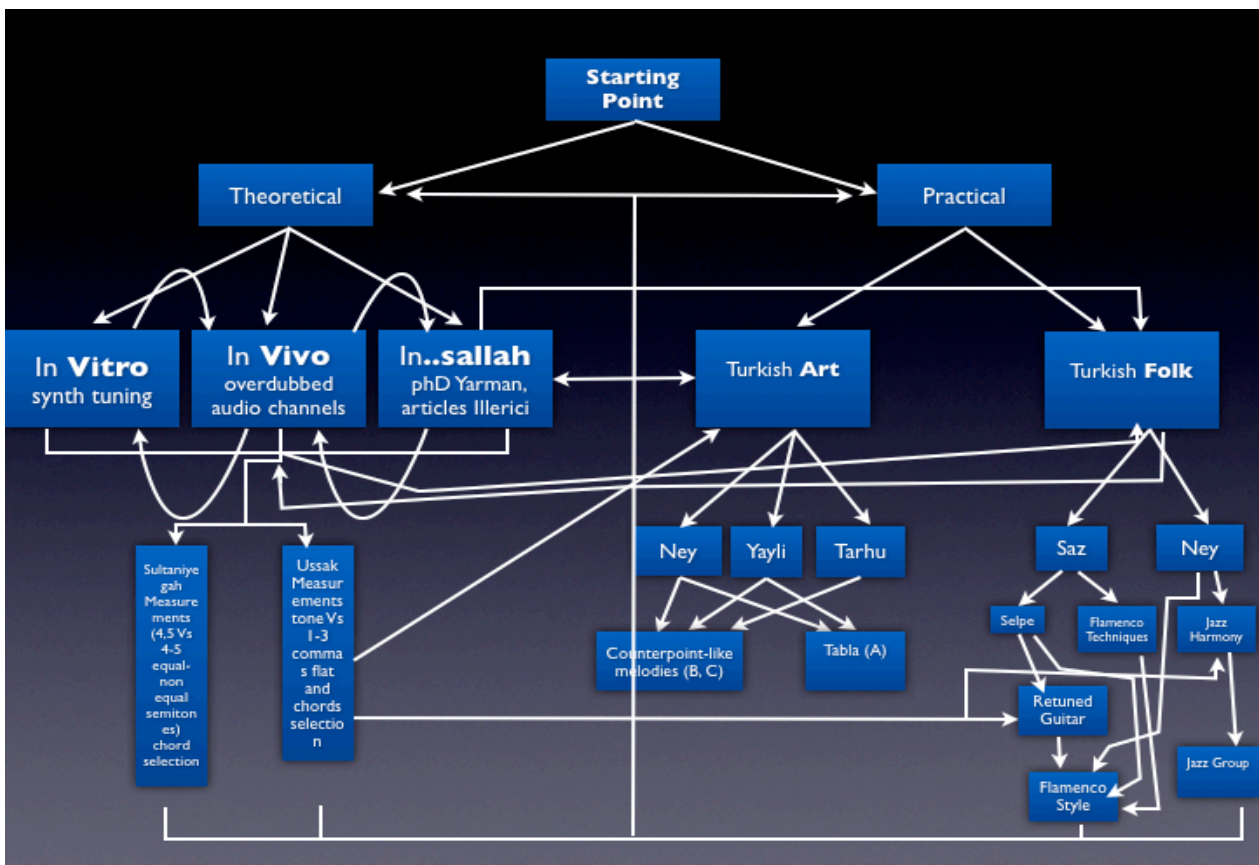
b) Commas and the Maqam-seyir (Turkish modes and melodic development) approach when playing in a harmonic environment

The main goal I set for my research was the understanding of the theoretical and practical differences that keep the two genres dismantled and the theoretical and practical manipulation of these differences in order to combine their properties and fundamental elements so as to create a common ground. The theoretical outcome of my research would be a) the analysis of the work-conclusions on commas' tunings, b) Maqamat choices and differences and c) styles used. The practical outcome of my research would be the (re) harmonization and performance of tunes in various styles.

Since a project which promises to deliver the abovementioned goals is both conceptual and practical and demands background not only on two (seemingly) distant music fields but also some knowledge of physics and mathematics, I had to persuade that I was capable of delivering it. The righteous question of Henrice Vonck, something like: “ Did you consider the possibility of failing to deliver a project such as this is (due to its volume and cognitive demands) ? ” had been in my point of view already answered (at least) by the theoretical physicists of the 20th century. These people confronted such “failures” in the past, by discovering new fields of science and new interfaces between different fields. So, my counter argument was that sometimes the most interesting phenomena are being discovered after the non-expected “results”. In that sense I wasn't really afraid of failing. Furthermore, maybe the most fascinating aspect of research and at

the same time one of its fundamental properties is the fact that you cannot foreshadow or predetermine its outcome. Nevertheless, Mrs. Vonck's concerns and remarks helped me realize that I would have to design my research in such a way that I would be able to avoid dead-ends.

