

Oriental Jazz Improvisation  
Microtonality and Harmony



ORIENTAL JAZZ  
IMPROVISATION

Microtonality  
and  
Harmony

Thomas Mikosch

bookmundo



الْحَمْدُ لِلَّهِ

Psalm 139:14

## **Oriental Jazz Improvisation: Microtonality and Harmony**

© 2022 Thomas Mikosch

Email: [thomas-von-der-trave@gmx.de](mailto:thomas-von-der-trave@gmx.de)

Cover design: © 2022 by Harry Haller

Published by Bookmundo, worldwide printing and distribution.

Contact: Delftsestraat 33, 3013 AE Rotterdam, The Netherlands

All rights reserved.

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law.

The German Library catalogs this publication in the German National Bibliography, detailed bibliographic information can be found on the Internet website: [www.dnb.de](http://www.dnb.de).

ISBN: 978-9-403-67703-3

# Table of Contents

Preface	ix
<b>I. A Very Brief History of Arabic and Turkish Music Theory</b>	<b>1</b>
Pronunciation of Turkish Terms	4
<b>II. Turkish Makamlar</b>	
1. The Pythagorean Comma	5
2. The Pythagorean Limma	6
3. The Turkish Yektâ- and Arel-Ezgi-Uzdilek System	7
4. The Pythagorean Intervals in Turkish Music Theory	8
5. The Notation and Basics of Turkish Music Theory	12
6. The Turkish Pitch Names	13
7. The Turkish Tetra- and Pentachords	14
8. The Turkish Makamlar	16
9. The Intonation in Classical Turkish Music – Theory vs. Practice	25
Pronunciation of Arabic Terms	30
<b>III. Arabic Maqamat</b>	
1. The Intervals in Arabic Music Theory	31
2. The Notation and Basics of Arabic Music Theory	33
3. The Arabic Pitch Names	34
4. The Arabic Tri-, Tetra-, and Pentachords	35
5. The Neutral Arabic Scale	38
6. The Arabic Maqamat	39
Pronunciation of Indian Terms	46
<b>IV. North Indian Rāgas</b>	
1. The Didymean Comma	47
2. The Intervals in North Indian Music Theory	47
3. The Notation and Basics of North Indian Music Theory	50
4. The North Indian Pitch Names	51
5. A Brief Introduction to North Indian Performance Practice	52
6. The North Indian Rāgas	53
<b>V. Echoes of Cultural Interplay: Music and Mankind</b>	<b>60</b>

<b>VI. An Introduction to Oriental Jazz Improvisation</b>	
1. A Metaphysical Approach to Absolute Musical Freedom	65
2. Blending Scales & the Junction Tetra- and Pentachords	67
3. Deriving Scales from Western Tetra- and Pentachords	68
4. Modulation in Classical Turkish and Arabic Music	72
5. Turkish Makamlar in Bulgarian Romani Music	77
6. Jewish Scales and Modes	80
7. Hicâz Makamı	84
8. Sabâ Makamı	91
9. Bestenigâr Makamı	95
10. Müstear Makamı	96
11. North Indian Rāgas	98
Converting Cents, Ratios, and Frequencies	110
Fretting Non-Equal Tempered Intervals on Equal-Tempered Instruments	111
Index of Scales and Modes	112
Bibliography	118



## Preface

In his *Theory of Harmony*, the great Arnold Schönberg once declared the discovery of our scale a *stroke of luck* for the evolution of our music. One could have – like the Arabs, the Chinese, the Japanese, or the "Gypsies" – equally found another row [Schönberg: p. 22]. He did not call it the final – the *ultimate goal* of music – but essentially just an *interim stage*. The overtone series presents many problems that *must* be addressed in the future. Hence, he referred to the equal temperament as a *compromise* between the perfect intervals and our *inability* to use them. Moreover, on the way to a *higher-order system*, he entertained the future use of *quarter tones* within the bounds of possibility. Even Olivier Messiaen labeled our Western musical system merely "our *current chromatic system*" [emphasis added, Messiaen: p. 85].