Having this in mind and taking advantage of my background in Natural Sciences, I decided to design my research against the “problem” as a circuit of Boolean logic gates, using the IF, NOT, OR, AND functions, following a non linear process. The “circuit” had a binary functionality. On the one hand this made possible the division of the main question-problem into smaller subcategories making the research manageable and more effective and on the other hand the registry of the steps taken and the reroute of the useful feedback to the next step or another division kept re-feeding the system . This way I was able to move back and forth taking feedback from each step and integrating it to the next one, so as to avoid dead-ends. A static schematic of this approach follows (for the dynamic one, refer to the powerpoint presentation).



1. What is this thing called TSM-THM?

In this chapter there will be a presentation of the existing theoretical construction of the Turkish Music theory and some ideas-work in the field, which could help towards the introduction of polyphony. There is an analysis between the differences of the Turkish Art or Sanat music (TSM) and Turkish folk or Hulk music (THM) so that the reader can realize the different properties of the music genres and the different practical approaches that developed in time.

1.1 TSM-THM properties and differences in practice. Creating the background to incorporate harmony.

Working towards a style that would incorporate harmony into Turkish music, one will soon find out that talking about Turkish Music in general would not work. There are many different styles and sub – categories and there is a unique treatment of the basic musical elements in each one of them. The division Turkish Folk (various indigenous traditional styles) - Turkish Art (mainly urban music of the Ottoman Court and the sufi ceremonies of the Mevlevi order) is a rough one but one can realize some fundamental differences and approaches in styles and repertoire which derive from the different context under the music is performed; we can then systematize the properties-differences of the various styles under the two abovementioned genres. This is an important first step before attempting to create polyphony and deal with the problems that the entanglement brings. Since my practical musical development regarding the THM is based on the Saz, from now on whenever there is a reference to THM the discussion refers mostly to instrumental styles where the Saz maintains a leading part.

After playing and analyzing a statistically large sample both from the THM and the TSM repertoire I came down to the following basic elements and structures that derive from the styles (or maybe create the styles?) respectively:

Turkish Hulk Music: Fast melodic development, repetitive motives, odd rhythms, vocal forms using traditional lyrics, **static notes**, 12 TET tuning for the main frets of the Saz and some extra frets depending on the Saz size-tuning.

Turkish Art Music: Slow melodic development, long-lasting bars, odd and additive rhythms, high percentage of Instrumental music, religious-spiritual hymns and texts, sophisticated melodic development based on the **Maqam-seyir approach**, **dynamic notes or “heavy traffic areas”**, **unequal semitones....**

As a result of some of their properties, the two genres use a different division of the scale, something that will be discussed later in this chapter. Before going to the differences in practice and harmony approaches that the two styles imply, it is time to make an introduction to the Makam theory and some of its implications.

1.2.1 Maqam in TSM

Taking a step deeper into the TSM analysis we now have to deal with Maqamat (plural for Maqam). Maqam is a notion that has a dynamic shape which keeps reformulating throughout the centuries and thus is hard to put into words. In fact, there are many books written for maqam theory but there is not any unambiguous definition or exegesis for it so far. My viewpoint is that each maqam is a unique sound color in the palette standing on the hand of the musician, waiting to become part of the musician's musical picture. Nevertheless, we can talk about maqam's properties. Summarizing those properties I would say that maqam

is an entity that consists of structural elements and contains info about: a) the scale, b) accidentals, c) **the seyir** (the “journey” for the ascending and the descending directions), d) the structure of the scale (pentachords, tetrachords e.t.c.), e) **the “gravity centers” and the towed notes** f) the main transitions to other Maqamat. The reader has to keep in mind that since the Maqam theory is still evolving through an oral tradition and musical practice, not all the theoreticians and for sure not all the musicians agree on how each makam should be treated and performed or what are its properties; a fact that makes the music really interesting and un-institutionalized but on the other hand it also complicates the performance of the music in a harmonic environment.

Moreover, the Maqamat have specific positions -tonic bases- on which the will be performed on the instruments and this fact creates sonic pathways among all of them. Maqamat use the same scales but starting these scales from different bases result to completely different soundscapes. Representative instruments of this genre (e.g. Ney and Tanbur) are constructed-tuned under this sceptic and that is the reason why we find note(or register)-sensitive and maqam-sensitive ornaments. As a result, each maqam is being perceived by the audience as a different sound-color (there are even maqamat using the same scale -like Beyati and Ussak- but they have a completely different taste).

Finishing the small Maqam introduction with a reference to the 53 commas-per-octave Turkish music theory system that is in use since the 1930's, it is useful to be aware of the fact that (as both Ozan Yarman and Carl Signell demonstrated on their PhD thesis) the theoretical system is inconsistent with the music in practice. Actually, Ozan Yarman created a new system that uses 79-tone tuning & theory for Turkish Maqam Music (79/80 Moment of Symmetry $2^{\circ}159$ -tET, virtually a 79 or 80 member subset of 159-tone equal temperament, where all, but one, of the steps correspond to 2 degrees of it) and he argues on the reasons that make this system more useful and could open possibilities for microtonal polyphony development.

1.2.2 Two basic elements of TSM

In my opinion, there are (at least) two important elements which on the one hand give the Maqam music its sophisticated form and on the other hand create the difficulties against a polyphonic development with respect to the TSM genre.