Several Turkish makamlar (pl. of *makam*) appear, for instance, in Bulgarian wedding music and Balkan jazz but are utilized also in Greek rebetiko music. The Ottoman music tradition had a significant impact on the music of these particular countries. Countries whose territories once were part of the *Ottoman Empire*, which ruled over large portions of South-Eastern Europe, Western Asia, and Northern Africa (an expansive area stretching all the way over the Black to the Red Sea and from the Mediterranean Sea to the Tigris-Euphrates rivers), between roughly the 14th and early 20th centuries. Arabic maqamat (pl. of *maqam*) occur in Jewish klezmer and, until today, are heard in Sephardic synagogues. The muezzin's call to the five daily Muslim prayers has already at the Prophet's, may peace be upon him, lifetime (570-632) been performed by employing certain maqamat. Even the *Qira'at*, the readings of the Noble Qur'an, are held using maqamat. But just like the calls to prayer, they are never accompanied by musical instruments while doing so. There is a strong tradition of devotional a cappella singing in Islamic tradition, as it reveals the true beauty of God's, glorious and exalted is He, word.

Many scales and modes in this collection are commonly heard in Romani music across South-Eastern Europe, especially in the music of the Balkans and in Greek rebetiko, as well as in Jewish music. There are even traces of Arabic music in Andalusian flamenco, particularly in the abundant pedal tone playing and the use of drones in the *toque* of the guitar player and, of course, in the *cante flamenco*, the flamenco singing. We will also see several rows that are actually very prevalent in today's modern jazz music. That is no surprise at all, taking under consideration that many swing musicians in fact had a Jewish background. So there can even be heard klezmer influences – already before Ziggy Elman (born *Harry Aaron Finkelman*) joined – in Benny Goodman's sound.

Rather than a static reference, consider this book a living resource, meant to inspire new paths of experimentation each time you return to its pages. This text is not intended to be a scientific treatise or instructional guide. Instead, it aims to serve as a resource for the practicing musician eager to explore 'Oriental music,' for whatever this term may mean. Consider it a palette of *exotic colors* to add to your creative canvas. These musical traditions share a profoundly open approach to improvisation, making them highly valuable to try to learn from them. It will not make you a Turkish, Arabic, or Indian musician, but it surely will broaden your musical vocabulary. It also explains how different musical traditions that use the same set of intervals treat these scales and modes differently.

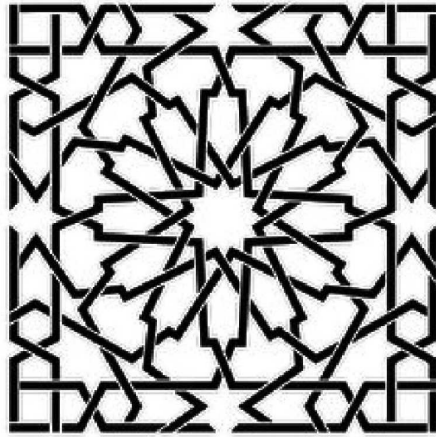
I have sought to balance accessibility with depth, providing a foundation for both the novice and the seasoned musician. The chapters are designed to build upon one another, encouraging a progressive path that mirrors the layered understanding required to grasp the essence of these scales and modes. To aid your exploration, the 'index of scales and modes' at the conclusion of this volume serves as a map, guiding you through the intricate landscapes of sound. It is essential to recognize that when transcribing Turkish, Arabic, and North Indian scales and modes into the equal temperament, the result can only be an 'inspired by' interpretation rather than a faithful equivalent.

This modest work embodies over 25 years of extensive study and research, reflecting my personal spiritual journey and pursuit of absolute musical freedom. In the beginning, there was the word. And since I am not Bernard Shaw, let us now set the stage.

Ex oriente lux. Peace.