The first one is the usage of **moveable notes**. What happens in practice is that specific notes of each Maqam can be played within a cluster, depending mainly a) on the direction of the melody (ascending, descending), b) the part of the phrase (introductory, cadential e.t.c.), c) the transitional character of the phrase and d) of course...the musician's taste and choices (after all we are talking about a highly improvisational genre). For instance, in Maqam Ussak, the second grade is supposed to be a tone flattened by one comma in Maqam theory ($1/9^{\text{th}}$ of the tone or $1/53^{\text{rd}}$ of the octave) but in measurements made by Carl Signell (Signell 37) over a series of recording by the Tanbur virtuoso Necdet Yasar, this notes seemed to be performed “freely” in a cluster of 1-4 commas. In an interview that follows and is documented by Feldman (Feldman 210), Yasar stresses the issue of the moveable notes in ascending and descending directions and calls these clusters “Heavy traffic areas”. What happens in practice is that the finishing note of the (cadential) phrase acts as a strong gravity point, a big black hole. The more the -neighboring- notes come to the finishing of the phrase, the closer they might get to the black hole. The difference with this comparison with physics is that in physics this occurs deterministically while in music this is a choice of the musician and the purpose of this behavior is the melodic creation of tension that will be released by the end of the phrase or the transition to another Maqam. On chapter 4.3.1 I have documented some basic practical guidelines that can help musicians to get familiar to the practical aspect of the moveable notes' manipulation.

The second important element is the existence of 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. If I would compare this to a train trip, then the musician-composer - having the scale, its subdivisions (3chords, 4chords, 5chords), the related maqamat e.t.c. in mind - has to start his/hers music journey, then continue by stopping at Central Stations (the ends of 3,4 and 5chords), smaller stations (the intermediate notes), getting off the train and getting another one to a different direction if he feels like doing it (move to other Maqamat) and finally come back to home sweet home (the base). All this is -usually- happening in a linear way, which is why the train looks like a good comparison. The seyir is not a dictator of the performers but rather a way to conserve the main elements of the style and at the same time give freedom to the musician so as to develop or find his/her one path into it and express feelings and ideas.

On the **videos 1.1 and 1.2** we can see the differences of a Taksim^{iv} (improvisation) on Ussak Maqam, made on the Saz (THM) and another one made on Yayli Tanbur (TSM). You can realize the use of moveable notes on Yayli Tanbur which is not happening on the Saz case, as well as a small demonstration of the Seyir (Tonic-fourth-tonic with an ascending-descending direction) which is more strict on the Yayli Tanbur (TSM) rather than the Saz (THM) case.

This fact may give us some insight on why it is different (and a bit more tricky in my opinion) to develop harmony in the TSM genre in comparison with the THM. A polyphonic approach using static notes in this context might be unsuccessful or peculiar, whether another one using moveable notes could be more efficient but difficult to realize in practice, especially by non-specialized musicians.

2. Introducing Harmony

2.1 Why is there no harmony so far?

According to Cinucen Tanrikorur and Kudsi Erguner, a master of the Oud and a master of the Ney respectively, harmony exists in Turkish music even though it is monophonic performed in a heterophonical way. In their perspective, harmony is perceived by the audience through the melodic development. Tanrikorur (**1994 series of Lectures at New England Conservatory, Boston, Mass, USA on Harmony-Video 2.1**) analyzes how a melodic line that stops on the 1st, 3rd, 5th and 7th grade of the tonic center creates a harmonic environment of a 7th chord. Erguner demonstrates on a solo and explains (in Ney Masterclass, Conservatorio De Venezia, March 2008) how the development of a melodic line in the Maqam-Seyir approach, making full use of the moveable notes, creates an environment full of harmony and he then surpasses the need for polyphonic existence in this context. Against his sayings, though, he records a Fugue-like piece on maqam Rast (to be released in 2009) with four overdubbed channels of Ney improvisations. Let's now take a look on what has been developed by theoreticians and musicians in the field.

2.2 Systematic approaches towards the creation of harmonic environment

Searching on the field to find out the existing research towards the creation of a background that will allow polyphonic development I became familiar with the work of Kemal Illerici (through the articles of Yigit Aydin and Ali Ergur) and Ozan Yarman.

2.2.1. Illerici's case

Kemal Illerici was a scholar, a theoretician of the field and on the same time a composer. He wrote a thorough theoretical analysis of a harmonic system that could in his opinion used in Turkish music. As every other theoretical system, Illerici's system is based on some recognitions-approaches, a synopsis of which is given below.

- a) He states that harmony is principally a product of voice leading,
- b) Uses mainly fourth chord triplets and applies them...
- c)mainly on "basic" maqamat using 4chord and 5chord structures
- d) Doesn't mess with **moveable notes** when he talks about harmony
- e) Creates chords based on maqam's stationary and non stationary notes

After analyzing these 5 points of Illerici's work I started using some of these elements in order to try out my music ideas (a list of which follows in chapters 3.2 and 4.1) and finally came down to the following conclusions-remarks on each one of Illerici's recognitions:

- a) can be true but what if you sometimes need harmony to lead the melody?
- b), c) the use of fourth chords or chords that are constructed via 4ths or 5ths is a logical approach when you involve maqamat using 4chords and 5chords as building blocks but what if you use Huzzam or Segah for instance (3chord - 4 chord, or 3chord-3chord-3chord behavior) ?
- d), e) as stated earlier, in my opinion **moveable notes** is one of the basic elements of the TSM shouldn't be ignored in the harmony construction. The stabilization-quantization of this notes so as to be used in chords makes the music static.

Except for my remarks on some of Kemal Illerici's system properties, it should be noted here that his system is not used sufficiently and didn't manage to lead to a new stream of music. It remained "alive" by

scholars. Finally, Kemal Illerici's compositions, based on his system are more of a musicological interest rather than musical.

2.2.2. Ozan Yarman's Case

Another theoretical piece of work, this time not “ON” harmony but a rebuilt or a refinement of the Turkish theory system was introduced by Ozan Yarman on his PhD thesis at Istanbul Technical University in 2007. At his PhD, Yarman created a new system that uses 79-tone tuning & theory for Turkish Maqam Music, virtually a subset of 159-tone equal temperament based on the fact that there is an inconsistency between the theoretical system and the music in practice. Yarman uses measurements of Carl Signell on taksims and pieces of the TSM style and he also adds new measurements from material he collected, analyzed and documented. Arguing (positively towards) his findings, he states that the new division is consistent with the music itself and uses more commas, allowing the transposition of all the Maqamat on any key and thus opens some possibilities for polyphonic development. His work looks solid and thorough and it could drive composers and musicians to a new stream of music. It remains to see if his work will be able to confront, surpass and survive the battle with the inertia that characterizes the music establishment.

Conclusion(s)

Having no intention to reduce the significance of their work, Kemal Illerici and Ozan Yarman seem to avoid referring or taking into account the differentiation between TSM and THM practices and the effect of the **moveable notes** on the character of TSM. As this is in my opinion a fundamental element of this genre, I will analyze the consequences of it.

2.3 The practical aspect

From the practical aspect of the music, many different projects use TSM or THM melodies and (re)harmonize them in various ways. A common practice is to assign the melodic line to musicians playing instruments that have the capabilities to reproduce such a microtonal melody while “the rest of the band” can apply the harmony. Four cases that deviate from this practice resulting in some beautiful music are these of the group Erkan Ogur, Antonis Apergis, Incesaz and Erdal Erzincan.

2.3.1. Erkan Ogur

Erkan Ogur (www.erkanozur.org) is a well known Turkish musician and composer who both composes and arranges existing TSM and THM compositions in a polyphonic way. He usually does this by keeping the melodic line and supporting harmonically the melody with 12TET harmony. There are though cases in which he creates parallel voices either one 3rd or one 5th higher than the main melody, that both keep the microtonal character and add a polyphonic element to the melody.

Audio 2.3.1.

2.3.2. Antonis Apergis

Antonis Apergis (www.myspace.com/antonisapergis) is a Greek musician and composer who composes and arranges existing melodies in various ways. In his recordings and live performances he has used traditional instruments either overdubbed or used in such a way so as to apply jazz and classical harmony, some times by alternating the harmonic notes in order to match the Arab-Greek-Turkish temperament.

Audio 2.3.2.

2.3.3. Incesaz

Incesaz (www.incesaz.com) is a group formed by Turkish musicians. The group performs Turkish folk music accompanied harmonically by instruments like saz and guitar. On their last Cd, **beş / Elif**, they performed traditional turkish music and the interesting point is that they used both TSM (kemence), THM (saz) and western (guitar) instruments incorporating elements of all these instruments in their music.

Treatment

α) Two or three melodic instruments + voice singing the melody using original intervals, harmony in a low volume in background so as to “hide” the differences.

β) tempering the intervals

No matter what way they chose, the TSM instruments (kemence) kept performing the “unstable” notes in a dynamic way with respect to the melody.

Audio 2.3.3.

2.3.4. Erdal Erzincan

Erdal Erzincan (www.erdalerzincan.com.tr) is an extraordinary case of musician who actually “invented” a new style on the saz. The Saz is usually played with the plectrum but in some traditional styles musicians also used their right hand to produce either tirandos or raciado-like techniques. Erdal Erzincan incorporated all these styles to his playing, added techniques used in other instruments (like the Persian tar) and he also developed a tapping technique on the fingerboard. He then used all these elements to rearrange existing THM pieces and gave them another flavour creating a harmonic environment that was not possible to happen with the traditional Saz techniques.

Video 2.3.4.

Audio 2.3.4.

3. Finding my way in and out of the labyrinth

Influenced by modern physics and Quantum mechanics which declares that every photon takes actually an infinite number of possible trajectories in order to get from their source to their (final?) destination (a phenomenon described by path integrals), I thought of starting my non-trivial pursuit of harmony in Turkish music, in the same way. Thus, driven by my skills, musical preferences, personal taste and Monica Belucci in high heels (the definition of beauty), I followed at the same time both theoretical and practical paths, taking into account as many elements and feedback as possible in order to fulfill my goals. In this chapter I will present and analyze these pathways.