Third stone from the Sun, August 2022

Thomas Mikosch



## A Very Brief History of Arabic and Turkish Music Theory

The roots of the musical scales and modes used by both Arabs and Turks trace back to ancient Greece. The music-theoretical texts of ancient Greek scholars were translated by the Arabs at the onset of the *Golden Age of Islam* in the 8th century, leading to the writing of the first books on Arabic music theory. One such influential work was the seminal *Kitāb al-Mūsīqā al-kabīr* (Arab. 'Great Book of Music') by the great philosopher Abū Nasr Muhammad al-Fārābī (872-950). This treatise established the ground for a precise scientific approach to the subject of music. Al-Fārābī, a scholar of the *Greek Enlightenment*, is credited with preserving many original Greek texts during the Middle Ages through his commentaries and treatises. In philosophy, he is regarded as the second in rank after Aristotle (384-322 BCE) and is therefore referred to as 'the second teacher' or even 'the second master.' The historical origins of the two – the Arabic maqam and the Turkish makam (Turkish 'position') – are strongly rooted in ancient Greek texts. Both systems are founded on the work of Greek scholars, especially the use of *tetrachords* (a series of four tones). However, it is essential to recognize the nuanced interplay between theory and practice within these music traditions. While scholars like al-Fārābī provided structured frameworks for understanding music, practitioners relied predominantly on the oral tradition of *meshk* (Turk. meşk) to transmit practical knowledge across generations. Musicians often lacked a scientific approach to music, with many unable to name the scales and modes they played, let alone individual tones. Conversely, many theorists were not musicians, hence the term 'theorists.'

At the beginning of the 14th century, with the foundation of the Ottoman Empire, a distinct Ottoman Turkish music tradition began to develop. While this tradition evolved independently, it was never entirely free from external influences, particularly from the Arabs and Persians. The Persian music tradition, in turn, is rooted in the Assyrian-Babylonian heritage. Given the close connections among these music traditions, it is more accurate to describe their relationship as an *interrelationship* rather than mere influence. Musicologists such as Hüseyin Sâdeddin Arel (1880-1955) and Râuf Yektâ Bey (1871-1935) have challenged the prevalent claims that Ottoman music originated solely from Byzantine and Persian traditions rather than from Turkish sources. They presented substantial evidence through documents and research to support their arguments. Although many scales and modes in Ottoman court music were adapted from Arabic music, and numerous Turkish makamlar carry Persian names – reflecting the historical use of Persian as the court language and, at times, the empire's official language – these elements were incorporated into a uniquely Ottoman context. Educated Ottoman Turks spoke, besides Ottoman Turkish (*Osmanlı Türkçesi*), both Arabic and Persian; akin to how Latin served as the lingua franca of science in the West, while French was the means of expression of art and poetry. Arel and Yektâ's assertions were most likely influenced by national pride, given the recent establishment of the Turkish Republic. Insults are effective only where emotion is present.

By the end of the tragedy of World War I in 1918 and the subsequent collapse of the Ottoman Empire some four years later, this interrelationship declined. At this point, Western influence stemming from the occupation of Arab territories by the English and French began affecting Arab music traditions. Habib Hassan Touma even went so far as to call this Westernization frankly "degeneration of the authentic music" [Touma: p. 32]. Fortunately, with the *Treaty of Lausanne*, signed in early 1923, securing Turkey's sovereignty and preventing occupation, the Turks were spared this fate. Later that year, on October 29, Mustafa Kemal Pasha, who would go on to be known as 'Atatürk' – meaning *Father of Turkey* – founded the modern Republic of Turkey.

Then, in 1932, the *1st International Congress of Arabic Music* was held in Cairo. During this congress, a generally accepted foundational music theory was established, which finally enabled the notational transcription of Arabic music. Although systems of Arabic musical notation have existed since the 9th century, they had not achieved widespread acceptance. Some scholars even assert that the Arabs rejected the accidental '#,' due to its visual resemblance to the *Satīya*, a two-rung ladder representing the fourth of the seven seals of the Magnificent Qur'an and symbolizing a spiritual ascent to God, glorious and exalted is He. As Robert Plant sings, "sometimes words have two meanings." No stairway, denied. The prevailing narrative suggested that the notation of Arabic music would simply *rob its soul*. The introduction of Western staff notation into the Arabic and Turkish music

traditions marked a *paradigm shift*, igniting significant criticism and debate among musicians and theorists alike.

Until the Congress of Arab Music in 1932, Râst was the tone Yakâh in the Arabic music tradition. Meanwhile, Yakâh designates the lower G. In the Turkish musical system, accordingly the D. Here, moreover, the Arabic tone Husayni was defined as equal to the Western pitch standard A, which was 435 Hz at that time and, after the BSI conference in May 1939 in London, 440 Hz. The Arabic system once also began on D. But, with the decline of the Ottoman Empire, was immediately changed to G by the Arabs. Comparing both musical systems, it is noteworthy that the pitch names are largely identical, with the Arabic being a perfect fifth lower. The change in the Turkish scale, now beginning on C instead of D as in Yektâ's *24-tone Pythagorean tuning*, was made by Arel-Ezgi-Uzdilek.