3.1 The theoretical way

3.1.1. The Electronic development or the **NORD G2 “seyir”**

In October 2007 I took an optional course with Oscar Van Dillen. Initially, this course was supposed to be composition but it actually was a way of making choices about harmony in specific maqamat. Oscar introduced the Clavia Nord modular G2 synth to me and I immediately got one so as to start testing my ideas. After spending some time programming the synth I retuned it accordingly to the intervals of Maqam Sultaniyegah and made a chord selection for it.

Electronic Development Folder

The tuning followed the Turkish music theory while the chord choices were based on my jazz background and personal taste. After the first step I started alternating the intervals so as to come closer to the practice and see if this could work harmonically. Of course there was not harmony progression to work with so I had to develop some. Before getting there an idea came to mind. How about random progress harmony? And since this is one of the greatest problems for sciences I guessed this would also be the case for music: how do you generate “randomness” ? My idea was... Chess. A chessboard consists of $8*8 = 64$ squares. I could assign notes to the horizontal axis and chord selections to the vertical one. This way every move would result in a chord that would change with the next move. The generator could be a Chess battle between Kasparov and Karpov or a live game on an USB chessboard which could generate harmony via my pc on my synth. Voila, this is a random progress harmony!! Nice but only for theoretical purposes in my point of view. Summarizing, my feedback from the development in an electronic environment was:



it gives you a “rough” idea about the tuning limits and beating e.g. chords become unstable when retuned note is on base or when more notes are retuned. New ideas e.g. improvisation over random progress harmony come out

but it is...



Static, unnatural, you miss the style (there is no “Turkish Band in the Box” Software in the market)

Taking these elements into account, I used the approach of applying preselected chords only in songs-pieces from the THM genre mainly by quantizing the notes to the closer interval.

3.1.2. Pseudo-theoretical or Quasi-practical “seyir”: TSM vs. THM

As mentioned earlier, I invested my time playing and analyzing several pieces from recordings and scores of the TSM and THM genres. One should be clear on the theoretical-practical differences that lead to different styles. After debating on the issue with teachers and musicians like Kudsi Erguner, Omer

Erdogdular Kemal Dinc, Erdal Erzincan and Erkan Ogur, I clarified the elements of moveable notes and perdeler (frets) tuning into my music perception and (more important) into my playing. So, a two comma flat on saz will **actually be** a two comma flat on the THM genre while the same accidental for the same maqam on a TSM tune could lead to a note **moving or oscillating from 1-4 commas**. The direction of the melody and personal choice determines which the actual oscillation bandwidth will be. Moreover, semitones become equal on the Saz (4.5/9 commas) while it is of great importance to keep and stress the inequalities of semitones on Tanbur and Ney playing TSM.

Conclusion

In my mind this lead to clear distinction between harmony development on the THM and TSM styles. For instance, working with a THM song written on **Hicaz** maqam (chromatic 4chord-minor 5chord for the Saz case), there could be a polyphonic development without the need for any tricky tunings. The style gets its character by ornamentation, plectrum techniques e.t.c. This wouldn't work for the TSM where the semitones can oscillate between 4/9 commas to even 8/9!! In this case I preferred to apply harmony either by a vertical-like movement or by counterpoint-like melodies with respect to the moveable notes (and some times the seyir). So, these notes will be played with the original moving character even in polyphony.

3.2 First try outs

Not sure as I was about the outcome of these experiments, I followed my intuition which led to a brainstorming process for my first year's exam. What I had in mind was that since different elements come together from the entanglement of polyphonic western music and the heterophonic Turkish music, there would probably be some interesting interface to work on. Thus, for the first step I formed some different ensembles and worked on stylistic elements. I present here the outcome and some general remarks of these try outs:

A. Turkish Art (TSM) Style:



Sophisticated melodic development, well structured theoretical background, internal harmony derives from melodic development, moveable character of the notes



Not easy to play - within the style - polyphonically for non specialized musicians (imagine a western classical musician asked to perform a jazz solo playing on Indian Ragas). Turkish Classical musicians must be open to harmonic usage

B. Turkish Folk Styles:



Easier to cooperate, interesting rhythmical patterns (harmonic rhythm and fast melodic development creates space for polyrhythm), **Selpe** (ch. 4.3) techniques



“Lacks” the **SEYIR(=journey, path)** logic-approach (it is like retuning one note in the scale) and the more static rather than dynamic

C. Instruments limitations-development:



Traditional instruments and techniques are less flexible → New instruments (**TARHU** is a

development of the Tanbur with more strings that allows vertical or non-linear playing) and new techniques (Selpe on Saz and new techniques for Tarhu which is actually a new instrument)



Instruments that can produce commas are more convenient to work with. El. bass, el.guitar, piano are difficult to work within this frame.

Especially for harmonic building around the saz, when possible and/or needed I kept the original character of the notes and the harmony worked according to that. For instance, along with my colleague and friend Kambiz Afshari, we tuned one of the strings of the guitar so that it can reproduce the 2 commas flats on B and F# in order to match a Huseyni-like THM melody on A in tune with the saz.

D. Percussive Harmony?



Tabla (2-5 pieces) used as a changing drone to support the melody progression and phrases.



Still Static..

E. General remarks:



It becomes a promising and interesting project



Working with everybody individually (especially with the jazz band) is extremely time consuming, there is no time left for personal development → I need to work with more “specialized” musicians

Taking in account the musical outcome of my first years exam and the theoretical aspect of what I had been working on, I found myself enrolling for the second year of the master's having a well shaped frame to start working on.

3.3 The Selpe style as a choice. Why it is useful for creating harmony.

Searching for a way to incorporate harmonic elements in my Saz playing I found my way to the Selpe style after following a masterclass with one of the greatest masters of this style, Erdal Erzincan.

Selpe is a rather new style on Saz that enables the use of the right hand fingers for the sound production instead of the plectrum. The style consists of a combination of techniques including: tapping and pulling on the fingerboard, tirando, raciado and several other “tricks” not yet explicitly named but already documented in transcriptions and exercises ([Saz Transcriptions Folder](#)). The main difficulty for the performer is that he now has to use both hands for producing the sound and the pitch instead of one hand for pitches and the other for the sound, a problem that has to deal both with technical skills and cognitional issues or conceptual development. On the other hand the musician is now more flexible to create new sound colors and can extend the dynamics of the instrument (dynamics is an element that both TSM and THM seems to disregard in some important extent). Some of the new elements the style brings are:

- a) [the tapping](#) which gives now the possibility for harmonic development. By tapping and pulling 2 fingers on the right and one finger on the left hand you can produce 6 notes at once
- b) there are now [many positions](#) on playing one note. The choice of the position depends on the preceding and following notes (notes coming out from tapping and pulling.
- c) [changes the feel of the rhythm](#) (tempo and time signature) by tapping at weak points of the bar and

pulling at strong points.

d) the chords and [sound effects](#) produced with the raciado-like techniques extend the dynamics and the arsenal of sound colors.

On Video 3.3. on the companion DVD a demonstration of an Azeri song and some chord approaches played first in the traditional style and a Selpe version follows.

4. Personal development-contribution to the field

In this chapter I analyze the decisions and paths I followed on polyphonic development, my personal development as a musician and my contribution to the field.

4.1 Harmonic development

The harmonic approaches I used during my second year's research were:

- A) Counterpoint-like melodies with respect to the basic melody and the seyir (like improvisational phrases based on the makam)
- B) Counterpoint-like melodies arise from the harmonic “needs” (not necessarily following the seyir)
- C) Style “brings” harmony to the piece (Flamenco Trio, Jazz group e.t.c)
- D) Instruments’ capabilities give ideas (Saz Selpe, Tarhu). E.g. vertical harmony but with moveable notes on cadential phrases created by 4 overdubbed channels of Tarhu.

Video 4.1.

Audio 4.1

4.2 Personal development

During these two years, my practice and research boosted my personal development as a musician. Since I was practicing in four instruments (Saz, Ney, Yayli Tanbur and Tarhu), transcribing songs on Selpe style, working on theoretical elements and composing-arranging to create the polyphonic styles, I had to divide my time carefully so that I could manage the carrying out all of these tasks. This became more efficient in the second year of the masters' thanks to the HSP scholarship which arrived like manna from heaven. Some important snapshots of my personal development are:

- a) the incorporation of selpe style and techniques into my playing (Saz masterclasses with Erdal Erzincan)
- b) development of flamenco techniques suitable for the selpe style with the contribution of Ricardo Mendeville during the last semester
- c) (re)harmonization of songs in selpe – flamenco style
- d) selpe transcriptions of Erdal Erzincan's songs and techniques
- e) Tarhu (bowed and plucked techniques and style development)
- f) Ney development through masterclasses and workshops (6 Masterclasses in Venice, Crete during the last two years and workshops in Istanbul)
- g) The clarification and manipulation of TSM style in my Ney and Tanbur playing under the perspective of unstable or moveable notes and seyir
- h) the continuous building of my Maqam theoretical background

4.3. Field Contribution

One of the most important functions of an artistic research program (besides the significance of the research itself or the personal development it brings with it) is the contribution that will be left as a heritage for the musicians which might follow parallel paths. During my research I worked on and documented several elements which are embedded on my thesis either on this written report or on the DVD that accompanies it.

4.3.1. A TSM musician's guide to microtonal-moveable notes' manipulation

What I consider the most significant element of my work is the address and distinguishing between TSM and THM harmonic approach needs, which derive from their different fundamental elements. The clarification of the **dynamic notes character**, which takes place in the TSM performance is probably the most important element I worked on (ch. 1.2.2.). Some basic “rules” or characteristics of this special melodic development are given here with my hope that they will help musicians with no background on this field to initiate into the style and find their own way into it, either melodically or harmonically.

1.

a) Kurdi-Segah and Acem-Evic clusters are probably the most important regions of the movable character case for the diatonic maqamat (like Rast, Huseyni, Neva, Muhayyer e.t.c.). These notes “have to” be played dynamically in most of the cases.

b) For instance, on a Huseyni Taksim, for the ascending case, these notes could be considered as objects “pulled” from the above ones. That means that Kurdi-Segah cluster is more oriented to Segah as approaches Chargah and Acem-Evic is more oriented to Evic as it approaches Gerdaniye

c) the opposite of 1.b) usually happens in the descending case. Kurdi-Segah cluster is more oriented to Kurdi (especially for cadential phrases) and Acem-Evic is more oriented to Acem

For all the abovementioned cases the moveable notes “have to” be performed dynamically, sliding through a higher pitch to a lower one in the descending case and the opposite goes for the ascending one.