Turkish tone and pitch name		Arabic tone and pitch name	
D	Yegâh	G	Yakâh
E <sup>b</sup>	Kaba Nim Hisar	A <sup>b</sup>	Qarar Hisâr
E <sup>♭</sup>	Kaba Hisar		
E <sup>♮</sup>	Kaba Dik Hisar		
E	Hüseynî Aşîrân	A	Ushayrân ... etc.

Many Turkish terms derive from Arabic or Persian, for many Turkish makamlar originate from there. Tones or makamlar with the suffix *-gâh*, for example, originate from Persia. Gâh is Persian for *position*. Their musical system is being referred to as *dastgâh* (دستگاه), standing for *position of the hand*; and, just like the Arabic term maqam (مقام), refers to the position of the hand in fingering the tones on the oud. Fairly similar to the Western 'Guidonian hand,' which's originator Guido d'Arezzo (992-1050) was in fact very well aware of Arabic music theory. Thus, the names of the tones are not equal in the octave, since the position on the fingerboard is not equal. The *position* is relative to Râst. Mind that Râst once was Yegâh, *the first position* (yek-gâh).

یک	Yek-gâh	on the first position	دو	Dü-gâh	on the second position
سه	Se-gâh	on the third position	چهار	Çâr-gâh	on the fourth position
پنج	Penç-gâh	on the fifth position	شش	Şeş-gâh	on the sixth position
هفت	Heft-gâh	on the seventh position	هشتگاه	Haşt-gâh	on the eighth position

While in the Turkish musical system Dügâh, Segâh, and Çâr-gâh are still in their old positions, due to the change of Yegâh to Râst and the Arabic scale now beginning on G, the Turkish tone Pençgâh had to be renamed since it now was the octave of Yegâh. So it became Nevâ, while Şeşgâh and Heftgâh were renamed Hüseynî and Eviç, respectively.

Over the centuries, there has been a variety of tunings; and the intonation of the scales and modes themselves – due to their music tradition being an oral one, which is, moreover, dependent on the geographical region, school, or personal taste – was and still is, akin to a language with its countless dialects, very different from region to region. So a musician from Damascus will intonate the scales and modes differently, compared to one from Baghdad. Songs or pieces may sound completely different depending on the very region in which they are performed. According to oud virtuoso Munir Bashir (1930-1997), notating Arabic music would "kill its regionality" [el Mallah: p. 73]. That, of course, made and still makes a notation extremely difficult or even impossible. So even until today, there still is a not negligible discrepancy between the music as it is notated and how it is performed.

In Turkey, from 1910 on, Rauf Yektâ – who too was present at the Congress in Cairo – as well as Arel, Suphi Ezgi (1869-1962), and Salih Murat Uzdilek (1891-1967) had designed an own Turkish musical system that was widely accepted and is being used until today, though the conceptual construction of the (current) Turkish *A-E-U system* (short for Arel-Ezgi-Uzdilek) has caused quite a number of problems and therefore is an enduring target of criticism and subject of debate, especially among the devotees of the *old music* as it was performed in Ottoman times.

Arabic maqamat and Turkish makamlar are often collectively referred to as 'quarter tones,' serving as a *pars pro toto*, representing the far more intricate microtonal framework inherent in both musical traditions. In the Turkish musical system, a whole tone (large whole tone or also *Pythagorean second*) is divided into *nine commas*, whereof only a few are typically used. Thus, in both the Yektâ and the A-E-U system, a modified form of the *Pythagorean tuning* is obtained, a scale in which the octave comprises 24 tones. Already Pythagoras's successor Philolaus (c. 470-c. 385 BCE) held that the (large) whole tone is divided into nine commas – the apotome into five, plus the limma into four commas. Each term and interval will be explained in the following chapter.

# مقام راگ

"What science cannot declare, art can suggest; what art suggests silently, poetry speaks aloud; but what poetry fails to explain in words, music can express."

"One who knows the secret of sound, knows the mystery of the entire universe."

HAZRAT INAYAT KHAN (1882-1927)