2.

a) The middle notes on a chromatic 4chord (e.g. Dugah-Kurdi-Hicaz-Neva like the Hicaz 4chord) will work in a similar way. Now the “hardness”(the middle notes of the 4chord move so as to create smaller – sometimes even smaller than the 12TET- semitones) or the “softness”(the middle notes move towards the center) is “determined” by both the direction and the point where the melody rests.

b)The melodic direction influences the notes tuning as in 1b and 1c. The point that melody rests, affects the pitch like this: melodies finishing on the boundaries of the 4chord tend to stretch the middle-moveable notes to the edges while melodies resting on the middle notes tend to “soften” kurdi and hicaz by moving them asymptotically towards segah and nim hicaz respectively.

The differentiation of TSM and THM regarding their harmonic approaches as it occurs from the use of the moveable notes in TSM and the use of these notes as harmonic elements is a new idea on the field. While measurements have been made on the positioning of the notes on the instruments (Feldman, Yarman, Signell), the use of that moveable notes that creates the character originating from the Hafiz singing (according to Erdogdular and Erguner) has been - in my opinion - underestimated.

4.3.2. Selpe approaches

The development of Selpe techniques, as well as the analysis and detailed documentation of technical elements which are integrated in the scores will be helpful for musicians looking for a way to integrate Selpe in their playing. The transcriptions of songs given here combined with the recordings of Erdal Erzincan can work as a “Selpe for Dummies” self learning guide.

Moreover, the private courses with Ricardo Mendevilla led to the use of specific flamenco techniques (like *raciados*) which are similar but different from the existing Selpe techniques, that can become part of the Selpe style.

4.3.3 ...and what about microtones in THM?

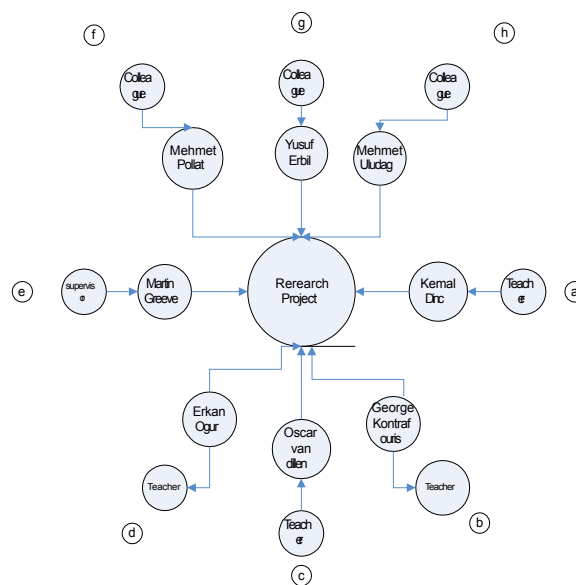
THM (on the Saz practice) lacks the use of moveable notes. Instead, the style is being created by ornamentation and embellishments on the static microtones. The introduction of harmony in this context can happen in different ways. For maqamat that were originally using unequal semitones (like the Hicaz case, these semitones are already quantized on the Saz to the closest 12TET semitones. That means harmony can be applied in a 12TET way. For maqamat including non 12TET notes (like Ussak or Huseyni), I chose to

returne instruments like the guitar so that these notes could be reproduced on -at least- one string.

5. Network – Acknowledgments

5.1 Network

During these two years my network expanded rapidly giving me the opportunity to meet and work with great musicians and thinkers of the field. I gradually started collaborations with master musicians and instrumentalists of the instruments I am involved with as well as with composers working on cross-over projects. My network at the beginning of the master's was looking like this



while an updated list containing some of the most important contacts of my inner circle would be the following:

Inner Circle

1. Kudsi Erguner: 2 Ney masterclasses and 1 concert in April 2009, Venice
2. Erdal Erzincan: 1 Saz (Selpe style) Masterclass. I was interviewed at Erdal's Saz School in Istanbul, by his students on the Selpe style development and practice.
3. Angelo Badalamenti and Brussels Philharmonic Orchestra: I performed with the Ney "The Comfort of Strangers" by the Oscar winner Angelo Badalamenti, as a guest soloist with Brussels Philharmonic for the 2008 World Soundtrack awards at Gent, Belgium. Four months later I was invited by Angelo Badalamenti to record that piece for a new CD of his
4. "Are you our daughter?": Nicoletta Hatzopoulou, a composer from Royal Conservatory of The Hague composed an opera using as main instruments Yayli Tanbur, Saz and Ney along with Harp and Trombone. The opera is based on a text from Shakespeare's King Lear. The performances started at Korzo theater on December 2008, will continue with the opera festivals of Zwolle and Rotterdam (April-May 2009) and will be on tour until May 2010.
5. Laurens Van Rooyen: The Dutch pianist-composer Laurens Van Rooyen initiated a music project with

Laurens Van Rooyen (piano), Mehmet Pollat (oud) and Michalis Cholevas (Yayli Tanbur, Ney, Saz) which will give concerts and will be on tour in the Netherlands and abroad in 2009-2010.

5.2 Acknowledgments

Moreover, Kudsi Erguner and Omer Erdogdular (Ney Teachers) were two main sources for discussing issues on maqam theory and practice in detail. Omer especially helped me on issues regarding my Yayli Tanbur sound and techniques and Kudsi helped me articulate my Ney playing. Kemal Dinc and Erdal Erzincan guided me on issues regarding THM and Saz practices and Martin Greve was helping me pointing at directions and providing audio material, books and papers.

6. Achievements-Highlights

2009-2010: On tour with Laurens Van Rooyen

April 2009, Venice: Masterclass and concert with Kudsi Erguner

April 2009, London: Recording session in Angel Studios, London for the soundtrack of the movie “The Illusionist”

March 2009 Istanbul: (Ney: Ömer Erdoğan, Kudsi Erguner, Salih Bilgin, Mahmut Uğurluakdoğan - Saz: Erdal Erzincan - Yaylı Tanbur: Nuri Benli - Erkan Ogur, Derya Turkan)

February 2009: Recording with Brussels Philharmonic Orchestra for Angelo Badalamenti’s (Oscar Award Winner) “The Comfort of Strangers”

February 2009: Website: www.michalischolevas.com is online

February 2009: SJU Jazzpodium World Music Night co-organizer

January 2009: Turkish music theory workshops for the 3rd year bachelor students

Dec 2008 - May 2010: Nicoleta Hatzopoulou Opera “Are You Our Daughter”

October 2008: Guest Soloist with Brussels Philharmonic Orchestra, Collaboration with the Oscar Winner Angelo Badalamenti for the 2008 World Soundtrack Awards

May 2008: HSP Huygens Scholarship

EPILOGUE

I am finishing this thesis by quoting Aristoxenus of Tarantum who describes, in a line of words the belief through which I was constantly reevaluating my tasks. My first and biggest concern these two years was to keep my music uninstitutionalised and personal without disregarding any feedback -positive or negative- I would get and to remain driven first by feelings and then thoughts. I hope that through my music I will be able to transmit these feelings to the audience.

“We should first feel what actually happens in music and then approach it by logic”

Aristoxenus of Tarentum

Harmonic Elements

References

Books:

- Feldman, Walter, (1996) *Music of the Ottoman Court*, VWB
- Mavroedis, Marios, (1999) *Music Modes of eastern Mediterranean*, Fagotto
- Özkan, İsmail Hakkı., (1990) *Türk Müsıkîsi Nazariyatı ve Usûlleri*, Ötüken Neşriyat
- Sadettin Heper, (1974) *Mevlevi Ayıleri*, Konya Turizm Dernegi Yayini
- Signell, Karl L., (2004) *Makam: Modal Practice in Turkish Art Music*, Usul editions
- Touma, Habib Hassan, (2006) *The music of the Arabs*, En Hordes

Papers:

- Aydin, Yigit; Ergur, Ali , (2004) *Nationalizing harmony? – A system of harmony proposed by the Turkish composer Kemal Ilerici*, Proceedings of the Conference on Interdisciplinary Musicology
- Ergur, Ali; Aydin, Yigit (2004) *Patterns of modernization in Turkish music as indicators of a changing society*, Proceedings of the Conference on Interdisciplinary Musicology
- Yarman, Ozan, (2007) *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*, Journal of interdisciplinary music studies fall 2007, volume 1, issue 2, art. #071203, pp. 43-61
- Yarman, Ozan (2007) *79-tone Tuning & Theory For Turkish Maqam Music As A Solution To The Non-Conformance Between Current Model And Practice*, PhD Thesis, Istanbul Technical University-Institute of Social Studies

Media:

- Videos from Omer Erdogdular's Ney Masterclasses of 2006, 2007 and 2008 in Crete, Greece
- Videos and audio from Kudsi Erguner's Ney masterclasses of 2007 and 2008 in Venice, Italy
- Videos from Erdal Erzincan's Saz masterclasses of 2006, 2007 and 2008 in Crete, Greece

i <http://en.wikipedia.org/wiki/Heterophony>

Heterophony is a type of musical texture that refers to the practice of two or more musicians simultaneously performing slightly different versions of the same melody. Each version would be characterised as improvised or ornamented versions of the melody as opposed to harmonized versions of a melody as in polyphonic music. This can refer to a kind of complex monophony in which there is only one basic melody, but realized at the same time in multiple voices, each of which play the melody differently, either in a different rhythm or tempo, or with various embellishments and elaborations. The term (originally coined by Archilochus) was initially introduced into systematic musicology as a subcategory of polyphonic music, though is now regarded as a textural category in its own right.

ii Turkish Folk or Turkish Halk (THM, various indigenous traditional styles) - Turkish Art (or Turkish Classical or Turkish Sanat -TSM- is mainly urban music of the Ottoman Court and the sufi ceremonies of the Mevlevi order)

iii The units of the Turkish theory system. The theory uses 53 equal tempered commas to divide the octave, 9 commas for the tone, 8 for minor tone, 5 for major semitone and 4 for minor semitone.

iv Improvisational part usually introductory or cadential in the TSM genre